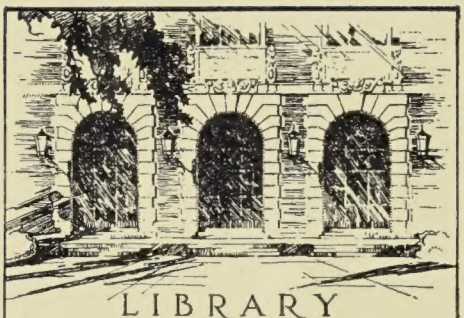

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THE

BRITISH MEDICAL JOURNAL,

BEING THE

JOURNAL OF THE BRITISH MEDICAL ASSOCIATION.

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EDITED FOR THE ASSOCIATION BY

WILLIAM O. MARKHAM, M.D.,

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EDITED BY DR. MARKHAM.

LONDON: SATURDAY, JANUARY 6, 1866.

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THE

Hastings Prize Essay,

1865.

ON DEODORISATION AND DISINFECTION.

BY

THOS. HERBERT BARKER, M.D., F.R.S.E.

CHAPTER I.

Definitions of Disinfection and Disinfectants. Classifications of Harris and Richardson. Author's Classification.

FEW chapters in the history of medical science would be more interesting than one on the history of Deodorisation and Disinfection, and the various agents that have been used for these purposes. Whether such a history would be profitable as well as interesting, is a matter of doubt; and I should hardly think, under any circumstances, that the labour required to be bestowed upon it would be repaid by the result. However that may be, it is a chapter which cannot be written here; because, in fact, to do justice to it, the whole twenty-four pages of the JOURNAL placed at my command would require to be devoted to the subject. I shall, therefore, strike the word history out of the programme, in order to concentrate my attention solely on the question, according to its modern reading, in the present development of science.

Deodorisation is a term that needs no definition; but disinfection is a term which, up to the present time, has been very vaguely defined and applied. Vulgarly, any substance that removes a bad smell, is called a disinfectant. By some, this word disinfectant is used synonymously with the word antiseptic; by others, the terms disinfection and disinfectants are applied only to such purposes and agents as remove completely bodies which are supposed to infect; that is to say, which destroy contagion. Hence it has become a practice to speak of heat as the only perfect disinfectant.

Concerning the first two definitions here referred to, they are manifestly out of date, and deserve no consideration. The third is definite, and to an extent correct; but it is too limited in its meaning, and it does not afford, therefore, a basis on which all that is now known with regard to disinfection may be placed. In these respects, it contrasts—and, perhaps, on the whole, favourably—with other definitions, which enter too minutely into detail, and which convey to the mind theories of absolute processes, which are, as yet, not perfectly satisfactory. Thus, Dr. Elisha Harris, in his Report prepared for the New York Sanitary Commission, classifies disinfectants under four heads.

1. As absorbents of moisture and of noxious effluvia.
2. As oxidisers (ozone the most active) and deoxidisers.
3. Other chemical agents that break up noxious compounds.
4. Agents that form indestructible compounds with putrescent materials, or that destroy cell-life and the cryptogamic and infusorial organisms.

As regards this classification, it is open to objection on various grounds. Thus, the first head is incorrect, because a body that would only absorb moisture and noxious effluvia is not a permanent disinfectant at all, inasmuch as the injurious agent would remain still undestroyed, although it were for a time locked up.

Next, as regards oxidisers: ozone, although very powerful, is certainly secondary to extreme heat, which is purely an oxidiser. Then, under the third and fourth heads of Harris, we have actually but one class of disinfectants, inasmuch as chemical agents that either enter into combination so as to form new compounds, or that break up compounds, act, in so far as the process is concerned, in the same way; that is to say, they destroy the deleterious agent, by setting up new forms of chemical action.

A definition differing from that laid down by Harris has been made by Dr. Richardson. He divides all disinfectants simply into two classes; viz., those which oxidise noxious matter and break it up by oxidisation, and those which arrest action of all kinds. His two classes of agents may, therefore, briefly be considered as oxidisers or destructive agents on the one hand, and as antiseptics or preservative agents on the other. In this sense, he would place extreme heat at the head of the destructive, and extreme cold at the head of the preservative class. For instance, heat, ozone, the permanganates, nitric acid, iodine, bromine, and even chlorine, represent the destructive class; while cold, alcohol, the coal-tar compounds, ammonia, and acetic acid, with others similar in kind, represent the preservative group. There can be no doubt that this classification is exceedingly simple, and that it explains a great many apparent paradoxes.

Any one who takes up a book on hygiene, such as the compendious and accurate work recently published by Dr. Parkes, will be at once struck by reading the number of different agents noted by various observers as disinfectants. Take one fact in illustration of these differences. Sulphurous acid has been recommended as a disinfectant in sick rooms, and

34092

chlorine has been placed in the same position. Here, then, are two bodies, the very opposites of each other in a chemico-physiological point of view. Can they both be disinfectants? It may be that they are. For chlorine would destroy—that is to say, break up—the organic poison; while sulphurous acid would hold it in abeyance, in the same way as it preserves animal tissues from decomposition. I do not think we can dispute the fact, that the best and readiest disinfectants do in the main belong to one or the other of the two classes described by Richardson. But, in considering the question in its wholeness, it must be conceded that there are certain other agents which may be almost said to act mechanically, rather than chemically, in the process of disinfection. Under this head I should include substances which, in contact with organic matters, remove water or desiccate. Of these I shall give examples in the sequel.

To resume: my definition of disinfection is as follows.

Disinfection is a process by which noxious agents are either destroyed, suspended in action, or fixed. In accordance with this view, I shall classify disinfectants under three heads:—

1. Agents that chemically destroy the noxious body.
2. Agents that hold the noxious body inactive (antiseptics) by arresting chemical change.
3. Agents that physically restrain the action of the noxious compound, whereby its poisonous properties are neutralised.

Chapter II.

A brief Description of the Method of Research pursued.

There are two methods by which a writer who has some experience in the use of deodorants and disinfectants may put forward his knowledge. He may adduce his experience of disinfectants, as derived from his observation of their action in the sick-room; or he may follow an experimental research, and draw the conclusions therefrom. For many years past, I have followed out various lines of inquiry by the first of these methods; but the results, although at times apparently very decisive, have not in the main been satisfactory—not such, certainly, as a man of science ought to put forward as definite. The fact is, that the sick-room is not sufficiently under the control of the scientific observer; and many social considerations prevent him from using it, even to a limited extent, as a centre for scientific inquiry. This is right; for we enter the sick-room to treat the patient, not to carry out any investigations which do not fall naturally into the course of treatment.

In order, therefore, to obtain more perfect data than have yet been placed before the profession, I have chosen to rest mainly on the second, or experimental basis of research; that is to say, I have taken organic matters, and, subjecting them to processes of decomposition under various and varying conditions, have endeavoured, by the use of deodorising and disinfecting agents, to find the readiest means of removing or destroying the decomposing products, or of holding the process of decomposition itself in abeyance. The objection that may be made to the form of inquiry may be, that the same organic substances were not experimented on as are present in the emanations from the sick; that I have not, for instance, been dealing with the poisons of scarlet fever, typhus, typhoid, or small-pox. I admit the objection to the full extent of its worth; and I would willingly have met it, if it had been possible. It will be seen at once that such process was impossible; because, even if the poisons named could be isolated and subjected to chemical agents, we have no means by which to show that their specific action was destroyed, inasmuch as we could not subject susceptible human beings to the test of experiment. I have, therefore, taken a course which is practicable, approximative at all events, and I think, upon the whole, satisfactory. Assuming that animal organic matter varies not greatly, whether it be in the form of decomposing blood and animal tissue, or excrete from the organic poisons to which reference has been made, I have subjected decomposing animal structures to deodorising and disinfecting processes, and have marked the results.

In following out the inquiry, the organic matters operated upon have been treated in the solid state, in the fluid state, and as they exist in fine particles floating in air.

In trying various deodorants and disinfectants, they have been used according to their applicability. Some have been employed in the solid form; others in the fluid; and a third class in the state of gas or vapour. In all cases, the experiments have been conducted leisurely, and, in every series, under the same circumstances and conditions, all of which have been noticed and rendered in the sequel. Thus the natural conditions of the air, in respect to its pressure, moisture, temperature, ozone, and direction of wind, have been registered from day to day, as the inquiries have proceeded. This will be seen in the chapters in which the results of experiments are recorded. In the record of experimental research which is now to follow, I have taken the various deodorants and disinfectants into my hands quite irrespectively of any theory of their action—I mean irrespectively of the classification drawn out in the first chapter. For this reason, and for the purpose of simplicity in narration, I have made no attempt, in describing the agents, to place them under the classification above named. At the same time, in regard to each substance under discussion, I have added a paragraph to the description of its action, stating the class under which it may be most fairly grouped.

Lastly, I have arranged the experiments in such manner as to render them of largest service for various purposes in a sanitary point of view. Thus certain of the processes referred to have relation to the principle of rendering innocuous dead animal matter, and might, therefore, be employed in the temporary preservation of human remains; others have a bearing on the deodorisation and disinfection of fluids; and others on the deodorisation and disinfection of impure air.

Chapter III.

Experimental Inquiries into the Deodorising Properties of various Substances used in the Solid Form, or as Fluid mixed with Solid.

In the present chapter, I am about to describe the effects of various substances used commonly for deodorisation, when placed in contact with solid organic matter, either in the fresh state, or after it has

undergone decomposition. After observation as to the organic matter which would yield products of decomposition most speedily, I fixed on the intestines of oxen as most effective for use. Weighed quantities of fresh intestines were obtained, and were buried in the substances employed for deodorisation. The organic matter, with the deodorising agent, was placed in a box open at the top, and freely exposed to the air; and all the substances in each series were placed, side by side, on the same spot and at the same periods of time. They were carefully examined on alternate days, and were reported upon at the moment.

During the whole time, meteorological observations were taken; and the following table describes, for each day, the mean pressure of the air, the mean temperature, the degree of humidity, the amount of ozone, and the quantity of rain.

TABLE.—*Meteorological Elements.*

Date. 1865.	Mean of Barometer.	Mean Temperature.	Degree of Humidity. Complete Saturation = 100.	Ozone.	Rain.
May 15 ..	29.517	55.3	84	2	0.01
„ 16 ..	29.688	48.3	67	0	0.05
„ 17 ..	29.726	51.8	67	2	0.00
„ 18 ..	29.955	52.8	60	0	0.00
„ 19 ..	30.223	52 5	58	0	0.00
„ 20 ..	30.190	57.0	58	0	0.00
„ 21 ..	29.949	63.5	81	0	0.01
„ 22 ..	29.859	68.0	68	2	0.15
„ 23 ..	29.856	63.0	64	2	0.00
„ 24 ..	29.929	64.8	67	8	0.57
„ 25 ..	29.943	58.3	64	0	0.00
„ 26 ..	29.882	60.8	58	0	0.00
„ 27 ..	29.769	65.3	65	0	0.00
„ 28 ..	29.722	61.8	65	6	0.02
„ 29 ..	29.741	61.8	59	3	0.04
„ 30 ..	29.675	63.3	60	5	0.00
„ 31 ..	29.795	57.3	67	2	0.00
June 1 ..	29.790	59.0	67	4	0.00
„ 2 ..	29.525	58.3	94	10	0.21
„ 3 ..	29.790	56.8	77	1	0.30
„ 4 ..	30.089	60.0	65	0	0.01
„ 5 ..	30.150	61.3	77	0	0.00
„ 6 ..	30.169	66.3	67	0	0.00
„ 7 ..	30.222	66.0	69	0	0.00
„ 8 ..	30.284	59 0	61	0	0.00
„ 9 ..	30.241	66.3	64	0	0.00
„ 10 ..	30.049	67.5	64	0	0.00
„ 11 ..	30.098	59.3	63	4	0.00
„ 12 ..	30.273	51.8	58	6	0.00
„ 13 ..	30.263	59.0	61	0	0.00
„ 14 ..	30.254	63.8	69	0	0.00
„ 15 ..	30.250	61 0	67	4	0.00
„ 16 ..	30.269	63.0	71	8	0.00
„ 17 ..	30.250	59.0	73	9	0.00
„ 18 ..	30.184	59.4	75	9	0.00
„ 19 ..	30.195	54.0	67	10	0.00
„ 20 ..	30.220	57.7	49	0	0.00
„ 21 ..	30.164	65.8	39	0	0.00
„ 22 ..	30.172	69.4	67	4	0.00
„ 23 ..	30.051	69.0	67	0	0.00
„ 24 ..	30.054	69.8	50	0	0.00
„ 25 ..	29.992	60.0	56	3	0.00

FIRST SERIES OF EXPERIMENTS. In the first series of experiments, two pounds of intestines were buried in a mixture containing given and equal quantities of deodorising substance, mixed up with two pounds of sawdust. The idea of using sawdust in connection with a deodoriser was derived from the process invented by Falcony, in which a chemical agent mixed with sawdust was applied, with great effect, to the preservation of the dead. I have in my possession the facts of an experiment made with Falcony's powder, in which the dead body of a man was buried for four weeks; but was partially uncovered for some minutes, every day, for examination. In this case, the body retained its sweetness during the whole period, although the weather was hot, and decomposition in the air, with the production of offensive compounds from organic matter, was set up in a few hours. The result was so good, that I thought the experiment was worthy of being imitated with regard to other agents for disinfection. The experiments were commenced on the morning of the 15th May, and continued until the 24th June.*

Observations on the Decomposition and Deodorisation of 2 lbs. weight of Intestines from an Ox, buried in 2 lbs. of Sawdust with the Substances described; with Observations on a similar weight of Intestines exposed to common Air. (Commenced May 15th; ended June 24th.)

EXPERIMENT 1. *Two Pounds of Intestine of Ox in Air.*—May 17th. No change.—19th. Slight odour; is softer.—21st. Offensive and softened.—23rd. Very offensive and soft, containing maggots.—25th. Quite putrid. — 27th. Completely disorganised (thrown away.)

EXPERIMENT 2. *One Pound of Sulphate of Zinc.*—May 17th. Darker and somewhat harder.—19th to 29th. Fresh, sweet, and firm.—31st to June 4th. Slight odour.—6th and 8th. Slight odour; good colour; firm.—10th. The odour gone; exsiccated externally.—12th. Sweet and quite dry externally.—14th. Sweet, dry externally, and slightly moist within.—16th. Sweet; remained so on 24th (last day of observation.)

EXPERIMENT 3. *One Pound of Chloride of Zinc.*—May 17th. Darker and somewhat hardened.—19th. Fresh, dry, and of a dark green colour.—21st and 23rd. Sweet, darkened, and hardened.—25th to June 4th. Sweet and still firm.—6th and 8th. Sweet, of good colour, and still firm.—10th and 12th. Sweet, and dry externally.—14th. Sweet and dry externally, but slightly moist within.—16th. Sweet; remained so on 24th (last day).

EXPERIMENT 4. *One Pound of Chloride of Sodium.*—May 17. Slightly darker in colour.—19th. Fresh, and of light green colour.—21st. Sweet, slightly darkened, and hardened.—23rd. Sweet, and moderately firm.—25th. Sweet; but slight odour when moved.—27th. Sweet on surface; slight odour in interior.—29th. Moderately sweet and firm.—31st. Slight odour.—June 2nd. Slightly offensive and soft.—4th. Yields a slight odour.—6th and 8th. Yields a slight odour, and is dark and soft.—10th. Slight odour; soft.—12th. Slight odour; good colour; soft. 14th to 22nd. Briny odour; soft.—24th. Offensive (thrown away).

EXPERIMENT 5. *One Pound of Lime.*—May 17th. Is swollen.—19th. Yields a slight odour.—21st. Offensive, soft, and distended with gas.—23rd. Offensive, and more distended with gas.—25th. Less offensive, but distended.—27th. Slightly offensive externally, with strong odour internally.—29th. Yields a slight odour; less distended, and harder.—31st. Slight odour.—June 2nd. Slight odour; soft and dark.—4th and 6th. Is strongly ammoniacal, and contains maggots.—8th. Ammoniacal, soft, and powdery; contains maggots.—10th. Less ammoniacal, and somewhat dried.—12th. Less ammoniacal, and very dry.—14th. Slightly ammoniacal, and very dry.—

* For the purpose of conciseness, Dr. Barker arranged his observations in tables. As, however, it has not been possible to print these in pages of the size of the JOURNAL, we have altered his narrative to the form in which it is here given, taking care to preserve every record of fact contained in the Tables.

16th. Yields no odour.—18th. Yields no odour; is desiccated (thrown away).

Experiment 6. *One Pound of Charcoal.*—May 17th. Is swollen.—19th. Yields a rather putrid odour.—21st. Offensive, soft, and distended with gas.—23rd. Offensive; colour in interior quite fresh.—25th. Offensive, but of fresh colour; contains maggots.—27th. Offensive internally; colour fresh.—29th. Offensive, and contains maggots.—31st. Putrid; contains maggots.—June 2nd. Very putrid (thrown away).

Experiment 7. *One Pound of Alum.*—May 17th. Slightly darker in colour.—19th. Fresh, and not discoloured.—21st. Yields a slight odour; is not discoloured, and firm.—23rd. Slight odour; colour good; moderately firm.—25th. Slight odour; fresh colour.—27th. No smell externally, but an odour internally; good colour.—29th. Moderately sweet; good colour; firm.—31st. Slight odour.—June 2nd. Slight odour externally; putrid within.—June 4th. Slight odour externally; is offensive internally, and contains maggots.—6th. Offensive internally, and contains maggots.—8th. Offensive, and contains maggots.—10th. Less offensive.—12th. Not at all offensive.—14th. Very slightly offensive within, and still moist; contains maggots.—16th. Remains the same.—18th. Slightly offensive; surface dry; moist internally; contains maggots.—20th. Very slightly offensive.—22nd. Not offensive.—24th. Remains the same.

Experiment 8. *Half an Ounce of Creasote.*—May 17th and 19th. Smells strongly of creasote.—21st. Is sweet.—23rd. Moderately sweet.—25th. Is sweet.—27th. Sweet externally, but has some odour internally.—29th and 31st. Yields a slight odour internally.—June 2nd. Yields a strong odour.—4th. Is offensive externally and soft.—6th. Offensive and soft.—8th and 10th. Is offensive.—12th. Is offensive and soft.—14th. Is offensive, dark-coloured, and soft.—16th to 22nd. Remains the same.—24th. Very offensive (thrown away).

Experiment 9. *Two Ounces of Tincture of Iodine.*—May 17th. No change.—19th. Slight putrid odour.—21st. No odour.—23rd. Rather offensive, and distended with gas.—25th. Slightly offensive; but less distended.—27th. Slightly offensive externally, and more so internally.—29th. Slightly offensive.—31st. Offensive; particularly internally.—June 2nd. Offensive, and contains maggots (thrown away).

Experiment 10. *Half an Ounce of Carbolic Acid.* May 17th and 19th. Smells strongly of carbolic acid.—21st to 29th. Is sweet.—31st and June 2nd. Has a very slight odour internally.—4th. Is fresh looking and somewhat soft.—6th. Is fresh looking, sweet, but soft.—8th to 12th. Is sweet.—14th to 18th. Is very slightly offensive.—20th and 22nd. Very slightly offensive; contains maggots.—24th. Offensive (thrown away).

Experiment 11. *Two Ounces of Vinegar.*—May 17th. Yields an odour of vinegar.—19th. Has a slight putrid odour.—21st. Rather offensive, soft, and gaseous.—23rd. Slightly offensive, dark-coloured, soft, and distended with gas.—25th. Not more offensive, but dark and soft.—27th. Yields an odour internally, and is of dark colour.—29th. Not very offensive, but very dark; and contains maggots.—31st. Offensive, very dark, and soft.—June 2. Quite putrid; contains maggots (thrown away).

Experiment 12. *Buried completely in Sawdust alone.*—May 17th. No change.—19th. Fresh and sweet.—21st. Very slightly offensive.—23rd. Rather offensive; somewhat softened.—25th. Rather offensive; contains maggots.—27th. Entirely decomposed (thrown away).

From these observations, made with every possible care and with the utmost possible precaution for preserving uniformity of result, I gather the following inferences.

1. Chloride of zinc and sulphate of zinc are the best deodorisers in combination with sawdust. Practically, there is no difference between the two salts—a fact of considerable importance, inasmuch as chloride of zinc costs four shillings a pound, and sulphate of zinc five pence per pound.

2. After the preparations of zinc, carbolic acid stands best in the list of deodorisers, and next to it chloride of sodium.

3. Lime, when combined with sawdust, can scarcely be considered a deodoriser at all. In it, organic matter becomes offensive in four days, and remains so for fifteen days; then the odour becomes distinctly ammoniacal. Ultimately, the organic matter dries, and odour is lost; but this does not occur until after exposure for a month.

4. Charcoal, contrary to what ought to be expected, is, comparatively, a feeble deodoriser, even when used quite fresh. This was stated by Falcony; and the correctness of the remark is confirmed by the observations I have made.

5. One remaining fact is of considerable interest; namely, that a putrid odour is not always sustained in accordance with the time during which the organic matter has been dead; but that the putridity, as evidenced by the sense of smell, alternates in its stages. Thus, in the case where sulphate of zinc was used as a deodoriser, there was no odour from May 15th to May 29th. On the 31st, there was slight odour, which continued up to June 8th; while, on June 10th, the odour had entirely ceased, and the tissue continued sweet. The same observation was made with regard to other substances; but we may keep to the sulphate of zinc for illustration. The question arises—What is the cause of this alternation? If we turn to the temperature, we find that the first evidence of putridity to the sense of smell occurred on May 31st, when the temperature was lower than it had been for the five preceding days of observation. Again, we find that the day when the odour of putridity disappeared was the 10th of June, when the mean temperature was 67° Fahr.—a higher temperature than had prevailed on any preceding day. This is the only fact of meteorological import which is brought out; for there is the same odour on two days, on one of which there is no ozone, and on another of which the ozone marks ten degrees.

From all the facts, taken collectively, I infer that the alternation of temperature determines putridity, and this to an extent which has been presumed, but not carefully ascertained. It would seem that, when organic matter is undergoing slow decomposition, the products of decomposition are evolved, for the first time, so as to be sensible to the nose, when the temperature is moderately low; but that the odour will disappear altogether with a sudden elevation of temperature. The process of change depends, most likely, on loss of water—the higher temperature producing a quick desiccation and, therewith, an inodorous condition.

Second Series of Experiments. In a second series of inquiries, another class of substances was used, in combination with sawdust, for deodorisation. The results were as follows.

Observations on the Decomposition and Deodorisation of 2 lbs. weight of Intestines from an Ox, buried in 2 lbs. weight of Sawdust with the Substances described. (Commenced June 1st; ended June 24th.)

EXPERIMENT 13. *Half a Pound of Carbonate of Ammonia.*—June 4th. Yields an ammoniacal odour; slightly offensive internally.—6th. Yields an ammoniacal odour.—8th. Yields an ammoniacal odour; internally and externally is of fresh colour. Sawdust is much darker in colour.—10th. Yields a strong ammoniacal odour.—12th. Yields a strong ammoniacal odour, and is softened.—14th and 16th. Yields an ammoniacal odour, and is softened.—18th. Offensive.—20th and 22nd. Offensive; contains maggots.—24th. Very offensive (thrown away).

EXPERIMENT 14. *One Pound of Nitrate of Lead.*—June 4th. Slightly distended, but of good colour.—6th. Sweet and of good colour.—8th and 10th. Slightly offensive and soft.—12th—16th. Sweet externally; rather offensive internally. Surface dried; interior soft.—18th. Slightly offensive.—20th and 22nd. Offensive; contains maggots.—24th. Very offensive (thrown away).

EXPERIMENT 15. *One Pound of Nitrate of Potash.*—June 4th. Gives out a very slight odour internally.—6th. A slight odour internally.—8th. Gives out a slight odour; soft in structure.—10th. Very slightly offensive; and soft.—12—16. Slightly offensive externally; internally offensive and soft.—18th. Slightly offensive.—20th and 22nd. Offensive and red.—24th. Very offensive (thrown away).

EXPERIMENT 16. *One Pound of Chloride of Ammonium.*—June 4th and 6th. Is of dark colour, and offensive internally.—8th and 10th. Offensive, and soft in structure.—12th—16th. Sweet externally; offensive internally, and soft.—18th—22nd. Rather offensive.—24th. Slightly offensive.

EXPERIMENT 17. *One Pound of Sulphate of Magnesia.*—June 4th. Is of dark colour, offensive internally, softened, and distended.—6th. Offensive externally; very offensive internally, dark, and soft.—8th. Offensive, of dark colour, and soft.—10th. Offensive, dark, soft, and distended.—12th—16th. Offensive externally and internally; soft.—18th. Rather offensive.—20th and 22nd. Offensive; contains maggots.—24th. Very offensive (thrown away).

EXPERIMENT 18. *One Pound of Brown Sugar.*—June 4th. Sour smell developed internally; structure distended with gas.—8th. Offensive internally, soft, and distended.—10th. Offensive, soft, and distended.—12th—16th. Offensive externally; very offensive internally.—18th. Very offensive.—20th—24th. Offensive; contains maggots.

EXPERIMENT 19. *One Pound of Chloride of Potassium.*—June 4th. Slightly offensive internally.—6th. Offensive internally.—8th. Offensive, dark, and soft.—10th. Offensive and soft.—12th—16th. Yields a faint odour internally; offensive externally.—18th—24th. Rather offensive.

EXPERIMENT 20. *Two Ounces of Turpentine.* June 4th. Yields a turpentine odour; is sweet internally, and reddened.—6th. Slightly offensive internally.—8th—10th. Slightly offensive.—12th. Slightly offensive externally; offensive internally.—14th—16th. Remains the same, and contains maggots.—18th—24th. Yields an ammoniacal odour; structure disintegrated.

EXPERIMENT 21. *Two Ounces of Benzole.*—June 4th. Yields a benzole odour; is sweet internally, and of dark colour.—6th. Yields benzole odour; slightly offensive internally, dark, and soft.—8th. Offensive, dark, and soft.—10th. Slightly offensive, dark, and soft.—12th—16th. Offensive externally and internally; soft.—18th. Rather offensive.—20th. Offensive, and contains maggots.—22nd. Offensive, very black, and soft; contains maggots.—24th. Very offensive (thrown away).

EXPERIMENT 22. *One Pound of Sulphate of Copper.*—June 4th and 6th. Slightly offensive internally.—8th and 10th. Slightly offensive and soft.—12th—22nd. Slightly offensive externally and internally.—24th. Offensive (thrown away).

EXPERIMENT 23. *One Pound of Plaster of Paris.*—June 4th and 6th. Offensive internally.—8th and 10th. Ammoniacal and soft.—12th and 14th. Ammoniacal externally; offensive internally.—16th. Ammoniacal externally, and dried; offensive internally.—18th. Ammoniacal and disintegrated.—20th—24th. Ammoniacal; contains maggots.

EXPERIMENT 24. *One Pound of Sulphate of Zinc.*—June 4th. Rather offensive internally; of dark colour.—6th. Offensive internally; of dark colour.—8th. Ammoniacal, dark, and soft.—10th. Ammoniacal and soft.—12th and 14th. Sweet externally; ammoniacal internally.—16th. Slightly ammoniacal externally; more so internally.—18th. Ammoniacal.—20th and 22nd. Ammoniacal; contains maggots.—24th. Offensive (thrown away).

EXPERIMENT 25. *One Pound of Silicate of Alumina (porous clay).* June 4th and 6th. Slightly offensive internally.—8th. Slightly offensive, dark, very soft, and pulpy.—10th. Ammoniacal and soft.—12th—16th. Ammoniacal externally; offensive internally, soft, and disintegrated.—18th. Slightly offensive.—20th and 22nd. Strongly ammoniacal; contains maggots.—24th. Offensive (thrown away).

EXPERIMENT 26. *One Pound of Sulphate of Iron.*—June 4th and 6th. Offensive internally; of dark colour.—8th. Offensive and very dark.—10th. Offensive, dark, and soft.—12th. Offensive externally and internally, like rancid tallow hardened.—14th and 16th. Rather less offensive.—18th. Offensive.—20th—24th. Very offensive (thrown away).

From the facts here supplied, we are driven to the conclusion that none of the substances named are to be considered as deodorants. In the first experiment, where the carbonate of ammonia was used, the animal tissue retained its character for twelve days, when it softened; and it was not offensive for six days later. Then it became offensive and putrid—the putrefaction going on rapidly after it first commenced. It is worthy of remark, that all the preparations of lime, as well as porous clay, caused a rapid evolution of ammoniacal gas to take place from the organic substance.

THIRD SERIES OF EXPERIMENTS. In order to institute comparison, experiments were made with the substances annexed mixed with sawdust, and also with sawdust alone.

Observations on the Decomposition and Deodorisation of 2 lbs. weight of Intestines from an Ox, completely buried in 2 lbs. weight of the Substances described. (Commenced May 15th; ended June 2nd.)

EXPERIMENT 27. *Fresh-burned Vegetable Charcoal.*—May 17th. No change.—19th. A putrid odour emitted through the charcoal as well as from the substance.—21st. Offensive.—23rd. Slightly offensive; interior of good colour.—25th. Rather offensive, but of fresh colour.—27th. Yields a strong odour internally, but is of good colour.—29th and 31st. Offensive; but still has fresh colour.—June 2nd. Very offensive and entirely decomposed (thrown away).

EXPERIMENT 28. *Earth-mould.*—May 17th. No

change.—19th. Putrid odour emitted through the mould.—21st. Offensive.—23rd. Very offensive, and contains maggots.—25th. Extremely offensive, and full of maggots.—27th. Entirely decomposed (thrown away).

Experiment 29. *Wood and Coal Ashes.*—May 17th. No change.—19th. Fresh and sweet.—21st. Very slightly offensive.—23rd. Slightly offensive.—27th. Yields no odour externally, but very slight odour internally.—29th. Slightly offensive internally, and somewhat softened.—31st. Rather offensive.—June 2nd. Offensive (thrown away).

With regard to the above series we learn, as the experiments in the first series have already indicated, that charcoal, used quite fresh, possesses a very limited deodorising power in comparison with other substances. I confess, indeed, that I was quite surprised at the result; and I imagine that, in some experiments where charcoal has been used apparently with much advantage, there must have been either a very low temperature, so as to give time for desiccation, or an extreme heat leading to quick desiccation. I afterwards, on June 23rd, in order to be quite satisfied, placed two pounds of intestines in roughly powdered charcoal, and another two pounds in powdered charcoal, changing it every day. The result was, that decomposition proceeded without interruption, and the intestines were very offensive on the fourth day.

I also placed two pounds of decomposing and offensive intestines of an ox in roughly powdered charcoal, and another two pounds in powdered charcoal. The result was that, on the following morning, the intestines were as offensive as when first buried in the charcoal, and went through all the stages of decomposition, unchecked in the least. The offensive emanations were also perceptible externally, before disturbing the charcoal each day. No difference was observable between the effects of the powdered and of the roughly powdered charcoal.

I further buried two pounds of intestines in fine unburned coal-dust; other two pounds in coarse coal-dust; and another two pounds in soot. The results were as follows. On the fifth day, decomposition had fairly set ian (nd the odour was very offensive) in the coal-dust, whether fine or coarse; but was delayed till the seventh day in the soot.

I also buried two pounds of decomposing and offensive intestines in fine coal-dust, in coarse coal-dust, and in soot. The results were as follows. The offensive odour was not in the least checked or modified by the fine or by the coarse coal-dust. The odour was perceptible externally as well as internally. In the soot-experiment, there was no odour externally; and, on removing the soot, the decomposing mass was certainly less offensive on the surface than internally.

The series of experiments also shows that fresh earth-mould possesses rather less power as a deodoriser than charcoal. It further indicates that wood-ashes possess a very decided deodorising property; being, in fact, little inferior to carbolic acid. Lastly, for some days, sawdust alone acts exceedingly well; but putrefaction, when it once commences in sawdust, is developed with great rapidity.

Fourth Series of Experiments. In this series of experiments, the organic matter, after it had become putrid and intolerably offensive, was buried in those compounds for deodorisation which had proved to possess the best properties as deodorants. The results are subjoined.

Observations on the Preservation and Deodorisation of 2 lbs. weight of Intestines of an Ox, buried in 2 lbs. weight of Sawdust with the Substances described, after complete Putrefaction had been developed. (Commenced May 31st; ended June 24th.)

Experiment 30. *One Pound of Sulphate of Zinc.*—June 2nd—4th—6th. Sweet externally, with very slight odour internally; of dark colour; contains maggots in abundance.—8th. Sweet and hard.—10th and 12th. Yields a very distinct odour, like that of tallow.—14th. Odour of tallow less distinct.—16th. Odour still less distinct.—18th—24th. Scarcely any odour.

Experiment 31. *One Pound of Chloride of Zinc.*—June 2nd. Sweet externally, with very slight odour internally; of greenish colour; no live maggots on the outside, but some in the inside.—4th and 6th. Sweet externally; very slight odour internally.—8th. Sweet and hard.—10th and 12th. Very slightly offensive.—14th to 24th. Yields a distinct odour, like that of pickled walnuts.

Experiment 32. *Half an Ounce of Creasote.*—June 2nd. Has a strong odour of creasote; an ammoniacal odour internally; of dark colour and rather dry; contains maggots in abundance.—4th. Sweet externally; has no offensive odour, but contains many maggots.—6th. Sweet outside, dried, and of dark colour.—8th—12th. Yields no odour; structure desiccated (thrown away).

Experiment 33. *Half an Ounce of Carbolic Acid.*—June 2nd. Strong odour of carbolic acid; structure dry, of dark colour; contains maggots in abundance.—4th. Yields no offensive odour; but contains maggots in abundance.—6th. Sweet externally; structure of dark colour and dried.—8th—12th. Yields an odour; structure desiccated (thrown away).

From this series we learn that, for the deodorisation of putrescent organic matter, as well as for the preservation of fresh matter, chloride and sulphate of zinc are by far the best agents. It is also worthy of remark, that the processes of change in the decomposed tissue induced by these salts differ very considerably. The sulphate of zinc gives rise to the evolution of a volatile body resembling a fat-acid; the other to a volatile substance resembling that evolved from a vegetable product partially preserved. There is here a wide field of inquiry suggested in relation to the products of decomposition of organic bodies, under varying circumstances; and I shall hope, on a future occasion, to present a new series of facts bearing on this point.

Chapter IV.

Experimental Inquiries into the Deodorising Properties of Various Substances used in the Liquid Form.

First Series of Experiments. In the experiments now to be noticed, organic matter was placed in liquids of various kinds, and a comparison was struck between the changes induced by these liquids and by simple distilled water. On this occasion, the fresh liver of an ox was cut up into ounces and used. The liver was selected because, for these experiments, it was more convenient than intestine; and at the same time was almost as easily subject to decomposition. The results were the following.

Observations on the Preservation and Deodorisation of Structure of Liver (one ounce) in various Solutions (eight ounces of each). (Commenced June 2nd; ended June 24th.)

Experiment 34. *Distilled Water.*—June 4th. No odour detected; structure pale and distended; sinks. —6th. Faint odour of decomposition.—8th. Rather offensive.—10th. Offensive; surface mouldy.—12th—24th. Very offensive (thrown away).

Experiment 35. *Alcohol.*—June 4th. Odour of alcohol perceived; structure firm; sinks.—6th and 8th. Is sweet.—10th. Alcohol nearly evaporated; liver fresh.—12th—20th. Sweet, but very hard.—22nd. Dry, hard, and sweet (thrown away).

Experiment 36. *Sir W. Burnett's Fluid.*—June 4th. Much shrunken, solid, and swims.—6th. Sweet. —8th. Sweet, and much contracted.—10th. Sweet; and remained so till the 24th (last day of observation).

Experiment 37. *Saturated Solution of Sulphurous Acid Gas.*—June 4th. Odour of sulphurous acid; liver pale and swollen; sinks.—6th. Sweet; and remained so until the 24th (last day).

Experiment 38. *Beaufoy's Liquid.*—June 4th. Liver white; swims.—6th. Sweet; and remained so until the 24th (last day).

Experiment 39. *Peroxide of Hydrogen.* June 4th. No odour; pale and swollen; swims.—6th and 8th. Sweet.—10th. Sweet and softened.—12th and 14th. Sweet.—16th. Faint odour.—18th. Offensive and soft.—20th and 22nd. Very offensive and soft (thrown away).

Experiment 40. *Tincture of Iodine.*—June 4th. Is shrunken, and sinks.—6th—10th. Sweet.—12th—20th. Sweet and hard.—22nd. Tincture evaporated; liver dry, hard, and sweet (thrown away).

Experiment 41. *Condy's Fluid.*—June 4th. No odour; sinks.—6th and 8th. Slightly faint odour.—8th and 10th. Offensive.—12th. Very offensive and soft.—14th and 16th. Exceedingly offensive (removed).

Experiment 42. *Liquor Ammoniæ.*—June 4th. Ammoniacal, firm, and shreddy around; sinks.—6th and 8th. Ammoniacal.—10th. Offensive and softened.—12th and 14th. Very offensive.—16th. Exceedingly offensive (thrown away).

Experiment 43. *Saturated Solution of Sulphate of Magnesia.*—June 4th. No odour; swims.—6th—10th. Sweet.—12—16th. Slightly offensive.—18th. Sweet. —20th and 22nd. Has a faint odour.—24th. Offensive.

Experiment 44. *Solution of Permanganate of Lime.* —June 4th. No odour; sinks.—6th. Sweet.—8th and 10th. Rather offensive.—12th and 14th. Offensive.—16th. Very offensive (removed).

Experiment 45. *Saturated Solution of Chloride of Sodium.*—June 4th. No odour; swims.—6th—10th. Sweet.—12th—20th. Sweet and hard.—22nd. Yields a briny odour.—24th. Slightly offensive.

Experiment 46. *Saturated Solution of Sulphate of Iron.*—June 4th. Has no odour; swims.—6th. Sweet; and remained so till the 24th (end of observation).

Experiment 47. *Saturated Solution of Nitrate of Lead.*—June 4th. No odour; shrivelled and pale; swims.—6th. Sweet; and remained so till the 24th (last day of observation).

Experiment 48. *Saturated Solution of Nitrate of Potash.*—June 4th. No odour; sinks.—6th and 8th. Sweet.—10th. Yields faint odour; softened, and mouldy on surface.—12th. Faint odour.—14th and 16th. Faint odour; very mouldy.—18th. Sweet, very red, and soft.—20th and 22nd.—Faint odour. —24th. Offensive.

Experiment 49. *Saturated Solution of Chlorine.*—June 4th. No odour; sinks.—6th and 8th. Sweet. —10th—16th. Yields a faint odour.—18th. Yields faint odour; very soft.—20th. Very offensive.—22nd. Very offensive, soft, and rotten (thrown away).

Experimet 50. *Saturated Solution of Sugar.*—June 4th. No odour; dark, smaller; swims.—6th—10th. Sweet.—12th. Sweet, dark-coloured, and firm; remained so on 24th (last day of observation).

Experiment 51. *Pyroligneous Acid.*—June 4th. Has an acetic odour; pale; sinks.—6th to 10th. Sweet. 12th. Sweet and soft.—14th. Sweet; remained so on 24th (end of observation).

Experiment 52. *Saturated Solution of Chloride of Potassium.*—June 4th. No odour; swims.—6th. Sweet; and remained so on the 24th (last day of observation).

Experiment 53. *Saturated Solution of Chloride of Ammonium.*—June 4th. No odour; sinks.—6th and 8th. Faint odour.—10th to 14th. Sweet.—16th. Faint odour.—18th. Sweet; remained so on 24th (last day of observation).

Experiment 54. *Saturated Solution of Alum.*—June 4th. No odour; sinks.—6th—18th. Sweet.—20th and 22nd. Faint odour.—24th. Slightly offensive.

Experiment 55. *Turpentine.*—June 4th. Has turpentine odour, is pale, and sinks.—6th. Turpentine odour.—8th. Turpentine odour; sweet. Remained so on 24th (last day of observation).

Experiment 56. *Saturated Solution of Chlorate of Potash.*—June 4th. No odour; sinks.—6th. Faint odour.—8th. Faint odour; white mould on surface. —10th. Faint odour; mouldy.—12th—16th. Faint odour; very mouldy.—18th. Slightly offensive and mouldy.—20th and 22nd. Offensive.—24. Very offensive.

In reviewing these experiments, we learn that alcohol, Sir W. Burnett's fluid, the saturated solution of sulphurous acid, Beaufoy's liquid, tincture of iodine, solution of sulphate of magnesia, solution of chloride of sodium, solution of sulphate of iron, solution of nitrate of lead, solution of sulphate of copper, solution of sugar, pyroligneous acid, solution of chloride of potassium, solution of alum, and turpentine, were all nearly equally good in preventing decomposition. Solution of peroxide of hydrogen, containing ten volumes of the peroxide, was good for sixteen days; then decomposition commenced, and went on with great rapidity to complete disorganisation. Permanganate of potash (Condy's fluid) was bad, decomposition commencing in it on the sixth day. Permanganate of lime is also bad; but preserves sweetness until the eighth day. Solution of ammonia is indifferent; decomposition commencing on the tenth day. Solution of nitrate of potash is indifferent; decomposition commencing on the tenth day, and mould forming on the organic structure. Chlorine water holds good until the tenth day, or six days less than the peroxide of hydrogen; but, in the former, the change afterwards is not so rapid as in the peroxide. Solution of chloride of ammonium is nearly as good as the solution just named, but it is variable in its action. Solution of chlorate of potash is bad from an early period.

Second Series of Experiments. In this series, one ounce of liver of ox was allowed to become offensive from decomposition, and was then placed, separately, in precisely the same solutions as are given in the preceding table. The results were, briefly, as follows. On the following day, the offensive odour was readily perceptible in water, peroxide

of hydrogen, liquor ammoniæ, solution of sulphate of magnesia, solution of nitrate of lead, solution of nitrate of potash, solution of chloride of ammonium, solution of alum, and solution of chlorate of potash. The offensive odour somewhat diminished in alcohol, in Condy's fluid, in chlorine water, in solution of sugar, in solution of permanganate of lime, in solution of chloride of sodium, in solution of sulphate of iron, in solution of sulphate of copper, and in solution of chloride of potassium. The offensive odour was destroyed in pyroligneous acid, in Sir W. Burnett's fluid, in solution of sulphurous acid, in Beaufoy's liquid, in tincture of iodine, and in turpentine.

It is a point of some practical importance to the practitioner of medicine, to observe the influence of these various solutions in checking the process of decomposition; inasmuch as it is valuable to know what solutions would be most rapid and effective in their action, when used as injections into cavities containing decomposing matter—such as the cavity of the uterus during organic disease or puerperal fever. Some of these would, of course, be objectionable on account of their poisonous properties; but others would be quite simple, as, for example, peroxide of hydrogen well diluted, tincture of iodine well diluted, solution of sulphurous acid well diluted, solution of sulphate of magnesia well diluted, solution of chloride of sodium diluted, solution of sulphate of iron diluted, solution of sugar, and solution of alum. I therefore place these solutions in order according to their respective merits. These remarks with reference to injections would apply also to gargles.

Chapter V.

On the Preservation of Animal Fluids by various Deodorising Substances used in Solution.

First Series: Experiments with Defibrinated Blood. In this series the blood of the ox, after having been defibrinated, was divided into quantities of a fluid-ounce each, and treated in the open air, with quantities of a fluid-drachm of each of the deodorants employed. The results are subjoined.

Observations on the Preservation of Defibrinated Blood (one ounce) in various Deodorising Substances in Solution (one drachm). (Commenced May 31st; ended June 24th.)

Experiment 57. *One Ounce of Defibrinated Blood in Air alone.*—June 2nd. No change of colour; slight separation of brown precipitate in a thinner fluid.—4th and 6th. Yields a slight odour; is dark.—8th—12th. Offensive.—14th and 16th. Very offensive.—18th—24th. Has an odour of sulphuretted hydrogen.

Experiment 58. *Liquor Ammoniæ.*—June 2nd. Has a smell of ammonia; bright colour; liquid.—4th. Ammoniacal; darker, and liquid.—6th and 8th. Sweet.—10th—14th. Yields a faint odour.—16th. Offensive.—18th. Slightly offensive.—20th and 22nd. Offensive.—24th. Very offensive.

Experiment 59. *Pyroligneous Acid.*—June 2nd. Slight odour of acetic acid; dark colour; solid.—4th. Sweet, dark, and solid.—6th. Sweet; and remained so to end of observation.

Experiment 60. *Carbolic Acid.*—June 2nd. Strong odour of carbolic acid; brick colour; solid, with small quantity of liquid on surface.—4th. Odour of carbolic acid; otherwise as before.—6th. Sweet; remained so to end of observation (24th).

Experiment 61. *Creasote.*—June 2nd and 4th. Strong odour of creasote; light brick colour; consistence of treacle.—6th. Sweet; remained so to end of observation (24th).

Experiment 62. *Bromine.*—June 2nd and 4th. Faint odour of bromine; dark colour; solid and expanded, filling the bottle.—6th. Sweet; remained so till end of observation (24th).

Experiment 63. *Tincture of Iodine.*—June 2nd and 4th. Faint odour of iodine; dark colour; liquid.—6th. Sweet.—8th. Has faint odour; remained so till end of observation (24th).

Experiment 64. *Saturated Solution of Nitrate of Lead.*—June 2nd and 4th. Peculiar faint odour; vermilion colour; solid.—6th—10th. Sweet.—12th. Faint odour; remained the same till end of observation (24th).

Experiment 65. *Sir W. Burnett's Fluid.*—June 2nd. No odour; dirty brown colour; consistence of syrup.—4th. Faint odour; otherwise as before.—6th. Sweet.—8th. Faint odour; remained the same till end of observation (24th).

Experiment 66. *Turpentine.*—June 2nd and 4th. Odour of turpentine; dark colour; gelatinous.—6th and 8th. Sweet.—10th. Turpentine odour; sweet.—12th. Sweet; remained so till end of observation (24th).

Experiment 67. *Alcohol.*—June 2nd. Slight odour of alcohol; bright vermilion colour; liquid.—4th. Faint odour; otherwise the same.—6th. Sweet.—8th. Faint odour.—10th. Slightly offensive.—12th—18th. Offensive.—20th—24th. Very offensive.

Experiment 68. *Benzole.*—June 2nd and 4th. Strong odour of benzole; dark colour; semiliquid.—6th and 8th. Sweet.—10th. Benzole odour; sweet.—12th. Faint odour.—14th and 16th. Slightly offensive.—18th—24th. Faint odour.

On looking over these observations, we find that the substances which prevent entirely the decomposition of blood for a period of twenty-five days are pyroligneous acid, carbolic acid, creasote, bromine, and turpentine. Ammonia is less effective; and tincture of iodine, solution of nitrate of lead, Sir W. Burnett's fluid, chloroform, and benzole, stand in the same category. Alcohol is very inferior; probably from its gradual escape by evaporation.

Second Series: Experiments with Milk. In this series, new milk was divided into quantities of a fluid-ounce each, and treated in the open air with a fluid-drachm of each of the deodorants employed. The results are annexed.

Observations on the Preservation of Milk (one ounce) by various Deodorising Substances in Solution (one drachm of each). (Commenced May 31st; ended June 24th.)

Experiment 69. *One Ounce of New Milk in Air alone.*—June 2nd—6th. Sour; creamy on surface; and semisolid.—8th and 10th. Sour and curdy.—12th and 14th. Sour.—16th. Sour; mouldy odour.—18th—24th. Mouldy odour.

Experiment 70. *Liquor Ammoniæ.*—June 2nd and 4th. Ammoniacal; semitransparent; gelatinous below; surface creamy.—6th. Ammoniacal.—8th and 10th. Sweet.—12th. Faint odour.—14th. Sour.—16th to 20th. Very sour, and somewhat offensive.—22nd and 24th. Very sour.

Experiment 71. *Pyroligneous Acid.*—June 2nd and 4th. Acid smell; curdy.—6th. Sweet.—8th. Sour and curdy.—10th—14th. Sour.—16th. Acid smell; remained the same to end of observation (24th).

Experiment 72. *Carbolic Acid.*—June 2nd and 4th. Odour of carbolic acid; opaque; liquid; creamy on surface.—6th and 8th. Sweet.—10th. Sweet;

liquid; opaque; and homogeneous.—12th. Sweet; remained the same to end of observation (24th).

EXPERIMENT 73. *Creasote.*—June 2nd and 4th. Odour of creasote; very opaque; surface creamy.—6th and 8th. Sweet.—10th. Sweet; liquid; opaque; and homogeneous.—12th. Sweet; remained the same to end of observation (24th).

EXPERIMENT 74. *Bromine.*—June 2nd—10th. Bromine odour; thick spongy light yellow film on surface; bright gold coloured liquid below.—12th. Sweet.—14th. Bromine odour; sweet; remained the same to end of observation (24th).

EXPERIMENT 75. *Tincture of Iodine.*—June 2nd and 4th. Iodine odour; creamy bright yellow film, covering opaque lighter yellow fluid.—6th—12th. Sweet.—14th—22nd. Slight iodine odour; sweet.—24th. Sweet.

EXPERIMENT 76. *Saturated Solution of Nitrate of Lead.*—June 2nd and 4th. No odour; thick and curdy.—6th. Sweet; remained the same at end of observation (24th).

EXPERIMENT 77. *Sir W. Burnett's Fluid.*—June 2nd and 4th. No odour; thick and curdy.—6th—16th. Sweet.—18th—24th. Faint odour.

EXPERIMENT 78. *Turpentine.*—June 2nd and 4th. Odour of turpentine; creamy surface; quite opaque below.—6th. Turpentine odour.—8th. Sweet; greenish yellow film on surface.—10th. Turpentine odour; forms a firm clot in semitransparent liquid.—12th. Sweet; remained the same at end of observation (24th).

EXPERIMENT 79. *Alcohol.*—June 2nd and 4th. Slight alcoholic odour; surface creamy; colour below "skyblue".—6th and 8th. Sweet.—10th—14th. Sour. 16th—24th. Sour; yields mouldy odour.

EXPERIMENT 80. *Chloroform.*—June 2nd and 4th. Odour of chloroform when shaken; surface creamy; layer of opaque white precipitate at bottom.—6th—22nd. Sour; odour of chloroform when shaken.—24th. Sour, whether shaken or not.

EXPERIMENT 81. *Benzole.*—June 2nd and 4th. Strong benzole odour; opaque and gelatinous.—6th. Strong benzole odour.—8th. Sweet.—10th. Strong benzole odour.—12th—18th. Faint odour.—20th—24th. Mouldy odour.

On reference to the preceding observations, it will be seen, that carbolic acid and creasote, bromine, tincture of iodine, solution of the nitrate of lead, turpentine, and chloroform, are the best preservatives from decomposition. Ammonia keeps off decomposition for twelve days; pyroligneous acid is less definite in action; alcohol fails on the tenth day, and benzole on the twelfth.

CHAPTER VI.

Experiments on Ozone as a Deodoriser.

For some years past I have observed, in a general way, that the effect of ozone is to produce purification of air containing fœtid matter. Thus when, in my observations, the presence of ozone was well marked, there was always diminution, as I thought, of emanations detectable by the nose from the cesspool and drain. This, however, might be only imaginary or coincidental; that is to say, the absence of smell might be due to some error of mine, or, presuming that I was right in my impression, it might be that some other agent than ozone produced the change. I therefore thought it worth while to make a series of inquiries relative to the effect of ozone on matter that had undergone decomposition.

In order to test the deodorising effects of ozone, I suspended pieces of liver in advanced stages of decomposition in bell-jars of various sizes, and introduced dishes of a very fœtid liquid. Phosphorus and water were arranged as in one of the processes for making ozone artificially; and its presence was proved abundantly by Schönbein's tests. The results are subjoined.

Observations on the Effects of Ozone upon Decomposed Animal Tissues and Fœtid Solutions. (Commenced June 16th; ended June 24th.)

EXPERIMENT 82. *Decomposed Liver placed into a three-quart Bell-jar for making Ozone; suspended within four inches of the bottom.*—June 17th. Very slight odour.—18th—20th. Sweet.—22nd and 24th. Slight musty odour.

EXPERIMENT 83. *Six drachms of Fœtid Solution in a Florence Flask introduced into a three-quart Ozone Bell-jar.*—June 17th. Very slight odour.—18th. Not offensive unless shaken.—19th. Less offensive.—20th. Less offensive.—22nd and 24th. Scarcely any odour perceptible.

EXPERIMENT 84. *Decomposed Liver placed into a two-quart Ozone Bell-jar; suspended within six inches of the bottom.*—June 17th. Slight odour.—18th—20th. Sweet.—22nd and 24th. Perfectly sweet.

EXPERIMENT 85. *Decomposed Liver placed into a pint Ozone Bell-jar; suspended just below the neck, eight inches from the bottom.*—June 17th. Slight odour.—18th and 20th. Very slight odour.—22nd and 24th. Slight musty odour.

EXPERIMENT 86. *Watch-glass containing Fœtid Solution introduced into a pint Ozone Bell-jar.*—June 17th. Slight odour.—18th. Much less offensive.—19th—24th. Very slightly offensive.

It will be seen that the most marked effects were produced upon the decomposing animal matter in a short time. The experiments were commenced at 8 o'clock in the evening; and at 9 o'clock on the following morning there was but little odour in the solid animal matter, and the offensive odour in the liquid was considerably diminished, and scarcely perceptible, unless the liquid were shaken. The effect was less decided in the smallest bell-jar in so short a time. On the following day, in two cases the odour was lost altogether in the solid substance, and was greatly reduced in the liquid. On the following two days, the solid substance which had been rendered sweet continued so, while the fluids were very much less offensive. On the fifth day, one portion of the solid matter remained perfectly sweet, while the other was slightly musty; and the fluids were nearly deodorised. These facts relate to the experiments numbered 82 and 83. In the case of experiment 84, there was a very slight odour throughout; but so slight that it would have escaped notice if it had not been specially sought for.

It is worthy of remark, that the ozone produced purification of the solid much more quickly and perfectly than of the liquid substance; probably from the circumstance that the continuous changes from decomposition are more actively progressive in the fluid than in the solid form.

As bearing on this subject, I may mention the particulars of experiments with ozone on blood that had undergone decomposition. One experiment was performed by my friend Dr. ———, and is described as follows.

Some blood which was drawn from an ox in the year 1856 was placed in a wide-mouthed bottle. It was allowed to coagulate, and then to decompose. When it had become distinctly offensive from alkaline

decomposition, a stopper was placed in the bottle, and it was set aside, being simply shaken once or twice a week. In the course of time the clot underwent resolution; and at the end of two years there was no clot at all, but a thin dark fluid. The stopper was now so firmly fixed in the bottle that it could not be removed; and so the fluid remained until 1863. In December of that year, the neck of the bottle was filed, and the fluid was drawn off. It was quite free from clot. The corpuscles were dissolved to a great extent—although some small white irregular bodies like corpuscles remained; and an ammoniacal putrescent odour was evolved. An ounce of this fluid was now subjected to a current of ozonised air—the air being saturated with the ozone. In from two to three minutes, the blood was entirely deodorised, and underwent the most natural coagulation; serum exuding, in the course of time, from the clot that was formed. Exposed also to air at 75° Fahr., the clot became of red colour, was quite sweet, and looked precisely like blood that had been drawn immediately from the body.

Chapter VII.

The Deodorisation and Disinfection of Air.

In connexion with the inquiries as to the best means of deodorising solid and liquid substances, I carried out another series of inquiries in respect to the deodorisation of atmospheric air. The object which I had in view was to compare the relative deodorising powers of

a. Fresh air, freely supplied;
b. Air charged with chlorine;
c. Air charged with iodine;
d. Air charged with ozone;
e. Air charged with nitrous acid;
f. Air charged with sulphurous acid;
g. Air charged with ammonia.

To make the inquiry as exact as it could be, a small model was constructed like the ward of a hospital. The model was made exactly to hold two cubic feet. It was provided with four windows facing each other, with a central window on one side, with a long chimney furnished with an Arnott valve, and with a roof in which was fitted McKinnell's ventilator. The ventilation was tested most carefully by burning within the model (which, by the way, was constructed of wood and glass) weighed tapers of wax; and it was determined that the most perfect combustion took place when two of the windows were open at the top and two at the bottom, with McKinnell's ventilators open. The ventilation was very fair, as evidenced by the combustion when the middle window to which I have referred was alone open and McKinnell's ventilator was in play; but the most perfect ventilation was achieved under the conditions named previously. My friend Dr. Richardson, who obliged me with this model, also supplied me with a description of the ventilating capacity of the windows, chimney, and other parts of the model. This was determined by the combustion, by a most simple and accurate process; which might, by the way, be extensively applied. The description is too elaborate to be fully entered into here. I may, however, briefly state what is sufficient for my purpose; that, when the four windows were open and McKinnell's ventilator was open, the combustion of wax in the chamber, for twelve hours, was the same as in open air.

Furnished with this model, I proceeded to test the deodorising effects of various substances in the following manner.

A glass vessel, capable of holding one thousand cubic inches of air, and fitted up like a Woulfe's bottle, was filled for one-fourth with a compound fœtid mass, consisting of cesspool matters, decomposing egg, decomposed urine, decomposed liver and intestine, decomposed vegetable matter (cabbage-leaf), and some decomposed fluid removed from an ovarian cyst. The mixture was allowed to stand for ten days; and a more atrocious compound than the air over it cannot be conceived.

To test the power of the deodorants, eight ounces of this fluid were placed in a shallow dish and put into the chamber. The deodorising powers of the various deodorants employed were tested by the smell, and by Angus Smith's permanganate test. The permanganate was used by making a standard solution of Condy's fluid, as the best known and easiest of access. Two minims of Condy's permanganate of potassa were added to one pint of distilled water. A beautiful rose-coloured solution was thus afforded.

Before proceeding to the inquiry with fœtid air, a preliminary step was taken. The standard solution was carefully tested with ordinary air. Then it was tested with the deodorants, to determine whether they would themselves decolorise the permanganate solution. The result was that the air, ozone, chlorine, iodine in vapour, and ammonia, were entirely negative. Nitrous acid and sulphurous acid, when in the pure state, changed the colour; but, diluted to the extent I wished, they, too, were inert in the presence of decomposable matter. These preliminaries determined, the following series of experiments was instituted.

Experiments on Fœtid Air.

Experiment 87. Eight ounces of the fœtid liquid were placed in a glass dish six inches in diameter. The dish was then put in the centre of the floor of the model; and the model was closed entirely, all ventilation being cut off, for forty-five minutes. At the close of this period, two drachms of the permanganate solution were placed in the chamber in a wide-mouthed test-tube, which was carefully agitated in the air of the chamber.

The colour of the solution was discharged in *four* minutes.

Experiment 88. The chamber was next ventilated as freely as it could be, by opening the windows, the chimney, and the ventilator in the roof. The offensive odour soon sensibly diminished, but it could always be detected. After waiting thirty minutes, two drachms of the permanganate fluid were placed in the test-tube, and agitated as before in the air of the chamber.

The colour was discharged in *twenty-five* minutes.

Experiment 89. The windows and other openings of the chamber were closed; and the air in the chamber was allowed to become charged with the foul air as in experiment No. 87. Then, into the chamber, one cubic inch of chlorine was introduced. Almost immediately, all odour had disappeared, and the smell of chlorine alone prevailed. The chlorine odour remained for nearly sixteen minutes; then a faint fœtid odour was again perceived.

The colour of two drachms of the permanganate solution remained unchanged. *Seven* minutes later, it was discharged. The colour, in fact, remained perfect, so long as the odour of chlorine could be detected.

Experiment 90. The chamber was purified, then

closed, and charged, as before, from eight ounces of the fœtid fluid, until the foul air was thoroughly diffused. Three grains of iodine, calculated as practically representing one cubic inch of chlorine, were next diffused in vapour through the chamber, by being dropped upon a heated plate in the chamber. The iodine vapour was unequally distributed; and the iodine deposited in patches on the sides and roof. For four minutes the odour of the iodine prevailed; then the impure smell began to return.

The permanganate solution, used as in the previous experiment, was discharged of colour in *nine* minutes.

Experiment 91. The chamber was closed, and charged, as before, with foul air; then ozone, made by the action of phosphorus—the phosphoric acid being thoroughly removed—was introduced into the chamber until the foul air was replaced by an odour of ozone. On this, the ozone was withdrawn. The offensive odour remained absent for five minutes.

The permanganate, in the same quantity and dilution as before, was deodorised in *sixteen* minutes, at a temperature of 75° Fahr.

Experiment 92. The chamber was cleansed, and afterwards charged with the offensive smell, as in preceding experiments. One cubic inch of binoxide of nitrogen was now introduced into it. The vapour was at once transformed into nitrous acid fumes; and in *four* minutes the air in the chamber was nearly deodorised.

The permanganate, used as before, was deodorised in *twenty-one* minutes.

Experiment 93. The chamber was cleansed and charged once more with fœtid vapour, precisely in the same manner. One cubic inch of sulphurous acid gas was now introduced. As the gas was diffused, the odour of the fœtid matter was destroyed in *seven* minutes; and a faint trace of sulphurous acid could be detected at the upper aperture of the chamber.

The permanganate, introduced into the chamber precisely in the same manner as in the foregoing experiments, was deodorised in *twenty-two* minutes, at a temperature of 75° Fahr.

Experiment 94. The chamber having been charged with fœtid vapour in the usual way, one fluid-drachm of strong liquor ammoniæ of the *Pharmacopœia* was introduced and diffused. Within *two* minutes, the ammonia was easily detected by its odour; and the odour of the fœtid matter was disguised or removed for three or four minutes more.

The permanganate test, applied in the usual way, was discharged of colour in *eighteen* minutes, at a temperature of 75° Fahr.

In the performance of experiments such as the above, the greatest nicety is required in the method of conducting the research; and, what is more, the greatest care is required in commenting on the results obtained. The researches which I have narrated were carried out with as much regard to every minute detail as I and two scientific friends who were present could devise; and, speaking upon them with as much precaution as was used in conducting them, I think that the following inferences are fair and correct.

1. The most powerful deodoriser, and—if Angus Smith's test be taken as faithful in respect to the destruction of organic matter—the best disinfectant, is chlorine. But, when the odour of chlorine is lost, its efficacy may be considered as having ceased.

2. Next to chlorine is thorough ventilation; which in its turn has this advantage over chlorine, that it continues in action, while chlorine only deodorises, and destroys while it remains to act upon the deleterious body.

3. After ventilation, nitrous and sulphurous acids stand next in order. Both of them preserved the permanganate from decolorisation for nearly the same period of time. The sulphurous acid had one minute the advantage, and it certainly removed the odour more effectually.

4. Ozone appears to be less active, in so far as the permanganate is concerned, than either chlorine, nitrous acid, or sulphurous acid. It, however, destroys the odour as effectually as the others, and almost as rapidly as chlorine, which, in action, it closely resembles. It possesses, again, in its turn, an advantage: it can be employed permanently, by a simple process, with ventilation. The air that ventilates, in fact, may be ozonised as applied, chemically and mechanically, at one and the same time.

5. Iodine in vapour, used in the same quantity as chlorine, is equally effective with chlorine in removing the offensive odour, when the vapour is freely distributed. The difficulty in using iodine lies in securing its free diffusion. The vapour is deposited unequally in various parts of the chamber: hence the iodine does not remain so universally in action on the offensive substance that is suspended in the air as organic particles, or diffused through the air as a gas.

6. Ammonia acts in a peculiar manner on air containing organic and fetid matter. It possesses, unquestionably, some action, by which for a time odour is modified and the permanganate is prevented from change. But I may observe that there is a difference in the action of ammonia from that displayed by other substances; viz., that, if a given and limited quantity of fetid air be used, the chlorine, iodine, ozone, nitrous acid, sulphurous acid, and pure air in current, destroy the odour altogether, while the ammonia only produces a suspension of the action. This fact sustains the theory to which I referred in my chapter on the definition of a disinfectant; viz., that all disinfectants are either deodorisers or antiseptics. But it is, at the present time, fair to observe that the fact relates to ammonia alone as an antiseptic; for sulphurous acid is in truth an antiseptic, and meats preserved in it have, as I know, been kept sweet and fit for eating for six months; but, as a gas in contact with gas or with solid organic matter in a state of fine division, it is itself decomposed, and towards the substances with which it is in contact it becomes a destroyer, instead of being a preserver.

From what has now passed before us, we learn that chlorine, pure air in current, nitrous acid, sulphurous acid, ozone, iodine, and ammonia, stand as disinfectants in the order in which they are placed in this sentence. I thought it worth the trouble to determine whether chlorine, ozone, iodine, and ammonia would produce any analogous action in preventing the decomposition of the permanganate, if the fetid substance were used in the liquid instead of the gaseous form. Nitrous acid and sulphurous acid were excluded from this inquiry, in consequence of the circumstance that they themselves in liquid destroyed the colour of the test. I made several efforts to overcome this objection, but failed in all.

In the experiments to be related, the solution of permanganate was made of a much deeper colour than when gases were employed. The solution contained twenty minims of permanganate in a pint of distilled

water. It was, however, easily acted on. One fortieth of a grain of dried poison from the rattlesnake sufficed to decolorise one ounce of the solution in one minute and fifteen seconds. The experiments with the fetid solution are given below.

Experiment 95. Ten minims of the fœtid solution were introduced into a very large test-tube, holding four ounces of a solution of permanganate made by adding twenty minims of Condy's fluid to a pint of distilled water. The fœtid solution was shaken with the permanganate, and set aside at a temperature of 75° Fahr.

The colour of the permanganate was discharged in *five* minutes.

Experiment 96. Four drachms of the fœtid solution were poured into a glass vessel containing thirty-four cubic inches of pure chlorine. The vessel was immediately closed. The fluid became white, and the fœtid odour was entirely destroyed at once; but a new chlorinated odour was established. The fluid was kept in contact with the chlorine for fifteen minutes at 75° Fahr., and was then withdrawn.

Ten minims of the chlorinated solution discharged the colour of four ounces of the permanganate in *thirty-three* minutes.

Experiment 97. Four drachms of the fœtid solution were placed in thirty-four cubic inches of air charged with ozone to saturation. The vessel was then closed. The solution was slightly bleached; and in five minutes the odour, though not entirely removed, was much reduced. After fifteen minutes' contact with the ozone at 75° Fahr., the fluid was withdrawn, and ten minims were added to four ounces, as before, of the permanganate solution.

The colour of the permanganate was discharged in *nine* minutes by the ten minims of ozonised fluid at 75° Fahr.

Experiment 98. Four drachms of the fœtid solution were placed in a vessel measuring thirty-four cubic inches, and charged with vapour of iodine. The fluid was left in contact with the vapour for fifteen minutes. The fœtid smell was removed in two minutes; and, after exposure for fifteen minutes, the smell was absent, and an iodine smell alone was present. Ten minims of the solution thus treated with iodine were now added to the solution of the permanganate.

The colour of iodine solution was thus imparted; but this colour did not obscure the pink colour of the original solution. The pink colour remained for nearly *nine* minutes, when it subsided into a greenish brown, which remained for many hours.

Solution of iodine in spirit acted on the permanganate precisely in the same manner; so that it is difficult to state the precise period of discoloration, or the actual value of iodine in preventing discoloration of the permanganate in solution in the presence of decomposing matter.

Experiment 99. Four drachms of fœtid solution were placed in a bottle capable of holding thirty-four cubic inches, and one fluid-drachm of strong liquor ammoniæ was added. The mixture was allowed to stand for a quarter of an hour, being thoroughly shaken during the time. The odour of the fœtid solution was not destroyed, but was obscured to a certain extent by the ammonia.

Ten minims of the ammoniated fœtid solution were now added to four drachms of the solution of permanganate.

The colour was discharged *within a minute* after the addition.

The suddenness of the change led me to test the effect of ammonia by itself, and again of the fœtid solution by itself. The result was, that the ammonia produced no change; while the fœtid solution caused discharge of colour in five minutes, as before.

Respecting the relative value of these substances—chlorine, iodine, ozone, and ammonia—for the deodorisation of decomposing sewage containing organic matter, chlorine and iodine hold nearly equal positions. If anything, iodine has the preference; for the effect of the chlorine was limited in its duration, the gas being all rapidly applied, while the iodine, as I found by an after experiment, remained in action for four days, the iodine vapour condensing, admixing with the fœtid fluid undergoing slow decomposition, and long yielding evidence of its own presence.

Ozone is less effective than either chlorine or iodine on fluid decomposing matter; a fact explainable on the ground that ozone does not combine readily with bodies in solution, whatever its affinity for them may be. If ozone is to be used at all for the deodorisation of fluid matter, it must be employed in the form of permanganate (Condy's fluid); but in that form it is, as I found by comparison, very inferior to iodine and chlorine.

Ammonia does not bear comparison with the other substances in respect to the deodorisation of fluid matters. It does not, in fact, deodorise; and, tried by the permanganate-test, it seems to intensify the action of the decomposing body. I say "seems" to intensify; because the phenomenon observed, of rapid discharge of colour in the permanganate on the addition of a fœtid solution containing ammonia, while it favours the view that ammonia intensifies the action of the decomposing bodies, does not prove it true. Some other explanation of the phenomenon observed may, perhaps, present itself on further reflection.

Chapter VIII.

On Deodorisation and Disinfection in Medical Practice.

In the short space that remains at my disposal, I have thought it best, avoiding many points of singular interest, to confine myself to the consideration of the best methods of deodorising and disinfecting, in accordance with their application in the daily practice of the medical man.

Deodorisation and Disinfection of the Sick-Room. Let us turn first to the sick-room or hospital-ward, and consider what shall be done there.

In the sick-room, the object of the practitioner should always be either to remove or to destroy the offending matter in the air; it should never be, by the use of antiseptic gases or vapours, to suspend action. Under such a process, deodorisation becomes a mere cloak for evil. The reasons for this line of argument are sufficiently simple and satisfactory; for they accord with that which is beneficial to the patient himself—that is to say, a true disinfectant works side by side with good air. Further, it works side by side with warmth. Thus, in the sick-room, when air is freely admitted without chill, when temperature is sustained, and when any one of the oxidising agents is being employed, there are three agencies at work all tending to one specific end—the removal and the destruction of the poison.

In many cases, we may determine that it is most advisable to trust to the ordinary influence of air alone, and warmth alone, for disinfection. When, for example, the temperature of a room can be sustained at 65° Fahr., with free and equal ventilation, the use of any disinfectant is hardly demanded; or, at all events, is only demanded at peculiar times, as when the excreta are being removed. But when the room is confined and the ventilation indifferent, then bodies that quicken oxidation of organic matter supplement the deficient oxidation of the air, and, at an adequate temperature, perform the work which ventilation, if it were effective, would itself perform.

Bearing, then, on this point, I would suggest that, for a sick-room charged with an organic poison, all disinfectants that may be used should belong to the class that assist oxidation; that the action of disinfectants thus employed is accelerated by ventilation; and that their action, to be of service, must be quickened by temperature.

An oxidising disinfectant being determined upon, the next point to consider is the nature of the agent. We are limited in this matter by the agents themselves; for the most active are not always the most ready. We may say, however, that we have chlorine, ozone, iodine, nitrous acid, and sulphurous acid. I believe that these are the five representative deodorants and disinfectants, and that, with these in his hands, the medical man need wish for nothing more.

In applying these agents, however, respect must be paid to temperature. An elevation of temperature increases their action; but the necessities of the sick-room demand that the temperature be kept at a moderate degree and steady in regard to its range. If this be not carried out, the patient suffers. I believe that, in this country, a mean temperature of 60° to 65° Fahr. is the proper average for the sick-room. This temperature is generally easily sustained; and for ventilating, disinfecting, and deodorising, is always ready and practicable.

Use of Chlorine. I have already shown that chlorine is the most active destroyer of the offensive emanations from decomposing matter. But our use of chlorine in the room in which a patient lies is, in my opinion, much less impracticable as an useful means, than is generally supposed. Solutions of chlorine, indeed, in every form, are objectionable. They cause the distribution of a large quantity of water through the air of the room. They require brisk and sharp currents of air to produce distribution, which causes a reduction of temperature; and, after all, they are but partially effective. Presuming that chlorine is used, it is best to distribute it from very small bottles—half-ounce phials—which may be emptied, at properly restricted intervals, into a room containing 3000 cubic feet of air, and may be distributed through the air by placing the bottle at as great a distance as possible from the patient and slowly removing the stopper. In this way, the whole of the air of the room, small as is the quantity of chlorine, becomes slightly odorous of chlorine; but sometimes—owing, probably, to the chlorine being wafted by a current of air—it is necessary for a short time to open the window of the apartment, in order to avoid the irritation produced, in some parts of the room, from inhalation of the chlorine. Experience soon teaches how far a room will bear the introduction of chlorine in this way; and it is, at once, an easy, simple, and effective plan of using chlorine, as by having bottles with glass stoppers, and not exceeding half an ounce in size, a measured quantity of the gas can be set free by the attendant, at intervals, according to the directions of the physician, while the bottles of chlorine can be sent, as medicines, from the surgery, or from the druggist. An intelligent nurse is necessary to carry out this mode of using chlorine; but when it is carefully done, there is no comparison as to its efficiency by the side of solutions of chlorine.

Use of Iodine. Iodine, first suggested as a solution in application to decomposed matter from wounds and sores by Dr. Williams of Carmarthen, was afterwards used in the form of simple iodine in boxes, as recommended by Mr. Hoffman of Margate, for removing the smell arising from bed-sores. Later it was applied and brought into use as a general deodoriser and disinfectant by Dr. Richardson of London; and I hear that it has recently been employed with great effect in Calcutta in cases of small-pox.

Iodine may be used by merely exposing it in cups or glass-vessels in the air. It may be exposed as a tincture; or it may be poured, in the form of hydriodic acid, upon bibulous paper, the iodine by this process being left, after decomposition of its compound, in a state of minute division and distribution. When a slow and continuous process of deodorisation is required, iodine, used in this manner, maintains an excellent effect. In water-closets, it acts exceedingly well, keeping the air pure at all times, or charged with a faint and agreeable odour of iodine.

When required for more active service, iodine must be evaporated from a heated plate. In this way it acts well, but with less rapidity and uniformity than chlorine. In fact, as in my experimental chamber, the iodine is deposited about the chamber and there exercises a local action only, instead of a general action, or, at most, a feeble general action. At the same time, iodine is to be accepted as a steady and valuable deodoriser; and the practitioner who may prefer chlorine for an extreme case, will do well to combine iodine with it—*i. e.*, he will do well to have iodine exposed in the room in the solid form, while the chlorine is diffused. Then, after the effect of the chlorine has ceased, the iodine continues to carry on its part of the work.

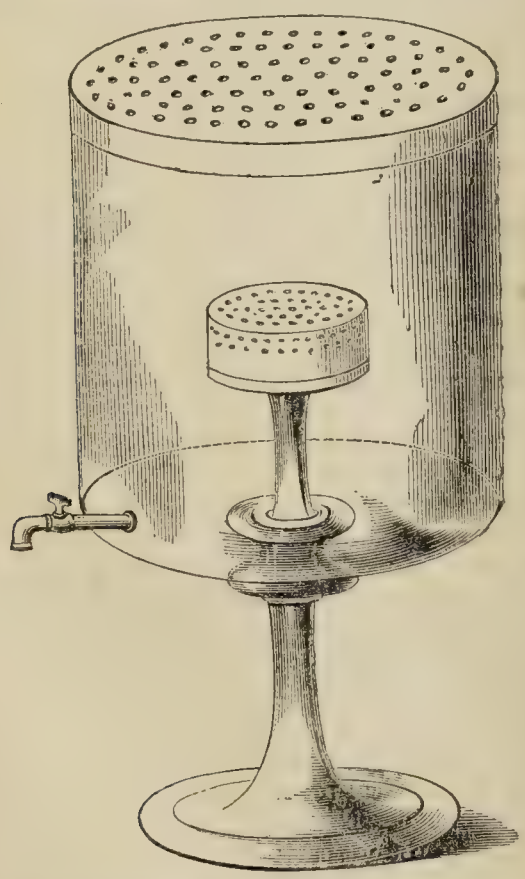
It may be useful to know that one drachm of iodine-scales placed, in a common saucer, on the mantelshelf of a room of two thousand cubic feet measurement, is diffused, at a mean temperature of 62° Fahr., in four weeks and two days.

Nitrous and Sulphurous Acids. Nitrous and sulphurous acids are excellent deodorants; but they are not, in medical practice, so convenient as iodine, or even chlorine. Nitrous acid is most easily managed by using a round earthenware jar, like those employed in one of Bunsen's cells. In this nitric acid is placed, and into the acid a plate of copper coiled as a hollow cylinder plays up and down, precisely as the zinc plate of the battery. The evolution of binoxide of nitrogen can thus be regulated at pleasure by raising or depressing the copper plate; and the production of nitrous acid, as the binoxide rises into the air, is abundant. But, after all, this is a clumsy process, compared with the liberation of chlorine in measured quantities, and is less effective.

The remarks made in reference to nitrous acid are also applicable to sulphurous acid, which, indeed, is open to even graver objections, inasmuch as heat is required for its liberation, and because in the presence of water it becomes inert.

Use of Ozone. The last deodoriser and disinfectant to which I shall refer is ozone. Ozone may be applied on a large scale by the use of Siemen's cylinder; the air driven through the cylinder being ozonised by sparks from Ruhmkorff's coil. This method might be adopted in hospitals with great advantage, as one apparatus would suffice for several wards; but in private practice it is quite impracticable. Skilled hands are required for the management of the battery and the coil; and one hand must always be at work to drive the air along the tube. Fortunately, we have a means of generating ozone from phosphorus, which I have used for years, and which is ready for use at any moment and with little trouble. Two sticks of phosphorus—each two inches in length—made very clean by scraping if covered with oxide, and half covered with water, will yield, in an hour, sufficient ozone, in a room of three thousand cubic feet, to be detectable by Schönbein's test in every part, and this even when there is good ventilation.

In order to meet any difficulties in this method of using ozone, I have invented an instrument, of which an accompanying sketch is given, and by which the



air of an apartment can be kept at pleasure charged with ozone. The instrument, made of glass, resembles a large wine-glass in shape, and is covered with a perforated glass lid. Within the vessel is a perforated glass box, and at the lower part is a water-tap. Into the perforated glass box, phosphorus is placed. When it is required to use the vessel, water is allowed to enter the glass until the phosphorus is half covered. Ozone now becomes developed over the phosphorus, and is diffused through the room. The degree of evolution may be tested by a slip of Moffat's or Schönbein's ozone-paper. When not required for use, it is only necessary to cover the phosphorus entirely with water and replace the cap on the top of the cup. When, at any time, the water is surcharged with phosphoric acid, it is easily removed by means of the tap.

Ozone, applied in this manner, acts like iodine in the solid state, but more decisively. For this reason, it removes the necessity for the diffusion of chlorine. Indeed, I have never known a room impure through the air of which ozone was thus distributed in sufficient quantity to influence the test-paper. The test-paper left in the room becomes, moreover, a test of the purity of the air, and tells the attendant when the ozone apparatus may be closed, if it be considered desirable, from any circumstances, to limit the diffusion.

The only objection to which this method of purifying is open is, that a little phosphoric acid escapes from the vessel. I may add, in reply to such an objection, that experience supplies no evidence of mischief or danger from this cause. By removing the fluid through the tap, when very acid from its absorption of phosphoric acid gas, and replacing it by pure water, the quantity of phosphoric acid gas escaping into the room will be considerably diminished.

When there is fair ventilation, the ozone apparatus is amply sufficient; and it has this advantage that, being once set going, the action is maintained for several hours; and as in an apartment several of the apparatuses may be used at one and the same time, I prefer it, as a general means, to all others.

Ventilation. In suggesting these various means of disinfection, the value of ventilation must never be lost sight of. Indeed, all measures must be considered supplementary to that; and I have no hesitation in stating, from experiment as well as from large experience, that, when thorough ventilation with pure air can be secured with an equable temperature, no foreign substance need be resorted to for purification. But to remove the danger of ventilation from the sick, the utmost care is necessary to sustain the heat of the room. When doors and windows are suddenly thrown open to let in air, the sudden change of temperature of the entire volume of air is, I believe, often, in some cases, a worse evil than a close room. Hence the natural and almost instinctive dread of ventilation by the sick. Hence iodine and ozone, in many cases, where the temperature of the room can only be kept up by having the windows closed, become indirectly of curative value; for they purify the atmosphere without necessitating the exposure of the patient to alternations of heat and cold, which inevitably tell on the invalid as so many shocks, unseen but not the less effective for injury.

Does the Inhalation of Disinfectants injure? In considering the introduction of disinfecting agents into the sick-room, it is fair to open the question, Whether the sick person himself is likely to be injured by the exposure and consequent inhalation of the substances that may be employed? In the case of ozone, I have every reason to believe that it has often done good to the patient, especially in cases of fever; and I have never seen reason to believe that any bad result has arisen either from it

or from iodine. Indeed, it is a fair inference, if not a proved fact, that the introduction into the system of a substance which would destroy the organic emanations evolved from the subject, would tend to hasten the process of elimination within the body.

Chlorine, nitrous acid, and sulphurous acid, are, however, not so satisfactory. I have seen the respiration accelerated by all these agents; and I know a gentleman on whom nitrous acid, even when so diluted that to me it is quite inert, produces pain and constriction of the chest, with great difficulty of getting in the breath, or of performing the inspiratory act. These cases may be exceptional, but they ought not to be forgotten.

Purification of Empty Rooms. For the purpose of purifying rooms or houses in which infected people have been confined; that is to say, in cases where no one is exposed for a time to the influence of the gas, chlorine is, doubtless, the best disinfectant; although iodine freely diffused in vapour is very effective and very easily applied. In an asylum with which I am acquainted, the rooms in which paralytics are kept become, after a few days, even with fair ventilation, exceedingly offensive. In these, the iodine is invariably used at intervals when the patients are removed, and with admirable effect. Half an ounce, or even an ounce, of the iodine is placed on an iron plate and gradually heated until driven into vapour. The rapidity with which the disinfection is carried out is well marked; and, as some of the iodine, in fine particles, condenses, as we have seen already, the effect remains even for some time after the room is inhabitable.

I have seen the permanganate of potass in solution used in sick-rooms; but the effect is negative in so far as the air of the room is concerned, for the simple reason that nothing is given off from the solution at ordinary temperatures. This may be proved by the use of Moffat's or Schönbein's ozone-papers, which show no activity in the air at ordinary temperature, however much of the solution may be present in the room.

Purification of Clothing. I have spoken thus far of the principle of disinfection, when air only is to be subjected to the process. When organic matters in the solid state are deposited on clothing, the exposure of the infected articles to great heat, as to steam or boiling water, is the readiest, the easiest, and the most effective method. It is quite unnecessary to dwell on any other special means of disinfecting solid substances, which will bear exposure without injury to boiling water; or, if not to boiling water, to an equivalent temperature of air in a heated chamber or oven.

Deodorisation and Disinfection of Fluid or Semi-fluid Matters in a State of Decomposition. My researches have, I think, afforded the means of pointing out, in simple language and with some precision, the best methods of deodorising fluid and semi-fluid matters, such as the excretions of the sick man and the fluid refuse of the sick. I shall dismiss at once all agents for this purpose except two; they are iodine and carbolic acid. I fix on these, first because they are better than all the rest, and next because they are most convenient. For the ordinary chamber utensil, iodine may be used, either in the solid form or as tincture. Half a drachm of the former or half an ounce of the latter is sufficient. The tincture made with methylated spirit is all that is required.

Carbolic acid may be used in the same way in quantities of from one to four drachms. It answers well as a deodoriser; but it leads to the diffusion of an odour of its own, and it does not destroy the organic decomposing mixture. I consider it, therefore, less valuable than iodine; and I do not think that, for the purpose, anything better than iodine could be desired. It destroys like chlorine; it is slower and more continuous in action; and as a mere deodoriser, it is as rapid as carbolic acid.

Deodorisation and Disinfection of Solid Decomposing Organic Matter that is not to be Destroyed at once. In cases where solid organic matter, such as a dead body waiting for burial, requires to be deodorised, there cannot, I think, be the shadow of doubt as to the selection of a salt of zinc, with sawdust, as the best substance. Carbolic acid, with sawdust, certainly acts very effectually; but it distributes an odour of its own, and on the whole is less ready. The proportions of the zinc salts and the sawdust are given in a previous chapter, so that the mixture can at once be made. The only question will be as to the selection of the preparation of zinc. The chloride is a little the better, the sulphate is much the cheaper; and, balancing one point against the other, I should usually select the sulphate.

In the case of a dead body, it is merely necessary to cover it, after it is placed in the shell, with the sawdust and zinc compound. It is not even necessary to screw the shell down when this is done. Should zinc not be at hand, and should carbolic acid be employed as a substitute, it is necessary only to cover the body with sawdust, and then to spread over it from two to three ounces of the acid. After this, the coffin should be at once closed.

For the deodorisation of animal substances that require to be identified—such as decomposed organs or tissues—no plan is better than that of placing them in a jar of air which is strongly ozonised; or they may be buried for a short time in a mixture of chloride of zinc and sawdust. If, when they are purified, they require to be kept in preservation, they may be placed in closed jars, charged either with ammonia, or vapour of chloroform, or vapour of bromine.

For the deodorisation of vegetable matters or offal that cannot immediately be disposed of, the zinc and sawdust mixture would answer perfectly. In its absence, or in the absence of carbolic acid—and they are not likely to be ready in all cases—wood-ashes afford by far the best substitute. Wood-ashes act far better than pure charcoal; and, after them, coal-ashes, well pounded, stand next in efficiency. I am sorry to throw discredit on so popular a deodorant as charcoal; but I am obliged to write from experiment, uninfluenced by prejudice, either professional or popular.

Deodorisation and Disinfection of Substances that may be Destroyed. Whenever a substance that is offensive admits of being destroyed, there is but one scientific course to take; namely, to destroy: and there is but one means of destruction; namely, fire. I need not dwell on this point a moment longer.

Chapter IX.

Summary.

The propositions which follow from the perusal of the preceding pages, may be summarily placed in the following order.

1. For the sick-room, free ventilation, when it can be secured together with an even temperature, is all that can be required.
2. For rapid deodorisation and disinfection, chlorine is the most effective agent known.
3. For steady and continuous effect, ozone is the best agent known.
4. In the absence of ozone, iodine exposed, in the solid form, to the air is the best.
5. For the deodorisation and disinfection of fluid and semi-fluid substances undergoing decomposition, iodine is best.
6. For the deodorisation and disinfection of solid bodies that cannot be destroyed, a mixture of powdered chloride of zinc or powdered sulphate of zinc, with sawdust, is best. After this, a mixture of carbolic acid and sawdust ranks next in order; and, following on that, wood-ashes.
7. For the deodorisation and disinfection of infected articles of clothing, etc., exposure to heat at 212° Fahr. is the only true method.
8. For the deodorisation and disinfection of substances that may be destroyed, heat to destruction is the true method.

A Medical Coroner. Mr. Bennett, a surgeon, has been appointed medical coroner for the Shaftesbury division of Dorsetshire, beating Mr. Chitty, a man of law.

Mr. Gamgee and the Cattle-Plague. The disease spreads more rapidly, and destroys much faster, than such means of cure as are known can follow; and therefore it is of more profit to kill, than to try to cure. This is the simple and serviceable ground which has been all along held by Professor Gamgee; and to this the farmers are rapidly coming. There is in Scotland at least a conviction that had Professor Gamgee's energetic counsels been taken at first we should not have been in these alarming circumstances. It has been the fate of Mr. Gamgee to see a little too clearly, and to speak a little too soon, for the class in whose interests he labours. He declared the disease imported; after much controversy, that is admitted on all hands. He urged the suspension or rigid supervision of the import of foreign cattle; the commissioner and the farmers have practically recommended the stoppage of the entrance of live cattle from abroad. He strenuously prescribed isolation and slaughter, as the sole effectual cure; and for the "killing cure" many of the farmers are now only too willing. He has long, almost if not quite alone, insisted on the necessity and advantage of a National Cattle Insurance Association, as a safeguard against the ravages of this and other epidemics; and the most influential meeting of agriculturalists that has been held on the subject of the plague has taken up the idea, and resolved in favour of just such a system of insurance. It is something for any man to have been right, and to have pointed the way, in a time of emergency and tumult of opinion—to have silenced and convinced opponents, and to have led those who have laughed at him. This Professor Gamgee has done, and it is but just that the credit he deserves should be given to him. (*Scotsman.*)

Original Communications.

THE CATTLE-PLAGUE AN ERUPTIVE FEVER.

By Robert Ceely, Esq., Aylesbury.

In his admirable Biography of Jenner, as well as in his Report of the Vaccination Section of the Provincial Medical and Surgical Association (*Transactions*, vol. viii), Dr. Baron has recorded several striking facts and referred to the observations of many high authorities for others illustrative of the pestilential and eruptive fevers of domestic animals.

He particularly alludes to Dr. Layard in England, and, long before him, to Fracastorius, Lancisi, Lanzoni, Ramazzini, and others in Italy. These references are certainly but brief, and intended chiefly to support his proposition "that cattle and other animals have for centuries been known to be affected with variola."

On this account, from the difficulty of access to the works of the authors above named, and with the view of comparing the facts and descriptions given by them of the epizootics prevalent in their times, with the terrible epizootic now unhappily raging in this country, I may be excused referring to these authors more in detail, and quoting one or two others whom he has omitted; particularly as the subject has been forgotten by some and is new to many.

Lanzoni thus describes the disease which prevailed in the duchy of Ferrara in the years 1713 and 1714 (Lanzoni, *Observationes*):—"Correpti boves cibum respuebant, aures subitò collapsæ procidebant, pili erigebantur, tremor penè universalis aderat, oculi lacrymabant, per nares multa lymphæ copia exibat, alvus solvebatur, in aliquibus pustulæ sub cute prodibant, ita ut variolis boves ipsos affici crederent, tandemque septem dierum brevi spatio, magno cum cruciatu (ut ex mugitu apparebat) moriebantur."

Lancisi, describing the disease as it was introduced into Italy from Hungary in 1711, says:—"Neque vero quin febris affectos boves ureret dubitandum erat; namque non modo Veterinarii Medici, sed ipse ego in illorum arteriis carotibus et axillaribus summam semper, ac statim ab initio celeritatem, ac frequentiam deprehendi. Præterea quanquam ob nimiam cutis crassitiem neque exanthemata neque carbunculi in externâ boum superficie erumperent; singulis tamen, ubi teneriores sunt membranæ, scilicet in ore et faucibus phlogoses, pustulæ, ulceræ, et maculæ e vestigio apparebant. In super plerique boves hoc malo tentati peribant intra diem septimum, quod in peste frequentissimum est; pauci vero per abscessum, ac decubitum ut mox dicemus, evadebant." (Lancisi, *De Bovillâ Peste.*)

Dr. Layard, in his *Essay on the Contagious Distemper among the Horned Cattle*, published in 1757, says:—"All are not equally affected. The first appearance of the infection is a decrease of appetite; a poking out of the neck, implying some difficulty of deglutition; a shaking of the head, as if the ears were tickled; a hanging down of the ears and deafness; a dulness of the eyes, and a moving to and fro in a constant uneasiness. All these signs, except the last, increase till the fourth day. Then a stupidity and unwillingness to move, great debility, a total loss of appetite, a running at the eyes and nose, a husky cough and shivering. The fever, which was constant the three first days, now rises and increases towards evenings, pulse quick and contracted, a constant

diarrhœa of green fæces, etc. The roofs of their mouths and their barbes are ulcerated. Tumours or boils are to be felt under the pannus carnosus, and *eruptions appear all along their limbs and about their udders.* In the milch-cow the milk dries up. Great irritation is visible in the rectum. They groan much, are worse in the evening, and mostly lying down. These symptoms increase to the seventh or ninth day—the period of the crisis."

In his prognosis he says—"If on the seventh day from the seizure, eruptions all over the skin, or boils as big as pigeons' eggs in different parts of the body, but especially from the head to the tail, along each side of the spine.....If the nose be sore and scabbed, etc., the beast will recover. But, on the contrary, if on the seventh day the eruptions, boils or abscesses are decreased in bulk or totally disappeared, etc., etc., the beast will die."

His *post mortem* descriptions also clearly indicate the identity of the disease of his and our own time.

In speaking of the emphysematous tumours which had arisen during life, he says:—"When opened they emitted fœtid air, and sometimes a purulent and sanious discharge."

In his "method of cure" he states—"that the nature of the disease directs the intentions of cure, and every different stage of the distemper points out the several curative indications. The analogy between this distemper and the small-pox will afford a rational process; and Ramazzini's directions authorise the practice.*

Layard recommended inoculation of cattle, stating "that no indisposition was observed till the sixth day, which answers exactly to the observations daily made in the inoculation of children," and gives directions for the treatment of the inoculated animals both before and after the eruptions have appeared. And in his essay on the usefulness of inoculation of the disease,† he adds:—"Whoever will compare the appearance, progress and fatality of the small-pox with what is remarked by writers of authority—Ramazzini, Lancisi, and other observers—relative to the contagious distemper among horned cattle, will not be at a loss one moment to determine whether the disease be an eruptive fever like unto small-pox or not."

He repeats "that in his time the disease was everywhere the same—in Italy, France and Great Britain, and that it either terminated fatally on the fourth or fifth day, when a scouring prevented the salutary eruptions, or in some cases by abortions; and on the seventh or ninth day favourably, *when the pustules had regularly taken their course.*"

Dr. Brocklesby, in his *Essay concerning the Mortality now prevailing among the Horned Cattle in several parts of Europe, and chiefly about London* (1746), gives a more diffuse description of the rise, progress and decline of the disease, derived from his own observations of it in Holland and in England. It agrees, however, in every essential point with that of Layard.

He refers to the occurrence of "emphysema more or less extensive on the fore parts of the body," and adds—"Frequently one may observe pustules break out on the fifth or sixth days all over the neck and fore parts; that death was occasionally sudden, sometimes on the third, mostly on the sixth or seventh day; very few lived to the fourteenth day.

His autopsies, as far as they go, are such as would be expected. He declares his conviction of the identity of the disease which he had seen the year before in the Low Countries, that which he was then describing from observations in London, and that described by Lanzoni in Ferrara in 1713 and 1714.

Dr. Blondet describes very correctly and concisely the general symptoms, and remarks "that the pulse is quickened some days before the distemper declares itself." (*Dissertation on the Epidemical Distemper among the Horned Cattle in France.* Translated in 1751.) He alludes to the epiphora, the coryza, etc., and says: "The inside of the nostrils is overspread with little red vesicles with a blue circle around them, and the roof of the mouth is dry and covered with vesicles of the same kind." He alludes to the cutaneous eruption, as seen both during life and after death; and, in seeking for the most comprehensive denomination of the disease, chooses as the most suitable, "*A burning pestilential eruptive fever.*"

Entertaining no doubt of the identity of the present deadly epizootic and that described by the above authors; looking at the rise, progress, termination *and modes of propagation of the disease, and the pathology of the mucous membranes,* I felt convinced that the disease would soon prove to be a malignant eruptive fever; and that a cutaneous eruption would be found in certain cases if carefully looked for. Such an eruption could not be expected in the early fatal cases, nor would it readily be discovered on the thick and hairy hide of the animal even in more protracted cases. A distinguished contemporary of Layard and Brocklesby had never seen the eruption; while Ramazzini declares "that not one of the cattle recovered but such as had pustules broke out on the skin." (*De Boum Contag. Epidem.*, p. 462.)

As soon, therefore, as the disease appeared in my own neighbourhood, I requested our veterinary surgeons to look out carefully for cutaneous eruptions. The next day I was introduced by them to no fewer than seven or eight animals exhibiting such in different degrees.

The eruption consists of roseola, papules, vesicles, and pustules. These are to be met with more or less readily in different cases on various parts of the skin, but more particularly about the alæ nasi, the cutaneous surface of the lower lip, the cheeks and under the jaw. The sides of the neck, over the shoulders, and along each side of the spine, are very often thickly covered with the eruption. It is seen also about the buttocks, near the vulva, and on the prepuce and scrotum. Inside of the thighs it is often copiously evolved. In the milch cow, the eruption is often copiously developed on the udder, where it is sometimes accompanied with large circular or oval subepidermic vesicles. These, however, are of a totally different character. They are often met with in casual congestions of the organ, and are not specific.

The small, red, acuminate papulæ are preceded and accompanied by patches of roseola more or less vivid in colour, according to the texture and colour of the skin in the locality. The presence of roseola, when not detectable otherwise, is marked, particularly about the alæ nasi and angles of the mouth, the neighbourhood of the vulva, the prepuce and the scrotum, by heat, tenderness and swelling of the parts. On the udder, when the skin is fair and naked or the hair thin and white, the roseola is visible to the naked eye, as it is on the inside of the thighs. On parts of the body thickly covered with dark hair, it can be seen only by shaving that off. It may be suspected when the animal shrinks under light pressure.

Upon and near these patches of roseola, small red acuminate pimples arise, whose summits soon yield a limpid fluid, which as quickly becomes turbid and

* Crediderim itaque in curatione hujus malignæ febris, eâ methode procedendum quæ a bonis medicis servatur in curandâ variolosâ puerorum febre, distinguendo tempus ebullitionis a tempore expulsionis. (Ramazzini, *De Contag. Boum Epid.*, p. 460.)

† In a letter appended to the third edition of his work addressed to George, Earl of Macclesfield.

puriform, and pass into crusts or scabs. These vesicles are often coalescent or confluent. When seen distinct, they occasionally acquire the size of a pea, if we may judge by the size of the crust and the magnitude of the succeeding scar.

The eruption is rarely detectable during life, or after death before the fifth or sixth day. It is, generally, readily detected in the stage of incrustation in convalescents, in some of the above mentioned localities. In such cases, if the crusts are picked off and the hair clipped, and the skin be thin, a superficial scar is visible. These crusts, when rubbed between the fingers, have a peculiarly unctuous feel.

Where the eruption has been actively and copiously developed, the epidermis and the hair become detached. This I have observed especially about the nose and angles of the mouth, the lower lip, and the udder. In one case, where the eruption was copiously developed on the integuments covering all four legs from the feet to the upper parts of the limbs, there was an entire separation of the epidermis and the hair: the same under the jaw. In this case, the internal affection of the mucous membrane was very mild. But it is after death, in severe cases, somewhat prolonged; and when there has been time for the full development of the eruption, the whole of these phenomena may be distinctly seen.

The superficial extent of the patches of roseola may then be traced, and the penetration of the inflammation into the entire texture of the skin be clearly seen. Pustules, isolated and in clusters, may then be found interspersed with petechiæ. The scars resulting from the previous pustules, in protracted cases, are best seen when the hide has gone through the first stage of tanning. I have seen, by the depilatory process alone, manifest indications of pre-existent eruptions, attended with florid discolorations, on the skin of a calf *two months after convalescence* from this disease, having died of pneumonia.

I am much indebted to veterinary and other friends in Norfolk for portions of recent and partially tanned hides, which have afforded me much information. From these specimens I have had made coloured drawings. The scars, made visible by the above process, though shallow, are foveolate. They vary in size; are more or less circular, distinct, coalescent, and often corymbose.

From the same source, through the kindness and zeal of Mr. T. W. Mayer, V.S.R.E.T., and Mr. Gooch of Reepham, I have been informed of other interesting facts, which I cannot forbear relating.

"At the *post mortem* of a cow recently dead of cattle-plague, which was on the point of calving, the characteristic eruption was observed on the nose and vulva of the fœtus. There was also the hæmorrhoidal condition of the rectal folds of mucous membrane, similar to those of the mother."

Also, on the skin of a sheep which died of the cattle-plague, with unusually well marked pathological appearances in the mouth, fauces, trachea, Schneiderian membrane, etc., "the cutaneous eruption, similar to that in cattle, was observed. It was particularly well developed along the neck, lumbar region, thighs, and near the tail. On the buccal membrane, near the edge of the lip, the eruption was equally manifest." In this case, so characteristic were the pathological states of the above mentioned mucous membranes, and so closely resembling those in the ox, that I could not refrain from calling in the aid of my excellent artist, Mr. H. B. Tuson of Camden Town, to make a drawing of the parts, then in my possession, with which drawing I am well pleased.

[*To be continued.*]

BELLADONNA VERSUS OPIUM.

By JOHN ADAMSON, Esq., Rye, Sussex.

J. C., aged 60, a pilot, of intemperate habits, swallowed nearly an ounce of laudanum at 5 P.M.; and, having shut himself up in his house, was not discovered until two hours afterwards. When I saw him, soon after 7 P.M., he was under the full influence of opium; lying insensible, with a ghastly face, pupils much contracted, the breathing slow, pulse weak, not accelerated; the muscular system was so thoroughly relaxed, that the head fell backwards or forwards, like that of a corpse. An emetic of sulphate of zinc was given, without any effect. Upon using the stomach-pump (of the introduction of which the man was almost unconscious), only a small quantity of clear fluid was found in the stomach.

At 8.45 P.M., there being no indication of any improvement, half a drachm of tincture of belladonna (P. L. 1851) was given; and repeated at 9.30. At 10.30, there was given one drachm; soon after which, a decided improvement could be seen. The pupils were less contracted; the face less pallid; and the patient less torpid. At 12 (midnight), when he took another half drachm, he could understand questions, and make answers hardly intelligible; and could put out the tongue when directed. At 1 A.M., he was able to say at what hour he had taken the laudanum. A final dose of a drachm of tincture of belladonna was given at 2 A.M.

From the moment when he was first found until long after midnight, the energies of the assistants (six strong able-bodied mariners) were severely tasked to prevent his falling into most profound stupor. Half a minute's cessation was enough to send him dead asleep. No improvement was noticed until about 11 P.M.; that is, until after the third dose of the tincture of belladonna, which was of the P. L. 1851 strength.

It was subsequently ascertained that this man had swallowed seven drachms of the tincture of opium; that he had taken no solid food that day, and very little for some days previously; that he had not been drinking to excess that day; and that a squabble with his wife was the main cause of his attempting to destroy himself. The man took altogether three drachms and a half of tincture of belladonna between 8.45 P.M. and 2 A.M., with no ill effects, beyond some confusion of vision; of which, as well as of obstinate constipation, the patient complained next day.

STATISTICS OF THE POPULATION IN FRANCE. The females number 18,741,037, and the males 18,645,276, forming altogether 9,054,030 families. There exist 5,009,120 boys under age, and 6,106,321 girls. Of 8,579,046 unmarried persons, there are 4,479,850 females. There are 931,023 widowers, and 1,790,126 widows. Of the widowers 81 are only 20 years of age, and there are 820 widows of the same age. France possesses at this moment 1,529,154 girls of from 15 to 20 years of age, and 1,308,366 boys of the same age. The greatest examples of longevity are supplied by females. We find three females out of four unmarried persons who have reached the age of 105, and two widows who have passed that age. 17,371 French men, and only 13,409 French women, have lost their sight; 12,447 French men and only 9,509 French women are deaf and dumb; 22,319 French women have become insane, and only 2,472 French men. There are 23,407 male idiots, and only 18,118 female idiots. The female sex prevails in France, while it has constantly decreased in the city of Vienna since the year 1830, in the proportion of three-hundredths every six years.

Transactions of Branches.

BATH AND BRISTOL BRANCH.

NOTES ILLUSTRATIVE OF CERTAIN INJURIES OF THE HUMERUS AND SHOULDER-JOINT.

By R. T. Gore, F.R.C.S., Senior Surgeon to the Bath United Hospital.

[*Read October 26th*, 1865.]

Of these injuries, the combination of dislocation of the head of the humerus with fracture of the anatomical neck of the bone, is of much interest. Until a very few years now past, it was considered irremediable; and the statements relating to it in books of reference were extremely brief and unsatisfactory: in proof of which, I will only name the works of Sir A. Cooper and M. Malgaigne. In a long experience, I have met with only seven cases.

The first—full forty years ago—made a great impression on my mind as a student. A boy, aged 12, had his shoulder injured by the wheel of a waggon; the head of the humerus was thrown far inwards below the clavicle, and detached from the shaft of the bone, which nearly came through the skin. I well remember that the case a good deal tried the diagnostic powers of those who saw it, for there was excessive swelling; and also that reduction was impossible. He got, however, a tolerable use of the arm below.

Twenty years ago, I met with the same accident in a woman, aged 40, with far less evidence of violence, and without extreme swelling. Chloroform was then unknown; and all attempts at replacing the head of the bone, which was in the axilla, failed. I brought the shaft and head of the humerus into such relative position as to form one line, and, keeping them so for nearly two months, found that a very firm union had taken place between them. On making a careful and very gradual extension, I had, however, the mortification to find that the bond of union gave way, and things were at once restored to the same state as at first. The patient lived several years, and had a very fair use of the arm. I failed in obtaining an opportunity to examine the parts after death.

Some years passed by, when, in rapid succession, there came under my notice or care five of these cases. Four of them were in the Bath United Hospital, either under my care or that of my colleagues; and the following are some memoranda of them.

Charles K., aged 50. The head of the humerus was dislocated to a point below the clavicle in front. It was readily reduced by manipulation with the aid of chloroform, and recovery was complete.

George W., aged 78, a strong muscular man. The dislocation was inwards and forwards beneath the edge of the pectoralis major. Under the influence of chloroform reduction was easy, and the recovery complete.

Henry S., aged 37, and John M., aged 44. In both of these cases the dislocation was subglenoid. Reduction was easy under the same circumstances, and the recovery complete.

The fifth case was in the person of a middle aged gentlemen, of tolerable muscular development (May 1862). The muscles being fully relaxed under chloroform, I was agreeably surprised to find that manipulation, without any attempt at extension of the shaft, enabled me to push the head of the bone from its displacement into the glenoid cavity with a degree of facility, which took me, as well as others, by surprise; and I supposed I had struck upon a new and important fact in surgical practice. Reference, however, to a very valuable article by Mr. Flower (now of the College of Surgeons), on Injuries of the Upper Extremity, in Holmes's *System of Surgery*, showed me that I had been anticipated by him, and by Mr. Paget of St. Bartholomew's Hospital; and also, as I have since found, by Mr. Spence of Edinburgh. I gladly give the honour where it is due; but I attach considerable importance to the fact, as a matter of surgical practice, as it is certain that any other mode of treatment than by manipulation failed confessedly with most able men; and that *manipulation alone* appears not calculated to succeed without the very considerable muscular relaxation produced by the full influence of chloroform. I observe in the *Lancet* for September 9th, 1865, a case of this kind, published by Mr. C. Williams, of the Norfolk and Norwich Hospital, occurring so long ago as 1860. The subject was a man of 48, and all attempts at reduction failed—chloroform, apparently, not having been used.

The *rationale* of success under one set of circumstances, and failure under the other, is tolerably obvious. On the one hand, the head being completely detached from the shaft of the bone, the ordinary mode of reducing dislocation by extension, combined with the leverage which the shaft furnishes, is not available; whilst there is enough of muscular action in operation to frustrate the attempt to push back the head of the bone. On the other hand, the muscles being fully relaxed from the effects of chloroform, the head of the bone lies loose, and almost, if not quite, unattached; consequently it yields before the finger and thumb, which partially surround it, and push it back into the glenoid cavity.

As far as I have been able to ascertain, this injury may occur in one or other of two modes. The least frequent is by the direct action of some great force, at one and the same moment, thrusting the head of the bone from the glenoid cavity, and breaking it off from the shaft. In the more usual way, the head of the bone, being forced out by a fall on the hand or elbow, is more or less fixed against the ribs or under the surface of the scapula; and, the original impulsion still continuing to act, the bone yields at a point intermediate between the action—say at the elbow or at the head of the bone.

A case lately occurred in which the humerus in a diseased condition was broken by a very slight cause, I did not see the patient during life, but learned the following particulars. He was between 40 and 50 years of age. For more than a year he had been very much out of health, complaining, among other things, of pains in his back and limbs, without any very definite localisation. On May 11th, in moving about in his room, he slipped, and, to save himself, rested his hand on a table, which turned over, and caused him to fall. At the moment of falling, the humerus gave way about two inches below the shoulder, and he struck the left side of the belly against the edge of the table. Symptoms of great depression ensued, with a cold skin and very feeble pulse. He was never able to lie down. There was not any abdominal tenderness nor tension; and, having vomited much of coffee-grounds' matter, he died early on the 15th from exhaustion.

The cause of death was found to be a laceration at the front part of the descending colon, the coats of the intestine being as thin as paper, but without any trace of ulceration or positive disease. There was not any fæcal effusion, and scarcely any traces of action of any sort in the surrounding parts. Many of the bones were exceedingly soft, so as to be readily cut with a knife, and very greasy or fatty (osteoma-

lacia?). The shaft of the humerus was broken about two inches below the joint, the ends of the bone being expanded, spongy, and without any of the abrupt angularities usually seen in the recent fracture of a healthy bone. There was some effusion of a thin bloody fluid around the broken ends, but not any thickening of periosteum or surrounding tissues, such as usually follows fracture, and forms the first step towards the process of reparation.

[A dried preparation of the fractured bone was exhibited to the meeting, as well as two wet preparations from the hospital museum,—one showing a fracture of the anatomical neck of the humerus without dislocation; the other, a laceration of the capsule of the shoulder-joint at its inner and lower part, in a case of dislocation.]

British Medical Journal.

SATURDAY, JANUARY 6TH, 1866.

THE TALE OF THE CATTLE-PLAGUE, AS TOLD ONE HUNDRED AND FIFTY YEARS AGO.

OUR readers have of late frequently met with the name of Lancisi as an authority referred to on the cattle-plague; but few, probably, have read the very remarkable history of the disease as recorded by him in his treatise *De Bovillâ Peste*. Nearly a hundred and fifty years have passed since Lancisi wrote that history; and yet it is no exaggeration to say that his account of the plague, of its nature, its symptoms, and its treatment, is as perfect as anything which this present day has produced. It is impossible to peruse his pages without regretting that so much wisdom, and lessons so practical and so full of instruction, should have been, for us at least, written in vain.

Our readers will, we are sure, thank us even now for calling their special attention to a work so marvellously replete with wisdom and common sense and scientific knowledge. They may well turn for a few hours from "the current literature of the day", and take a draught at the pure fountain of a bygone philosopher's knowledge. It is well to see how a great physician writes when he records his experience, not for the advertisement of his own fame, but for the benefit of the public and of posterity.

In his apology for writing the treatise, our readers will catch a glimpse of the philosophic mind which pervades it.

"I may be asked," he says, "of what benefit can this commentary be to posterity, as I have no remedy to offer for the cure of the plague? I answer, of very great benefit; for it is no little thing in human affairs to know what to avoid and what is true—*lucrum etiam in rebus humanis non exiguum est habere certum atque exploratum quod vitemus.* And surely we have learnt this much, that, from the very beginning of the plague, all commerce in cattle must be arrested; and that, if we are not able to cure the disease, we know at least how to deal with the evils attending it. Here, as happens in many other diseases, we may prevent their occurrence; but, when once they have possession of the body, we are powerless to cure them. *E contrario, cùm jam facta sunt, nulli cedunt medicamini.*"

And we may here remark that, throughout his work, Lancisi endeavours to impress upon posterity, for whose benefit he wrote, that the only remedy for the disease is the arrestment of its contagion—the very remedy recommended, a hundred and fifty years later, by the Cattle-Plague Commissioners.

The cattle-plague, he tells us, first appeared in Italy in 1709, in the district of the Po. It was brought there by an ox from Hungary; *ille fatalis, navi ex Hungariâ advectus bos.* Thence the disease, as "a neglected spark, spread like a conflagration over Italy." It did not, however, reach the Campagna (*Latium*) until the summer of 1713. Directly its presence there was announced, most stringent measures were taken to arrest its progress. All traffic in cattle was forbidden, and the severest punishment inflicted on those who disobeyed the order. Then arose the question how to deal with the infected oxen; whether it would be best at once to destroy every animal within the city boundaries, whether diseased, or supposed to be diseased. "I advised," says Lancisi, "that the animals should be killed; for I argued that, if they were left to a slow death, they would cause great expense in drugs, veterinaries, attendants, etc.; and especially that, by their presence, they would assist in the spread of the contagion. The Sacred College, however, determined that a milder course should be pursued, and remedies tried; and, indeed, were much moved to this by the fact that there were plenty of persons who asserted they had infallible cures for the disease." "But the truth is," added the sagacious Lancisi, "that in the cattle, as in the human plague, not every one who takes the disease dies of it. Some recover; and thanks to Nature, rather than to the remedies given them."

As Lancisi anticipated, these attempts to cure the disease led to its wider spreading. Edicts were issued forbidding the bringing of cattle from the Campagna into the city district of Rome, under penalty of death to a layman, and of the galleys for life to an ecclesiastic. Strictly forbidden also was the sale of the skin, horns, flesh, and fat of the animals; and their bodies were ordered to be buried in deep pits, and covered with quick lime. Religious ceremonies were prescribed, and prayers offered, by order of the Sacred College, to stay the progress of the plague. Measures also were taken to prevent the sale of diseased meat. Inspectors were appointed to visit the markets; and only those pieces of meat which were stamped with a hot iron by the inspector were allowed to be sold. Salting of the diseased

meat was forbidden. It may, perhaps, be doubtful, says Lancisi, whether the eating of diseased meat is hurtful; but still it is best to err on the safe side. Skinning of the dead carcases was forbidden, because thereby exit would be given to diseased matters, which might thus be spread abroad by the wind and through the infected soil. The severity of the edicts issued was complained of, he adds; but it is a fact that here, where the laws were strictly enforced, the plague was arrested much sooner than in other parts of Italy.

Lancisi then details a series of wise measures which were taken to anticipate the misery which might arise from the destruction of the cattle; and the great liberality of the Papal Government to those who had thereby suffered severe losses. Calculation made of the cattle destroyed by the plague during its nine months' stay, in the Compagna and the city district, showed that 26,252 had perished.

The different edicts issued by the Sacred College are given at length by Lancisi; and for the reason, "that he thinks they will be of great service to posterity, if a similar misfortune should ever again happen—which may Heaven avert! They may be regarded as sure and certain documents, teaching how the plague may be extinguished," etc.

In the third part of his work, Lancisi gives an historical summary of the cattle-plague, as referred to by ancient writers. He then proceeds to describe the signs and symptoms of the disease.

The disease, he says, presents all the signs of a true plague: it is a pernicious fever.

The symptoms of the disease vary somewhat in different animals, just as diseases do in man, according to their temperaments; but there are certain signs constantly present in almost all cases. Thus we find that

"The animal drops its head; tears flow from its languid eyes; mucus and saliva pour forth from the nostrils and mouth; and, seized with fever, quickened pulse, shiverings, and horripilation, it lies sick upon the ground. Inflammations, pustules, hydatids, and ulcers invariably and very painfully affect the mouth and fauces. In not a few there are scattered over the skin watery tubercles (*haud pauci pellem habent aquosis tuberculis distinctam*), and the hair falls off. At first the thirst is often great; but after a time the animal is often unable to masticate or to swallow, neither eats nor drinks, and thus dies more rapidly than it would otherwise have done from the sole effects of the disease. Sometimes the bowels are constipated, but more frequently are purged; the evacuations being fœtid, variegated, or mixed with bloody humours. There may be great abdominal pain and tympanitis. The urine is crude, turbid, and sometimes bloody. With these symptoms, most of the animals perish in a putrid state (*putidi*), with difficult respiration, and occasionally with cough, and within a week from the beginning of the attack. Those which survive the first week generally recover."

By the side of this description of the disease, portrayed with such remarkable accuracy by Lancisi, we will place the symptoms as told by the most recent observers, the Norwich Commissioners, in their Report just issued, one hundred and fifty years later.

"The ears are hanging, the head drooping; there is a constant flow of tears; a discharge of mucus from nose and eyes; quickened pulse; occasional rigors. The beast lies painfully moaning. There are abrasions of the mucous membrane of the mouth, accompanied by a cheesy deposit on its surface. There is loss of appetite, and thirst. Diarrhœa sets in, the discharges emitting a highly offensive odour, and being occasionally streaked with mucus and blood. The breathing is laborious. The duration of the disease is usually from four to six days."

And now let us see what this accurate observer and profoundly philosophic physician offers as to the nature of the disease; and then ask ourselves what we, up to this day, with all our advanced pathology, have to add, truer or better, to the tale he then told of this matter.

The disease never arises spontaneously, but always through contagion; and the contagion is not spread solely by the cattle, but much more frequently by the shepherds, veterinaries, and even also by dogs and other animals who have been in the neighbourhood of the infected beast. By these, and in many other ways, the seeds of the plague—that is, the fomites—are communicated to healthy animals. Every fact clearly shows that the cause of the plague is some exceedingly fine and pernicious particles (*corporis particulas, quæ summâ quidem tenuitate, et pernicitate præditæ*), which pass from one body to another, by contact, or by the means of fomites. It therefore resembles a special virulent poison; a few particles affecting the whole body, operating probably just as we see ferments act in bread and wine—a few particles leavening the whole mass.

Lancisi continues the subject in a letter (translated from the Etruscan into Latin), originally addressed by him to Bishop Borromæus. He here tells us that he does not approve of the delicacy and fastidiousness of those doctors who think it beneath their dignity to care for the health of brutes, and to meddle with veterinary matters; and shows how, from the earliest days, medicine has benefited by dissections and observations made on animals. He then shows that the plague is the very same disease as that which records show to have at different times destroyed the herds of Italy. The same signs of its genuine pestilential characters were noted then as now. Passing over the more ancient references to the disease, he comes to the plague as spoken of by Fracastor, *viro in universâ arte medicâ magni nominis*, which, about two hundred years before (in 1514), arising in Friuli and spreading to Verona, almost annihilated the cattle. Fracastor says: "The contagion fell on the oxen alone. The ox, without any manifest cause, ceased to feed. Asperities and small pustules were seen on the palate and over the whole mouth. Un-

less those infected were immediately separated, the whole herd was quickly destroyed."

Lancisi reminds us here, that the Greeks make four species of cattle-diseases, the dry, the moist, the articular, and the subcutaneous. And he argues that, in this contagion, three of these were clearly present —viz., the dry, the moist, and the subcutaneous; the articular alone being absent. "Why should we exclude the subcutaneous?" His words here are very remarkable, and especially interesting at the present moment.

"Do we not see that the skin is stripped of its hair by the disease, horripilation, tremor of the shoulders and of the buttocks, and that *the skin is infected with spots and pustules (maculis denique et pustulis infecta cutis?); and so that indeed some have thought that the oxen were destroyed not by the plague, but by the pustules called small-pox (boves non lue, sed ipsis pustulis, quas variolas vocant, interire).*"

Lancisi speaks next of the origin of the disease.

"I now come to a question of the deepest importance, wherein there can be no dispute about the mere signification of words. Whence came the pestilence? It is certain that our cattle were free from the plague previous to the arrival of the Hungarian ox at the estate of Count Borromeo. From that spot and from that moment, spread the flame which has decimated our herds. The arguments used by some objectors, that the plague appears amongst cattle far removed from a manifest source of infection, are easily disposed off.

"Is it not certain that the still more terrible plague which destroys mankind is often carried to great distances by animals, and in clothes, papers, etc. But where could I find a better proof of the fact than in your own excellent commentaries? Did not the herdsman who had tended the diseased cattle afterwards visit other cattle in perfect health and infect them all, through the diseased particles attaching to his clothes? Did not the most learned Valisnerius write to caution me that the disease might be conveyed long distances by dogs? Considering these things, and reflecting in how many ways and how far the pestilential virus may be carried by men and animals and by the winds, there is no need for me to seek for hidden and unknown causes of the disease, when I have before my eyes the proof of its origin offered by that Hungarian ox. You yourself relate the case of an ox in perfect health which fell ill immediately upon feeding in a field where diseased oxen had been previously pastured; reminding me of the words of Gesner: 'Oxen in feeding infect the grass, in drinking the fountains, when housed infect their stalls, and in this way healthy cattle perish through breathing the odours of the sick.'"

Having discussed the nature of the pestilence, Lancisi then asks, But what should we do for its cure?

"My opinion is this (setting aside the prevention of its contagion, which, *mehercules!* I would say, is the most excellent and only mode of averting the disease) that we must endeavour to preserve the oxen from being infected, by giving them a proper diet; and that when they are infected, the only thing which can save them from death is still a proper diet. Hitherto the disease has eluded all the powers of pharmacy; and experience has shown, that nothing avails more than a sparing diet. Applications of vinegar, oil, etc., may be used to the tongue, palate, etc. But as to venesection and violent remedies, they are always hurtful in contagious diseases; and the sentence of Hippocrates may be here well called to mind: 'So act that, if you do no good, you at least may do no harm.' I think it is well posterity should know that, of all the many and powerful remedies used during the pestilence, none has been found which will bear the name of a proper or specific remedy."

Lancisi, however, tells us what remedies were most generally used and most extolled in different parts of the country; and then gives his own opinion of them.

"As for our experience at Rome, I must confess that we met with no remedy which could be called true, sure, or sound, and specific. Many we found useless; many hurtful; and some few seemed useful."

The next chapter is headed thus: "The only sure Remedy for Warding-off the Pestilence is to prevent all Intercourse of Healthy with Infected Cattle and with all other Infected Bodies." It was observed, he says, that those who carefully obstructed every chink through which contagion might approach, preserved their cattle from the plague. Thus, while the plague was raging around, the cattle on the estates of Prince Pamphilo and of Prince Borghese, by the greatest care and watching to ward off every possible source of infection, remained unaffected.

In his last chapter, an appendix, he sums up

"The steps which a wise government should instantly take whenever (which may Heaven avert!) the pestilence may again appear upon our borders. All roads and by-paths should be carefully guarded, so that no ox or canine animal be allowed to enter the country. Any animal so entering should be forthwith destroyed and buried. Should the pestilence, however, gain entrance, the separation of the sick from the healthy must be enforced by decree. *Indeed, in my opinion, by far the safest course is instantly to destroy the animal, and with the poleaxe, so that no infected blood may escape on to the ground;* for, in attempting to cure the diseased animal, the veterinary surgeon may convey the plague to healthy oxen.* The healthy oxen removed from their former pastures, which must now be regarded as contaminated. The diseased oxen should be kept in stables, to which no one is admitted except the veterinary surgeon or the herdsman. The fountains and vessels used by the animals should be frequently cleaned with quick lime. The clothes of the shepherds also should be fumigated. The dead carcases, from which not one hair is to be removed, are to be buried in deep pits; and any saliva or secretions which may drop from them on the road to the pit to be carefully removed. If any cows are infected, their milk is instantly to be thrown into a hole in the ground; and the severest punishment inflicted on those who disobey this order. The passage of all rustics and dogs from one district into another should be forbidden.

"Such are the means, and the reasons for employ-

* It is a curious fact, that Fantonius, Professor of Medicine and Anatomy at Turin, in a letter about the cattle-plague, written to Lancisi in 1716, should refer to this pole-axe treatment of the disease, as having been already successfully practised in England. *Superioribus annis in Britannicæ Insulæ Provinciâ exortam armentorum pestem celerrimè præfocatam audivimus, non alio sanè artificio quàm infectorum, cæterorumque de recenti contagio suspectorum bouin internecione.* He then pays the English a compliment, calling them *gens vigil ac strenua*, who showed admirable firmness and courage at the juncture.

ing them, which I offer for the purpose both of avoiding and of suppressing the plague. *But, in truth, when I reflect upon the difficulties, the expense, the dangers, and the labours, required in carrying them out, I confess that I know of no means by which the plague may be more easily, more surely, and more expeditiously removed, than by instantly knocking on the head every infected animal and burying them deeply in the earth.*

This brief summary of Lancisi's treatise will suffice to indicate its value; but to be fully appreciated it must itself be read. Well would it have been for this country, if, by some happy accident, a Sydenham Society had popularised it by putting it forth in an English dress. The Privy Council would have then had at their disposal models for their orders touching the Cattle-Plague, in the admirable edicts published by the Sacred College under the advice of Lancisi. And are we saying too much, if we add that, if what Lancisi had put on record for the benefit of posterity had been listened to by posterity, there would have been little work left for Cattle-Plague Commissioners to do, but to recommend the reinforcement of the edicts and decrees of the Sacred College, as handed down to us by Lancisi.

It should be added that, in nine months, Rome and the Campagna was freed from the pestilence through the energetic proceedings prescribed for its suppression; whilst it raged in other parts of Italy for several years. "Should this plague ever recur hereafter", said Lancisi, "posterity may study these pages with some satisfaction, and certainly with profit."

THE lamentable death from fever of Mr. John Roberts, Surgeon of the St. Pancras Workhouse, resulting solely from the crowding of fever-patients in workhouses, gave rise to a very important discussion, which, it may be hoped, will eventually lead to the establishing of proper accommodation in the metropolis for fever and small-pox patients.

"At the weekly meeting of the directors of the poor of St. Pancras on Tuesday last, a report was brought up from the house-committee reporting the death from typhus fever of Mr. John Roberts, the senior surgeon of the workhouse infirmary, contracted in discharge of his duties in attending fever-patients whom the London Fever Hospital was unable to receive. Mr. Robson moved a resolution expressing on the part of the board feelings of the deepest regret and sympathy they felt at the loss of so young and valuable a medical officer as Mr. Roberts, and their high estimation of his professional services and the untiring energy and attention bestowed by him upon the poor patients under his charge. Mr. J. R. Collins said they might say that this event had arisen from the want of sufficient fever hospital accommodation for the metropolis. Here was a young man cut down in the very flower of his manhood in the discharge of his duties, and such men as surgeons had a right to be looked upon as much in the light of heroes as soldiers who died upon the battle-field. The time had arrived when fever and small-pox hospital accommodation should no longer be allowed to be dependent upon private charity, but ought to be maintained either out of the general poor rates, or some other public source of revenue. All parties were deeply interested in this. Mr. Jenkins said that three or four weeks ago they received notice from the London Fever Hospital that they had no more room, and they were then obliged to accommodate patients in their own wards, and hence this sad calamity. Mr. Watson said these remarks equally applied to small-pox. The matter was referred to the house-committee to report forthwith. Dr. Hillier called attention to the need of an apparatus for disinfecting the bedding and clothing of persons who had suffered from typhus; and to the need for an isolated place to which healthy persons from infected rooms might be sent."

DR. WATSON'S letter to the *Times* will probably alter the cattle-plague pathological non-principles of Printing-house Square. The clear, forcible, and logical exposition of the case there given by our highest medical authority will do an immense service to the country. Just such a voice was wanting. It may avail at this moment in deciding the Privy Council in their hesitation; knowing, as they do, what is right, and yet fearing to do it.

WHILE we have been discussing and thinking "how to do it", France, listening to her men of science, has kept her herds clear of the murderous cattle-plague. More than this, M. Bouley, the veterinary surgeon, who has played such a conspicuous part as adviser of the Government in this matter, has been made an officer of the Legion of Honour for his intelligence and zeal. It is only justice to our own scientific countryman to say, that all that M. Bouley has said and done, and advised his Government to do, in averting the plague, has been long ago, over and over again, said and done and advised by Mr. Gamgee.

OUR readers will have observed that the Council of the Royal College of Surgeons and Mr. Paget of Leicester give different reasons for the rejection of the proposal of the Fellows—voting by paper. The Council say, you show no "active and thoughtful interest" in the College if you do not come up to London and vote; we demand of you great expenditure in time and money—such as we ourselves in London do not pay; we fine you a whole day or more of your time—*plus* your railway expenses—as a test of your fitness and capacity for voting. Mr. Paget says that he believes the Council opposed the motion because only 150 Fellows signed a requisition to the Council in favour of it. Whether either or both (or, as is much more probable, neither) of these views settled the vote, we will not now discuss. We will only say that such reasons are manifest blinds to the real cause of refusal; for it was well known in London long before the meeting of the Council—*i. e.*, before the number of Fellows memorialising was ascertained—that the proposal was

doomed to rejection. We now allude to the subject in order to state that, by some unfortunate delay, the memorials from the Manchester district, containing the signatures of some fifty influential Fellows of the College, were not presented to the Council. These would have raised the number of memorialists to at least 200; surely no insignificant number, considering the short time in which they were obtained.

Hippophagy is now recognised by authority at Paris—as well as at Vienna, Stockholm, and Copenhagen—a market having been officially permitted for the sale of horseflesh.

The French Academy of Sciences has received a letter from a New York doctor, expressing surprise that the £4000 Bréant prize has not been forwarded to him for his discovery of an infallible remedy for cholera. When he has received the prize, he will state what the remedy is.

Dr. Millard, of the Hôpital St. Antoine, has related in *L'Union Médicale* what he considers an undeniable case of syphilis produced in vaccination. The case has also been most carefully investigated, and the conclusion accepted, by MM. Depaul and Ricord.

The Vienna journals announce the death of Professor Schuh. Whilst in perfect health, he was suddenly struck down by virulent typhus. He was buried on Christmas Eve, after an illness of only five days. The death of this highly esteemed man appears to have made a great sensation amongst his medical brethren. The *Wiener Medizinische Wochenschrift* speaks of him as "one of the best and noblest men we ever knew—a kind physician; an excellent teacher, full of learning; an indefatigable worker; a friend inspired with a love of all that is beautiful and true in art and in life; a man whose loss is irreparable, and over whose memory we shall mourn as long as we are here to mourn." Many thousand friends attended his funeral. The whole of the professors of the Medical Faculty were there, besides many professors of the other faculties. All the students of medicine, with the Hungarians in national costume, bearing torches, were present. It is mentioned as a remarkable fact, that the well known operator, Kern, Schuh's predecessor, also died on the 22nd, and was buried on the 24th of December.

M. Pouchet has lately made some careful experiments which tend to show that there is no truth in the statements which have been from time to time made, that certain animals will live after having been completely frozen. He shows that the blood-globules are seriously altered by the congelation; and that the blood thus vitiated destroys life when allowed to enter again into circulation. But, in cases of partial congelation, if the blood thus altered be allowed to enter only in small quantities at a time into the current of the circulation, it may be gradually mixed with the blood without destroying life; just as Claude Bernard has shown that a deadly dose of woorara poison introduced into the limb of an animal may, by means of a ligature, be allowed gradually to enter into the circulation, and so as not to destroy life. The first phenomena of congelation observed are, the contraction of the blood-vessels, the consequent exclusion of blood from them, and pallor of the part. Then follow alteration and destruction of the blood-globules. If the whole animal be frozen, then the whole mass of blood is altered, and death is the necessary result. When only a small part of the body is frozen, only a small quantity of altered blood passes into the circulation, and consequently life may not be compromised. An animal partially frozen may be kept alive for a long time, if the congelation be maintained; but will perish rapidly, if the frozen part be thawed, and so as to allow the altered and destroyed blood-globules, etc., to enter rapidly into the circulation. Hence, in all cases of congelation, life is destroyed not by a stupifying action of the cold on the nervous system, but by the resulting changes effected in the blood by the freezing. The practical conclusion is, that, when a part has been frozen, it should be gradually thawed, and so as not to allow the altered and consequently poisonous blood to pass in too great quantities at a time into the circulation.

M. Villemin, through M. Bernard, informs the Academy of Sciences that, by means of inoculation of tuberculous matter taken from man, he has produced tubercular disease in rabbits. Softened tubercle was inserted under the skin near the ear of the rabbit; and, in the course of six to eight weeks, tubercles visible to the naked eye were found in the lungs, mesentery, intestines, etc., of the rabbit. The experiment has been successfully repeated a great number of times, and under different conditions.

Dr. Tarnier, in a pamphlet on the *Hygiene of Maternity Hospitals*, gives us details of the fearful mortality of puerperal women in Paris hospitals. In the days of Tenon, when these women were massed together, two, three, and even four in the same bed, in narrow hospital wards, the mortality was 1 in 15. At the present day, in our spacious and well ventilated wards, each patient having her own bed, the mortality is still as great. The statistics of M. Husson show that in 1861 the mortality in hospital of puerperal women was 1 in 10, whilst the mortality of those attended at their own houses was only 1 in 194! The women delivered at home are, for the most part, lodged in dirty, small, ill-ventilated, and badly lighted rooms; they have little or no linen or fire, and are badly nursed; and yet they recover. In 1862, the mortality was 1 in 14 in hospital, and 1 in 164 outside. If, therefore, the mortality had been no greater inside than outside the

hospitals, the deaths would have been 80 instead of 1,169, who actually died in hospitals during those two years. It appears, in fact, that 545 puerperal women are thus somehow or other actually destroyed by residence in hospital. M. Tarnier may well call this a national calamity. The cure of this frightful state of things is to be found, he says, in a complete separation, in single-bedded rooms, of the women during the first ten days after delivery.

M. Velpeau has communicated to the Academy some remarks of M. Pétrequin of Lyons about etherisation. Ether, employed by Dr. Jackson in 1846, was replaced by chloroform in 1849. Chloroform, as a chemical body, was discovered by MM. Soubeiran and Pelouze; and its physiological action was tried for the first time by M. Flourens. But, if chloroform acts more rapidly than ether as an anæsthetic, it is also more destructive in its effects; and consequently surgeons in the south of France never employ it. M. Buisson, in a work which received a recompense from the Academy some years ago, wrote against chloroform—an agent "wonderful and terrible", as Flourens said of it. M. Pétrequin now tells us that for fifteen years the surgeons of Lyons have employed ether only, and that they have never lost a patient. M. Velpeau hereon observed, that fatal accidents had been much more frequent abroad, and especially in England, than in France, and in the departments of France than in Paris. Much, therefore, depends upon the care with which chloroform is used. He had himself put thousands of patients under chloroform, and had never met with the slightest accident.

SYPHILISATION.

The following were the remarks made by Dr. Boeck at the last meeting of the Medical Society of London.

As medical men, and studying the natural sciences in general, we must observe nature, and from these observations draw our conclusions. Whether the results be or be not agreeable to us, is quite a secondary question; truth in the first place, and only truth, must be our object. So it must be also with our observations on syphilisation. Here we have a series of phenomena which are quite new. The first thing we observe is that, if we continue our inoculations with the syphilitic virus, the organism gradually becomes proof against the virus. This is an all important fact, with which I have been extremely struck, and which showed me that I had before me a thing which ought to be studied. At the same time also, when we have obtained this immunity, we find that we have a healthy individual before us. These facts cannot be denied. We can see them every day, and they must strike every scientific physician in the highest degree.

But such immunity does not exist, says Mr. De Méric. This objection has been already made; and I answer to it, that thirteen years' experience has shown me, that I in every case do obtain this immunity. Another question is, how long will this immunity last? It is true that, after a shorter or a longer time, we obtain a pustule. This pustule, however, is ordinarily small, and the ulcer also; and if again we inoculate from this pustule, then we shall have only a very little series of inoculations. But, not to have a mere discussion in words, and not to be misunderstood, I will explain in another manner the state which is obtained by continued inoculations. The organism, with regard to the syphilitic virus, never comes back to the same state in which it was before syphilisation. I presume it is a well known fact, that not unfrequently, a week after a first vaccination, we may obtain by a second vaccination another little pustule; and that most individuals, after a certain number of years, are no longer proof against vaccination. Therefore, as to vaccination, I also ask the question: Where is the immunity conferred by it?

With regard to the children born of syphilised women, the same rule takes place as after mercurial treatment: that is, when the woman has been syphiltici, the first child, as a rule, is syphilitic; when the man has been syphilitic, then, as a rule, the children are healthy.

Mr. De Méric gives statistics for the different methods of treatment from my statistical work. We have more recent statistics from Dr. Bidenkap; but I take the numbers as they are given by Mr. De Méric. In my opinion, it matters little whether the treatment requires some days more or less; it also matters little whether a new rash appears. The more important point is whether the relapse is connected with serious injuries of parts, for example, with loss of the nose. But the principal thing is, that the interior organs, the nervous system, the liver, the kidneys, etc., are not affected. The study of these internal syphilitic diseases is only now beginning; but in several hospitals of London, I have seen such diseases, which have been shown to me as of syphilitic origin.

Much has been spoken about the different kinds of chancre. My experiments in the treatment by syphilisation have made me an unicist. It would be too circumstantial to discuss this point now. I will only communicate one observation, which I think is convincing. My colleague, Dr. Bidenkap, every day during a fortnight inoculated, from an indurated chancre, the patient himself on both his sides, without effect. He then irritated the chancre with savine powder, and when the matter had been thus rendered purulent, obtained a positive result by inoculation, and at the same time papules were developed in the seats of the former inoculation. These papules were covered with crusts, and had the same appearance as those which occur on healthy persons after inoculation from secondary symptoms. (These inoculations, as you know, have principally been made in Germany; I have never made them.)

As to the question, how does syphilisation act? I answer I do not know; but if you will have my theory, I will give it. The syphilitic disease tends to go through a certain course; and does so very often when we let it alone, without any medicine. But often nature cannot help herself in these chronic diseases, as we have many relapses. Mercury will arrest in a short time the development of the disease on the skin and on the mucous membranes; but is this desirable? I believe not. When the disease cannot go through its own natural course, the interior organs are very easily affected. By syphilisation, I help nature.

Now we come to another point, the immorality of this treatment. Here I stop. I have no answer, because I cannot understand the meaning of the objection. It cannot enter into my mind how it can be immoral to apply on the skin a matter which already flows in every drop of the blood.

Scientific Notes.

ACTION OF ELECTRICITY ON CUTANEOUS PIGMENTS.

Dr. N. Wagner has made some experiments with a view to ascertain whether, in inferior animals, the colour of the cutaneous pigments is to be attributed to the temperature of the external air or to an afflux of blood; or whether it ought not rather to be attributed to electricity. He selected for his experiments a butterfly (*Vanessa urticæ*). The apparatus he used was a small Ruhmkorff's machine for intermittent induction currents; for his experiments with constant currents he used two or three Grove's elements. He ascertained that strong currents disorganise, first the pigment, then the scales, and then the membrane itself which constitutes the wing, producing in it holes of different sizes. Weaker current change the colour of the pigments, transforming red into orange and black into red. The weakest currents, on the contrary, give rise to black spots, but always near the places where the natural spots exist. If a current of moderate force be directed along the outer margin of the wings, the natural sinuosities of the latter are destroyed. Hence, he believes that in these experiments electricity acts as an irritating agent; and from a second series of experiments, he arrives at the conclusion that there exist fixed currents of electricity in the wings themselves of these insects. The strongest of these currents flow from the base of the wing to the outer margin, following the middle nervure; and other currents starting from the same point cross each other.

CHLOROFORM FROM METHYLATED SPIRIT.

Mr. Tuck sums up a paper written by him in the *Chemical News* as follows. Chloroform can be, and is, prepared from methylated spirit as good as, and the same in chemical composition as, that from pure alcohol; consequently, there can be no test to distinguish between them, there being no difference in them. Methylated ether can principally be detected by its boiling point. And the presence of methylic alcohol in sweet nitre and sal volatile can be thoroughly proved by both the iodo-hydrargyride of potassium test and the oxidation method of testing.

IODIDE OF POTASSIUM.

M. Payen, at the Academy of Sciences, remarked that this important medicine is rarely found in a state of purity. It is usually alkaline, and nearly always contains an excess of iodine. He has observed that saturated solutions of iodide, and also of bromide of potassium, unlike the alkaline chlorides, act in the cold on starch granules, which, under the influence of the solutions, acquire twenty or thirty times their natural size, so that the liquid becomes a colourless, transparent mass. The commercial iodide, he states, is easily purified by saturating the potash with hydriodic acid, and by separating the excess of iodine by sulphuretted hydrogen, boiling, rest, and filtration. A solution of a salt so purified, it is said, remains colourless in a stoppered bottle after exposure to both diffuse and direct sunlight. In a slightly alkaline solution of the iodide, carbonic acid sets some iodine at liberty; atmospheric air produces the same effect, no doubt because of the carbonic acid present. With regard to the curious phenomena of the alternate coloration and decoloration of iodide of starch by heat and cooling, the author believes that he has demonstrated that the decoloration by heat is occasioned by the dispersion of the amylaceous particles, the colour returning when the groups of particles contract on cooling. In conclusion, M. Payen dwelt on the necessity of using the pure iodide in medicine, and pointed out that the reaction on starch described above suggested a new inquiry into the physiological effects of the salts.

THE TORPEDO.

Matteucci has examined the electrical apparatus of the torpedo, with a view to ascertain the connection existing between the functions of the nerves and electricity. Happening to be at Via Reggio, where the torpedo is very frequent, he instituted experiments with a large number of them. When the fish is in a state of rest—that is, when it does not give a shock—the electrical organ may be easily recognised by a galvanometer sufficiently delicate to denote the muscular current of the frog. A piece of electrical organ cut out of a torpedo which had ceased to produce any effect on a galvanoscopic frog subjected to dermal irritation, gave a constant current between the dorsal and abdominal faces in the direction of the discharge obtained by pulling or cutting the nerves of that piece. M. Matteucci adds that, in hot weather especially, he has met with torpedoes which, being out of the water, would very rapidly lose their electrical power. By irritating the nerves of the organ, however, or by inflicting a wound on the fourth lobe, the electro-motive power would immediately reappear and last for a certain period. The author is therefore of opinion that the electricity of torpedoes or other fish enjoying a similar property must be attributed to a set of secondary voltaic piles which are formed in the cells of the electric organs by the action of the nerves. M. Matteucci states that the ray has an organ similar to that of the torpedo, and that, by irritating it considerably, manifest signs of electricity may be obtained from it.

SPECIES AND VARIETIES.

The difficulty as to what are species and what only varieties, receives an illustration from a paper by Mr. F. Smith, On the Species and Varieties of the Honey-bees belonging to the Genus *Apis*. Mr. Smith had described twenty species; Dr. Gerstaecker, with the exception of two species, apparently accidentally overlooked, reduces them to four. In the paper above quoted, its author now limits them to eight. (*Quarterly Journal of Science.*)

INGREDIENTS OF FLESH-JUICE.

Among the papers in *Annal. der Chem. und Pharm.* for March, is one by Limpricht, "On Some Ingredients of Flesh-juice." The flesh of a young horse was found to contain a considerable amount of dextrin, which the author was unable to detect in ox-heart or fish-flesh. From the same extract, prepared from about two hundred pounds of the horse-flesh, he also separated taurin and inosite. From herrings he obtained inosinic acid.

PREPARATION OF OXYGEN.

A new and very easy way of obtaining oxygen has been recently described by Fleitmann. He takes a clear solution of ordinary chloride of lime (hypochlorite) and adds to it a mere trace of freshly prepared moist peroxide of cobalt, and then heats the mixture to 70° or 80° C. At this temperature oxygen is freely evolved, and the whole of the hypochlorite is reduced to chloride of calcium. According to the author, the peroxides of cobalt have a variable composition, and to explain the above reaction he supposes that a lower oxide abstracts oxygen from the hypochlorite to form a higher oxide, which is immediately decomposed again into the lower oxide and oxygen. (*Quarterly Journal of Science.*)

CHEMICAL EFFECTS OF MAGNESIUM LIGHT.

M. Lallemand of Versailles has found that the magnesium light is sufficiently active to determine the combination of hydrogen and chlorine. The explosion may be effected with the light of a single wire burnt in a spirit-lamp. (*Quarterly Journal of Science.*)

RESEARCHES ON SUPERSATURATED SALINE SOLUTIONS.

M. Jeannel states, in opposition to MM. Gerenz and Viollette, that the crystallisation of supersaturated solutions is not determined by saline particles floating in the air. He states that in vessels with narrow mouths, crystallisation is completely prevented, although access of air is allowed; and a solution of tartrate of soda will crystallise in a sealed vessel. The solid walls of the vessels have an important influence on the crystallisation. When the extent of these predominates over the solution crystallisation never takes place. A hot supersaturated solution of sulphate of soda placed in drops on a glass plate cools without crystallising; under the same circumstances, a supersaturated solution of alum dries up. (*Chemical News.*)

ORGANIC NATURE OF THE DIAMOND.

Professor Goeppert contends that diamonds cannot have been produced by Plutonic action, since they become black when exposed to a very high temperature. He considers their Neptunian origin proved by the fact they have often on the surface impressions of grains of sand, and sometimes of crystals, showing that they have once been soft.

VOLCANIC AMMONIA.

Mr. W. D. Howard, in a paper read at the Pharmaceutical Conference, said that the source of this ammonia is the crude boracic acid of the lagoons of Tuscany, the salts being chiefly sulphate of ammonia, double sulphate of magnesia and ammonia, and the double salts of soda and ammonia. In the manufacture of borax by the addition of soda-ash to crude boracic acid, these and other less important ammonia salts are decomposed with formation of carbonate of ammonia, which is condensed in suitable vessels, and sent into commerce. The characteristic of the ammonia derived from the above source, is perfect freedom from those traces of smelling compounds which are found in the ammonia-salts made from gas liquor or from bones.

ATMOSPHERIC PRESSURE IN MINES.

M. Simonin has published a new series of experiments for the purpose of ascertaining the increase of atmospheric pressure under similar circumstances. As this increase has generally been found to be 1 *millimètre* for every 10 *mètres* as we descend, it remained to be seen whether the same would be the case in the shafts of mines where the air, confined in a narrow space, is at the same time exposed to the action of a powerful draught, and more or less impregnated with steam, and at variable temperatures. Mr. Simonin's experiments were conducted in the basis of the Saône and Loire, where the coal-pits of the Creuzot and Epinac are situated. The shafts are here 400 *mètres* deep; and since the average reading of the barometric altitudes at the orifices is about 355 *mètres* above the level of the sea, M. Simonin operated at a clear depth of 45 *mètres* below that level. From his observations it appears that at Epinac, as regards temperature, there is an increase of 1 degree centigrade for every 50 *mètres* of vertical descent; and, as regards pressure, a rise of 1 *millimètre* in the barometer for 11 degrees of vertical descent. At the Creuzot there was an increase of 1 degree in the temperature for every 40 degrees of vertical descent, and an increase of pressure of 1 *millimètre* for every 10 *mètres*. The averages, therefore, are—for temperature, 1 degree for 45 *mètres*; and for pressure, 1 *millimètre* for 10½ *mètres*. M. Simonin has taken care to operate only on shafts through which pure air enters; for the air which leaves the mine is vitiated, and unduly heated from various causes. The shaft should also be water-tight, and the woodwork as much as possible free from decomposition by fermentation. (*Galignani.*)

Special Correspondence.

LIVERPOOL.

[FROM OUR OWN CORRESPONDENT.]

Cholera—Mortuaries—Typhus—Noxious Dock Vapours—Coroners' Inquests.

At a recent meeting of the Medical Institution, a discussion took place upon cholera; in the course of which Dr. Patterson, of the Egyptian Medical Service, who was present as a visitor, gave a graphic and interesting account of his personal observation of the late pestilence in Cairo. A striking peculiarity in this epidemic appears to have been the frequent absence, especially in the worst and most rapidly fatal cases, of either premonitory diarrhœa or of purging, vomiting, or cramps, during the attack. Collapse was the distinguishing character of the malady as it existed at Cairo. Persons were attacked suddenly, without any previous indisposition, and died in a state of collapse in from eight to twelve hours.

In this respect, the phenomena of the disease differed materially from those observed in Liverpool during the cholera epidemic of 1849, when, in the great majority of cases, the attacks were preceded by premonitory diarrhœa; and the early recognition of, and attention to, this condition were found to be the most effectual means of checking the spread of the epidemic. In all those parts of the town where cholera prevailed, a staff of house to house visitors was appointed, whose special duty was to inquire for the existence of diarrhœa and to afford immediate medical aid; and the result of these visitations was invariably a marked decrease, if not an entire subsidence, of cholera in the districts so visited.

The distinctive characters of the malady, as observed in Egypt, had led Dr. Patterson to doubt whether it was really the same disease which is ordinarily described as cholera. Other speakers, however, considered that the apparent difference in the symptoms and progress of these cases, in which death occurred in a few hours from collapse, unattended by either vomiting or purging, were illustrations of what is sometimes observed in other zymotic diseases, which have proved fatal in a few hours instead of running their ordinary course. During the prevalence of small-pox, scarlatina, or typhus, for instance, every now and then, instances have occurred in which individuals, by exposure to infection, have received such a concentrated dose of the contagious poison as to be struck down at once. These devia-

tions from the general course are, however, quite exceptional; whereas, in the Egyptian pestilence, the absence of continued purging and vomiting, and especially of premonitory diarrhœa, was the rule. It may possibly be accounted for by the modifying effects of climate and ethnological peculiarities. In reference to treatment, nothing new was elicited during the discussion; the general opinions expressed, including those of several practitioners who had seen a great deal of cholera, were, that the remedy for this disease was still undiscovered.

The interesting and important letter from Dr. Trench on the subject of mortuary chapels, an abstract of which appeared in a recent number of the JOURNAL, has elicited a communication from a member of the local burial board, which affords further information upon this subject, that may not be generally known. It appears that an Act of Parliament (15 and 16 Vict., c. 85, sec. 42) already exists, which provides that "if it be the will of the parishioners in vestry to have such places (viz., mortuary chapels), they can be erected by burial boards; or by the churchwardens and overseers from the rates for the poor, where no burial board exists."

In one of the public cemeteries of this town, there already exists provision of this kind. Each chapel, episcopal, Roman Catholic, and general, has a commodious wing or aisle, with thorough ventilation, entirely screened off from the nave by Gothic arches filled with plate glass, in which the dead may be deposited to wait interment, and in which the coffins are seen through the glass during the funeral service. There is also a detached building adapted for the reception of exceptional cases. No charge is made for the use of these conveniences; but the ordinary burial fees are required to be paid when the body is left in the care of the sexton; and this condition presents a practical difficulty to the early removal of the dead amongst the poorer classes, inasmuch as too long a time elapses before they can realise their claims on burial societies, or they may be compelled to bury at the expense of the parish. It is to meet the requirements of the extremely poor, that the suggestion of Dr. Trench—so promptly and liberally responded to by Mr. Hutchinson, who has offered to build a mortuary chapel at his own cost—has been made. To what extent the poor, especially the Irish Roman Catholic poor, will avail themselves of these temporary resting places for the bodies of their deceased relatives, experience alone can decide.

The weekly reports of the proceedings of the Health Committee, afford a striking illustration of the difficulties and disappointments with which practical sanitarians have to contend. Some few months ago, the fever mortality of the town was so much reduced, that the chairman congratulated the Committee upon what he believed to be the beneficial and satisfactory results of their labours. In a very short time, however—a few weeks, in fact—typhus was found to have again increased to such an extent, that the deaths were nearly as numerous as at the corresponding period of the last year, when the epidemic was at its height. In alluding to the increase of typhus which usually occurs during the autumnal and winter months, Dr. Trench expresses his belief that it does not arise from the mere climatic effects on the constitution, nor from aggravation of the personal and home filth which are such common causes of disease among the poor; but from the well known fact that many out-door labourers are thrown out of full work at this period of the year, while labourers who during the summer had found occupation in the country, now return to swell the list of unskilled labourers in the town, increasing thereby overcrowding and indigence. This explanation, however applicable under some circumstances, is scarcely sufficient to account for the rapid increase of the epidemic in the town thus early in the winter. We have, at present, had no such continuance of severe weather as materially, if at all, to lessen the demand for labour; nor have any indications of an unusual degree of destitution at present shown themselves.

Those who explain the spread of typhus upon the theory of contagion alone, account for its increased prevalence during the winter months by the fact that, in cold weather, the inhabitants of densely crowded districts, especially the women and children, are huddled together in their miserable dwellings, by day as well as by night, and, in that way, the population of infected districts are placed in circumstances more favourable to the spread of the contagion of typhus.

Whatever may be the true explanation, the fact is well established in the history of typhus in Liverpool, that an epidemic invariably increases in the autumn and winter, and diminishes or disappears in the spring or summer. The present epidemic differs from any which have preceded it during the last twenty years, chiefly in its prolonged duration. Sanitary records assign two or three years as the average duration of an epidemic of typhus fever; but the present is the fourth winter of the existing epidemic; and, from present appearances, there is much reason to fear that it will continue to prevail for some months at least.

A new idea as to the cause of the unhealthiness of the town was enunciated at a recent meeting by a member of the Health Committee, who said he thought that the stagnant water of the docks had a great deal to do with the sickness of the town; and that the labourers who were at work in the docksheds from early in the morning until late at night, might be said to be saturated with the noxious atmosphere from the docks, which they must carry home with them in their clothes, and thus communicate the seeds of disease to their families. Unfortunately, however, for this very simple and ingenious explanation of one of the most difficult problems of sanitary science, it is well known to all who are in a position to form an opinion as to the facts, that the class of the population chiefly exposed to the alleged poisonous exhalations from the docks, are by no means especially liable to fever or to any other disease. The

dock-labourers who are constantly employed in the docksheds, custom-house officers, certain sections of the police, a very large number of sailors and others, who either live on board the vessels in the docks or who spend most of their time on the quays, have not evinced any special liability to disease; neither is typhus found to prevail most in those parts of the town which are contiguous to the line of docks; in fact, the noble tidal river which skirts the town for its entire length on its western boundary is probably one great means of contributing to the salubrity of the place; and certainly no evidence has yet been adduced to support the suggestion that the five miles of docks which occupy the margin of the river are in any way injurious to the health of the community.

An inquest was lately held before the coroner for the southern division of the county, upon the body of a married woman who, apparently in a fit of jealousy or passion, destroyed herself by swallowing a quantity of a poisonous compound called "Hunter's Infallible Vermin Destroyer." From the medical evidence, there is no doubt that death was caused by strychnine. In returning their verdict, the jury availed themselves of a very judicious suggestion from the coroner, in order to avoid the disagreeable consequences of *felo de se*, without committing the very common inconsistency of assuming the existence of temporary insanity, when no evidence of such a state of mind is forthcoming. They found "that the deceased destroyed herself by taking a poison called vermin-destroyer containing strychnine; but there was not sufficient evidence before them as to the state of her mind at the time." I have put on record this sensible verdict; as I do not remember hearing of a similar instance of getting over a difficulty which generally presents itself both to coroner and jury in cases of suicide. It is much better in such cases that juries should not, upon the insufficient information usually at their command, record a *quasi*-legal decision on questions so intimately affecting the social relations of the survivors. The effect upon the public of verdicts of temporary insanity hastily arrived at, is not salutary; for, as the coroner observed, they are not held in respect.

The following remarkable instances of poisoning by carbonic acid gas, were lately investigated in the borough Coroner's Court. A fine new iron ship called the *Armadale* arrived at this port in September, and has since been lying in the Huskisson Dock, with nothing but stone ballast on board and in charge of a ship-keeper. The man who was first placed in charge of the ship lived on board, and slept six weeks without sustaining the least harm in the very bunk in which three shipkeepers subsequently met their death. This man was succeeded by another, who passed his nights in the same place safely for a fortnight; but was found dead on a Friday morning. That evening another man was sent in his place, and he was found next morning lying insensible in the bunk; he was removed to the Northern Hospital, and died on the following Tuesday. A third shipkeeper, who had been sent on board on the Saturday, was found dead about three o'clock the next morning. At the inquest on the bodies of the two last victims, medical evidence was given as to the cause of death from poisoning by carbonic acid gas. The *post mortem* appearances in both cases were similar; viz., congestion of the brain and lungs. The heart, especially the right side, was filled with fluid blood. The other organs were healthy. The age of the men was about 60 years. The circumstances which led to the accident were explained as follows by the medical witnesses who inspected the vessel. On the deck was a wooden house, well built, and almost air-tight, the doors and windows being accurately fitted. It was divided by a bulkhead into two portions, one of which contained bunks for sleeping, and the other a galley for cooking, which contained an American stove of a peculiar construction. The two compartments communicated by a doorway with a half-door, thus being virtually one room. The stove had been used for a coal fire during the entire period; and it was suggested by Dr. Trench, who had examined the ship, that the high winds which prevailed at the time, drove back into the room where the men were the carbonic and sulphurous acid gases generated by the stove. One man was found dead in the bunk; the second was found alive close by the stove; and the third dead in a sitting posture near the stove.

The particulars of these cases are very similar to to those related in Taylor's *Manual of Medical Jurisprudence*, where four of the crew of a coal-brig shut themselves up in the forecastle and lighted a fire. Shortly afterwards some person accidentally covered up the flue on the outside, and thus stopped the smoke from the fire. Early in the morning, the four men were found insensible and frothing at the mouth; two died and two recovered.

The most remarkable part of the Liverpool story has yet to be told. The coroner's jury before whom the inquest was held on the body of the first victim on board the ship, found that "death was caused by epilepsy, the result of excessive drinking"; and, what is still more extraordinary, the verdict was based upon medical evidence and a *post mortem* examination, by the same practitioner who also examined one of the two bodies that died from suffocation. Unfortunately for the interests of medico-legal science, the medical evidence was not published *in extenso*, so that we are left in the dark as to the precise nature of the pathological changes which enable a medical jurist to detect epilepsy and alcoholic poisoning by *post mortem* appearances alone, unaided by a history of the symptoms during life. Possibly this more than ordinarily acute perception of morbid anatomy may, in some measure, explain what has hitherto appeared altogether exceptional and perplexing in reference to the unusual number of cases—often five or six in one week—in which our coroners' juries return verdicts of "died from excessive drinking". Instances of death from alcoholic poisoning are generally regarded as extremely rare, so that it is somewhat startling to find that such cases occur by dozens in the experience of one coroner's court and (we may add) in the experience of one medical jurist; as nearly all the *post mortem* inspections for the coroner are conducted by the same medical practitioner.

Reports of Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, DEC. 12TH, 1865.

JAMES ALDERSON, M.D., F.R.S., President, in the Chair.

OBSERVATIONS ON THE MORBID ANATOMY AND EARLY PHYSICAL SIGNS OF PNEUMONIA.

BY A. T. H. WATERS, M.D., LIVERPOOL.

ALTHOUGH the conditions which characterise pneumonic inflammation—engorgement, red hepatisation, and grey hepatisation—have been accurately described by various pathologists, discrepancy of opinion exists on some points connected with the morbid anatomy of the disease,—such as, 1, the blood-vessels involved in the inflammation; 2, the particular part of the pulmonary substance which is the seat of the disease. These points can only be cleared up by a careful comparison of the healthy with the pneumonic lung.

With regard to the blood-vessels involved in pneumonia, some pathologists believe that the capillaries of the pulmonary artery are those essentially affected, those of the bronchial arteries being most probably also involved; some consider the bronchial capillaries mainly concerned; while others think it probable that both sets of vessels are simultaneously affected, although perhaps in different degrees. In considering this question, it is necessary to examine the arrangement of the blood-vessels of the lungs, to define clearly the parts to which each set is distributed, and to ascertain the exact portions of the pulmonary substance involved in the pneumonic inflammation.

The true respiratory portions of the lungs consists of a series of air-sacs situated at the extremity of each bronchial tube, and separated from each other by thin membranous walls. The pulmonary arteries are the only blood-vessels distributed to the air-sacs. These vessels ramify in the walls of the sacs, and form in them the pulmonary plexus. They carry blood not simply for the special function of the lungs, but also for the nourishment of the air-sacs. Although the bronchial arteries pass along the bronchial tubes and supply those tubes and the areolar tissue of the lungs, they send no branches to the walls of the air-sacs, which are solely occupied by the plexus formed by the pulmonary artery. In speaking of the areolar tissue of the lungs, the author wished it to be distinctly understood that no such tissue is found in the walls of the air-sacs; it is only demonstrable in the adult lung around the bronchial tubes, the larger blood-vessels, and the lobules, as well as beneath the pleura.

The next point for consideration is the exact seat of the pneumonic inflammation. On examining, under the dissecting microscope, a piece of inflamed lung which has reached the stage of hepatisation, it is at once seen that the seat of exudation is the air-sacs. These cavities are filled with solid matter; and, when the preparation has been kept in spirit for some time, moulds of the cavities can be drawn out. As the air-sacs are the seat of the exudation, it is obvious that the exudation must be poured out from their walls. The structures composing these walls must, therefore, be the seat of the inflammatory process; and as they contain no other vessels than those derived from the pulmonary artery, it is the branches of this vessel alone which are involved in the disease. In a piece of hepatised lung, exudation is sometimes found in the smaller bronchial tubes; at other times it is absent from them, and merely fills the air-sacs. Its presence in the bronchial tubes by no means proves that it has been poured out from their lining membrane; for it may have passed into the tubes from the air-sacs, being pressed out from the latter as they have become over-distended. In some cases of pneumonia, there is no reddening of the mucous membrane of the finest bronchial tubes—no *post mortem* appearances to show that there has been anything more than a simple uncomplicated pneumonia; whilst, in other cases, an increased vascularity of the bronchial membrane indicates the concurrent existence of bronchitic inflammation.

Some pathologists, in speaking of the morbid anatomy of pneumonia, have described the exudation as taking place, in part, into the interstitial tissue. They have not, however, described accurately what they mean by interstitial tissue; and it is very important that clear notions should exist with reference to this particular point. The lungs are not permeated throughout with areolar tissue, which exists in certain parts only, and in small quantities. The true lung-tissue—that which has been known as the parenchyma of the lung—consists of the walls of the air-sacs. These walls are firm and strong, but very thin. They consist of yellow elastic tissue, and a basement membrane, enclosing the pulmonary plexus. No areolar tissue is found in these walls: a fact which the morbid condition produced by pulmonary emphysema fully demonstrates. Although in pneumonia the walls of the air-sacs become somewhat thickened, this is due, the author believed, chiefly to the enlargement of the capillaries which they contain, and only partly to their retaining some of the exudation.

Grisolle thinks that in pneumonia the capillaries are very probably augmented in number. It is impossible to decide positively with reference to this point, but the author's opinion was decidedly opposed to that of Grisolle. He believed that no development of new vessels takes place; they increase in size, but not in number.

In grey hepatisation, the air-sacs are still the seat of the exudation, and no destruction of their walls takes place unless an abscess is formed. There is no interstitial suppuration; the exudation matters, in the process of cure, are either reabsorbed or expectorated. The following conclusions were drawn from the foregoing facts.

1. Pneumonia consists of an inflammation of the walls of the air-sacs of the lung.

2. The blood-vessels involved in pneumonia are the branches of the pulmonary artery, which constitute the pulmonary plexus; and the capillaries of the bronchial arteries are in nowise implicated, unless there be a concurrent bronchitis, which is an addition to the pneumonia, and not an essential part of it.

The author believed that engorgement is not the first morbid change that takes place in pneumonia, and agreed with Dr. Stokes that there is a prior stage, characterised by a dryness of the pulmonary membrane, and probably intense arterial injection. In proof of the probability of this condition, an appeal was made to the facts furnished by auscultation—viz., the existence of a dry, harsh, loud, respiratory murmur preceding the crepitating râle.

Two cases had lately been under the author's care in which the existence of a loud respiratory murmur was noted as an initial physical sign of pneumonia. In both cases there was acute primary pneumonia coming on in lungs previously healthy.

CASE I. P. F., a carter, was admitted into the Liverpool Northern Hospital on August 18th, 1864.

Early on the day of admission he got wet, and in the course of a few hours had pain in the limbs and rigors. When admitted into the hospital, at midday, he was seen by the house-surgeon. There were no febrile symptoms, and no abnormal physical signs about the chest. On the following day, about noon, his condition was as follows: pulse 120; respiration 32; skin very hot and dry; left side painful; percussion-sound and movement of chest natural; at the lower and back part of the left lung a loud, harsh, peculiar respiratory murmur was audible; no such sound could be heard elsewhere. The next day the pain in the side was almost gone; pulse 104; respiration 28. The physical signs were as follows: deficient movement of left side; dulness at left base, with crepitating râle over nearly the lower half of the left lung. The crepitating râle, which was distinctly of a pneumonic character, occupied, in fact, this day, the seat of the harsh, loud respiration of the preceding day. The crepitation was succeeded by all the symptoms and signs of confirmed pneumonia.

Case II. A Frenchman was admitted into the Liverpool Northern Hospital on January 23rd of the present year. He complained of dyspnœa and pain in the chest. On examination, a loud, harsh, respiratory murmur was heard over the lower and back part of the left lung. The movements of the side were good, and there was no crepitation or dulness. The breath-sounds were normal over the opposite lung. On the following day, the physical signs were as follows: slight dulness at the base of the left lung, and well-marked crepitation over about the lower half of the same lung. In fact, as in the preceding case, the puerile respiration of one day was replaced by the crepitating râle on the next. The patient subsequently had all the symptoms of confirmed pneumonia.

From the occurrence of these cases, the author could not entertain a doubt, that neither is the crepitating râle the earliest physical sign of pneumonia, nor engorgement its first morbid condition. He had never been able to demonstrate the existence of the latter by *post mortem* examination; nor, indeed, would it, he thought, be easy to satisfy those who were sceptical about it by such an examination, for they might consider the condition the result of mere congestion. At the same time, this absence of *post mortem* proof should not blind us to the facts which clinical experience teaches.

A LETTER ON THE HYPODERMIC INJECTION OF QUININE. BY JAMES M'CRAITH, M.D., F.R.C.S.

The author of this letter is senior surgeon to the Smyrna and Aidin Railroad, and the communication embraced the results at which he had arrived with regard to the hypodermic injection of quinine for the cure of malarious diseases amongst the men employed on the works of the railway. The writer first explained the relative equivalent values of different terms used by French and English authors in writing of continued, malarious, and typhoid fevers; and then described his experience of the fearfully sudden effects of the malaria poison on men employed on the railroad, and the universal applicability of quinine in this fever, and indeed in all diseases which weakened the general health and strength, and which on that account were sure to take on the character of the prevailing fever epidemic, whatever it might be. He then described the various forms of malaria fever, which he arranged under three heads, as Simple Ague, Masked Fevers, and Pernicious Fevers. The hypodermic method of injection was found most valuable in the third class of cases; and an example was detailed in which a patient, who had been in a profound coma for a long time, and was incapable of swallowing anything, was rapidly relieved by the injection of three grains and a half of quinine in each arm. A form of the pernicious fever called by the French "algide," and remarkable for the long continuance of the "cold stage," out of which the patient rarely recovers, was mentioned as one in which, from the intestinal canal being very much obstructed, the injection would most probably prove successful. Several cases of the choleraic form of malaria fever and of ordinary fever were also related, which were found to yield to the subcutaneous exhibition of the specific, after the ordinary method had proved quite ineffectual. The writer described the symptoms of two forms of yellow fever, the epidemic contagious and the endemic malarious non-contagious, with some severe cases of the latter, in which neither the exhibition by the mouth nor the hypodermic injection of quinine succeeded. The epidermic acid treatment, accidentally suggested to the author a few years since by Mr. Wordsworth, was found to be very successful with the white race only; but the climate of Smyrna does not suit the black, and he must eventually die out of it. No injurious results had been found to follow the hypodermic injection, but small abscesses were not unfrequent. The author did not think the hypodermic method would supersede the usual treatment by the mouth, but that it would prove extremely useful where a great scarcity of the remedy existed, or where the symptoms would not allow its administration by the usual method.

Aneurism of the Innominate Artery. Mr. Heath has tied the right subclavian, in the third part, and carotid arteries for aneurism of the innominate artery, and successfully. The patient at the Westminster Hospital has recovered from the operation. The aneurismal tumour has diminished; the circulation in the brain and in the arm has not been interfered with.

Homœopathy in Norfolk. The following is, we believe, an authentic summary of the globulistic cure of the cattle-plague in Norfolk. Some two months ago the Earl of Leicester offered 100 guineas for the discovery of a cure for cattle-plague. The conditions were—1. That every case treated should be certified as one of real rinderpest by two veterinary surgeons. 2. That not fewer than 30 beasts should be treated. 3. That no less than 60 per cent. should be cured. Mr. Moore and his son on the part of the homœopaths, Messrs. Wells and Smith as the two certifying veterinary surgeons, and Mr. Forrester on behalf of the Norfolk Cattle-Plague Association, made two visits to five farms. On these five farms 42 animals were found in various stages of the disease, some so early as to show but few symptoms, others so far gone as to be hopeless. Much discussion and some difficulty arose as to which should or should not be taken. Eventually 21 were registered for treatment and 21 were rejected. Every one of the forty-two animals died; those which were treated and those which were rejected. After this experience Mr. Moore declined to proceed with the competition for the prize. Undaunted by this failure, the London Homœopathic Association proposed a further trial, in which there should be no certifying veterinary surgeons and no restrictions of any kind. Again the Norfolk Association agreed, and even awarded the sum of £50 to aid the homœopaths in their expenses. Again the Messrs. Moore and a competent staff of assistants appeared in Norfolk, and during the last three weeks they have treated, or are still treating, 45 animals. The results are not quite complete, but 39 of the 45 are dead, and the remaining six are by no means recovered.

Correspondence.

PROFESSOR SIMPSON'S LETTER ON ACUPRESSURE.

LETTER FROM J. Y. SIMPSON, M.D.

SIR,—In an editorial note appended by you to a letter written by me on Acupressure in last week's JOURNAL, you observe: "Professor Simpson's letter would have appeared in the JOURNAL of last week, had it not, as originally forwarded to us, contained some very strong personal allusions, which we declined to publish."

This note is, I think, calculated, however unintentionally, to mislead very gravely the members of the British Medical Association. My letter is printed exactly as it was sent to you, with three trivial alterations only; namely:

1. You have omitted the single word "vituperative", as applied by me to the ungenerous language of Mr. Syme regarding Dr. McKinlay.

2. You have omitted, in the same paragraph, a brief critical remark of mine to the effect that it was perhaps not right in you to open your columns to Mr. Syme's censurable observations upon that excellent surgeon. (See the paragraph, printed in full and without these omissions (1 and 2), in a copy of my letter in the *Medical Times and Gazette* for December 16th); and

3. You have omitted—simply because it was not sent to you in the last copy—a sentence suggesting a doubt whether it was right in Mr. Syme by his letter to mislead his English colleagues of the Association so much upon such a Scottish question as the progress of acupressure in Scotland. This sentence was, in fact, unnecessary, as the idea comes out in my letter in another form.

After refusing to publish my letter as sent to you, either as a communication, or latterly even as a paid advertisement, you printed it—somewhat to my surprise. The primary letter, which you inserted from Mr. Syme in your JOURNAL of December 2nd, contained little or indeed nothing whatsoever except strong personal allusions against acupressure and its abettors; and, having once (in my opinion, indiscreetly) admitted that communication, you were bound, I think, to admit an answer to it. You must excuse me if I add, that your strong resistance to the publication of such an answer has appeared to me as extraordinary and unjust as your annotation on my letter.

I am, etc.,

J. Y. SIMPSON.

Edinburgh, December 26th, 1865.

[We again repeat, that we declined to insert the MS. originally forwarded to us by Professor Simpson either as a communication or as an advertisement, solely on account of its containing language which in our opinion was unwarrantably personal; and Dr. Simpson left us no alternative, as he forbade us to alter a single word in it. We at once published his amended communication, because in it the language to which we took exception was omitted. We offered no resistance to the publication of Professor Simpson's letter; but we did offer resistance to the publication of such language as the following: "*Vituperative language;*" "*deliberately misrepresented;*" "*strangely and gratuitously misrepresented;*" "*whether it was in accordance with the commonest principles of professional honesty and honour.*" We leave our readers to decide whether or not resistance to the publication of such language was either "extraordinary" or "unjust". EDITOR.]

MR. SYME AND ACUPRESSURE.

LETTER FROM J. Y. SIMPSON, M.D.

SIR,—All who are acquainted with Mr. Syme's peculiar mode of speaking and writing, will at once perceive in his last note to you a virtual acknowledgment, on his part, that he had not succeeded in detecting a single flaw in the facts or arguments adduced by me regarding the recent history, etc., of acupressure; or otherwise he would at once have rejoiced to expose any such error in my statements.

Assuredly I should not have again taken up my pen to trouble either myself or you with the matter, had it not been that Mr. Syme has, in his last note, introduced a new element into the discussion,—raising in it a question, not in surgery, but in ethics.

Some twelve months ago, when discoursing to his class on the subject of acupressure, Mr. Syme finished his remarks by fiercely tearing in pieces with his fingers a pamphlet of mine on the subject (see *Medical Times and Gazette* for March 4th, 1865, p. 236).

When lately called upon to write to you regarding Mr. Syme's bitter opposition to acupressure, I purposely abstained from alluding to this very petty but very discreditable piece of mediæval vandalism—believing, as I did, that Mr. Syme would only have acted so deplorably under an ebullition of passion, and hence under circumstances which, in all charity, ought to be forgotten and forgiven.

But in his note to you of last week, Mr. Syme gives entirely a new aspect to this misconduct of his, as he now proudly speaks of his unhappy violence as being the "*public execution*" of an "obnoxious pamphlet," which saved him from further reply to me. In other words, he seems to hold that in any controversy regarding surgical facts and practice, the tearing in pieces, before a class of students, of the paper in which the opinions of your opponent are written or printed, gives you forthwith the double right (1) of subsequently publishing on the matter any misrepresentations which you please; and (2) of refusing to allow of the correction of these gratuitous misrepresentations by others.

Without stopping to show how painfully and carelessly Mr. Syme here contradicts himself—forgetful, as he apparently is, of having already written and rewritten on the subject to different public journals *since* this alleged "public execution"—let me add that Mr. Syme seems strangely callous and unaware of the humiliating and wretched position in which he gratuitously places himself before the profession by such a self-conviction and self-adulation as he has now been guilty of uttering in your pages.

Though thus curiously blind to the character of his own avowed conduct, I feel sure that, if Mr. Syme will honestly inquire in regard to the matter among either his professorial or professional friends, here or elsewhere, he will find among them one universal feeling of deep regret both at his formerly assuming the degrading character of public executioner in the sense he speaks of, and latterly his glorying in the shame of being so. It is well known in Edinburgh that even his staunchest adherent and defender, Dr. John Brown (who was present at the original pamphlet scene), has, to his honour, frankly confessed that he witnessed the tearing portion of the transaction with grief and sorrow that his old teacher should so misconduct himself.

You, Mr. Editor, as a friend and supporter of Mr. Syme, must have felt like all his other friends in this respect; for at the time you kept all notice of Mr. Syme's unhappy proceedings cautiously excluded from your pages. And, for one, I do think it was the very reverse of kind in you to Mr. Syme to allow him at last to denounce and expose himself so griev-

ously regarding the transaction in your JOURNAL; for, after all, the public execution which he has performed is a public execution upon his own character, and not upon acupressure, which lives and spreads steadily in spite of all his vain opposition to it, and is on the whole promoted, I believe, rather than retarded, by that opposition. The only other gentleman in Great Britain who at present enjoys the character of a public executioner—Mr. Calcraft of London—would, I fear, looking to the certainty of his "ligature", consider the Scottish aspirant to the same honours as rather an unsuccessful operator.

I am, etc., J. Y. SIMPSON.

Edinburgh, January 2nd, 1866.

ACUPRESSURE.

LETTER FROM JAMES SYME, ESQ.

MR. SYME presents his compliments to the Editor of the BRITISH MEDICAL JOURNAL, and begs to request insertion of the following letter.

Edinburgh, January 2nd, 1866.

To John Dix, Esq.

"DEAR SIR,—I regret to see that you have given my letter in the BRITISH MEDICAL JOURNAL a meaning so different from what it was intended to convey. By separating the part quoted from the context, you make me appear as if objecting to all deviations from surgical rule, or, in other words, to all improvement; while my observation was strictly limited to a particular practice, that I believed to be not only useless, but injurious.

"Your letter, unfortunately, escaped my notice until to-day. "I am, dear sir, yours,

"JAMES SYME.

"Edinburgh, December 29th, 1865."

APOTHECARIES' Hall. Examinations in Arts will be held on January 26th and 27th, April 27th and 28th, and September 28th and 29th in the present year. The subjects will be the same as before—viz., I, English History and the English Language. II. Mathematics and Natural Philosophy. III. The Latin Language. IV. The Greek Language. V. Logic. Students will have the option of being examined on Subjects IV and V; but if they do, and exhibit proficiency in all five branches, they will receive certificates of special proficiency.

TESTIMONIAL TO DR. STYRAP. On Saturday last, a testimonial was presented to Dr. Styrap of Shrewsbury, consisting of a massive silver inkstand with suitable inscription, a purse of sixty guineas, and an address handsomely engrossed on vellum to the following effect:—"Dear Sir,—We, the undersigned, beg your acceptance of the accompanying inkstand and purse of sixty guineas, as a mark of our appreciation of your efforts, so freely and so disinterestedly given, to advance the interests of our profession. We regret very much that continued indisposition prevents your working amongst us as usual; but we hope, however, that ere long you will be restored to health and strength. With our best wishes for your welfare, we are, dear sir, yours very truly. Shrewsbury, December 30th, 1865." Here follow the signatures of forty-seven members of the profession who contributed to the testimonial. The testimonial was presented at Dr. Styrap's residence by a deputation of the subscribers, consisting of Messrs. Beddoes, A. G. Brookes, and Humphreys. Dr. Styrap acknowledged the receipt of the testimonial in warm terms, and expressed his gratitude to the contributors for their expression of sympathy and good feeling to him, and for their very handsome and highly prized testimonial.

Medical News.

APOTHECARIES' HALL. On December 28th, 1865, the following Licentiates were admitted:—

Patten, Charles Arthur, St. Bartholomew's Hospital
Watts, Alfred Bullock, University College

At the same Court, the following passed the first examination:—

Smith, Robert Harman, Guy's Hospital

APPOINTMENTS.

*EVANS, Charles Jewel, Esq., appointed Medical Officer in Ordinary to the Royal Victoria Dispensary, Northampton.

ROYAL NAVY.

CARR, William T., M.B., Surgeon (additional), to the *Flora*.
KEVERN, Charles T. S., Esq., Surgeon, to Devonport Dockyard.
WALLACE, Peter W., M.D., Surgeon (additional), to the *Flora*.

VOLUNTEERS, (A.V.=Artillery Volunteers; R.V.=Rifle Volunteers):—

LOWNDES, J. R., Esq., to be Surgeon 8th Northumberland R.V.
MACKAY, J. T. Esq., to be Assist.-Surg. 8th Northumberland R.V.

BIRTHS.

FINCH. On January 1st, at Blackheath, the wife of Robert Finch, M.D., of a daughter.
GIBBON. On December 26th, 1865, at 39, Howley Place, Harrow Road, the wife of *Septimus Gibbon, M.B., of a daughter.
HEARNDEN. On December 25th, 1865, at Sutton, Surrey, the wife of W. A. Hearnden, M.D., of a daughter.
HICKS. On December 28th, 1865, at Ramsgate, the wife of Robert Hicks, Esq., Surgeon, of a son.
HOOKER. On December 17th, 1865, at Hadlow, Tunbridge, the wife of E. M. C. Hooker, Esq., Surgeon, of a daughter.
PLUMBE. On December 21st, 1865, the wife of S. Plumbe, M.D., Maidenhead, of a daughter.
RINGROSE. On December 27th, 1865, at Potter's Bar, the wife of Ernest Ringrose, M.D., of a son.
SALTER. On December 30th, 1865, at 6, Harley Street, the wife of *H. Hyde Salter, M.D., F.R.S., of a son.

MARRIAGE.

MAYHEW, the Rev. Anthony Lawson, B.A., of Derby, to Jane Innes, second daughter of John GRIFFIN, M.D., of Banbury, on December 27, 1865.

DEATHS.

ADAMS. On December 28th, 1865, at Waterloo, Liverpool, aged 21, Mary, only daughter of *Joseph Adams, Esq.
BELL. At Louth, Lincolnshire, aged 67, Jane, wife of *John Bell, L.R.C.P.Ed.
HILL, William Parr, Esq., Surgeon, at Port Elliot, South Australia, aged 46, on September 30, 1865.
KELSON, Joseph James, Esq., Surgeon, at Bristol, aged 73, on January 2.
LINEKER. On December 23rd, 1865, at Winchester, aged 27, Victoria, wife of E. H. Lineker, Esq., Surgeon.
PEEBLES. On December 27th, 1865, at 64, Portsdown Road, Maida Hill, aged 27, William, eldest son of John H. Peebles, M.D.
*ROBERTS, John, Esq., Senior Surgeon of the St. Pancras Workhouse, London, of typhus fever, aged 26, on December 30, 1865.
SIMMS. On December 26th, 1865, at Passy, Paris, the infant son of Frederick Simms, M.B.

DISEASED MEAT. The medical officers of health of the metropolis have suggested to the government to introduce a bill into parliament to amend the Nuisances Removal Act, 1863, by enacting that no diseased meat shall be permitted to be slaughtered in a licensed slaughter-house; that any carcase found in a licensed slaughter-house shall be held to be intended for human food, and that any carcase of a beast slaughtered at a knackery shall be held to be unfit for human food. A great difficulty has hitherto existed in obtaining a conviction against persons having possession of diseased meat from the difficulty experienced in proving that the meat was intended for human food, which the proposed enactment will remedy.

Expurgation. A Mr. Abercrombie, who figured in the papers in connection with one of the prurient museums of London, has had his name removed from the membership of the College of Surgeons. Another delinquent, a Mr. Sergeant, now undergoing a sentence of hard labour for forgery of trade-marks, has been removed from the register, and will shortly undergo a similar operation at the College to that performed on Mr. Abercrombie.

Presentation to Dr. Edmunds. On New Year's-day, the Committee of the Victoria Provident Assurance Society presented Dr. Edmunds with a handsome silver salver, accompanied by a tea and coffee set and other articles of silver plate. The salver bore the following inscription. "This salver, and other articles of silver plate, amounting in value to one hundred guineas, was presented by the Victoria Benefit Society to James Edmunds, Esq., M.D., in recognition of his distinguished services and professional skill as physician to the Society. London, Jan. 1st, 1866."

University of Cambridge: Scholarships for Natural Science. There will be an examination on October 9th at Sydney College, in Natural Science (Electricity, Chemistry, Geology, Anatomy), and two scholarships, of the value of £40 a year each, will be awarded. There will also be an examination, at the same time, in Classics and Mathematics for other scholarships of the same value. The examinations are open to all students, provided they have not commenced residence at the University. Further information to be obtained from the Rev. J. C. Ellis, tutor of the College.

A Sanatorium is about to be erected near Bagshot, which will add one more to the numerous public establishments in the neighbourhood. There is a saying in that district that a man born there need never quit the vicinity from the hour of his birth to that of his death. After receiving elementary training at the Wellington College, he can complete his education at the Royal Military College, Sandhurst, whence, having obtained his commision, he will proceed to join his regiment at Aldershot. After a short residence in the "Oasis", he will enter the Staff College at Blackwater, whence, if his mind and his morals break down under a severe course of study, he can be transferred to the lunatic asylum at Broadmoor, and a last resting-place is provided at the Woking Cemetery.

Interesting Scene at Westminster Hospital. On the 3rd instant, the Dean of Westminster presented to the employés and every inmate of the Westminster Hospital a gift commemorative of the 800th anniversary of the Foundation of Westminster Abbey. A decorated Christmas tree occupied the centre of the table of the Board Room. In the bay window facing the Broad Sanctuary, were deposited blankets and pillows. The table was thickly covered with books, pictures, stockings, flannel and other petticoats, tea and sugar, work-boxes, pincushions, and, in fact, almost everything suitable for the patients or attendants. The presents were distributed by the worthy dean and Lady Augusta Stanley. The dean also sent to each ward a tinted picture under glass of Westminster Abbey, in commemoration of the event. Accompanying the picture was a large packet of tea and sugar for each patient, with a book of poems written by Canon Wordsworth.

Great Discoverers. It is rather a satire on humanity at large, that the two joint discoverers of ether, Drs. Morton and Wells, suffered from want. Dr. Morton has made himself nearly a beggar by his labours; and Dr. Wells, the dentist, not only spent much time and money on his pet theory, but made so many experiments by inhaling both ether and chloroform that his mind became seriously affected. He came to New York, and degenerated into the vitriol man; that terrible haunter, who was wont to station himself at dusk in some gloomy corner of a public thoroughfare and throw nitric acid on the elegant shawls and silk dresses of the passers by. Of course, he was at last discovered and arrested. Lodged in a cell, he gave way to remorse and despondency; severed the left femoral artery with such force that he cut through the adjacent muscles down to the bone; inhaled his beloved anæsthetic, and was found dead, with a red handkerchief thrown over his face. (*Phil. Med. Reporter.*)

Charge against a Herbalist. At the Wandsworth Police Court, S. E. Hardinge, described as a herbalist and dentist, was charged with causing the death of Harriet White, by performing an operation on her to procure abortion. A statement made by the deceased to Mr. Richardson, the surgeon who was called to her while she was ill in the York Road, Battersea, was held to be inadmissible, because she was not aware at the time that she was in a dying state. The only evidence affecting the prisoner was a piece of paper which she had handed to Mr. Richardson, bearing the prisoner's address, written by a third person. On the outside of the door of the prisoner's residence was engraved, "E. A. Hardinge, Professor of Medical Botany and Midwifery. Advice gratis." He saw on an inner door, written up, "Hardinge, Surgeon. He told the superintendent of police that he held no diploma as a surgeon, and he denied all knowledge of the deceased; and also stated that he would not have entertained the case if he had been applied to. A number of instruments were found in his house used for operations for stone, and one which had been straightened, and which Mr. Richardson held to be an illegitimate instrument, was considered as the only one that might have been applied for the peculiar purpose. Mr. Richardson repeated the evidence he gave before the coroner, and said that on making a *post mortem* examination of the body he found an injury, and the instrument produced would doubtless have caused it. He described the instrument as one originally used for sounding for stone. It has been straightened, covered with gutta percha, and sharpened. The death of the deceased was attributable to the injury. He could not say that that instrument caused the injury. An instrument similar to it would produce the injury. He never heard of a woman using an instrument herself to procure abortion. He thought it would be impossible. In his opinion, the deceased was pregnant when the force was used. Mr. Butt, superintendent of police, said he had been unsuccessful in making the connecting link between the prisoner and the deceased; but that they had received information as to the person who introduced the deceased to the prisoner, and he expected to obtain further evidence. Mr. Dayman then remanded the prisoner for another week on bail. [Surely this case of a man calling himself "surgeon" contrary to the Medical Act, is one worthy of the attention of the Medical Council. Editor.]

Communications have been received from:—Professor Simpson; Mr. Adams; Dr. W. V. Bird; Mr. C. Gaine; Dr. De Styrap; Mr. T. Hornby; Dr. Bodington; The Registrar of the Medical Society of London; Mr. Leslie; Mr. Richard Griffin; Mr. A. B. Steele; Mr. John Adamson; Mr. Robert Ceely; Mr. Syme; The Honorary Secretaries of the Royal Medical and Chirurgical Society; and Mr. Evans.

BOOK RECEIVED.

1. De l'Emploi et de l'Action de l'Arsenic en Médecine. Par Dr. A. Wahu. Paris: 1865.

Illustrations
OF
HOSPITAL PRACTICE:
METROPOLITAN AND PROVINCIAL.

BIRMINGHAM GENERAL HOSPITAL.

ACUTE PNEUMONIA TENDING TO RECOVER: QUESTION OF CHANGE OF TYPE IN DISEASE.

By JAMES RUSSELL, M.D., Physician to the Hospital.

I RECORD the following case of pneumonia, as being typical of the tendency to recovery which is inherent in the uncomplicated form of that disease. That a patient suffering from acute inflammation of his lung, after having entered a hospital, should have escaped notice simply from absence of all outward evidences of illness, would have seemed incredible a few years ago—so greatly is our practice governed by the opinion we have formed, or by that in which we have been educated.

I venture to think that the belief, now so generally entertained, of a tendency to recovery rather than to death, as being connected with many forms of acute disease, merits consideration in discussing the question whether the present disuse of bleeding as a remedy for acute inflammation has or has not arisen from a change of type in disease. It can hardly be doubted that the belief in question belongs mainly to the present generation, and is entirely opposed to the opinion previously entertained; nor can it be questioned that a very important change of treatment is the logical consequence of such a change of opinion. With this belief must also be connected another opinion, equally the growth of very recent times, and equally powerful in modifying treatment—that inflammation is no longer viewed as a simple entity, unchangeable in nature, and requiring always the same management, but as a very complex process, seldom to be regarded as existing alone, but as constituting one of a series of morbid processes, and changing in its nature with such connected processes.

These remarks, which arise from the case I have to narrate, suggest to me to observe, in passing, that the preceding instance is by no means the only example of important alteration in treatment, especially as regards bleeding and its allied measures, which can be distinctly traced to a corresponding alteration of opinion, founded, as we must admit, on sounder views of pathology. The treatment of apoplexy affords me a striking illustration. We are now acquainted with a considerable number of causes of the attacks besides congestion and hæmorrhage, such as embolism and thrombosis, spasmodic contraction of particular arteries, poisons, tumours; and we can trace no necessary connexion between bleeding as a remedy and these conditions, nor, indeed, between bleeding and cerebral hæmorrhage itself. The routine bleeding, formerly practised for concussion of the brain, may be also quoted in the same connexion; and, still more convincingly, the very different treatment now employed in delirium tremens and allied affections of the brain. In the last mentioned case, we have the opportunity of directly connecting the improved treatment with an admitted change in opinion. (*Vide* Abercrombie's work, Case XIX, 3rd ed., p. 64; and Dr. Watson's *Lectures*, 4th ed., i, p. 404.)

Obvious association leads me on to notice the false hydrocephalus of infants, so graphically described by Drs. Gooch, Abercrombie, and Marshall Hall. A striking illustration by the latter author (*Effects of Loss of Blood*, 1830, p. 22) shows that the improved treatment at present employed is the logical result of an altered opinion respecting the nature of the disease.

Perhaps it would be impossible to adduce more impressive illustrations of the fatal influence exerted by false views of pathology upon the treatment of disease, and the advantageous change which has ensued upon their correction, than are afforded by the work I have last quoted, wherein we find bleeding repeatedly employed to remove the effects of loss of blood itself, and patients dying, as we can very well understand now, from the consequences entailed by the supposed remedy. Cases at pages 80 and 82 are strikingly in point.

Indeed, the whole subject of cerebral pathology will afford strong arguments, in the hands of those who would refer the present change in the treatment of disease rather to opinion than to type. No more convincing proof could be afforded than will be found in that volume of the *Clinique* of one of our ablest living pathologists, M. Andral, which treats of cerebral disease, that the mere word inflammation, and the ideas associated with it, have exercised unquestionable influence even on the most powerful minds, first upon pathology, secondly upon diagnosis, and then upon therapeutics; and I think the cases of pneumonia by the same author, in which the same treatment is employed in all cases alike, with little regard to the strength of the patient or to the degree of reaction, will strengthen this conclusion.

I may, however, advance for ourselves one consideration in mitigation of any censure which might seem implied in these remarks. Certainly ours is not the only profession which is under the undue influence of opinion. To take only one other example, the legal profession is not free from the operation of the same influence. The memoirs of Sir Samuel Romilly strikingly show the resistance experienced by that great man in effecting reforms in the administration of our law, to question the propriety of which at the present time would merely expose the questioner to ridicule. The source of the opposition lay in the power of preconceived opinions, most honestly entertained, and by men who, in all other respects, were in no way behind those of the present day.

We are, I conceive, hardly aware to how great an extent our conduct is governed by the opinions in which we have been trained, until we are led to contemplate some proceeding opposed to such opinion. If I may generalise from my personal experience, I think that, were any one to contemplate venesection as an experimental measure in any of those diseases in which it used to be employed even as a matter of routine, he would feel an amount of hesitation, not to say of apprehension, which would be quite incomprehensible to his predecessors.

It seems to me that the use of mercury as an antiphlogistic holds a very similar position at the present time with the employment of venesection. Each has received great support from the influence of opinion instilled by our teachers, or favoured by public consent. The real ground of the debate respecting each remedy in reality far less concerns the constitution of the patient than the power of the remedy to overcome the morbid processes which constitute inflammation.

J. R., aged 30, edge-tool maker, was admitted November 13th. His health had been excellent, his habits tolerably sober; but, for the month preceding

his illness, he was out of work, and fared very badly. Shortly before his attack, he had removed into a damp house.

The illness began on November 9th, at 2 A.M., he having gone to bed perfectly well. He was then taken with repeated rigors, and with pain at the back of the right side. He had walked during the day a long distance in search of work, had got his feet wet, and had not changed his shoes. He suffered much from cough, but had no expectoration. On admission, he presented the physical signs of pneumonia, involving the entire right lower lobe. He had some cough, but no expectoration, and complained of pain at the back of the right side on sitting upright. His aspect, as he lay, was that of perfect health. He complained of no discomfort, and had even been passed over in the visit of the preceding day, as being affected only with a trivial ailment. His tongue presented a thin white fur. The only evidence of anything important being amiss was, that he was manifestly much depressed when he sat up.

Throughout his illness, his chief symptoms underwent no alteration; he was alert and cheerful, and took his food with appetite. On the fourth day of treatment, he was found sitting up and writing a letter. His cough was easily restrained by morphine linctus. He took no medicine except the linctus mentioned above. He had two turpentine stupes to his side, and a fomentation. He was put on milk diet.

The physical signs of the disease remained present for an unusually long period. The dulness had not disappeared until December 1st, the twenty-third day of the disease; but the crepitatio redux appeared on the ninth day.

The temperature in the axilla was 102.6° on the fifth day of the disease. On the sixth day, it rose to 103°, and in the evening to 104°. On the seventh day, it was still at 104°; but, in the evening, had fallen to 101.8°. The day following, it was 100.8° in the morning, and 99° in the evening. Thence it continued at the normal standard.

The pulse, which was 112 on the fifth day, was 84 on the eighth. The respiration varied between 29 and 31 up to the eighth day, when it was 20, but afterwards rose to 26 and 24. The urine was about forty ounces, specific gravity 1020, without albumen. The chlorides were absent.

PATRONS OF MEDICAL HERESIES. The doctors say that it is the parsons who are the chief support of homœopathy, hydropathy, and all the medical heresies. The clergyman's wife used to be a great ally of the village doctor, and was generally content to act under orders, and fill the place of an intelligent assistant. In those days, the clergyman was generally "in his study," unless he was out with the hounds or "gone a-fishing." But things are changed now-a-days; men see more of their flocks; they soon find that the body needs care as well as the soul—that little is to be done with the one unless you are content to try to do something for the other. So they take doctoring in hand, and are naturally less manageable than their "better halves." The BRITISH MEDICAL JOURNAL calls them "the chief promoters of quackery in this country", and notices the curious fact that in France (where, also, public opinion is strongly in favour of free trade in physic) it is the sisterhoods who are the chief enemies of the regular practitioner. A French medical paper complains that in some rural districts the doctor's occupation is gone, owing to the *concurrence effréné* of the local *religieuses*. (*Pall Mall Gazette.*)

Original Communications.

RECURRENT MILIARIA AFTER SCARLET FEVER.

By THOMAS BALMAN, M.D., Liverpool.

[*Read before the Liverpool Medical Society, Nov.* 16, 1865.]

THE following case recently came under my observation at the Dispensary for Diseases of the Skin, and presents some peculiarities worth notice.

R. F., aged 25, collector for a benefit club in this town, a thin and somewhat delicate-looking man, applied to the dispensary on October 9th. He stated that he was very well up to October 4th, 1862, when he was seized with a bad attack of scarlet fever, from the effects of which he was laid up for nearly a month. He had symptoms of dropsy, and otherwise felt very weak and ill, for some time after the fever had left him. On December 24th, he had a slight shivering fit, followed by heat of skin, sickness, pain in the limbs, great depression of spirits, and general *malaise*. Next day (the second of attack), he perceived that his face was slightly swollen, and that his eyes felt stiff on opening them in the morning. These symptoms were accompanied with a peculiar eruption, consisting of small white pimples, globular in shape, and filled with matter. There were also similar ones, though not so numerous, on his breast, neck, and backs of his hands and fingers. The eruption on the body was often preceded or attended by a distinct rash, which often felt itchy and uncomfortable, but not painful. The pustules usually terminated in eight or nine days, by a scurfy desquamation of the cuticle on the face, whilst the palms of the hands, and sometimes the feet, peeled off in large laminated scales. Most of the symptoms were relieved after the appearance of the eruption; but the feeling of sickness continued for some time afterwards. In 1863, he had four separate attacks of precisely the same kind; the first in March, and the last in the early part of the December following.

In 1864, he had also several attacks, though not quite of the same severity, lasting sometimes only three or four days. This year, he has already (Nov. 1865) had five; occurring in the following order—January, March, May, September, and October. He knows when he is to be ill by the symptoms described and the slight swelling of the face; which, he says, uniformly precedes the eruption. He did not notice that he perspired more freely at these periods than at any other time. He took once, by his father's wish, a potion of Cayenne-pepper and herbs, which brought out the eruption in full force, and made him otherwise much worse. He thinks his attacks may sometimes have come on after exposure to cold, being at the same time much heated and perhaps perspiring freely.

I saw him for the first time on November 7th last, the second day of the eruption, and third from the first commencement of the attack. He was then found to have a hard, quick, but not intermittent pulse; considerable heat of skin; and slight feverish excitement. His tongue was clean, and the papillæ natural. Each cheek was studded, at about its centre, with a group of well marked miliary vesicles, closely packed together, but quite distinct, and filled with a very fluid milky looking pus. On the left side, I counted as many as forty. There were others, more scattered and rather smaller, on other parts of his face, and especially on the chin, where they pre-

sented, very exactly, that peculiar pearly appearance, so often described by writers who have seen the disease often. Some of the pustules situated on the left side of the face were surrounded by a pink border. Other parts of the face presented no such appearance; but seemed even more pallid than natural. Hence the epithets miliaria rubra and alba which have been used by authors to mark these differences. Both these forms were obvious enough in the progress of the case, and indeed at the same moment of time, as we have just seen; and shows that these distinctions are perfectly unnecessary, being simply different stages of the same eruption. That part of the cheek on which the eruption invariably recurred, and which might be covered by a half-crown piece, was marked by a series of small cup-shaped depressions, such as we see often occurs after confluent small-pox. No such appearances were observable on other parts of the face, where the eruption was always less copious.

A specimen of his urine, on being examined, appeared of a pale straw-colour, moderately acid; had a specific gravity of 1025; and contained a considerable quantity of the oxalate of lime crystals.

Remarks. The pathognomonic symptoms of miliaria, or miliary fever, as it is generally designated, are so well marked in this case, that it could not well be mistaken by an attentive observer for any other disease. Its peculiarities are: its recurrent character, and fastening itself in so remarkable a way on the face, where it is said to occur so rarely. I may add, also, the absence of any tendency to diaphoresis, which was at one time supposed to be one of its essential attendant symptoms.*

Very different opinions have from time to time been entertained by physicians and dermatologists as to the essential nature of this disease. By some it has been described as a purely idiopathic eruptive fever, depending upon some subtle and unknown poison, similar to scarlatina, measles, or small-pox. Others, on the contrary, looking merely at the anatomical element of the eruption, follow Willan and Bateman, and regard it as merely symptomatic of some previously induced feverish state of body; the grounds upon which they have based this opinion being, that a miliary eruption has been found very frequently to attend some stage of almost every form of fever, and especially when such fevers, as was formerly the case, were treated by keeping persons in a confined room, and subjecting them to a heating regimen; when, as Sir R. Blackmore quaintly expresses it, "patients were packed in blankets, and suffered to remain for days together, drowning in sweats."† That the prolonged contact of clothes soaked in the acrid perspiration thrown off from the skin in puerperal, rheumatic, and other fevers, should, by its irritating properties alone, sometimes give rise to vesicular eruptions or sudamina, with which the true miliary eruption has unfortunately been confounded, is very probable. But there is abundant evidence, independently of the case I have just mentioned, to show that profuse diaphoresis is by no means necessary for the development of these so-called sudamina. Dr. Ormerod states that, in the epidemic (relapsing or famine fever) which was prevalent in London during the spring of 1847 among the Irish who had newly arrived in London, there was no tendency to profuse perspiration; nevertheless, miliary vesicles or sudamina were exceedingly common in St. Bartholomew's Hospital. (Ormerod: *Clinical Observations on Continued Fever at St. Bartholomew's Hospital, London.* 1848.)

Bouteille made a note of fourteen hundred cases in which a miliary eruption appeared, although the patients had been treated by a cool and antiphlogistic regimen, and in whom there was no particular tendency to perspiration. Rayer has made similar observations in regard to the epidemic that prevailed in France in 1821. (*Hist. de l'Epidémie de Suette Miliare qui a regné en* 1821 *dans le Department de l'Oise.* 8vo. Paris. *Vide* also Pujol: *Mémoire sur le Fièvre Miliare qui regna en Languedoc durant le Printemps de* 1782.)

It is probable that the eruption so often met with in the progress of typhus and other fevers, and which has been represented to be of a miliary character, has been sometimes nothing else but petechial spots or purpura, and that the true miliary eruption is by no means so common as it was at one time supposed to be. Henderson, for example, met with only three instances of the true miliary eruption in 198 cases of typhus; and Douglas (Douglas, Statistical Report on the Edinburgh Epidemic Fever of 1843-4, *Northern Journal of Medical Science*, vol. iv, 1844) observed sudamina in only 12 out of 220 cases examined.

The case I have detailed at some length, goes to show that miliaria is neither a symptomatic disorder, nor has any relation to the so-called sudamina arising in the progress of certain fevers (generally about the second week); but is a disease *sui generis*, and, like other exanthematous affections, depends upon some specific poison. Whether such poison is derived from external sources, or is generated in the blood or chylopoietic viscera, is immaterial. It should, in my humble opinion, take the same place in our nosology orginally given to it by Mason Good, Rayer, and some of the older physicians; and not be classed among the non-febrile group, Vesiculæ, as Willan, and those who have copied him, have done.

I have associated this disease, in some measure, with scarlatina, though it occurred two months afterwards, and may possibly have nothing whatever to do with it. A miliary eruption, however, resulting doubtless, in some instances, from the intense capillary congestion of the skin, has been noticed by almost every writer of any repute, as one of the most common complications of this disease.* There are certain resemblances between these two affections which it may not be uninteresting to notice.

* "Of the symptoms said to be concomitant of this eruption, there are none which can be said to be constant and peculiar, but that of sweating. This, indeed, always precedes and accompanies the eruption; and, while the miliary eruption attends many different diseases, it never, however, appears in any of these but after sweating; and, in persons labouring under these diseases, it does not appear if sweating be avoided. It is, therefore, probable that the eruption is the effect of sweating; and that it is the produce of a matter not before prevailing in the mass of blood, but generated, under particular circumstances, in the skin itself. That it depends upon particular circumstances of the skin, appears further from hence, that the eruption seldom or never appears upon the face, although it affects the whole body besides; that it comes upon those places especially which are more closely covered; and that it can be brought out upon particular parts by external applications." (Cullen's Works, by Thomson, vol. ii, p. 194.)

† Among the various circumstances under which the miliaria was formerly excited, the puerperal state appears to have been most frequently the source of it; insomuch, that it was first described as an epidemic among puerperal women. This is sufficiently accounted for by the treatment which was unhappily pursued during the confinement after childbirth, and of which an impressive description is given by Mr. White. "For not only was the mother immediately loaded with bed-clothes, from which she was not allowed to put out even her nose, and supplied with heating liquors from the spout of a tea-pot; but to her room, heated by a crowd of visitors and a fire, all access of air was denied, even through a key-hole. From these causes, fever was almost necessarily induced, with the most profuse sweats, oppression, anxiety, and fainting; and these again were aggravated by spicy caudles, spirits, opiates, and ammoniacal medicines." (See Bateman's *Synopsis of Cutaneous Diseases.* London: 1829. White, Ch., *Treatise on the Management of Pregnant and Lying-in Women*, 8vo. London: 1775.)

* The frequent occurrence of miliaria during the progress of scarlatina has been especially mentioned by Good, Rush, Withering, Plenciz, and Watson. Sauvages, indeed, wished, on account of this frequent complication, to make it a distinct species, under the name of scarlatina variolodes.

1. The precursory and attendant symptoms, one day's duration; the eruption appearing in both on the second day.

2. Their coequal duration in point of time, from three to eight or nine days.

3. Exfoliation of the epidermis in laminæ, whilst it is only furfuraceous in most other diseases of skin, including the exanthemata. Scarlatina is, however, highly contagious, and generally occurs only once in the same individual. In reply, it may be said, that miliary fever has prevailed epidemically in France and elsewhere several times during the seventeenth century, and must to a certain degree have been contagious; and there are many exceptions to the generally received notion that scarlatina only attacks a person once during his lifetime. The late Dr. A. Todd Thomson attended a case in which it had occurred three times.

In studying the history of miliary fever, we are struck with its extreme frequency during the middle and close of the last century, especially in France, as is shown by the profusion of articles in the different journals, as well as separate and distinct monographs, all treating of this disease, whilst we now hardly ever see it mentioned. Duvergie, for instance, in his otherwise full and elaborate work on *Cutaneous Diseases*, does not even allude to it, unless he wishes us to believe that it is a variety of acne, and synonymous with what he describes as acne miliaria. Wilson and other writers in this country likewise seem to regard it as a complaint of trifling importance, and merely make the most casual allusion to it. It is possible that the true miliary fever is less common now than formerly. My own convictions, however, are, that the disease has been overlooked in many instances, either from the eruption appearing on the thorax and other parts of the body usually concealed by the dress, or from its usually mild character, it has not had that attention paid to it which it deserves.

Specifics for Kidney-Disease. "In this, as in other forms of Bright's disease," says Dr. Bence Jones, "no specific can be of benefit. Filling every texture, in addition to the altered texture of the kidney, with more alkali or with less alkali, or with oil, or with salt of any kind, will not remove the thickening."

Examining the Fundus Oculi. Dr. Roseburgh of Toronto finds that the fundus of the eye can be examined without the mirror of the ophthalmoscope as follows. The lamp is placed on a table in a darkened room. The patient is seated on a chair two or three feet from the table, and facing the light. The chair of the observer is placed with the back against the table and between the patient and the lamp. When the surgeon is seated, the lamp should be immediately behind the right shoulder and very nearly on a level with the eye. By now bringing the right eye in a line with the lamp and the eye of the patient, but so as not to shade it, if the pupil had been previously dilated with atropine—the fundus is seen to be illuminated. In order to see the details of the posterior internal surface of the eye, a lens of about two inches focus is placed within an inch or two inches of the eye under examination. An inverted image of the fundus can now be seen forming an aërial image about two inches in front of the lens. The optic nerve entrance and the radiations of the retinal vessels can be seen by directing the patient to look at the light or two or three inches farther from the surgeon's eye, but in the same horizontal line. (*Canada Med. Journal.*)

Transactions of Branches.

SHROPSHIRE SCIENTIFIC BRANCH.

ON THE SENSE OF SMELL APPLIED TO MEDICINE.

By Henry Johnson, M.D., Shrewsbury.

[*Read November 3rd*, 1865.]

The subject of this communication will, perhaps, raise a smile; but I hope to show that it does not deserve to be ridiculed. It is remarkable that, whilst the sense of touch, of sight, and of hearing have all been very properly enlisted in the cause of practical medicine, yet that of smell has hitherto been entirely neglected or little used.

I cannot help thinking, however—and the thought has long occupied my mind at intervals—that a proper cultivation or education of this sense would often, if attended to, give very valuable and practical diagnostic signs. Reading lately Sir John Fife's *Manual of the Turkish Bath* has again drawn my attention to the subject. In this work there are some facts quoted from Mr. D. Urquhart strongly bearing upon this subject, and confirming the opinion which I had formed from other grounds of the practical use which may be derived from educating our sense of smell, and applying the knowledge so acquired to *diagnosis*.

Mr. Urquhart states that there is an odour perceived to arise from human bodies, whilst perspiring in the bath, which is *characteristic of health*; and another which is perceived in disease; and that even the kind of disorder, in some cases, may be detected by the smell. He employed a sharp lad to detect the peculiar odour exhaled by different persons under the use of the bath, and asserts that this individual could discover not only the kind of disease, but even its peculiar seat. Thus were easily detected *albuminuria, gout, rheumatism, herpes*, and *ague*.

Mr. Urquhart says that the healthy body is not inodorous. It is endowed with a sweet odour, described by those whose organs are sensitive enough to detect it "as resembling *fresh sawn fir-boards*." "At the common temperature, the body may be inodorous in all its parts, and the breath also; and yet, on going into a temperature of 220° Fahr., in five minutes a slight smell of gout will come out of the feet and the breath. Half an hour later, and after being in at the higher heat ten minutes or more, the smell of gout may become very strong in the feet, legs, thighs, breast, stomach, breath, and back. The smell of herpes may have come out in the hands, the arms, and shoulders. Half an hour later, and after having been twice under the great heat, the smell may have been taken out every where." (Pp. 334-5.)

He says, again, that in these experiments he should be wholly at sea, without the sense of smell to guide him.

Now, the results of these experiments are certainly very curious. And, although it must be allowed that those who do not make the Turkish bath their special study (as was done by Mr. Urquhart) can little expect to arrive at such a facility in discovering disease in this manner, yet these facts and experiments show that many diseases *are marked by a characteristic odour*. But, without the aid of a high temperature to bring out any natural or unnatural odour, I am convinced that valuable diagnostic signs, or at any rate important indications of morbid states, may often be obtained through the sense of smell.

A case which occurred more than twenty years ago first directed my attention to this subject. A publican had a very loud, frequent, and peculiar cough, with expectoration; and yet I could not detect satisfactory proofs of bronchitis, pneumonia, or tubercular disease. The odour of the sputa was not only most disagreeable, but quite peculiar, and unlike anything that I had smelt before. The expectoration was evidently purulent; and I thought that it came from an abscess of the liver, which had penetrated through the diaphragm and worked its way through the lungs. According to Dr. Budd, the matter of an hepatic abscess, when in contact with the lung (from admission of air), *is sometimes very fœtid.* (See Budd *On Diseases of the Liver.*)

The occurrence of this case, and the impression made upon me by the peculiar, disgusting odour of the sputa in this instance, enabled me to take a correct and a more hopeful view of another case which occurred some years later.

Mrs. H. had been long ailing with disordered digestion and derangement of the liver. There was also a good deal of pain and tenderness in the hepatic region, and even enlargement of the right hypochondrium. Poultices had been applied for some time to this part; and ultimately it became prominent. An abscess formed, and was opened by an incision. Matter escaped; but it had such an intolerable smell, that I believe my colleague at first feared that he had opened a fæcal abscess. But the smell, though very disagreeable, was not *fæcal.* It was so exactly like what I had noticed in the above mentioned case, that I ventured to give the more hopeful opinion that we had to do with an hepatic abscess; which proved true, and the case did quite well.

I went to see a patient with Mr. Keate. I do not think that any intimation had been given to me of the nature of the case; but I do know that the peculiar smell, which I perceived distinctly before an examination was made, convinced me that there was a cancer; and the examination of the uterus told me where it was.

The odour of the breath is very peculiar in cases of albuminuria. One does not in all cases perceive this, but I have very frequently done so; and, when it is detected, it may literally put us upon the scent in the right direction, and chemical tests may afterwards confirm or refute our suspicions. The cause of this peculiar odour is said to be the presence of ammonia derived from the decomposition of urea in the lungs.

Every one knows that the breath has a very peculiar sweet smell in diabetes. It is sometimes very disagreeable.

I have also often noted a peculiar heavy smell in the breath when the bowels are loaded or deranged. I have thought it an indication of a sluggish liver; and this little hint has often led me to prescribe in the right direction.

I do not pretend or desire, in this brief paper, to mention every state of the system in which some peculiar odour is perceptible; but, in reading Dr. Tanner's new edition of his *Practice of Medicine,* I have incidentally met with the following appropriate instances.

A peculiar sweet smell in the breath may be perceived in persons having an internal suppuration. (P. 32.)

A very disagreeable smell accompanies all cases of small-pox; and the breath is peculiarly offensive in scorbutus. (P. 44.)

The odour of the breath is peculiar in lead colic. (P. 313.)

Lastly, fœtid breath occurs in gangrenous bronchitis.

I have brought forward the foregoing facts and observations for the sake of attracting attention to this subject, and to excite a little useful discussion on the present occasion.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT MEDICAL MEETINGS.

THE MODERN METHODS OF DEALING WITH CATARACT.

By MATTHEW A. ADAMS, Esq., Maidstone.

[*Read October 27th*, 1865.]

THE object of this paper is twofold; in the first place, to lay before you a short account of the technical peculiarity of the various new methods of treating cataract, at present in use among ophthalmic surgeons; and in the second place, to incorporate, as far as possible, the clinical experience gained in this hospital, of the various modern methods of dealing with cataract.

Before proceeding, however, allow me, gentlemen, to wish you a hearty welcome to the Kent County Ophthalmic Hospital, this being the first occasion of any medical meeting being held in this institution. I hope it may be considered as arranged, that for the future we shall meet here alternately with the West Kent General Hospital. Allow me to add, that we shall at all times be very pleased to see any members of the profession who may wish to avail themselves of the very extensive field which this hospital affords for the study of the eye. This, while giving us pleasure, will at once be to us an encouragement and incentive, to keep ourselves well posted up in the investigation and treatment of ophthalmic disease.

For the sake of order, we will take up the consideration of the various operations as they appear most adapted to the different periods of life, from childhood to old age.

In all, we have had 116 operations for the relief of cataract at this hospital since January 1st in the present year.

Solution. In 28 instances, the ordinary needle-operation for solution was employed; 16 of these were cases of congenital cataract; 5 were traumatic. Three of the congenital cases were in members of the same family; besides which, two others—in all, five out of six children, born of the same parents—were similarly afflicted. The anterior operation has been universally adopted. In no case has there been an untoward symptom. In one only was the operation thrice repeated. In the general way, twice was found sufficient. In several cases this proceeding was supplemented by extraction by the suction-curette.

We must still, I think, look upon this operation (solution) as decidedly the simplest and safest for the removal of an opaque lens—most adapted to very young children, and always, when carefully performed, securing most satisfactory results, its only drawback being its tediousness. This objection increases in force with the years of the patient, hence the variety of new expedients which have at various times—but more especially within the last few years—been proposed to take its place. The earliest of these was practised by Gibson, of Manchester, as long ago as 1810; it, however, fell into disuse, and not till quite a recent period has linear extraction been revived. It is performed by different surgeons in different ways; but the principle involved in all the varieties is the same.

Linear Extraction. Advantage is taken of the action which the aqueous humour has upon the lenticular matter, causing it to swell, to become more friable; its particles, or more properly speaking, its fibres, changing their glutinous character for a con-

dition in which they have less cohesion, and so disposing the cataract the more readily to quit its capsule and pass through a small opening in the cornea.

To carry this into practice, the pupil being well dilated by atropine, the cornea is pierced near its margin by a fine needle, with which the anterior capsule is very freely lacerated in the area of the dilated pupil. At the same time, the body of the lens is comminuted to a considerable depth, great care being taken not to injure the posterior capsule or to loosen the attachment of the lens-capsule to its suspensory ligament. This concludes the first stage of the operation.

The eye is kept well under the influence of atropine; and in the course of one, three, or four days, the lens matter swells up, filling the pupillary area, and sometimes both the chambers of the aqueous humour. And woe betide the iris if it be not well dilated at this time; it is squeezed and pushed in all directions by the swollen fragments of lens pressing upon it and the ciliary processes, sometimes causing great pain and ciliary injection, which, unless the second stage of the operation be at once proceeded with, would soon pass into destructive inflammation.

Thus far all operators are agreed, the only difference being that some employ two needles, whilst others use only one.

To complete the operation, Gibson used an ordinary cataract-knife to puncture the cornea near its temporal edge, on withdrawing which, some of the cataract was expelled with the aqueous humour; and, as far as possible, the remainder was extracted by the grooved end of the curette.

It is more common now to use a broad lancet-shaped needle, two or three lines in width, which has the advantage of making an opening as large internally as externally.

Mr. Walker has contrived a broad grooved needle, and so does away with the curette. To this there are the objections that, being obtusely pointed and somewhat thick at the shoulders, it requires considerable force to cause it to pass though the cornea; so that, on completing the erection, it is liable to jerk further than is intended; and that, as the chamber becomes emptied of its contents, the parts are in danger of being wounded by the point of the knife.

To facilitate the exit of the particles of cataract along the groove of the instrument, slight external pressure is made; and closing the eye will sometimes also assist by causing fragments concealed behind the iris to make their appearance in the pupil, and so place them in a situation admitting removal by the curette. Seldom, however, is it possible to extract nearly the whole of the lens at one operation by either of these methods. Two, three, or more are generally required, at intervals of days or weeks, according to circumstances.

As these several manœuvres occupy some little time, chloroform should be administered, as far as possible, to avoid the risk of such awkward accidents as wounding of the posterior capsule, protrusion of the vitreous humour, injury to the iris, etc., often caused by the straining of the patient. Suppuration in the tract of the wound is also liable to occur, and is easily accounted for by the frequent passage of the curette. Even in the very best of cases, some amount of iritis with adhesion to the anterior capsule must be looked for.

Suction-Curettes. Many, if not all of these difficulties are surmounted by the suction-curette (an ingenious instrument, recently devised by Mr. T. P. Teale, jun., of Leeds). Two principal forms of this instrument are at present in use. In one, the suction power is applied by the mouth; in the other, an exhausting syringe is made to do this duty. Each has its advantages. The former is that preferred by Mr. Teale, and "consists merely of a light glass cylinder with a small tubular curette at one end, and an India-rubber tube with mouthpiece at the other." The chief objection to this is, that the tube being cylindrical and of smooth glass, it is difficult, owing to the stiffness and weight of the India-rubber, to have entire control over its movements. This which I now exhibit, is constructed with a view to lessen this objection; the difference being that, instead of a cylindrical stem, I use a flattened tube, graduated to indicate the amount withdrawn, and the India-rubber tube is so much smaller as not to embarass the manipulation by its rigidity.

The first stage, viz.—that of lacerating the capsule, and exposing the lens to the action of the aqueous humour, is the same for the suction as for other linear operations.

The second stage, or that of sucking out the cataract, may immediately follow the first, or, as I prefer, after an interval of a day or two. It is conducted in the following way. The lids being kept apart by a stop wire speculum, and the globe firmly fixed by a pair of forceps, a puncture is made in the cornea about a line from its margin, on the temporal side, with a broad needle, just of the proper width to admit the curette. The point of the needle should be carried obliquely through the cornea, and made to dip into the body of the lens, in the path which it is intended that the curette should follow. The needle is then withdrawn, and the curette passed as nearly as possible in the same direction, just beneath the surface of the lens, the open end being in the centre of the pupil, and looking forward. The suction is then applied; and, as the cataract disappears before the point of the instrument, the latter must be inclined backwards until the whole of the cataract has been withdrawn, and the pupil appears quite black. Care must be taken to keep the open end in the middle of the pupil, in order to avoid sucking in the iris, and so bruising it. As a rule, very little irritation follows; simple cold water dressing is applied, and the pupils kept well under the influence of atropine.

Our experience of the operation since January 1st, extends over twenty-five cases: viz.—15 congenital; 4 traumatic; 2 diabetic; 4 various.

In two cases, a man and a woman, each of the age of 40, the operation failed, from the lens being too hard. (Mr. Teale has reported three cases—one of 40 years, two of 42 years, in which it succeeded easily.) In one case, a lad, 17 years old, severe irritation was caused by injury to the posterior capsule. In another, considerable iritis occurred; the poor boy, 8 years of age, being out of health from chronic albuminuria. Except these two cases all did well, and were restored to sight, with perfectly sound eyes in every respect, *minus* the crystalline lens.

In a few of my earlier cases, the patients complained of excessive pain directly after the operation, which was immediately relieved by ice. I believe that this pain was caused by the too sudden atmospheric pressure on the eyeball, compressing the ciliary nerves. Since then, I have been more deliberate in the suction process, and have heard no more complaints of severe pain. Each of these several methods will perfectly dispose of a soft cataract.

Iridectomy Extractions. I must now invite your kind attention to the operations which have lately been proposed for dealing with hard cataract—that is to say, hard in the accepted sense. Of course, no true line can be drawn between hard and soft cataract; it is merely a relative term, and every degree of solidity, from a small waxy nucleus surrounded by

pulpy cortex, to one solid as wax throughout, is to be met with. In every case, however, as far as I have seen, there is a certain amount of soft matter on the exterior; and this fact very much affects the spoon operation.

It appears that, early in 1860, Von Gräfe in certain cases combined a quarter section of the cornea with iridectomy and the use of an ordinary curette-spoon, for the extraction of cataract with a hard nucleus. His pupil, Von Schuft (now called Waldau), improved upon this spoon, and contrived one of a peculiar shape for the purpose; this has received several modifications in England, in the hands of Mr. Critchett and Mr. Bowman, the object of which alterations has been to make the beak of the spoon thinner, and in this way better adapted for passing between the hard nucleus of the lens and the posterior capsule.

And here I must take the liberty of reminding you of the anatomical relations of the very delicate parts concerned in this operation.

Secure in its own capsule, the lens is held in position anteriorly by its extremely delicate suspensory ligament, and posteriorly by the still more delicate hyaloid membrane, with its margin under cover of the iris, and within a shadow of the ciliary processes. The idea of the operation is—having made a comparatively small opening in the cornea to remove a portion of the iris, and insert a spoon within the capsule at the margin of the lens, passing this spoon behind, between the lens and its posterior capsule, to withdraw the cataract whole or piecemeal.

To accomplish this, the patient is put fully under the influence of chloroform. The eyelids are kept apart by the stop wire-speculum; and the ball itself firmly held by the tendon of the inferior rectus, or at least the subconjunctival tissue. The cornea is now to be incised at its upper or outer part, at, or even a little behind, its junction with the sclerotic. For this purpose, Schuft and most operators use a peculiar spear-shaped knife, or this, which perhaps answers the purpose better. You will perceive that the blade, after arriving at its widest part, has a parallel cutting edge. If, however, the first kind be used, the extremities of the wound should, by a slight inclination of the instrument to each side, be made to have an opening as large internally as externally. The knife being withdrawn, the iris is seized at its pupillary margin by a delicate pair of curved forceps, drawn out, and snipped off close to its ciliary attachment. An ordinary cystotome is now passed into the chamber, and with it the anterior capsule must be thoroughly lacerated in all directions as near as practicable up to the margin of the lens, especially in the situation of the iridectomy; and here the point of the instrument is to be made to clear a way in the margin of the lens itself for the entrance of the spoon, which must be most carefully inserted in a direction backwards and downwards, so as to pass behind the margin of the lens; and, guided by a knowledge of the anatomical relations of the parts, it should be insinuated rather than pushed between the posterior capsule and the hard nucleus. When the instrument has reached the opposite side of the chamber, by a slight leverage the solid part of the cataract is brought forward toward the cornea, and then, by a gentle traction, out through the external wound. It is seldom, if ever, that the whole of the lens can be removed by this one introduction of the scoop. In the hands of the very best operators, so far as I have seen, it has been necessary to reintroduce it several times; and, even with this, it may well be doubted if even the capsule is so thoroughly emptied of its contents as in a well conducted flap-extraction. Hidden behind the iris may easily lie concealed fragments of the marginal portion of the lens—entangled, perhaps, in the retracted shreds of its capsule; and, with the operator's utmost skill and vigilance, some such fragments will occasionally, if not often, elude his instrument and escape detection. These within a few hours begin to swell, and are, no doubt, the most fruitful source of disappointment in this operation—setting up most severe iritis, the inflammation often extending to the deeper structures of the eye, leading eventually to atrophy and shrinking of the globe, if not to acute suppuration.

Two other methods, each known by the name of its originator, take a place between Schuft's and the old-fashioned flap-extraction. In that of Dr. Mooren, a portion of the iris is removed several weeks prior to the ordinary flap-extraction. Another, the method of Professor Jacobson, differs only from Mooren's in that he performs the iridectomy and the flap-extraction at one and the same time. The intention is the same in both; viz., that, by removing a portion of the iris, a freer exit is given to the cataract; and also the danger of prolapse of that portion of the iris is done away with.

Each of these three operations has been practised at this hospital, but only those of Schuft and Jacobson since the beginning of the year; Schuft's five times, Jacobson's once. Four of the former have turned out very well; the fifth, I fear, will not prove satisfactory. This case was one of immature cataract in a woman aged 64. She had been under my observation for three years, during which time her cataracts, as regards their opacity, had apparently remained stationary. Everything went well with the operation, and I had no reason to expect other than a favourable issue. However, in the course of the night of the third day, she was seized with very severe iritis, since which she has been going from bad to worse.

Doubtless, we must expect to meet with failure sometimes, whichever be the method chosen for the extraction of cataract. Nevertheless, I cannot help expressing a strong conviction, formed partly from the opinion of others, but chiefly from my own observation, that Schuft's operation is much more liable to the severe form of iritis than the old flap-extraction. Be this as it may, our success with the latter operation has led us greatly to prefer it before all others, as a rule, in cases of hard cataract. Perhaps a very prosperous season has caused us to form a higher opinion of it than we otherwise should do.

Flap Extraction. Of the 28 operations of flap-extraction we have had within the time indicated, 25 were uncomplicated cases of idiopathic senile cataract; 16 were men, 9 women. The oldest was a man aged 80; the youngest a man of 47.

In a woman, aged 70 years, a large prolapse, also in two men slight prolapse of the iris occurred. With these three exceptions, in every case the section healed perfectly within the week with central pupils. All recovered good sight except a man of 80 years, who, after progressing most favourably up to the eighth day, with every prospect of a most excellent recovery, was seized with violent diarrhœa, causing inflammation of the section, which soon extended to the iris, and ended in atrophy of the globe.

Of the three complicated cases, in one, severe choroidal disease was known to exist; and, upon completing the section in the usual way, the lens was expelled before laceration of the capsule was attempted, and this was immediately followed by a bulging forward of the iris and hyaloid membrane from intraocular hæmorrhage. No external bleeding occurred; but the globe soon became much distended, and there was considerable pain. There being no doubt as to

the nature of the case, excision of the ball was performed.

In another, owing to the patient's extremely feeble health, it was fully a month before the section healed; notwithstanding which considerable sight was preserved.

In the third case, a poor half-witted old woman would, in spite of all care and remonstrance, walk about the ward in the middle of the night crying and shouting, fancying herself in a lunatic asylum. She recovered excellent sight in one eye; but lost the other.

As regards the operation itself, I need not detain you with a description of any of its details, except to mention that the upper section has been universally adopted.

A few words will suffice to dispose of the accidents and difficulties encountered. Three times it was necessary to enlarge the corneal wound; once in the case of the unruly half-witted woman before alluded to. In another, in order to avoid cutting the iris, a large portion of which had prolapsed, the knife was withdrawn, and the section completed with the scissors. This patient had very large prominent eyes, and the accident arose from a premature escape of the aqueous humour. He afterwards suffered from prolapse; but eventually did tolerably well. In the third case, the upper lid slipped from under the finger and fell on the knife, which was withdrawn, and part of the iris removed after the section was completed; so converting the operation from an ordinary flap-extraction to a Jacobson's. The case did well.

Once the lens was found completely degenerated, the capsule containing fluid and a little earthy matter.

In the case of a woman, aged 71, the moment the section was completed, without there having been any external pressure on the globe, the lens sank bodily, capsule and all, out of sight into the vitreous humour, which was fluid. I failed in the attempt to seize it with the sharp hook; but succeeded in fishing it out with a Schuft's spoon. The patient recovered without a bad symptom, and with a circular and perfectly central pupil. Only in this and one other case was there any loss of vitreous humour.

The capsular opacities following flap extractions and suction operations, have usually either been torn through with needles or cut with the cannula-scissors, but, whenever possible, removed by the cannula-forceps. While, after the twenty-eight flap-extractions, this proceeding was necessary only in five instances, it was required seven times after the twenty-five suction operations.

Altogether, there have been twenty-seven capsular operations.

Conclusion. To conclude, gentlemen, allow me to direct your attention particularly to the suction-method and the operation of Schuft. They are both new, and are destined often to take the place of the older methods of solution and flap-extraction. Without presuming to decide upon the merits of these two operations, I would venture to indicate that, whereas in the case of extraction by suction the improvement is, though perhaps less important, more obvious, it is surely a step in the right direction when an operation can be simplified, and at the same time the cure rendered more sure and perfect; and this, as far as my experience will allow me to speak, is attained by the operation of suction. With a smaller wound, at one operation, in a few moments, a soft cataract can be wholly removed from the eye, with little irritation, and with no injury of consequence to any of the important structures.

Here, then, the improvement is most obvious. No one can question it. Not so with the operation of Schuft; which has not, so to speak, such *primâ facie* evidence of improvement over the flap-extraction as suction has over the older linear. That it possesses great claims to be well considered, all will admit; for instance, the comparative security from prolapse, and a non-adaptation of the wound, which the smallness of the section secures, are great boons; yet this advantage has its drawback. Does it not introduce a new element of danger into the operation? Only consider how very little short of the full half section in flap-extraction will impede the exit of the cataract. What, then, takes place in the removal through a quarter section? Either the lens must break up into fragments, or allow its shape to accommodate itself to the wound; or, which is impossible, the wound itself must stretch. The fact is, the lens often does break; and, when it does not, it is forcibly squeezed into proportions which will allow of its passage through the wound. If the broken fragments can be thoroughly extracted, well and good; but some are very likely to elude observation, and, as I have before stated, set up severe iritis (the bane of this operation); or, if the lens have tenacity enough, and the surgeon have patience enough to withdraw it whole, the squeezing of the lens into shape is also a pressing and bruising of the lips of the wound and the neighbouring parts to an equal extent. This, then, gentlemen, if you agree with me, is a weak point in the operation, and all the more detracts from its merits, since there is no such risk with the old flap extraction.

Many arguments might be put forward—for as well as against. I have, however, said enough to show that, whilst I fully appreciate the value of Schuft's operation, I am by no means for discarding the old method from ordinary practice. On the contrary, I think that, while flap extraction should be taken as the standard of practice in hard cataract, our attention, and I hope your discussion to-day, should be directed to the discriminating between cases, with a view to create rules which shall decide in each particular case which of the two operations is most adapted.

I feel that I owe some apology for the formidable length of this paper. I can only say that, with every effort at condensation, I have given a most imperfect account of that which I set out to do. The mistake is, that I chose far too comprehensive a subject for such an occasion as the present. This, I hope you will accept as a sufficient excuse for so long trespassing on your patience.

Transfusion of Blood. Experiments by MM. Eulenburg and Landois show that animals poisoned with opium may be kept alive by practising what the authors call combined transfusion, which consists in drawing off the poisoned blood and substituting for it healthy blood from an animal of the same species. Other experiments show that animals deprived of food may be kept alive by regularly repeated transfusions.

Iron Dust. Dr. Angus Smith says that, when sitting in a railway carriage with his friend Mr. James Young of Bathgate, that gentleman observed that the particles of dust which floated in the air seemed to shine with a metallic lustre. Dr. Smith immediately collected some, and found that the larger class were in reality rolled plates of iron which seemed to have been heavily pressed and torn up from the surface. Another and smaller class were less brilliant, and, when looked at with a considerable power, showed many inequalities of surface. The dust enters the mouth and lungs, and has to be taken as one of the evils of railway travelling.

Progress of Medical Science.

SURGERY.

Hydrocele of the Hernial Sac. A tailor, aged 24, had a tumour on the left side of the scrotum, as large as a double fist, situated below the external ring, soft, indolent, tense, fluctuating and irreducible. There was neither impulse on coughing nor transparency. It was prolonged by a pedicle the size of the thumb, into the inguinal canal. The skin over the tumour was normal, and the testis distinctly felt at the bottom of the scrotum. The man had worn a truss for several years for a hernia, which had never been completely reduced. Ten days prior to admission the truss had been broken and the tumour increased in size. M. Velpeau came to the conclusion that this was an example of an old intestinal-omental hernia; in which the gut had been returned, leaving only omentum—an effusion of fluid having also taken place into the sac. Six days after admission, the sac was punctured, and a reddish but perfectly limpid fluid having been discharged, the presence of omentum was ascertained. An iodine injection was then thrown in, and next day a pretty smart attack of inflammation occurred, accompanied by febrile action. This soon abated, and the patient was discharged three weeks after admission, one side of the scrotum being scarcely larger than the other. M. Velpeau first conceived the idea of treating this form of hydrocele in the same way as hydrocele of the tunica vaginalis; of course, in such case inflammation is more to be dreaded, owing to the communication with the peritoneum; but M. Velpeau, having found that iodine injections never give rise to purulent inflammation in closed cavities, determined to employ them in congenital hydrocele, taking care to compress the inguinal canal against the pubis. In the numerous cases of this kind in which he has employed these injections, he has never met with any accident, and he therefore naturally felt no hesitation in extending the practice to hydrocele of the hernial sac, in which the canal being plugged with omentum, the penetration of the iodine into the peritoneal cavity could scarcely occur. By this operation, also, conjoined with careful adjustment of a truss, the radical cure of the hernia may in some cases be effected. (*Brit. and For. Med.-Chir. Rev.*)

Gunshot Wound through the Lungs. Mr. P. J. Farnsworth, of Lyons, Iowa, relates the following case: John C., private in 26th regiment Iowa Vol., of strong constitution, was wounded in battle, January 11th, 1863. The bullet entered in front of the left shoulder, below the clavicle, and above the first rib, just in front of the joint, passing obliquely backward and downward, and coming out at the right of the spinous process of the fifth or sixth dorsal vertebra. It evidently passed obliquely through the upper part of the lobe of the left lung. From his own account, there was not much hæmorrhage. He expectorated a considerable quantity of blood, and experienced a very severe pain in the left side. He was removed to the hospital, where some adhesive plaster was placed over the wounds. The obliquity of the external wounds seemed to prevent the admission of external air. The surgeon evidently considered it a hopeless case, and paid little attention to him, so that after a month, he had become very much bent forward and laterally. At the end of two months he was sent home. His appearance, when he first came under Dr. Farnsworth's care, was of extreme emaciation. The left shoulder dropped, and the spine was bent forward and sidewise. The wound in front was healed, but the one on the back was open, and when he coughed violently, air escaped. The cough was troublesome; he expectorated bloody pus, in large quantities. The whole aspect was that of the last stages of tubercular disease. He had night-sweats, swelling of the lower extremities, and clubbing of the fingers. Cod-liver oil and stimulants were given, and a generous diet. He lingered for two or three months, with slight improvement. There was every indication of tubercular disease, and of a large cavity in the lung, and in August he was sent to a Soldiers' Home being opened in Chicago. In December he returned, in the uniform of an invalid veteran. His appearance was much improved, and he said that he did regular guard duty, over the rebel prisoners at Camp Douglass. Much of the cachectic look had passed away. The wound on the back had healed, and he was not much troubled with cough. The clubbed appearance of the fingers had disappeared, and he had become straight. The entire recovery did not take place in the eleven months, for when re-enlisted. he must have been far from well and only fit for the lightest duty; but, before the term of his enlistment expired, he was fit for field duty, and to all appearance is now in perfect health. (*Phil. Med. and Surg. Rep.*)

Femoral Aneurism: Digital Compression in the Groin: Recovery. Surgeon-Major J. Kennedy relates the case of Samuel Belfield, Serjeant-major, Trichinopoly garrison, aged 36, an Englishman, resident in India six years, who was reported sick in quarters on May 7th, 1840, and removed to hospital on the 9th. When first visited, in May, he stated that, about a week before, a small fluctuating and slightly painful swelling appeared at the inner side of the lower part of the left thigh, which gradually increased; and thinking that it was of a phlegmonous nature he painted it with tincture of iodine, which had reddened and slightly abraded the integument. The tumour was an aneurism of the femoral artery, being of the dimension of a large sized billiard-ball, and situated at the upper part of the inferior third of the thigh. There was strong pulsation in the tumour synchronous with the arterial pulsation, and by compressing the artery in the groin the tumour became flattened and ceased to pulsate, and on removing the pressure the swelling and pulsation at once returned. He was removed to hospital; and six European orderlies were instructed to effect, by means of the thumb, constant compression of the artery in the groin, relieving each other in turn. On May 10th, compression of the artery, from some unexplained cause, had not been continuously kept up during the night, the aneurismal tumour is consequently much in the same state as noted yesterday. Strict orders were issued to see that the orderlies (who were to be relieved at regular intervals) compressed the artery as previously directed. Chicken-diet was ordered for the patient, and on the 13th, a pint of beer. An anodyne draught of forty minims of tincture of hyoscyamus, was given every night. 17th: Pressure having been regularly kept up, no pulsation whatever could be felt in the tumour, which was somewhat larger, entirely solidified, and hard to the touch. The patient had complained much of the pressure in the lower part of the groin, and was irritable and restless. Compression was ordered to be applied higher in the groin, and to be continued in a slighter degree forty hours longer. It was discontinued at midnight of the 19th, and was not resumed. The patient was directed to

remain quiet in bed, no compression. Full diet was allowed, and on the 24th, a mixture of citrate of iron and quinine was prescribed. On the 28th, his general health had improved. The tumour was less prominent; but on a minute examination, whilst the muscles were relaxed, it was found to be of nearly the size noted on his admission into hospital. No pulsation was detected; and there had been since the 17th instant distinct occlusion of the artery. No pain or uneasiness was experienced; he had been permitted to sit in a chair with the limb elevated and supported. On June 14th, the tumour was about half its original size. The patient moved about without any uneasiness; he was discharged from hospital, and permitted to reside in quarters during convalescence. The medicine was omitted on December 31, 1864. Mr. Kennedy states that he had repeatedly seen and examined Serjeant-major Belfield since June; and on the last occasion (about a month previous) there was not a vestige of the aneurismal swelling perceptible, and its site was entirely free from pulsation. (*Edin. Med. Journal.*)

Hydatids in the Orbit. Mr. P. H. MacGillivray relates the case of Robert R., aged 40, farm-labourer, admitted to the Bendigo Hospital 21st April, 1865. Towards the end of 1859, he suffered from pain, not severe, in the right eye, and noticed that the eye-ball protruded, and was slightly turned up. The sight in this eye was now limited to the perception of light. The eye-ball continued to become more prominent, and the neighbouring parts more swollen, and the little perception of light was gradually lost altogether. He had occasional slight attacks of inflammation about the eye, and at times dull aching pain in the temple and under the orbit towards the nose. On admission, the right eye was found protruding to a great extent, and turned upwards. The conjunctiva of the lower lid was everted and bulging out. The whole orbit and temple were swollen. The eye itself seemed sound, and the pupil acted to the light, but there was no vision whatever—no perception of light. On careful examination, a tense, fluctuating tumour could be felt underneath the lower lid, occupying the space between the floor of the orbit and the eye-ball. The tendon of the inferior rectus was seen stretched over in front of it. From its slow growth, little pain, and the escape of the eye-ball itself, it was not likely to be malignant. There was no bruit, pulsation, or other symptom of aneurism. The peculiar, smooth, extremely tense, fluctuating feel, led Mr. MacGillivray to diagnose it to be a hydatid cyst.

As it was impossible to say how deeply the tumour might extend, and whether it consisted of a single cyst, or of several, it was determined to tap it first, and if necessary afterwards to open the orbit and extract it. Accordingly, on April 30th, Mr. MacGillivray introduced a fine trocar into the most prominent part of the tumour, through the lower eyelid. Three drachms of a limpid fluid escaped. This was allowed to stand for an hour, and the sediment was found to consist of numerous live echinococci, one group consisting of sixteen heads. In two or three days the swelling became nearly as great as before, and one day the conjunctiva became suddenly much inflamed, swollen, and painful. To relieve the tension, Mr. MacGillivray incised it deeply in two or three places, and next morning found a white substance shining at the bottom of one of the scarifications, nearly opposite the middle of the globe. This opening was at once enlarged, when a collapsed hydatid cyst was easily extracted. The next day, on examining the wound, another was found to have come forward, which was removed, as well the broken cyst of a third. The same evening an entire cyst of about two drachms came out on the dressing. The next day a fifth of the same size presented itself at the opening, and was extracted. The following day, two more were withdrawn, one, the larger, being half protruded when the dressing was removed, and easily squeezed out entire. This one weighed four drachms. The day after that, two smaller ones—one being only about the size of a pea—were found on the dressing. This made nine in all, which had either been extracted, or come out themselves. The largest was the one which weighed half an ounce. The orbit remained swollen, inflamed, and painful for some days, and pus continued to be discharged through the opening by which the hydatids had been removed, for three weeks. As this inflammation subsided, the eye-ball gradually receded until it occupied its proper position. The lower lid remained everted, the conjunctiva being loose and flabby; but by supporting the lid by strips of plaster, the conjunctiva contracted, and it regained its normal proportions. After the eyeball receded, a slight extent of vision slowly returned, the patient first having an obscure perception of light, then being able, dimly, to see the door or window. There seeming no probability of further improvement in his sight, he was discharged on 13th July. (*Australian Medical Journal*, August 1865.)

Simultaneous Extraction of Lens and Capsule. At the meeting of the Ophthalmological Society at Heidelberg, Dr. Pagenstecher read a paper on the simultaneous extraction of lens and capsule. He had been led to devise this operation from the fact that the presence of capsule and lenticular substance after extractions was so fertile a cause of inflammatory complications. His plan was as follows: the patient under the full influence of chloroform; the ordinary cut for extraction is made, with the usual knife, in the sclera, however, instead of in the cornea. A broad iridectomy is next made, downward and outward. If any posterior synechiæ exist, they are detached, after which a scroop is passed through the zonula, (which, if necessary, is torn through with a hook), carried back of the lens, and used to bring this out. If the state of anæsthesia has remained profound, little or no vitreous is commonly lost. The healing process goes on well. Out of fifty-four times that the operation has been performed, the cornea suppurated in but two cases. Out of thirty-eight patients who have thus been operated on this year, thirty were able to read Jäger, No. 5. Prof. Arlt thought the operation particularly indicated where the cataract was over-ripe, for there the zonula would be found looser. He mentioned, however, serious objections, particularly in cases of large and soft cortical masses surrounding a small nucleus, the whole enclosed in a transparent capsule. (*Phil. Med. and Surg. Rep.*, November 11, 1865.)

Dislocations of the Hip of long standing. Dr. D. J. Thomas, Surgeon to the Melbourne Hospital, read, at a meeting of the Medical Society of Victoria, a paper in which the following cases were related.

Case I. On February 8th, 1865, Mr. Evans Morgan, a miner, consulted Dr. Thomas about a dislocation of his hip-joint. On December 15th, whilst working in a gold mine in the kneeling position, the earth fell upon him, causing his thighs to be widely separated. When extricated, he was taken to the surface; and it was discovered that he had sustained a dislocation of the head of the femur. An attempt at reduction was made, but without success. The following day he was taken to a neighbouring hospital, when

another attempt was made to replace the head of the bone by means of pulleys, and with the aid of chloroform. In this attempt, he stated, the head of the bone became changed in its position; it was probably brought from the dorsum ilii to the sacro-ischiatic notch. After nine days, he commenced walking about; and seven weeks afterwards came to Melbourne to consult Dr. Thomas. He was a powerful muscular man. On February 9th, chloroform was given; and, when he was under its influence, Dr. Thomas extended the limb, and rotated it in all directions for about ten minutes, when the staple broke. It then occurred to him to try the plan recommended by Dr. Reed of America. He flexed the leg on the thigh, and gradually brought the thigh diagonally across the abdomen. He then abducted the thigh, whilst his assistant, who stood on the opposite side, got hold of the foot, and, with some degree of force, pulled it across the lower third of the sound femur, whilst Dr. Thomas depressed the knee. The head of the bone entered the acetabulum with a loud crack; immediately upon which Dr. Thomas's attention was drawn to the patient's state. His face was livid, his tongue nearly black, and slightly protruding; there were no abdominal respiratory movements visible; no pulse could be felt; and his eyes were fixed. Without waiting a moment, Dr. Thomas opened the external jugular vein. At first no blood flowed; but, on drawing the finger two or three times over the vein, it spurted out; and after about a pint had been drawn, the lividity had disappeared, the patient made a gasp, the pulse could be indistinctly felt, and, in about five minutes, the breathing was quite re-established. It was then discovered that the bone had again become dislodged. Dr. Thomas pursued precisely the same manipulation, and, in a few minutes, again got the thigh to its proper place. A straight long splint was applied, and the two limbs were tied together. He was kept in this position in bed for a fortnight. The splint was then removed; but the legs were tied together for another week. He was then allowed to get up and use the leg; and in five weeks he could walk a long distance, with the aid of a stick, having only a slight limp.

Case II. In 1849, a shepherd, named J. Buncle, was sent to Dr. Thomas, having a dislocation of the hip on the dorsum ilii of nine weeks' standing. Seven unsuccessful attempts at reduction had been tried. Dr. Thomas gave him chloroform, and applied pulleys; and the limb was kept on the stretch from 10 A.M. until 5 P.M. He was the whole of this time under the influence of chloroform, and every ten minutes or quarter of an hour a gentle pull was made on the pulleys. At 5 P.M., the relaxation of the muscles seemed complete, the leg of the affected side was flexed, and brought across the lower part of the sound thigh. A jack-towel was placed under the upper part of the thigh to pull it outwards, the pulleys were relaxed and the knee depressed, and the bone regained its natural place. In three weeks, he left town, and could walk a little with the aid of a stick and crutch.

Case III. On November 5th, 1861, John Prytherch, aged 18, midshipman on board the *Swiftsure*, was admitted into hospital with dislocation of the head of the right os femoris into the sacro-ischiatic notch. The accident occurred from a fall on board ship two months previously, and the attempts at reduction on board had proved abortive. On November 7th, chloroform was again administered, and extension kept up for some time, without any beneficial result. On the 8th, chloroform was again administered, and the pulleys were applied without success. On November 11th, the patient was transferred to Dr. Thomas, and reduction was again attempted; the patient being under the influence of chloroform. Extension by means of the pulleys was kept up for an hour and a half, when the head of the bone was found to have moved considerably. The thigh above was elevated by means of a sling. The leg was flexed, and drawn across the front of the sound thigh, in order to rotate the bone outwards, and the knee at the same time depressed. The bone was then brought to its proper situation. A splint was applied, and he was kept in bed for some weeks; and, on December 28th, he was discharged cured. (*Australian Medical Journal*, September 1865.)

ANATOMY, PHYSIOLOGY, & PATHOLOGY.

Function of the Kidney. Mr. R. Southey, in a paper in the *St. Bartholomew's Hospital Reports*, calls in question some of our at present accepted views of the physiology of the kidney. The Malpighian bodies, according to him, are not the special eliminators of the water of the blood, nor of the urea, but "blood-regulators."

Division of the Pneumogastric Nerve in Man. Dr. David W. Cheever, of the Boston City Hospital, relates a case of cut-throat in a woman, 39 years of age, where the right pneumogastric nerve was severed. The respiration was noted, and the lungs examined daily by Dr. Buckingham. No paralysis of the larynx or œsophagus occurred. There was no marked diminution of respiration. But there were evidences of passive congestion of the lung on the injured side, and not on the other. Three days after the injury, the pulse was 100, respiration 16. Expiration was longer than inspiration, with an asthmatic wheeze. Six days later, the respiration was 24, and the pulse 124. There was considerable dulness over the upper part of the right back. The next day, the respiration was 24, pulse 120. The upper two-thirds of the right back were dull on percussion; bronchial respiration and bronchophony were marked. Two days later, these symptoms were passing off, and the air entered the lung more freely. This obstruction was so entirely temporary, that after death both lungs were found alike œdematous and adherent to the chest; but no other changes existed. The patient died six weeks after the injury. (*Phil. Med. and Surg. Reporter.*)

Thermo-Electric Battery. Not unnaturally, this thermo-electric battery is exciting the imaginations of men of science. A contemporary suggests that, "like windmills, thermo-electric batteries might be erected all over the country, finally converting into mechanical force, and thus into money, gleams of sunshine, which would be to them as wind to the sails of a mill. What stores of fabulous wealth are, as far as our earth is concerned, constantly wasted by the non-retention of the solar rays poured on the Desert of Sahara. Nature here refuses to use her wonderful radiation-net, for we cannot cover the desert sands with trees, and man is left alone to try his skill in retaining solar energy. Hitherto helpless, we need not be so much longer, and the force of a Sahara sun may be carried through wires to Cairo, and thence irrigate the desert, or possibly, if need be, it could pulsate under our streets, and be made to burn in Greenland." A fascinating dream enough, and one which may prove to be "not all a dream." (*Scientific American.*)

British Medical Journal.

SATURDAY, JANUARY 13TH, 1866.

IS THE CATTLE-PLAGUE SMALL-POX?

THAT there are many points of resemblance between the signs of Cattle-Plague and of Small-pox, no one can deny. These resemblances have struck the very earliest, as well as the most recent, observers of bovine epidemics. But the proof of their identity has yet to be given; and experiment alone can give the proof. Ancient writers have recorded their opinions, but have left no positive evidence to throw assurance on the subject.

Mr. Ceely, than whom we need hardly say no higher authority exists on all questions touching the subject of small-pox and vaccination, some time ago called the attention of the Cattle-Plague Commissioners—himself being one of them—to this suspected small-pox character of the Cattle-Plague. Mr. Ceely had convinced himself, by study of the records of the history of these epidemics, that, if this Cattle-Plague was the same as the cattle-plagues of former days, it must be an eruptive fever. So satisfied was he of this, that (as he tells us) "he requested veterinary surgeons to look out for cutaneous eruptions; and on the next day was introduced by them to no fewer than seven or eight animals exhibiting such in various degrees." Mr. Ceely, prosecuting the subject, thereupon, as Dr. Sanderson tells us, submitted to the Cattle-Plague Commissioners a proposal to try whether or not vaccinated animals were liable to take the Cattle-Plague, and whether animals recovered from Cattle-Plague are susceptible of small-pox infection or of vaccination.

These experiments are, happily, now being carried out; so that we may hope positive facts will soon relieve us of the necessity of *à priori* arguments, with which only we can at present attack the question. The solution of it is, we need hardly say, one of the deepest interest to the whole community. For, if the Cattle-Plague be veritable small-pox, then, indeed, may we fairly hope to have in vaccination a positive antidote to scotch its malignancy. But we must not be led away by our fond hopes, and by the mere analogy of appearances, to accept the conclusion that the Cattle-Plague and small-pox are the same diseases. We must await patiently the results of experiment, remembering that the fact is as yet anything but proved, and that there are high authorities of the present day who do not admit that Cattle-Plague is small-pox.

This word of caution is, we think, required at this moment; for the public mind has been somewhat over-hastily inflamed with hopes by statements made on this subject. Men of science must not let judgment outrun discretion. Vaccination has over-hastily become the cry throughout the country, although there is at present no proof that it will serve us in this difficulty. Already the demands for vaccine are so great, that there seems a danger of vaccine-matter running short, and so that the supply for human youngsters may fail. Few of the persons, moreover, who are now rushing into the vaccinating of bullocks, have an idea of the difficulty attending the operation, and the precautions required to ensure its being effective. For these reasons, therefore, we venture to suggest a word of caution to our medical brethren.

Let us see, for instance, what there is in the past history of the Cattle-Plague to suggest its identity with small-pox.

One argument invariably used in support of the identity of small-pox and Cattle-Plague, is derived from the opinions of ancient writers on the subject; but we believe that these opinions have been very much misunderstood by modern writers; and have, therefore, thought it might be useful here to correct what we believe to be the general and erroneous idea on the subject.

It is certain that the older writers spoke of the resemblance of Cattle-Plague to small-pox, and that they found the resemblance mainly in the fact, that the disease was a pernicious and eruptive fever. But it must be noted, that the authors who allude to the fact did not all of them agree in the conclusion. Fracastor, for example, who has been quoted as favouring the idea of identity, says nothing of the disease having a variolous aspect; he does not even allude to its being accompanied with an eruption of the skin. Lancisi, again, quotes the opinion of those who thought that the Cattle-Plague was small-pox; but he did not himself hold that opinion; and, indeed, he quotes and agrees with Sebitius, who had shown by argument that brutes do not suffer from variola. "*Brutos ab hujusmodi vacare morbo Sebitius ingenti argumentorum vi patefecit.*" Neither, again, does Lanzoni affirm that the disease was small-pox; he merely remarks that, "on account of the pustules which appeared in the skin of some of the animals, there were persons who thought that the disease was variola, *in aliquibus pustulæ sub cute prodibant, ita ut crederent aliqui variolis boves ipsos affici.*" He regarded it himself as a malignant contagious fever—*febrem malignam contagiosam.**

Neither did Ramazzini assert that the cattle-plague was small-pox. He tells us that "pustules broke out over the whole body on the fifth or sixth

* It is impossible to read through the history of epidemics without being struck with the fact that, from a very early date, almost all cutaneous fevers in animals were set down as small-pox. A German author, in 1717, says of an epidemic which carried off turkeys and geese, that it was a species of variola, "*eine species variolum gewest sei*"; and for the reason, that under the wings of the birds were found many suppurating pustules, crusts, etc., "*viele suppurirte Blattern*, etc."

day, and tubercles *resembling a species of variola*"—*pustulæ quintâ vel sextâ die per totum corpus erumpentes, ac tubercula variolarum speciem referentia*; and he also says, in speaking of the cure of the disease, "that we may follow the plan of treatment laid down by medical authorities in curing the variolous fever in boys." But he nowhere expresses an opinion that the disease in the ox is the same as the small-pox in man.

Besides, it is worthy of note, and some of our readers may be surprised to hear it, that this very question underwent discussion in the Philosophic College of Padua in 1711. A report on the subject was, in fact, drawn up by Professor Navara.

"In some cases," the report runs, "it has been observed that certain numerous small tumours (*certi piccioli tumoretti*) appear about the body on the skin, which neither suppurate nor change colour; but either disappear or remain until the animal dies. From this rare and inconstant fact, some have thought that the disease should be called bovine variola—a disease to which our most illustrious authors assert that cattle are not subject. If the cattle-plague be really small-pox, how comes it that cutaneous affections are observed in so very few of the oxen? Besides, small-pox does not destroy with such a great, general, and rapid slaughter as this plague does," etc.

The report was distinctly opposed to the view of identity.

Layard, again, though he asserts the similarity of the Cattle-Plague and small-pox, gives no proof of the fact. Up to the present time, therefore, it is certain, that no proof positive has been given of their being one and the same disease.

Dr. Murchison has lately detailed, in as full a form as it is perhaps possible to lay them down, the analogies between the two diseases; and the presentation of Mr. Hancock, a veterinary surgeon, to the Pathological Society, with a vesicle on his hand, resulting from puncture received whilst dissecting a Cattle-Plague ox, have naturally greatly excited our hopes that we shall in vaccination find a prophylaxis for the devastating disease. But in so important a matter, we must not hope rashly. History, as we have said, gives us nothing upon which we can base such hopes, but, in truth, rather the contrary; and, besides this, we have the opinions of living authorities—Professor Gamgee and Dr. Sanderson, for example—who oppose the idea of identity.

Moreover, there is one other striking fact to be derived from the historical study of Cattle-Plague, which has not been alluded to (as far as we are aware), and which, nevertheless, seems to be, *à priori*, a strong argument against the identity. It is this, that in the many very accurate histories of the terrible and numerous cattle-plague epidemics which have now for centuries ravaged all parts of Europe, we nowhere find it stated that the disease has been communicated from the ox to man. Dr. Murchison has argued that "vaccinated persons are constantly exposed to small-pox poison with impunity." But it must be remembered, that we are now speaking of the epidemics which occurred before the days of inoculation and of Jenner; when man could not have been exposed to the small-pox poison with impunity.

How comes it, we might ask, that at the beginning of the last century, in the epidemics which have been so faithfully described by Lancisi, Lanzoni, Ramazzini, and others, that we meet with the history of no single case in which the disease was communicated to man? When we recollect that for many consecutive years this Cattle-Plague raged from one end of Italy to another; that it carried off, in some parts, almost the whole of the oxen; that herdsmen were constantly in attendance upon, and intimately mixed up with, the diseased animals—it seems almost incredible that the disease, if really small-pox, should have failed to have been—in some instances, at all events—communicated to man. That physicians were alive to the supposed identity of the two diseases is certain, from the fact that all authors speak of the supposed identity, and that it was a subject of discussion in their academies; and we may, therefore, be very sure that cases of this kind would not have been overlooked had they occurred.

No doubt it is true that great difficulty is experienced in communicating the disease from one species of animal to another; but still, if the case of Mr. Hancock be rightly interpreted by those who use it as a very strong argument in favour of the identity of the diseases in question, it follows that the Cattle-plague disease *is* communicable to man. And if so, again we ask, how comes it that, in all the numerous records of the Cattle-Plague, no single instance of the kind is recorded? Hundreds of thousands of oxen must have perished of the disease in Italy between 1709 and 1714. Thousands of men must have been constantly engaged in tending upon these oxen—in physicking, skinning, cutting up, and burying the infected animals;* and yet we have no record of the disease having been communicated in any instance to these non-inoculated, non-vaccinated, utterly unprotected men. Lancisi, who has left us nothing to add to his description of the Cattle-Plague, tells us of no such case, and, indeed, denies the identity of the two diseases. His masterly eye would have hardly missed such an important fact, had such an one ever occurred; and, as the medical world in 1712 were discussing the question of identity at that very time, we may be sure that any such case would have been at once brought under their notice.

In these remarks, we offer no opinion as to the identity or non-identity of Cattle-Plague and small-pox. Every one must hope the identity will be

* In 1746, Mauchart, speaking of an epidemic of the cattle-plague in Swabia, says:—"All the men who were during this time engaged in feeding and curing the sick cattle, in burying, removing, skinning, and cutting-up their bodies, and who breathed heavy clouds of effluvia, remained in perfect health—*omnes ac singuli sani manserunt salvique.*"

proved. Our object is simply to show that the argument in favour of identity, which has been derived from tradition and the opinions of our forefathers, does not exactly bear the value which has been ascribed to it; and that, indeed, the historical (if we may so call it) argument really tends to an opposite conclusion.†

THE GAZELLES AND THE CATTLE-PLAGUE.

M. Bouley has given the French Academy of Medicine an account of the late cattle-plague epidemic which occurred in the Jardin d'Acclimatisation at Paris, and asks, who is to blame?

"Assuredly not the inspector; for it never could have entered into the head of the Commission that two charming and innocent gazelles could have imported the disease. The Commission may well be excused for neglecting to forbid the importation of gazelles! Here again it was Albion, whom we so often call perfidious, but this time assuredly all in innocence, who committed a new perfidy. How the gazelles caught the plague I will presently show; for the Government, in its desire to benefit science, ordered me to proceed to England to make inquiry into all the circumstances of the case. On the 29th of November, a number of ruminants were taken ill. The symptoms plainly showed that the disease was the plague. The examination of the body of a young yak left no kind of doubt. But how got the disease into the *jardin?* It was doubtless imported. Science has shown that it does not arise spontaneously with us. It appeared that, during some weeks past, only these two gazelles, brought from England, had been admitted into the garden on November 15th. One died on the 20th, of diarrhœa, as it was supposed. The other was still alive, but very ill; and, when the nature of the disease was learnt, we ordered its immediate destruction. M. Leblanc inoculated from it a calf (a *vêle*), and a sheep. The first took the disease and died; the sheep remained intact. M. Leblanc has given a detail of the history of the disease in the *jardin*. I may, however, refer to the experience thus obtained, as it has given a complete solution of questions still controverted. The experiment was made under most favourable conditions. Everything was put at our disposal—animals, money, and place; and it may be truly said, that the experiment has not been too dearly purchased at the price of 20,000 *francs*, which it has cost the State.

"Thus we now know for certain that the disease will attack small as well as larger ruminants, indigenous or exotic; and not only by inoculation, but by aërial contamination. Yaks, bisons, gazelles, antelopes, stags, hinds (*biches*), kids (*chevrotins*), goats, cows, and aurochs contracted the disease. A stag was infected by one of the attendants, who carried the disease from one end of the garden to the other. Another species was also affected. The pecari—the wild boar of South America—took the disease. In one case, M. Leblanc found the eruption of the mucous membrane so confluent that he could only compare it to the confluent small-pox skin of a man or of a sheep. I contemplated this mucous membrane," says M. Bouley, "with dread; for now, for the first time, on seeing these lesions in an animal whose organisation approaches so nearly to man's, I began to believe that man might contract the disease.

"The Minister gave us full powers to treat the disease as we pleased. On account of the peculiarity of the animals attacked, they were not at once destroyed. They were all put into one stable, and the extremest care taken to prevent the spread thence of the disease. No one was admitted there; and the attendant was not allowed to leave the place so long as it lasted. Directly an animal showed signs of the disease, it was killed. In ten days we were master of the situation."

"M. Bouley then visited London; and, in company with Mr. Gamgee, endeavoured to trace the source whence the gazelles took the disease. The animals were purchased of an animal-dealer, M. Jamrack. M. Bouley at length satisfied himself that the gazelles had caught the disease in a cattle-truck on the railway, in passing from London Bridge to Newhaven.

"As an instance of how the disease may be spread, he mentions that the first gazelle which died was given to a naturalist—the nature of the disease then not being suspected. When the facts were discovered, the dead animal was traced by the police. The skin was found at the naturalist's, but the carcase was not traceable. It had been given to a chiffonier, who declared that he had thrown it on a heap of mud in an out-of-the-way street; but no trace of it could be found. If, said M. Bouley, some cow had by accident passed that way, we might have had the disease suddenly arise amongst us; and then people would have said it was by spontaneous generation."

It may be remarked, that M. Bouley calls the disease typhus; and that his auditors in the Academy of Medicine appear to have as yet really very little knowledge of the true character of the cattle-plague. M. Louis said that the disease was typhoid fever; and M. Bouley backed him, and added, that he had seen at Glasgow, in autopsies of animals dead of cattle-plague, Peyer's patches diseased. M. Reynal also was said by M. Briquet to have often observed at Alfort these diseased Peyer's glands. Unfortunately, M. Bouley does not mention what *post mortem* signs were in the gazelles, etc., which left no doubt in his mind as to the nature of the disease. The symptoms he describes were, tears, restlessness, noisy respiration, shakings of the head, general trembling, salivation, denudation of the gums, diarrhœa, prostration, loss of sight, etc. Every sign was present except that of subcutaneous emphysema. Not a word does he say about any cutaneous eruption!

Even M. Bouley has evidently something to learn about the pathology of the disease. Our veterinaries could assuredly give his countrymen a few lessons in the morbid anatomy of the cattle-plague, at all events, although we must confess his Government has beaten ours out of the field in the treatment of it. The subject has considerably advanced here since M. Bouley studied the disease at Glasgow last year!

M. Leblanc's Report, to which M. Bouley refers, states that

"On the 15th of November last, two contaminated gazelles, brought from England, were introduced into the Garden of Acclimatisation at Paris,

† So long ago as 1567, an old author (Joubert) says: "If we are to trust Arnold Villanovanus, the human plague never affects cattle, nor the cattle-plague men."

and placed amongst 135 different species of animals (ruminants, pachyderms, etc.) Of these 135 animals, 34 were attacked with the disease. *All were killed except one, no treatment being tried.* Moreover, two dogs and two pecaris, though not ill, were also destroyed. One only, a male auroch, survived. Amongst those attacked were twelve oxen, two goats, five antelopes, two stags, and two wild boars. The malady spread with great rapidity; but, on the 14th of December, there was not a sick animal. The quick destruction of the infected animals arrested the contagion. It results from this, that many different species of animals of the mammiferous class may be attacked by the cattle-plague. Of the ovine class, none were attacked, although there were twenty-five in the infected part of the garden."

Does not this fact suggest the idea that domestication of animals—the change which their bodies undergo in the process—may have something to do with making them more ready recipients of the poison? If not, how comes it that the Rinderpest is with such difficulty communicated artificially from one species of animal to another?

HEREDITARY HONOURS TO MEDICAL MEN.

MANY errors have been committed by those who have undertaken to give an account of the members of the medical profession who have received hereditary honours; and the "corrections" have been as faulty (for example, Sir Patrick Macgregor, who was a "baronet" and sergeant-surgeon, has been turned into a "knight" as Sir Patrick McGrigor!) We, therefore, give what we believe to be a complete list of the medical baronets. There is some question as to the first on the list. Dr. Munk—a very great authority—in his Roll of the College of Physicians, admits the claim of Sir Richard Greaves; but he is not to be found in usual histories of baronets. It has been usual to look upon Sir Hans Sloan as the first member of the medical profession who was created a baronet. It will be seen that from 1716 to 1866 there have been only thirty-two members of the medical profession who have received this honour—thirty-three when Sir William Fergusson shall have been "gazetted." Of these, nine have been surgeons; Sir Cæsar Hawkins being the first in 1778. Sir John Pringle was already the younger son of a baronet when he was created; and Sir Alexander Douglas, M.D., and Sir Richard Croft, M.D., succeeded to family baronetcies. The first medical knight was Shakespeare's Dr. Butts, knighted by King Henry VIII. Excluding those who belonged to the army, navy, or Indian service, only six medical men have received decorations; viz., Sir Henry Halford, Sir Matthew Tierney, Sir Astley Cooper, Sir Charles Bell, Sir David Davis, and Dr. Chambers, who received the Guelphic order; the last gentleman declining the honour of knighthood. It is curious that, out of the whole list, but three names (with the exception of those still alive) are now to be found in the profession—Hawkins, Clarke, and Brodie. No member of the medical profession has been raised to the peerage; but more than one peer has been made a physician.

Sir Richard Greaves, M.D.	1645
Sir Hans Sloan, M.D.	1716
Sir Edward Hulse, M.D.	1739
Sir Edward Wilmot, M.D.	1759
Sir John Pringle, M.D.	1766
Sir Edward Barry, M.D.	1775
Sir George Baker, M.D.	1776
Sir Cæsar Hawkins	1778
Sir Lucas Pepys, M.D.	1784
Sir Walter Farquhar, M.D.	1796
Sir John Hayes, M.D.	1797
Sir Francis Milman, M.D.	1800
Sir Henry Halford, M.D.	1809
Sir Gilbert Blane, M.D.	1812
Sir William Knighton, M.D.	1813
Sir Everard Home	1813
Sir James Wylie, M.D.	1814
Sir Jonathan Wathen Waller	1814
Sir David Dundas	1815
Sir Matthew Tierney, M.D.	1818
Sir Astley Cooper	1821
Sir Patrick Macgregor	1828
Sir James MacGrigor, M.D.	1831
Sir Charles Clarke, M.D.	1831
Sir William Russell, M.D.	1832
Sir Stephen Hammick	1834
Sir Benjamin Brodie	1834
Sir James Clark, M.D.	1837
Sir Henry Marsh, M.D.	1839
Sir Philip Crampton	1839
Sir James Kay Shuttleworth, M.D.	1849
Sir Henry Holland, M.D.	1853
Sir Charles Locock, M.D.	1859

THE Committee now engaged with the case of the army and navy medical officers arose in the following way. In November 1864, a Committee was appointed by the College of Physicians (on the proposal of Dr. Stewart and Dr. Markham) to inquire into the condition of the army and navy medical officers. This Committee consisted of Drs. Black, Gavin Milroy, Sibson, Stewart, Armstrong, and Markham. A very full inquiry, lasting over many months, was made into the matter, and much valuable evidence laid before the Committee; and a full report was eventually handed in to the College. After considerable discussion in the College, it was eventually agreed that memorials should be presented to the Secretary of War and the First Lord of the Admiralty, asking them to make inquiries into the subject of the memorials. To these memorials the College received answers from the Secretary of War; and also from the First Lord of the Admiralty, who informed the College that he had conferred with the Commander-in-Chief (in consequence of the memorial of the College), and had agreed with him to appoint a joint Committee of army and navy officers to make the inquiry asked for by the College; at the same time thanking the College for their communi-

cation and the interest evinced thereby in the welfare of the army and navy. The First Lord of the Admiralty moreover requested the College to name some one of themselves to sit upon the Committee. A similar request was also made to the College of Surgeons. The result was, that Dr. Markham and Mr. Busk were appointed by their respective Colleges. The other members of the Committee are, as we have already stated, Admiral A. Milne, Lord Paulet, Captain Galton, Sir James Gibson, and Dr. Bryson. The Committee has taken evidence, and is now engaged in drawing up a Report.

The Venereal Commissioners, we are now told, are not prepared to recommend the periodical examination of soldiers to see if they be or not the subjects of venereal diseases. Such a measure would, no doubt, be very unpopular, to say the least of it, amongst army medical officers. Besides, there is one (insuperable, as it seems to us) difficulty in carrying it out, and that is in deciding up to what rank in the military hierarchy the examination should extend. The privates might complain if the corporals were exempt from the inspection; the corporals, if the sergeants; the sergeants, if the ensigns; and, as far as we can see, so on to the top of the military tree.

Professor Simpson seems to think that he has no chance of having justice done him in the British Medical Journal. He therefore secures for himself a hearing by addressing his grievances against us simultaneously to the *Medical Times and Gazette* as well as to this Journal. The course is unusual, and might justify us in refusing Professor Simpson's doubled correspondence. Our contemporary espouses the professor's views; but it has been over hasty in doing so. There are always two sides to a tale; and no one knows this better than editors of journals. The other side is this. We have had some dozen letters and several telegrams from Professor Simpson, and a very great deal of trouble, about his communication; and all because he chose to insist upon our inserting language which we know to be unwarrantable and believe to be libellous. He sends us a communication containing language of the above character. We therefore request him to remove the objectionable words. We are told, in a courteous (?) reply, "I have no time to spare in bandying words with you as to what you consider strong personal allusions;" and are then ordered to publish the letter as an advertisement, with a commentary in two telegrams as follows: "I telegraph to forbid altering one single word in my paid advertisement letter;" "I forbid its publication, if mutilated by you." Such were the replies we received to our request that the personalities should be removed. Of course we declined to allow improper language of the kind alluded to to appear in any shape in the Journal. Professor Simpson subsequently sent us a second copy of his letter, *which did not contain the personalities to which we objected.* This we immediately published, and, as it seems, to his surprise; and for the reason that it did not contain them. Professor Simpson now says that the letter sent by him to the *Medical Times and Gazette* "was a copy of another sent to the British Medical Journal," with a trivial exception. Such being the case, as the personalities to which we took exception were *not* published in the *Medical Times and Gazette*, it is certain that they must have been erased from Professor Simpson's letter by the editor of that journal. Perhaps, therefore, Professor Simpson will inquire of the editor *why* he erased them, and whether it was because he agreed with us that the language was not proper for publication.

The Government has applied to the College of Physicians, requesting that the College would recommend some medical man to take part in the International Cholera Inquiry, which is to hold its sittings in the East. The College has left the recommendation in the hands of the President.

Without taking the smallest exception to the honours conferred by the Queen upon Professor Simpson and Professor Fergusson, and admitting that these gentlemen have fully earned them, we think the profession has reason to complain that the honours have not been more widely distributed. We cannot forget, whatever the Government may do, that Mr. Lawrence, for example, has been now for upwards of half a century one of the brightest illustrations of surgery amongst us—a man in many respects superior even to Sir Benjamin Brodie. Neither can we help remarking that, if the Government had wished to respond to the sentiments of English medical men in making a physician a baronet, it would have undoubtedly conferred the honour upon Dr. Watson. We believe that every medical man in the country would have received the appointment as a compliment, feeling that it had been conferred on one who represents at once the honour, the science, and the learning, of our profession. Again, we doubt if our Scotch brethren will think these honours widely enough given. They will ask why the names of Professors Christison and Syme, who have been for a generation representatives of Scotch medical science throughout the world, should have been overlooked. We are sure that Professor Simpson and Professor Fergusson will be the last persons not to admit that such names are not to be lightly passed over. We know not who the advisers of the Crown are in matters of this kind. But whoever they are, we hope it will come to their knowledge that the profession does not consider its claims fully satisfied by the present distribution of honourable distinctions.

THE ARMY AND NAVY MEDICAL SERVICES.

We have received the following documents for publication.

Letter from S. J. Jeaffreson, M.D., President of the British Medical Association.

Leamington, January 3rd, 1866.

Sir,—I had the honour of forwarding the enclosed memorials the other day to the Earl de Grey, Secretary at War, and his Grace the Duke of Somerset, First Lord of the Admiralty.

I now send you each memorial and reply, for publication, if you think fit, in the Journal.

I should state that, with each memorial, I sent a note, stating the names of the proposer and seconder (Dr. Falconer of Bath, and Dr. Burrows, President of the Medical Council, etc.), at our meeting in August; also the fact that they were carried unanimously; and further, that our Association embraces some 2,400 members, amongst whom may be numbered many of the leading practitioners and teachers in medicine and surgery of the United Kingdom.

I am, etc., Samuel J. Jeaffreson, M.D.

Memorial to the Right Honourable the Earl de Grey and Ripon.

To the Right Honourable the Secretary for War.

The Memorial of the British Medical Association, assembled at Leamington, August 4th, 1865,

Humbly sheweth—

That your Memorialists have seen with deep concern the strong disinclination which exists on the part of the best qualified men to enter the Army and Navy Medical Service, and that those who are engaged in teaching medicine for the most part dissuade their most promising students from entering that branch of the service.

The following are the causes which have produced this unsatisfactory feeling on the part of members of the profession.

After long and extensive inquiry, the Commissioners appointed at the close of the disasters of the Crimean war "to inquire into the regulations affecting the sanitary state of the army", made certain recommendations in reference to the medical officers of Her Majesty's Army, which were embodied in a Warrant issued on the 1st of October, 1858.

The sixteenth and seventeenth clauses of this Warrant granted to the medical officer relative rank, "with all precedence and advantages attaching to the rank to which it corresponds, except as regards the presidency of Courts Martial." "But when a medical officer is serving with a regiment or detachment, the officer commanding, though he be junior in rank to such medical officer, is entitled to a preference in the choice of quarters." This Warrant gave complete satisfaction to the army medical officers and the general body of the medical profession; but on the 31st of December, 1858, before the Warrant could be brought into full operation, a private memorandum was issued from the Horse Guards, depriving the army medical officers of the right, granted to them by the above-mentioned Warrant, of presidency at all mixed boards, when such medical officer was the senior officer present. By this private memorandum, the most important provisions of the Royal Warrant were contravened. This private memorandum, though acted on, did not receive the sanction of the Royal prerogative till the 1st of May, 1863, when a Royal Warrant was issued, modifying Clause 17 of the Warrant of 1858, in the following terms: "But such relative rank shall not entitle the holder to military command of any kind whatever, nor to the presidency of Courts Martial, Courts of Inquiry, Committees, or Boards of Survey: but when the president of such courts, committees, or boards, shall be junior to the officer of the civil department, then such member of the civil department shall attend as a witness and not as a member."

The effect of this is, that the senior medical officer is precluded not only from presiding at Boards of Inquiry into sanitary subjects generally, including the condition of provisions, clothing, and construction of barracks, but also from being a member of such boards, excepting when, as is rarely the case, a senior combatant officer happens to be present: so that the matured experience of the medical officer is not brought to bear upon those questions which so deeply affect the welfare and efficiency of the British soldier.

It appears also that the position of the medical officer at mess should be regulated by his rank, and not, as is generally the case, by the will of the commanding officer.

It seems entirely inconsistent with the spirit of the Warrant of 1858, that the names of the medical officers should appear in the *Army List* under the Civil Department, instead of being placed in the Regimental Staff according to their rank.

Your Memorialists are gratified to find that, since this question was first mooted by the members of this Association, considerable improvements have been effected in the position of their brethren in the army. The medical officer has been relieved from the duty of superintending the operation of branding; the staff-surgeon now receives regular forage allowance; he is now allowed the quantity of baggage which, though accorded to him by the Queen's Warrant, had been denied by the Queen's regulations; he is now exempted from the expenses of new commissions on being transferred from the Staff to a Regiment, and from renewed payment to mess and band funds on each occasion of exchange or transfer from one regiment to another; and military honours have of late been awarded to army surgeons with a liberal hand.

Your Memorialists therefore venture to hope that the same spirit of justice which has led to these concessions will induce your Lordship to recommend the restoration *in its integrity* of the seventeenth clause of the Warrant of 1858, granting all the advantages attaching to the rank of the medical officer, including the presidency of Courts of Inquiry, Committees, and Boards of Survey. Without the restoration in its integrity of the Royal Warrant of 1858, and some security for its subsequent enforcement, your Memorialists feel convinced that it is vain to expect that highly qualified medical men will devote their talents and energies to a service which might be rendered an object of ambition, instead of being shunned by those best fitted to preserve the health of the British Army in time both of peace and war.

And your Memorialists will ever pray.

Reply.

War Office, 30th December, 1865.

Sir,—I am directed by Earl de Grey to acknowledge the receipt of your letter of the 22nd instant, forwarding a memorial from the British Medical Association assembled at Leamington on the 4th August last.

In reply, I am to acquaint you that Lord de Grey has caused this memorial to be forwarded for the consideration of a Committee now sitting on Army and Navy Medical Officers.

I have the honour to be, sir,
Your obedient servant,
EDWARD LUGARD.

S. J. Jeaffreson, Esq., M.D.

Memorial to His Grace the Duke of Somerset.

To His Grace the First Lord of the Admiralty.

The Memorial of the British Medical Association, assembled at Leamington, August 4th, 1865,

HUMBLY SHEWETH—

That your Memorialists have seen with deep concern that many of those who are engaged in teaching medicine dissuade their most promising students from entering the Army and Naval Medical Services; and that there exists not only a strong disinclination on the part of the best qualified men to enter the United Service, but an actual dearth of candidates of any kind for the Medical Service of the Navy.

That the causes of the prevalence of this most unsatisfactory feeling among the members of the medical profession, are: the non-enforcement of the Queen's Warrant of 1859, which granted to the medical officer "relative rank, *with all precedence and advantages* attaching to the rank with which it corresponds"; the refusal, in many cases, of cabins to the assistant-surgeons, notwithstanding the deliberately expressed opinion of the House of Commons; the evils of the half-pay system, which press heavily on the medical officer, and are highly detrimental to the best interests of the public service; and the inadequate remuneration given to all ranks of the navy medical officers.

Your Memorialists venture to hope that, in the present perplexing state of affairs in the Medical Service of Her Majesty's Navy, your Grace, in the exercise of that independent judgment which has already conferred signal benefits on the department over which you preside, will recommend the enforcement *in its integrity* of the Royal Warrant of 1859, and the adoption of such other remedial measures as will make the service eagerly sought after, instead of being shunned, by those best fitted to promote the health of the British Navy in time both of peace and war.

And your Memorialists will ever pray.

Reply.

Admiralty, 28th December, 1865.

SIR,—Having laid before my Lords Commissioners of the Admiralty your letter of 22nd inst., enclosing a memorial from the British Medical Association assembled at Leamington, requesting that measures may be taken to improve the position, pay, etc., of naval medical officers, in order to remove the strong disinclination that exists on the part of the best qualified gentlemen to enter Her Majesty's service, I am commanded by their Lordships to acquaint you that a Committee was appointed, under the sanction of the Secretary of State for War and the Board of Admiralty, on 9th November last, to inquire into, and report upon the question of the pay, position, and rank of the Medical Officers of the Navy and Army, and that their report has not yet been received.

I am, sir,
Your most obedient humble servant,
W. G. ROMAINE.

Dr. Samuel J. Jeaffreson, F.R.C.P., President of the British Medical Association, Leamington.

ROYAL COLLEGE OF SURGEONS.

IN the *Calendar* of the College, which has lately appeared, the amounts of income and of expenditure are given. The receipts for 1865 amounted to £11,634:4:8, from the following sources.

		Increase	Decrease
	£ s. d.	£ s. d.	£ s. d.
Preliminary examination in general knowledge for Diploma of Member	183 0 0	53 15 0	—
Primary and pass examination for Diploma of Member	8896 10 0	—	1305 10 0
Examinations for Diploma in Midwifery	121 16 0	—	16 16 0
Examinations for Diploma in Dental Surgery	42 0 0	—	882 0 0
Professional examinations for the Fellowship	115 10 0	84 0 0	—
Elections to the Fellowship	336 10 0	157 0 0	—
Admissions to the Council	42 0 0	—	21 0 0
Rent of Chambers	690 15 8	—	11 19 10
Sale of Lists of Members, Synopsis of Museum Catalogue, and Incidental	12 0 0	—	11 11 0
Dividends on Investments in Government Securities	1194 3 0	63 6 10	—

The expenditure amounted to £12,085:18:2, as follows.

		Increase	Decrease
	£ s. d.	£ s. 4.	£ s. d.
Fees to Council, Courts of Examiners	3890 12 0	—	—
Fees to Treasurers and Auditors	19 19 0	—	—
Diploma Stamps	364 9 0	—	—
College Department.—Coal, gas, anatomical subjects, firewood, candles, oil, printing, engraving, advertisements, postage stamps, etc.	1079 19 8	—	—
Museum Department.—Catalogues, synopsis, specimens, microscopes, spirit, preparation glasses, instruments, extra assistance, wood, etc.	758 5 3	—	—
Library Department.—Purchase and binding of books, etc.	326 16 10	—	—
Prizes	70 2 7	—	—
Lectures	172 10 0	—	—
Oration, including dinners under Deed of Trust	124 4 6	—	—
List of Members, printing, binding, etc.	48 19 0	—	—
Insurance	46 10 0	—	—
Taxes and rates	752 4 6	—	—
Salaries and wages	3208 13 8	—	—
Pensions	307 13 0	—	—
Law expenses	33 10 10	—	—
Furniture	73 18 10	—	—
Alterations, repairs, and painting	763 2 0	115 11 8	—
Annuity under a Deed of Trust	44 8 2	—	—

SIR JAMES SIMPSON. We have very great pleasure in announcing that her Majesty, recognising the valuable services of our fellow-citizen, Professor Simpson, in the advancement of medical science, has offered that gentleman a baronetcy. In stating her Majesty's intention, Earl Russell intimates that the distinction is a recognition of the Professor's many services to the science of medicine, especially in the discovery and the application of chloroform, by which pain in surgical operations has been alleviated and human life in consequence rendered more secure against disease. The honour thus sought to be conferred must be all the more gratifying to Dr. Simpson as it was entirely unexpected, and, moreover, has never before been conferred on any member of the profession practising in Scotland. (*Caledonian Mercury.*)

Association Intelligence.

BRANCH MEETING TO BE HELD.

NAME OF BRANCH.	PLACE OF MEETING.	DATE.
METROPOL. COUNTIES. [Ordinary.]	37, Soho Square.	Friday, Jan. 26, 8 P.M.

Reports of Societies.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, DECEMBER 6TH, 1865.

ROBERT BARNES, M.D., President, in the Chair.

SIX gentlemen were elected Fellows.

Specimens. Dr. RITCHIE exhibited a Dermoid Cyst developed in the Fallopian Tube, about the size of a plum, composed of four loculi which contained dendritic growths, similar to the dermoid cysts of the ovaries, and which he thought bore analogy to uterine mole pregnancy. He considered that, arguing from this case, it was not impossible that dermoid cysts might some day be found in the uterine cavity, the result of conception.

Dr. J. BRAXTON HICKS exhibited a Polypus weighing 2¼ lbs., removed by Dr. Oldham with the wire-rope écraseur. Before removal it reached from the vulva to just beneath the umbilicus. The patient was doing well.

Dr. GREENHALGH exhibited a Polypus removed by the wire-rope écraseur; and also a Growth removed from the Cervix of a Pregnant Woman without hæmorrhage, but the patient aborted a few days afterwards.

An Anomaly of the Placenta. By R. UVEDALE WEST, M.D. In this paper, which was illustrated by drawings, the author related several cases of "battledore placenta," in which the funis was inserted in the membranes, and divided into its vessels, at a considerable distance from the edge of that organ; and described how great doubt and awkward embarrassment may arise to the accoucheur when, as happened to the author, this anomaly occurs with one of the funes of a twin placenta, through its accidental tearing away from its very lacerable attachment.

Two Cases of Obstructed Labour; with Remarks. By SAMUEL BERRY, L.R.C.P.Ed., Birmingham. After alluding to the obstructions which occurred to the birth of the child, Dr. Berry instanced a case of obstruction by an ovarian tumour, in which the child had been, with considerable force, delivered by the forceps. The next day, after coughing, the patient felt something descend. Dr. Berry was then called in, and on examination, found it to be an ovarian tumour, the pedicle of which was traced through a rent in the upper part of the vagina. Opiates were given; and, two days afterwards, a ligature was put round the pedicle, which was then cut through just below. The patient recovered without much anxious symptoms, and was about again at the end of a month. She has also been delivered since, and without any trouble. In the other case there was a soft tumour springing from the sacrum, which reduced the antero-posterior diameter to about two inches. This was explored by trocar; but nothing but blood flowing, it was debated whether Cæsarean section should be performed or not. It was ultimately agreed to perforate. This was done, and the fœtus then turned. Very great difficulty occurred; but at last it was accomplished. The patient, however, died afterwards from rupture (as it subsequently appeared) of the uterus. Dr. Berry pointed out the inferences to be gathered from these cases: that, in the first the tumours should have been tapped before the use of forceps; and, in the latter, the Cæsarean section would have been probably much the safer treatment.

Dr. A. HALL related a case similar to the last one, where version had been adopted, and rupture of the tumour, with internal hæmorrhage, caused death shortly afterwards.

COMPARATIVE ADVANTAGES OF CÆSAREAN SECTION OVER CRANIOTOMY IN EXTREME DISTORTIONS OF THE BRIM. BY R. GREENHALGH, M.D.

HE recited cases of difficult craniotomy; together with another case of Cæsarean section which he had recently performed, in which the patient afterwards died. After analysing the cases on record and his own, he considered that craniotomy should not be attempted where the effective antero-posterior diameter was less than two inches, considering the chances for the patient better under Cæsarean section.

In the discussion which followed,

Dr. BARNES showed a fœtus that he had drawn through a very deformed pelvis by the craniotomy forceps, bringing by it the face to present; the mechanism of which instrument had been pointed out to the Society by Dr. Braxton Hicks last year.

Dr. PLAYFAIR referred at length to the statistics of the Cæsarean section published by M. Dufeillay in the *Archives Générales de Médecine*, which showed that, where the operation had been performed under favourable circumstances, 80 per cent. of all the patients had recovered, whereas in unfavourable circumstances, 17 per cent. of the operations had been successful. Even this was a better result than had been obtained in England; but if anybody would take the trouble to read over the history of the recorded cases, and would note the semi-moribund condition in which the patients generally had been before the operation was resorted to, he would be surprised, not so much at the mortality, but rather that even the small success of 11 per cent. had been obtained. Dr. Playfair did not suppose that M. Dufeillay's statistics could be taken as absolutely correct, but they at least proved that the Cæsarean section need not be the almost certainly mortal operation we were generally taught to consider it. He wished, however particularly to refer to the question of the proper treatment of cases of labour obstructed by ovarian tumours which could neither be pushed out of the way nor punctured. He had lately collected the details of more than fifty cases of this complication, and found that more than one-half of all the cases in which craniotomy had been performed had terminated fatally. It was doubtful whether, if the Cæsarean section had been employed in preference, the mortality would have been greater; and not only would the children have been saved, but a radical cure of the disease might have been effected at the same time. Even if the patient survived craniotomy, the disease still remained, and in all probability at no distant period she would again have to undergo the risk of an equally serious operation for its removal. It might even be possible to remove the ovarian cysts, which must necessarily be small, without incising the uterus. At any rate, it seemed that the ordinary rules of practice laid down for this emergency should be reconsidered.

Dr. EASTLAKE referred to one of Dr. Greenhalgh's

cases, where, after the head had been perforated, the labour was left to the natural efforts. He wished to ask the author whether under such circumstances he had ever, in his experience, met with any change in the presentation of the fœtus. A case of this nature had occurred in the Rotunda Lying-in Hospital, and was recorded by Dr. Shekleton in the *Dublin Quarterly Journal*. The patient had been delivered on two or three occasions by craniotomy, owing to great disproportion, due to a pelvic tumour. On the occasion of her last labour delivery by the Cæsarean section had even been contemplated. The majority of accoucheurs in consultation were, however, in favour of again using the perforator; the head was accordingly opened, and a large quantity of the cerebral mass evacuated. The patient was then left for a couple of hours, when, to the surprise and regret of the medical attendants, the left arm of the child was found to occupy the narrow space in the vagina. This untoward event of the altered presentation compelled them to separate the child's arm from the body, and eviscerate and extract under the greatest difficulty. The woman died within ten minutes of her delivery. At the autopsy a laceration was discovered in the posterior wall of the uterus. The fatal issue in this instance might be justly attributed to the increased difficulty of the labour, due to the altered presentation. With the experience of such a case before us, Dr. Eastlake considered that, where it was thought advisable to postpone extraction after perforation, it would be well to adopt some means by which the head could be fixed or tethered so as to correspond with the pelvic aperture.

Dr. Braxton Hicks thought that before the statistics of craniotomy could be fairly compared with those of other operations it was highly necessary that they should be fully revised; because he had found, on searching to the original cases of recognised statistics, that nearly all the deaths which had arisen had occurred rather from the want of the operation, or from neglecting the proper time for its performance. In many it was specially mentioned that had the operation been performed some three, four, or five days previously, the patient would probably have recovered.

Dr. Greenhalgh having replied to the several speakers, the meeting adjourned.

LIVERPOOL MEDICAL INSTITUTION.

Thursday, Dec. 14th, 1865.

W. H. Manifold, Esq., Vice-President, in the Chair

Specimens. In the pathological department, the following specimens were brought forward.

Repair of Skull, after removal (most probably by the trephine), of a considerable portion of the frontal bone, by R. Harrison, Esq. No history could be obtained; the lesion being discovered in an old subject brought to the School of Medicine for dissection.

A rare form of Uterine Polypus, resembling cauliflower excrescence, by Thomas Skinner, M.D.

Two Urinary Calculi; one particularly smooth, and the other just the reverse, removed by Dr. Nottingham. In the first case, the symptoms of stone were so slight as to be hardly recognisable; whilst in the latter they were, as might be expected, of a most distressing character.

A Case of Ulcer of the Stomach, by H. G. Rawdon, M.D. Dr. Vose, under whose care the patient had been in the Royal Infirmary, gave the following particulars. The patient, a middle aged man, was suffering, when admitted, from general anasarca and ascites, with albuminous urine of low specific gravity. The case, in the first instance, was regarded as one of Bright's disease. The abdominal superficial veins were tortuous and dilated, and one or two patches of them here and there had quite a nectarine colour; and further observation of the case led to the belief that there was some tumour, probably of a malignant character, within the abdominal cavity, implicating the kidney. The urine was examined microscopically, but after repeated trials no cancer-cells could be detected. The malignant mass weighed 7½lbs. No trace of kidney-structure could be detected within it. The other kidney was healthy, though much hypertrophied.

Death after Revaccination. Dr. Skinner read an account of a case of revaccination in an adult, which had ended fatally by toxæmia; but how this was produced Dr. Skinner did not pretend to say, as there never was at any time the slightest appearance of undue irritation or inflammation, far less of erysipelas at the seat of the operation. J. B., aged 15, a young lady, with the menstrual function fairly and healthily established, had all her life enjoyed good health, and on the day of revaccination was as healthy-looking as could be desired. On the 9th of March, 1865, she was revaccinated with matter of unquestionable purity, the history of which will stand the closest scrutiny. Her mother and three servants were vaccinated at the same time, and with the same matter. The matter, contained in one of Dr. Husband's capillary tubes, was perfectly amorphous, clear, and transparent. The method of operating was that first recommended by Dr. Graham Weir, of Edinburgh,—a plan in which Dr. Skinner had the greatest, and still has, unshaken confidence. The vesicle ran its natural course, and a more natural one there could not be. On the ninth day it began to scab; and all appearance of redness, swelling, and induration, also began to disappear. On the eleventh day (20th March), a severe rigor occurred, followed by abdominal pain and obstinate sickness; pulse 140. These symptoms were speedily followed by tympanitic distension of the abdomen, rapid emaciation, icteric and anxious countenance, gasping respiration, and all the usual signs of death by asthenic toxæmia. She died on the seventeenth day (26th March) after the operation, and the sixth day after the rigor. No *post mortem* examination was obtained; but so rapid was the decomposition of the body, that the features were not recognisable twelve hours after death. The treatment consisted of ice, opium, and brandy *pro re natâ*, and such liquid nourishment as was likely to be retained, which was slight. Emollient poultices, and laudanum and turpentine stupes, were applied to the abdomen according to circumstances. In his remarks on the case, Dr. Skinner went into the question of the differential diagnosis; whether or not the case could not be referred to coincident typhus, or to variola itself. He thought that the total absence of anything like an eruption on the skin, and the general course of the symptoms, forbade such a conclusion. Dr. Skinner said that he did not believe in the absorption of pus, as pus, into the system; he also did not believe in phlebitic inflammation ending in the formation of pus and thence circulating in the blood, as the *fons et origo* of the phenomena of asthenic toxæmia, so familiar to us under the title of pyæmia or pyohæmia. If anything was wanting to disprove such pathological theories, the present case was enough; as there never was any pus to enter the system, and certainly there could be none formed in it anywhere *prior to the rigor;* therefore the theoretical explanation of this interesting case remains for the present a mystery. Dr. Skinner further added, that so far as he had looked into such cases, he had almost invariably found the death, or the toxæmic

symptoms, to have been preceded by erysipelatous inflammation at the seat of the operation, and an all but immediate occurrence of the morbid phenomena. Such was the case in the lamentable death of the late Sir Culling Eardley. Dr. Skinner considered his case to be without a parallel in medical literature.

MANCHESTER MEDICAL SOCIETY.

DECEMBER 6TH, 1865.

WILLIAM ROBERTS, M.D., President, in the Chair.

Subcutaneous Injection. Dr. WILLIAM ROBERTS called attention to the subject of subcutaneous injection, and mentioned a case of most severe epileptic convulsions, where the use of morphia, by this method, had been most successful. The patient had had a succession of fits; at first they occurred every half-hour, then every ten minutes. He was pulseless, apparently dying, and had had fourteen when Dr. Roberts saw him. Half a grain of morphia was injected into the forearm. In a few minutes the pupils, which were previously dilated, became contracted. No fit occurred after the first injection. In all, three were given, and recovery took place.

Intussusception. Dr. THORBURN showed (for Mr. H. W. Williamson) a specimen of ilio-cæcal intussusception, from a child six months old.

Gall-Stones. Dr. NESFIELD showed a collection of gall-stones passed by the navel. There had been for some time a large swelling of the abdomen, which burst, and discharged some thin pus, and a large quantity of glairy mucus. A fistulous opening remained, through which, every month or so, some of these concretions escaped.

Insertion of the Nasal Instrument. Mr. LUND showed Dr. Thudichum's Apparatus for Injecting the Nasal Passages.

Dr. CROMPTON showed a Lithotrite by Meyer; also, two pairs of Laryngeal Forceps; and an Instrument for Pulverising Fluids, worked by a lever.

Umbilical Cord with Knots. Dr. HARDIE showed an umbilical cord which was tied tightly in a knot, and had caused the death of the child about a week before labour.

Restoration of Vision after Long Blindness. Dr. SAMELSON exhibited a case where useful vision had been restored after fifty years' dormancy. The patient, a gardener, lost the sight of the right eye at the age of fifteen, after severe inflammation, which left the pupil closed; the cornea altered in outline; the iris tremulous, and the anterior chambers shallow, but perception of light good. The left eye, totally amaurotic, was lost eight years ago, after fifteen operations (probably for the most part discision). The perception of light in the right eye being good, an iridectomy was made downwards, and a capsular cataract becoming visible behind the new pupil, the loose portions of the former were extracted; while its central part remained adherent to the closed pupil, and exhibited its lower circumference at the apex of the new conical aperture. The patient read with his cataract No. 12 Jäger.

Ethmoidal Mucocele (?). Dr. SAMELSON also showed a case of ethmoidal mucocele (?) The patient, a child, twelve years of age, presented a swelling of the size of a hazelnut, projecting from the inner angle of the right eye, which was said to have been first observed two years previously, and of late had increased in size. The tumour was elastic, and, except on strong pressure, not painful. The eye, not protruded from the socket, but pushed towards the outer angle, had assumed a more lateral position, somewhat like that of a bird's eye. The full action of the internal rectus made the cornea almost disappear behind the tumour. The right nasal cavity was much obstructed, though not quite impervious; and at some distance from the nostril it was narrowed by a projection into it of the outer wall. An incision would decide whether the swelling was due to an accumulation of mucus in the ethmoidal cells, or to an encysted (dermoid?) tumour.

Wheel-shaped Cataract. Dr. SAMELSON also showed a case of wheel-shaped cataract, probably congenital, in a servant girl, aged twenty-one, with blue irides and active pupils. It was present in both eyes, but more developed in the left than in the right. The centre of each lens was occupied by an opalescent spherical opacity of about a line and a half in diameter, the middle of which exhibited a denser spot, milk-white in the right eye, paler and star-like in the left. From the opaque centre in the left eye, white curvilinear streaks, with their concavities forward, passed like so many spokes towards the periphery of the lens, near to which their extremities were seen, after the use of atropine, to be connected by a white circular line, as it were the tire of the wheel here and there slightly interrupted. The portions of lens comprised within these various striæ, were not everywhere quite transparent. The right eye read No. 4, the left, No. 16 Jäger, at three inches. Entoptically, the patient verified the described appearances. The right eye read No. 1, the left, No. 16, as before. After extreme contraction of the pupil, by means of the Calabar wafer, the right eye read No. 16 only, and vision generally was greatly impaired. The optic disc could not be distinguished, nor any details of the fundus. There was concomitant divergent strabismus of one line. A small iridectomy was intended for the left eye.

Metallic Mercury Discharged by Skin. Dr. SAMELSON also related the following case of the discharge of mercury, in a metallic state, by the skin. A patient, in 1861-62, having, in the treatment for indurated chancre, taken twelve grains of bichloride, and a less quantity of iodide of mercury, and having also used, externally, an ounce and a half of the mercurial ointment, and about an ounce of the black oxide and the iodide of mercury combined, in fumigations; had never been salivated to any marked degree, but had for some time complained of great nervousness, feeling of numbness in the head, inability to work, and sleeplessness. Two months after the last fumigation, he was greatly alarmed by his skin, particularly about the thorax, being profusely covered with minute globules of mercury, easily seen by the naked eye; while the handkerchief and papers he drew from his pocket were likewise studded with the metal. He further exhibited and left with his doctor a few copper coins coated with the same metal. The discharge continued for three weeks; at the expiration of which time the patient did not consider himself much relieved of his cerebral trouble.

Dr. Samelson stated that recently, at Aix-la-Chapelle, in a patient of Dr. Reumont's, the discharge repeated itself for several days after the use of the steam-bath. He further referred to a communication lately received from Dr. Diemer, of Aix, who, amongst 1,300 cases, all at some time subjected to mercurial treatment, had never met with anything similar, but had just recently had his attention attracted by the occurrence of black deposits on the skin of two patients, after such treatment. He was going to submit the collected portions to electrolytic examination.

Mr. MELLOR related the case of a child to whom he had given a few grains of hydrargyrum cum cretâ for some abdominal affection, when an abscess of the

submaxillary gland formed. On opening it, distinct globules of metallic mercury were seen in the discharge and on the napkin, and they continued to appear for a week after the powders were taken.

Optical Instruments. Dr. SAMELSON showed several optical instruments and appliances, devised by Professor von Gräfe. 1. The Photometer, by which the exact degree of perception of light remaining to patients may be ascertained. 2. The Optometer, of the shape of an opera-glass, for easily ascertaining the state of refraction. 3. A tube, provided with a handle, and containing a couple of convex glasses, one inch distant from each other, and calculated to replace a strong convex lens of a focus equal to their combined focuses; a contrivance by which the spherical aberration is lessened, and the reading distance increased.

Correspondence.

MR. SYME AND ACUPRESSURE.

LETTER FROM JOHN BROWN, M.D.

SIR,—Dr. Simpson has most unwarrantly introduced my name into a letter which you have published, as I never expressed publicly any opinion on the subject in question.

It is true that I was present when Mr. Syme tore the pamphlet "with his fingers", and that I regretted his taking a step which was liable to misrepresentation; but, being now compelled to give my evidence as a witness, I beg to say that what Mr. Syme did was done with the most perfect coolness, as the deliberate reply to an imputation on his fidelity as a teacher, and not as an expression of dissent from the proposed substitution of needles for ligatures.

I am, etc.,
JOHN BROWN.

23, Rutland Street, Edinburgh, Jan. 8th, 1866.

LETTER FROM JOHN DIX, ESQ.

MR. DIX presents his compliments to the editor of the BRITISH MEDICAL JOURNAL, and begs to request the insertion of the following letter, which was sent to Mr. Syme on or about January 3rd.

25, Albion Street, Hull, Jan. 9th, 1866.

"Hull, January 3rd, 1866.

"DEAR SIR,—I cannot see how the exact quotation of an entire sentence, can misrepresent the writer's meaning. Neither can I see in the sentence quoted—even when separated from the context—any such meaning as you consider I have given to it.

"Nevertheless, I had already added a few words to a second edition of my remarks (see *Medical Times and Gazette* of December 30th), to shew that my case was *apropos* of the subject you were discussing, and which, I think, answers your objection.

"To represent you as objecting to all improvement, would be too absurd to merit attention. The question is, What is an improvement?

"But I fear the portion of your letter which I took as a text for mine, is open to a far more objectionable interpretation. To me its meaning seems to be this. Those who use acupressure, and such like 'nonsensical contrivances', do so, not for the sake of science, or for the good of their patients, but for the sake of notoriety and public advertisement. This is a most unworthy imputation on a large number of your professional brethren, which I should gladly see you withdraw or disavow.

"As to the merits of the 'wire-compress', I can scarcely hope to make a convert of you; but I think that, when the details of my case are before the profession, no unprejudiced surgeon can fail to see that it possesses real advantages over the ligature in the treatment of aneurism. Its usefulness in cut arteries I have previously shown. Since that time, I have used it in various operations with uniform success and satisfaction, and I am scarcely likely ever to use a ligature again; I could not conscientiously do so.

"I am, dear sir, yours faithfully,
"JOHN DIX."

POOR-LAW MEDICAL RELIEF.

LETTER FROM HENRY TERRY, JUN., ESQ.

SIR,—I wish to inform the Poor-law medical staff, through your columns, that our guardians of the Hardingstone Union have granted us an increase of vaccination fees, in answer to an application from us. Two of us, out of three, not residing in our union, have no parish under two miles, and have each one parish six miles distant; the third gentleman did not join in the memorial. Our application was for an increase of the fee to 3s. 6d. per case, irrespective of distance; or else for 2s. 6d. under three miles, and 3s. 6d. above three miles. The latter plan, it was thought, might cause confusion, and they very liberally granted us 3s. 6d. for all cases.

For the boon, we are somewhat indebted to Dr. Steven, the Inspector of Vaccination, who suggested to me, at his recent visit, the proper steps to take; and I should also state that Mr. Weale, the Poor-law Inspector, was accidentally present at the Board, and sanctioned the step.

Also, at the same Board, I applied to them to provide cod-liver oil for an inmate of the workhouse, which was also granted. I am not aware how the law stands on this point; but my impression was, and is, that the guardians have the power to provide cod-liver oil, leeches, and lint, both in and out of the workhouse.

I should add, in conclusion, that our union is entirely a country one; and that the result of our application might possibly have been different had any town been included in it.

I am, etc.,
HENRY TERRY, JUN.

Northampton, Jan. 9th, 1866.

CATTLE-DISEASE IN NORTH WILTS.

LETTER FROM J. C. S. JENNINGS, ESQ.

SIR,—A disease, different in some of its symptoms from that usually described as "Rinderpest", having appeared in this neighbourhood and caused much alarm to the dairy-farmers, I am induced to give you a short history of its outbreak and progress. From the insidious nature of the malady—the symptoms at first being those of what is in this neighbourhood termed a "chill", followed by indigestion and fever—it was supposed that the disease would be more amenable to treatment than the result has proved; and even now some proprietors of cattle, who belong to an assurance association, are unwilling to have recourse to the more sure method of arresting its spread; viz., the immediate use of the poleaxe.

About a month since, Mr. Young of Brinkworth had a cow attacked with loss of appetite and power of rumination; slight shiverings across the loins; and watery eyes. Respiration then became frequent, and in a few hours more laborious. These symptoms were followed by moaning, coldness of extremities, and slight redness of the mucous membrane of the mouth. Death supervened in three days. Two others were

attacked in a similar manner in the course of two days, and died. One, afterwards taken ill, was bled, had purgatives administered, and recovered. Another was treated with sulphur, nitre, and carbonate of ammonia given in a pint of beer three times a day with gruel at intervals, and recovered. The next seized was a two-year old heifer in calf. This animal, after the shiverings and twitching of skin in the flanks, had watery diarrhœa of a muddy clay colour. Eight hours after the attack, three-fourths of a pound of Epsom salts were administered in gruel, followed every three hours with small doses of hydrargyrum cum cretâ and tartar emetic alternated with chlorate of potash, sulphur, and carbonate of ammonia; each dose being given with a quart of warm gruel. The diarrhœa speedily ceased; and in six hours the cow began to ruminate and shortly afterwards to feed. At the commencement of the treatment she had a rug wrung out of hot water placed over the spine and loins, and this covered with a dry rug, and over all a sack; the legs were also bandaged. After two days, she was turned into the yard and fed upon hay. At the end of the week she had a relapse, with all the previous symptoms, was treated in the same manner, and recovered; the diet consisted of ground linseed with hay, chaff, bran, Swedish turnips or mangold wurzel.

An outbreak also took place on the farm of Mr. Matthews, about a mile distant, amongst yearlings. Of these, four died. Four others, including a two-year old bull, were attacked with the same symptoms, and were treated in the manner above described: three died, and one recovered. Five yearlings from this herd were sold a day or two before the outbreak, and taken a distance of two miles. Of these, three were attacked. One died without treatment; one had a purgative administered, and died; another had one drench given her, and recovered. The remaining two were separated from the rest, and are still healthy; nor has the disease spread in that locality.

Mr. Blake's herd, a mile distant, were also attacked, and three speedily succumbed. The yearlings had the mouth-and-foot disease late in the autumn up to the time of the rainfall, and were first attacked. After the first seven had died, the remaining healthy animals (about fifty) had issues inserted above the stifle in each thigh, and in the dewlap (which the farriers termed inoculation), in the vain hope of arresting the disease; but after suppuration had been established, the animals rapidly succumbed, and the wounds became gangrenous.

Between this and the next an intervening farm of about half a mile in width has hitherto escaped; not a single animal having been attacked.

Within a few days after this outbreak the Misses Woody's herd of milch cows, in an adjoining parish about a mile distant, were rapidly carried off; one, two or three daily till twenty had died. Every kind of treatment utterly failed. Those placed in hospital or in vapour bath died more quickly than those in open sheds. These animals also had, with one or two exceptions, had the mouth-and-foot disease about the same time as Mr. Blake's. I attended the *post mortem* examinations of four animals; in all of which the third or maniplies stomach was distended and hard as a cricket-ball; the food was hard, dry, and in compressed cakes, with the impress of the mucous folds remaining on them. These folds were attenuated, adherent to the food, and devoid of vitality, and fell off when the dried up masses were removed; in fact, the stomach was in the state observed in animals commonly called fardel-bound. The intestines were empty, without ulceration or traces of inflammation, excepting occasionally a slightly reddened congested state of the fourth stomach, with softened mucous coat. In two instances the gall-bladder was enormously distended with watery fluid tinged with bile. The liver was thin, and shewed the impress of the distended stomach: it was friable and shreddy, like old leather. In another case the liver was firmer, but contained flukes. The lungs were mostly congested, and contained but little air; the inferior lobes being solidified. The flesh of one animal, which had been treated in hospital with closed windows, was dark, with gangrenous spots on the lungs and liver. In all the others, the muscles were red, firm, and very healthy in appearance. There had been no purulent discharge from the nostrils, nor redness or ulceration of the mouth, nor swelling of the vulva during life, excepting a few red spots in the cases with mucous discharge and swollen state of the vulva. The skins presented a perfectly healthy appearance; the coats were smooth and glossy up till death. The symptoms were those previously described in Mr. Young's cases; with this exception, that there was nothing unusual with regard to the evacuations as to colour: the fæces were rather more consistent than in health at the onset, with a tendency to diarrhœa before death. Indeed, the symptoms so precisely resembled those which I have repeatedly seen in cases of pneumonia, the animals also surviving for about the same period as in that disease, that to an ordinary observer they appeared to die simply from impeded respiration and vital depression; and this I had an opportunity of noticing in several cases occurring in a farm sixteen miles distant, about three months since, which were called pneumonia. One could not deem it possible, on looking at a fine, apparently healthy animal, when first attacked, that in three days life would be extinct. They did not fall about as if stupid, or struggle as in agony; and one even died standing.

Remarks. The attack having followed upon the mouth-and-foot disease, with its concomitant gastric fever, may not the poison, once generated, have rapidly exhausted the vital powers, and nervous depression have produced the fatal issue without taint of muscle or other structure? The animals had been grazing through the long hot autumn upon dry and scorched herbage until the sudden rainfall, and had been exposed to the influence of chilling easterly winds, arresting the functions of the skin and producing congestion of internal organs. Changes in the constituents of the atmosphere, heavy fogs then prevalent, malaria, the result of the rain-fall upon the previously heated land, producing vegetable decomposition, may also have contributed towards the mischief.

It is well known that dry impacted food may remain in the maniplies stomach for six weeks or two months before the animal evinces signs of distress. Whether this was the result or the cause of the gastric fever, or had only existed as a consequence of the final attack of fever, is a point which may yet require elucidation. The successful treatment of some of the cases denotes the necessity of an early administration of aperients, either Epsom salts or linseed oil, according to the age of the animal, followed by such agents as will induce perspiration; and afterwards diffusible stimuli conjoined with salines, which will also supply oxygen to the blood; and recovery to be established by light nutritious diet. I am, etc.,

J. C. S. Jennings.

Abbey House, Malmesbury, Dec. 18th, 1865.

P.S. On Mr. Matthews's farm, five out of six yearlings have recovered under the treatment above described; but the disease is extending on other contiguous farms. Since writing the foregoing, I have had the opportunity of examining animals which

were slaughtered immediately after they ceased to feed, and before any decided symptoms had appeared. I found the food in the maniplies of a natural consistency, which goes to prove that its dry and hardened state is the result of the fever. As thirty-one* of Mr. Blake's stock have died under every mode of treatment, may not this great mortality be fairly attributed to the previous affection of the mouth and feet—the fever-poison producing death by sudden shock to the nervous system, before the development of the more marked symptoms of true cattle-plague?

THE CATTLE-PLAGUE AND VACCINATION.

LETTER FROM PAUL BELCHER, ESQ.

SIR,—I hope you will allow me to add a few remarks to those which were contained in my letter of December 9th. My motive is, that I am anxious to have my opinions tested; and that I am unable to make the experiment myself, as the cattle-disease has not yet come near enough to give me the opportunity.

Precluded, however, from watching, I have devoted considerable time to reading about and thinking over this murrain; and my opinions, though not at present tested by facts, are, I hope, not altogether devoid of reason.

With true wisdom do you inculcate that *preventive* measures are most needed, and that at present all *remedies* fail.

Towards the end of the last century, the human race were suffering from a disease having several strong points of resemblance to this plague now amongst our herds. A popular tradition, sifted by the industrious and philosophic mind of Jenner, led to the adoption of preventive measures which have almost destroyed the terrors of small-pox. I believe it is reserved for our generation to extend that great work, and to show that that great discovery has not yet borne all its fruit.

Let me explain what I mean by this. I am not sanguine that vaccination—*i. e.*, the grafting of cow-pox on an animal prone to cattle-plague—will avert it. It appears to me about as logical to inoculate syphilis or scabies. "M.D.", writing on December 10th to the *Times*, concludes that cattle-plague is suppressed small-pox. I do not think he proves it; and, if it were so, according to my belief, small-pox in the cow is cowpox, and he would insert cow-pox to cure itself. This much has been proved: that small-pox, transmitted by inoculation to the cow, produces the "vaccine" disease, or something hardly distinguishable from it; that the vaccine disease can be inoculated from cow to cow, from man to man; that small-pox can be inoculated, but that, though modified, it retains its infection; that cowpox can be inoculated, and loses its infectious properties. Let us apply this train of reasoning to cattle-plague. It can be inoculated from ox to ox, from ox to sheep. *Can it be thus transmitted from sheep to ox?* and does it then lose its infectious powers? This is the question which I want settled. To my mind, all the ascertained facts as regards vaccination are in favour of the theory; and the less able does that of "M.D." in the *Times* appear to hold water, the more the history of vaccination is studied. I do hope that vaccination, from my point of view, will be tried by those whose opportunities and experience would settle the question at once and for ever.

I am, etc., PAUL BELCHER.

Burton-on-Trent, December 28th, 1865.

* Eighteen yearlings, one bull, and twelve cows, either died or were slaughtered, recovery being considered hopeless; and, what is remarkable, twenty weanling calves were with the cows till after the latter were taken ill, and then separated, and have remained perfectly healthy up to the present date (January 6th), although the disease extended to a field, half a mile distant, to a neighbouring farm, and seized four out of five heifers, which were at once killed. It then advanced, apparently, with the south-west wind, in the same direction, to another farm, and carried off in a few days the whole herd of fourteen yearlings, which had previously had the mouth-and-foot disease. In these animals, the mucous membrane of the mouth peeled off, but I had no opportunity of examining to ascertain whether vesicles were present; but it is more than probable that, upon close inspection, the small acuminate pimples, described by Mr. Ceely, would have been observed to be developed upon the cutaneous surface of the lip, nostrils, and vulva. I have, for the last three weeks, strongly urged upon all owners of cattle with whom I have conversed the necessity of vaccination as a prophylactic; hitherto, it has only been performed upon those that were running with infected animals; but I hope shortly to be able to give the results of vaccination practised upon healthy herds.

THE ELIMINATIVE TREATMENT OF CHOLERA.

LETTER FROM GEORGE BODINGTON, L.R.C.P.E.

SIR,—In reply to Dr. George Johnson's invitation to me to state the evidence on which I assumed the mineral acids to be a chemical antidote to cholera poison, it may be admitted at once that no direct evidence can be adduced, but only such as is inferential and deduced from analogy. What may be the essential character of the cholera poison, whether it be an organised power, exercising voluntary actions, or a mere chemical emanation or principle, it seems impossible to determine. We do, however, appear to know that it delights in or is engendered by filth, or decaying and decomposing vegetable or animal substances, as they degenerate into a state of alkalinity, volatile or fixed. Hence the employment of chlorine almost universally as an antidote, or neutralising chemical principle. Pursuing the analogy, the internal administration of the mineral acids, may reasonably be expected to exert a similar chemical corrective or antiseptic power on the poison in the human body under infection. I do not pretend to assert that the gentle purgative given by Mr. Newton at the outset of his treatment, was not judicious and beneficial, but cannot admit that it was eliminative of the cholera poison, but only that its object was the the removal of existing crudities of the *primæ viæ*, thereby affording a better chance of recovery, by the efforts of nature and by other means. Those means consisted in Mr. Newton's practice, of a chemical medicinal agent, combining the qualities of a tonic, astringent and antiseptic, under which the disease was guided to a successful termination. The object apparently was to avoid giving too much encouragement to the separation of the serum from the blood and its discharge by the bowels, but to endeavour to retain it in its proper vessels, and neutralise by an antidote the poison with which it was imbued. Any confusion of terms which may have arisen as to "choleraic diarrhœa" or "Asiatic cholera" being the matter of discussion, clearly does not appertain to me, but rather to Dr. George Johnson, who cited Mr. Newton's practice in support of his eliminative theory in the treatment of cholera. Can we cast out cholera by "elimination" any more than small-pox, or scarlet-fever, measles, or any other of the contagious diseases? Can we hope to do more than guide them by scientific treatment through their usual courses to a successful termination, a hope which unfortunately is not always fulfilled?

I am, etc., GEO. BODINGTON.

Sutton Coldfield, Jan. 1st, 1866.

CARRIAGE ACCIDENTS. The total number of persons killed by carriage accidents in the streets of London in the year 1865 is 232.

Medical News.

APOTHECARIES' HALL. On January 4th, 1866, the following Licentiate was admitted:—

Mapleson, Horsley Thomas, 34, Devonshire Terrace

BIRTHS.

ANDERSON. On January 5th, at Glasgow, the wife of T. M'Call Anderson, M.D., of a daughter.

BROWN. On December 31st, 1865, at Rochester, the wife of *Frederick James Brown, M.D., of a daughter.

COCKELL. On January 1st, the wife of Frederick E. Cockell, Esq., Surgeon, Dalston, of a daughter.

DAVIE. On December 30th, 1865, at Perth, the wife of Assistant-Surgeon G. S. Davie, M.D., Royal Artillery, of a daughter.

MACILWAIN. On January 6th, at Matching Green, Essex, the wife of G. Macilwain, Esq., Surgeon, Albany Court Yard, of a son.

OWEN. On January 8th, at Leatherhead, the wife of *Francis Owen, Esq., of a son.

PALFREY. On January 7th, at Finsbury Place, the wife of James Palfrey, M.D., of a daughter.

SWAIN. On January 6th, at Shaftesbury, the wife of Isaac H. Swain, M.D., of a daughter.

SKINNER. On January 1st, at Lyme Regis, Dorset, the wife of David S. Skinner, Esq., Surgeon, of a daughter.

DEATHS.

GUEST, Edmund, Esq., Surgeon, at Halsey Street, Chelsea, aged 49, on January 4.

*ROBERTS, John, Esq., Senior Surgeon of the St. Pancras Workhouse, London, of typhus fever, aged 26, on December 30, 1865.

*SISSON, Andrew, Esq., at Reigate, aged 56, on January 4.

MEDICAL SOCIETY OF LONDON. The second lecture of the course of Lettsomian Lectures on "Certain Painful Affections of the Fifth Nerve," will be delivered by Dr. Anstie on Monday, January 22nd.

REWARDS TO CHOLERA DOCTORS. The Emperor of Austria has bestowed Imperial honours on Dr. Deschauer and other medical men for their services during the late cholera epidemic in the Garrison Hospital at Trieste.

COTTAGE HOSPITALS. The fifth annual report of the Fowey Cottage Hospital has just been published; from which it appears that the whole annual expenses of the institution have been under £20. The patients have been required to contribute towards their own support.

CHARGE AGAINST A HERBALIST. The herbalist and *soi-disant* surgeon, S. E, Hardinge, who was charged with causing the death of Harriet White by operating on her for the purpose of procuring abortion, has been discharged by the magistrate, on the ground of absence of sufficient evidence to connect him with the act.

ROYAL COLLEGE OF SURGEONS. The preliminary examination in general knowledge for the diploma of membership, which is conducted by the Royal College of Preceptors, has just terminated. Of seventy-five candidates who offered themselves, their ages varying from 16 to 28 years, thirteen were referred back to their studies.

SUDDEN DEATH OF A PHYSICIAN. An inquest was held on Monday on the body of Henry Payne, M.D., of Nottingham, who had been found dead in bed on the previous morning. From the evidence of Mrs. Payne it appeared that the deceased, who was 80 years of age, had been in good health. On Sunday morning she left him getting up at twenty minutes past eight. She returned in ten minutes, and found the deceased lying on the bed. She immediately called in medical aid, but he was dead. Verdict accordingly.

THE ACCOUCHEMENT OF THE DUCHESS DE CHARTRES took place on the 10th instant. Drs. Priestley and Gueneau de Mussy, and Mr. Izod of Esher, were in attendance.

MR. I. B. BROWN has been elected a corresponding member of the Physico-Medical and Statistical Society of Milan. A diploma was forwarded to him by the President, with a flattering letter.

CATTLE DISEASE IN MADRAS. The cattle disease has appeared in the Madras presidency. Upwards of 3000 head of horned cattle have died of the disease, which is now raging in Burmah, and in one or two districts it has affected the inhabitants. Veterinary Surgeon T. Gudgeon, of the Queen's Bays, has volunteered to go to Burmah to investigate the malady.

THE HUNTERIAN ORATION. This discourse in memory of the immortal founder of the collection in the Royal College of Surgeons will not be delivered on the anniversary of the birth of Hunter in February next. The oration is now delivered biennially, and will consequently be read in February 1867, it is believed by Professor Hilton, F.R.S., a vice-president of the college.

FEMALE DOCTORS. M. L. D. de Pontes, in his recent work on England, when discussing the equality of men and women and their real and essential differences, remarks, on the subject of female doctors, that there are too many male doctors in the world already, and that the existing sicknesses of mankind are not sufficient to supply them all with a living.

BEQUESTS. Mr. W. Borradaile, formerly of Worthing, has bequeathed £500 to the Sussex County Hospital, Brighton; and £100 to each of the following: the Infirmary and Dispensary of Wells, Somerset, and the Infirmary and Dispensary of Worthing. And £500 to the following metropolitan hospitals: the Charing-cross, the Brompton Consumption, and the Seaman's Hospital Ship *Dreadnought*.

A HOMŒOPATH'S VIEW OF THE CASE. How often, now-a-days, is heard the expression—"Oh, my doctor is almost a homœopath; he gives so little physic!" But let the public beware that it is not deceived by this fallacy; a small dose allopath is not a whit nearer homœopathy than the one who gives the most massive doses; betwixt both and homœopathy there flows the same broad sea of difference of principle. Homœopathy's vital breath is the law, "Similia similibus curantur;" deprived of that it must cease to exist; and the smallest dose allopath is no more a homœopath than a marble statue is a living man.

DR. DRAPER ON PNEUMONIA. Dr. Draper of New York, in a discussion, remarked that no subjects of discussion were so unsatisfactory and resultless as discussions about the treatment of disease. There were so many considerations of age, sex, constitution, locality, epidemic influences, and the *bias* arising from preconceived opinions regarding treatment, that any discussion on the treatment of a particular disease became extremely unsatisfactory; and it is with difficulty that we can arrive at correct conclusions. The numerical method is not yet perfectly understood, and also liable to error. No subject illustrates this better than pneumonia. Here the extremes, bloodletting and the stimulant or expectant method, meet; and between these all shades of treatment are to be found. How are we to distinguish? *Change of type* in disease has been invoked to explain the diversity in the practice of to-day and that of former years. But the advocates of this change of type assume a position illogical and opposed to progress. The explanation must be found

in the slow and steady progress of our knowledge, in more enlightened views of pathology, in our knowledge that the disease is self-limited, tending toward resolution; and that nature is often competent to carry the patient through without medication. But at the same time it would be erroneous and too extreme to claim for the expectant mode application in all cases.

Harveian Society of London. The following gentlemen have been elected officers of the Society for the year 1866. *President*—W. Tyler Smith, M.D. *Vice-Presidents*—B. G. Babington, M.D., F.R.S.; T. Ballard, M.D.; J. B. Walker, Esq.; C. S. Webber, Esq. *Treasurer*—H. W. Fuller, M.D. *Hon. Secretaries*—J. B. Curgenven, Esq.; C. R. Drysdale, M.D. *Council*—J. D. Allen, M.D.; V. De Méric, Esq.; J. Eardley, Esq.; J. Evans, Esq.; J. Gayleard, Esq.; J. S. Lamb, M.D.; J. R. Lane, Esq.; J. Z. Laurence, Esq.; E. Lowe, Esq.; J. M. Moullin, Esq.; C. Royston, M.D.; J. C. Whaley, Esq. The following arrangements have been made for the second half of the session. January 18th—Dr. Drysdale, "On the Medical Aspects of Prostitution." February 1st—Mr. Victor de Méric, "On Syphilisation." February 15th—Dr. Camps, "On Railway and other Accidents attended with Violence: their Effects on the Nervous System." March 1st—Dr. Broadbent, "On Prognosis in Heart Disease." March 15th—Dr. Meredith, "On the Duality of Venereal Ulcers." April 5th—Debate "On Rheumatism and Gout." April 19th—Dr. H. C. Stewart, "Some further Remarks on Embolism of the Great Vessels of the Heart." May 17th—Debate "On Infanticide in its Medical and Social Bearings."

The Cases of Mercuric Methide Poisoning. Dr. Hoffman, writing from Berlin on this subject, says: "What was unknown to Dr. Odling at the time he worked on mercuric methide, and what was equally unknown to the writer of these lines and to chemists in general, was the altogether exceptionally poisonous nature of this particular compound of mercury. Mr. Buckton, who discovered it, and other chemists who worked with it before Dr. Odling, say not a syllable of having suffered from its influence, or even of having been annoyed by it, or of the necessity for taking special precautions to avoid danger from it. Now that the frightfully poisonous nature of the body has been proved by these tragical events, it is not difficult to assert that its highly poisonous nature might have been inferred from its composition and physical properties. The possibility of such a conclusion cannot be denied; but it is equally certain that before this catastrophe no one was acquainted with the dangerous properties of mercuric methide. The writer met Dr. Ulrich a few days before his illness. The conversation turned almost exclusively upon the experiments with mercuric methide, on which the young man had been for some time occupied. Dr. Ulrich spoke with the greatest interest of the results of his labours, and of the discoveries likely to be furnished by their continuation. He evidently had not the smallest suspicion of the dangerous nature of the body he was engaged in examining; nor did the slightest suspicion of it cross the mind of the writer, or he certainly would not have parted from his young friend without giving him a serious warning, or without communicating to Dr. Odling, with whom he was in frequent association, his anxiety on the subject; but he did neither the one nor the other. If, therefore, Dr. Odling is to be reproached with ignorance, the undersigned must equally share the reproach."

OPERATION DAYS AT THE HOSPITALS.

Monday.....Metropolitan Free, 2 P.M.—St. Mark's for Fistula and other Diseases of the Rectum, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

Tuesday. .... Guy's, 1½ P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.

Wednesday... St. Mary's, 1 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.

Thursday.....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Great Northern, 2 P.M.—London Surgical Home, 2 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.

Friday..... Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

Saturday..... St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1·30 P.M.—Charing Cross, 2 P.M.—Lock, Clinical Demonstration and Operations, 1 P.M.—Royal Free, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

Monday. Medical Society of London, 8 P.M. Dr. Tilbury Fox, "On Leprosy, with Notes taken during recent Travel in the East."

Tuesday. Pathological Society of London, 8 P.M.—Anthropological Society, 8 P.M.

Thursday. Harveian Society of London, 8 P.M. Dr. Drysdale, "On the Medical Aspects of Prostitution."

TO CORRESPONDENTS.

*** *All letters and communications for the* Journal, *to be addressed to the* Editor, 37, *Great Queen St., Lincoln's Inn Fields, W.C.*

Communications.—To prevent a not uncommon misconception, we beg to inform our correspondents that, as a rule, all communications which are not returned to their authors, are retained for publication.

Correspondents, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

Mr. Gore's paper, published in the Journal of last week, should have been described as having been communicated to the Bath and Bristol Branch by Mr. C. S. Barter.

The Griffin Testimonial Fund.—Sir: The following subscription has been further received on behalf of the above Fund:—
Dr. Hutchinson (Bishop Auckland), 10s.
Amount previously announced, £141:13:3.

I am, etc., Robert Fowler, M.D.,
Treasurer and Hon. Sec.

145, Bishopsgate Street Without, January 10th, 1866.

COMMUNICATIONS have been received from:—Dr. Frederick J. Brown; Mr. G. W. Armstrong; The Honorary Secretary of the Pathological Society; Mr. J. C. S. Jennings; The Honorary Secretaries of the Harveian Society of London; Mr. Paul Belcher; Dr. Geo. Bodington; Dr. James Russell; Dr. Henry Johnson; Dr. F. Page; Mr. Haynes Walton; Mr. Ceely; Mr. G. G. Wyer; Dr. J. H. Webster; Mr. C. S. A. Atkinson; Mr. J. Dix; Mr. Stone; Dr. Robert Fowler; Mr. H. Terry, jun.; The Registrar of the Medical Society of London; Dr. Camps; Dr. Dobell; Mr. Steele; Mr. J. Barker; Dr. J. H. Webster; and Mr. Trousdale.

BOOKS RECEIVED.

1. A Reply by Dr. Hartshorne to some Accusations made against him by Richard Thursfield, Esq., of Broseley. Birmingham: 1865.
2. On the Anatomy of Vertebrates. Vol. I: Fishes and Reptiles. By Richard Owen, F.R.S. London: 1866.
3. The Treasury of Botany. By J. Lindley, Ph.D., F.R.S., and T. Moore. In Two Parts. London: 1866.
4. Journal of Anthropology. No. I. London: 1866.

Pathological Explanation

OF THE

DIMINISHED ABSORPTION OCCURRING DURING THE STAGE OF CHOLERAIC COLLAPSE.

BY

GEORGE JOHNSON, M.D., F.R.C.P.,

PHYSICIAN TO KING'S COLLEGE HOSPITAL; PROFESSOR OF MEDICINE IN KING'S COLLEGE; ETC.

The more closely the facts of cholera are examined by any competent observer who has freed himself from the blinding influence of erroneous theories, the more simple and intelligible appear all the most striking phenomena of the disease—the more completely do they come within the grasp of the understanding. How few and simple are the facts—how plain and obvious are the inferences—which suffice to explain the chief symptoms of choleraic collapse. There is, first, the fact demonstrable after death, that, during the stage of collapse, there is an arrest of blood in the minute branches of the pulmonary artery. Then there are the phenomena observable during life, which correspond with this fact, and which receive their explanation from it—the extreme smallness and feebleness, or even the complete absence, of the pulse; the very scanty supply of blood to the arteries, as shown by the fact that, the temporal artery and other arteries of considerable size having been opened, the blood has escaped only in a small and languid stream. Again, there are the striking chemical phenomena which result from the greatly reduced stream of blood which passes through the lungs during the stage of collapse. This small stream of necessity involves a correspondingly limited supply of oxygen; and hence results a fall of temperature, and a very scanty formation of carbonic acid and of biliary and urinary constituents; the blood at the same time becoming black and thick and dense, mainly in consequence of a deficiency of oxygen and an accumulation of unoxidised materials within it.

There is one phenomenon which has not hitherto received the attention which it deserves. I allude to the extreme impairment of the *function of absorption* during the stage of collapse. It has often been stated that absorption is absolutely suspended during collapse; but this is not so. Magendie has shown that absorption, although much slower and less active during collapse, is not absolutely suspended. He proved this by injecting camphor and ether into the rectum, and then ascertaining that the odour of these drugs might be detected in the breath in about five minutes; whereas, in health, he found that they might be so detected in one minute after their injection into the bowel. (*Leçons sur le Cholera Morbus*, p. 97.) It would appear, therefore, that absorption is reduced to about one-fifth of its normal activity during the stage of collapse.

What is the cause of this remarkable phenomenon? Some pathologists endeavour to explain it on the principle *obscurum per obscurius*, by attributing it to "paralysis of the ganglionic nervous system", and appear to consider this a full and complete account of the whole matter. That the diminution of absorption during the stage of collapse is not a result of the active and copious excretion from the intestinal vessels, is shown by the fact that, whereas the function of absorption is much impaired only during the stage of collapse, the intestinal excretion is commonly more active before collapse than during that stage, and often continues with more or less activity for a considerable period after collapse has passed off, and when the function of absorption has recovered its wonted activity. This impairment of absorption is indisputably a phenomenon belonging exclusively to the stage of collapse. And here it may be well to explain, that we are now considering only that part of the function of absorption which is performed by the *blood-vessels*. During the collapse stage of cholera, there is little work for the *lacteals* to perform; and in all circumstances the blood-vessels are the channels by which, chiefly ordinary liquids and the various saline and odorous matters are taken up into the circulation. What we have to explain, therefore, is the diminished activity of vascular absorption during the stage of collapse.

Physiologists have shown that absorption in living animals is in great part a purely physical process. The process implies imbibition or endosmose of a fluid through the walls of the vessels, and the subsequent transmission of the imbibed fluid by the vascular channels to distant parts. Various circumstances influence the rate of absorption; more especially, first, the physical and chemical characters of the fluid to be taken up; and, second, the state of the blood-vessels as to repletion or the opposite condition. The greater the degree of vascular fulness and distension, the less actively is absorption carried on; and *vice versâ*. But there is another condition which has a more direct bearing upon our present inquiry, and that is *the rapidity of the blood-current through the vessels*. All other conditions remaining the same, absorption is rapid and active in proportion to the velocity of the stream of blood. Retard and lessen the stream of blood, and the rate of absorption is checked. Arrest the stream, and absorption ceases. Let the blood within the vessels so accumulate as to exert great pressure on their walls, and a process the reverse of absorption takes place; namely, an exudation from the vessels into the surrounding tissues. I am referring now to well established and familiar physiological facts. (See the chapter on Absorption, in Todd and Bowman's *Physiological Anatomy and Physiology of Man*, vol. ii, p. 269; and Dr. Carpenter's *Human Physiology*, 6th ed., p. 109 *et seq.*; also a lecture by the author, on the Pathology of Dropsy, *Lancet*, Jan. 16th, 1864, p. 59.)

The relation of these facts and principles to our present inquiry, appears to be sufficiently obvious. We have to bear in mind the peculiar condition of the whole circulation during the stage of collapse. The main bulk of the blood is arrested before it has reached the capillaries of the lungs; so that only a small fraction of the ordinary supply is received by the left ventricle, and sent on in a languid stream through the imperfectly filled arteries. If we puncture an artery of considerable size, so little blood does it contain, that little or none will escape; "the artery merely emptying itself in a languid stream, not in a jet, and then collapsing." Again, if we open a vein, although the vessel may be full of blood, yet so nearly is this blood stagnant, that only very slowly and with great difficulty can the blood be made to flow.

Here, then, as it appears to us, in this scanty and slowly moving stream of blood, we have a sufficient explanation of the diminished absorption which accompanies the collapse stage of cholera. This phenomenon of lessened power of absorption is exactly coincident with the stage of collapse. It comes on with the other symptoms of collapse, and it passes off with them. It is one of the obvious and necessary results of that remarkable impediment to the pulmonary circulation, which I have shown, in a previous communication (British Medical Journal, Nov. 18th, 1865), to be the one great central fact in the pathology of choleraic collapse.

Knowing what we do of the process of absorption by the blood-vessels, and of the various circumstances which tend to quicken and to retard it, we might have predicted, as a necessary consequence of that peculiar state of the circulation which has been proved to exist during the stage of collapse, just such a diminution of the function of absorption as is known to occur. As Magendie ascertained by experiment that the function of absorption from the lower bowel is reduced to about one-fifth of its ordinary activity during the stage of collapse, so it is probable that the blood-stream is lessened in the same proportion. The one phenomenon will serve as an index and a measure of the other.

It is probable that, during any future epidemic of cholera, attempts will be made to treat the disease by the method of hypodermic injection. I see that some practitioners have publicly announced their intention to introduce morphia in this way. It makes one shudder to contemplate the consequences of this practice. An opiate introduced by the stomach has some chance of being rejected by vomiting or passed away by stool; but injected beneath the skin, it must enter the circulation and produce its deadly narcotising effects. Two results, therefore, must inevitably attend this method of treating cholera. 1. The death of the patient, whose nervous system will be overwhelmed by the drug; and 2. The discredit of the practitioner who, refusing both to learn and unlearn, persists in a method of treatment condemned equally by therapeutical experience and by pathological science.

Cataract Glasses. In the October number of the *Ophthalmic Review*, Dr. Mackenzie of Glasgow gives some very excellent "Hints on Cataract Glasses." He tells us how to adapt proper glasses in individual cases; and winds up with directions to be given to the patient. "Having seen our patient provided with proper glasses, he should be warned against scratching them, which, on account of the prominence of their surfaces, is very apt to happen. Dismissed from an hospital, cataract patients are supplied with two pairs of glasses of the usual foci; but the cases with which they are furnished for holding the spectacles are generally so coarse and rough inside that in a few months the centres of the spectacles are marked with scratches, and thus rendered of almost no further service. Rather than commit the spectacles to such usage, it were better to advise the patients to have a soft pouch of cloth (of velvet, if they can get it), made expressly for holding their spectacles, so as to avoid scratching them. Cases for cataract-glasses, furnished by the optician, should be constructed so as never to open at one end, but should have a lid extending the whole length of the case, and hinged like that of a snuff-box; so that the glasses are laid flat into the case, and not put in at one end and thrust along into their place—a plan which, unless the case is lined throughout with velvet, is sure to injure the glasses by rubbing against their surfaces."

Original Communications.

THE CATTLE-PLAGUE AN ERUPTIVE FEVER.

By Robert Ceely, Esq., Aylesbury.

[*Continued from p.* 18.]

Notwithstanding that there are found some modifications both of the external and internal pathology of the Cattle-Plague when it attacks the sheep, yet it still is seen to preserve its eruptive character.

So also in the goat. Professor Varnell very lately informed me that he had met with a fatal case of the disease in the goat, in which the cutaneous eruption was well developed.

I have been favoured with the following description of the order of development of the cutaneous eruptions, by a careful observer, who had excellent opportunities (T. W. Mayor, Esq., V.S.R.E.).

"The earliest symptoms of cattle-plague are indicated by an increase of the heart's action; the pulse varying from 86 to 120, and generally wiry. The respirations 30 and upwards. The countenance, when not excited, appears anxious; the ears are thrown back; alæ nasi swollen, so as, in some instances, almost to close the aperture; Schneiderian membrane inflamed; slight watery discharge from the nostrils; vagina inflamed in streaks.

"In the second stage, which commences about the fourth, fifth, or sixth day from the preceding, the swelling of the alæ nasi diminishes; the pulse varies from 80 to 90; the respirations from 24 to 30 and upwards, with crepitation on one or both lungs. There now appears, on the nose, along its margin, close to the hair and occasionally along the back, vulva, udder, etc., a papular or vesicular eruption of a dark copper or bronze colour. When that is peeled off, a red spot is visible, slightly depressed in its centre; but, on the nose, rapidly becoming dry and pitted.

"The 'cauliflower' eruptions or incrustation, I have seen only in the last stage of the disease, and they only appear pustular.

"In the only cases of recovery I have seen here (Norfolk), the vesicular eruption began about the fourth day, and commenced to disappear about the twelfth day."

The character and course of the eruption are best observed on the udder, particularly when devoid of hair. Here, both during life as well as after death, may be seen patches of roseola, minute papulæ, small flat vesicles, and circular dirty brown crusts. Mr. Lepper of Aylesbury, not long since furnished me with the skin of the udder of a milch cow which had recently died of a severe attack of the disease. And, still later, Professor Varnell forwarded to me for inspection a portion of the skin of the udder of a heifer similarly affected, which was seen also by Dr. Quain. In both these specimens, the above coexistent phenomena were remarkably well displayed.

Reverting to the writers before mentioned, who either recorded the popular belief in the resemblance of the cattle-plague to small-pox, or expressed their own impressions on the subject, one cannot help remarking that no records are to be found, as far as my information extends, of the communication to man of the malignant cattle-distemper of their times, either by casual or artificial inoculation.

In regard to the present disease, reports have reached me of its casual communication to persons occupied in attendance on diseased cattle or engaged in autopsies. Few of these can be relied upon, the

information not being sufficiently explicit to allow of a satisfactory deduction. Some of the results reported, doubtless, were induced by inoculation with the products of septic decomposition and not with the specific virus of the disease.

I have neither seen nor heard of any case parallel to the following; which came under my observation after it had been inspected by several. The particulars of the case I noted down at time of my visit, from the dictation of the patient and the corroborative testimony of Mr. Rayner, his surgeon.

On December 3rd last, while the patient, Mr. H. M. Hancock of Uxbridge, veterinary inspector, was superintending the autopsy of a bullock which had recently died of cattle-plague, which was being performed by his assistant. Mr. Hancock accidentally received on the back of his hand a puncture from the point of the knife, while the operator was occupied in removing the skin in the vicinity of the scrotum. The injury, being slight, was disregarded, but washed as soon as practicable, and thought of no more. On Dec. 8th, five days afterwards, a small, slightly elevated, hard pimple, was seen and felt on the site of the puncture. This gradually advanced till the ninth day from the puncture—the fourth day from papulation; when the enlarged papule became distinctly vesicular. There were but slight constitutional symptoms at that time. On the next day—the tenth from the receipt of the puncture, the fifth of papulation, and the second of vesiculation—he called upon his surgeon, Mr. Rayner of Uxbridge, who, upon seeing the hand, asked the patient "if he had not been handling the udder of a cow, for he could recognise a cowpock vesicle of the ninth day.

"The vesicle was then distended with lymph; its margin elevated and rather brown; centre depressed, and also rather brown; and it was surrounded with a large bright areola. There was considerable tumefaction extending from the knuckles above the wrist. The absorbent vessels were visibly inflamed and painful, and much uneasiness was felt in the axilla. The pulse, naturally slow, was accelerated. There was much fever, pain in the back and limbs, severe headache, anorexia, etc., which symptoms continued to increase to the end of the two following days, when the diffused areola had extended up to the elbow."

On December 18th—fifteen days after the puncture, and ten days after papulation—the patient was seen in London by Dr. Quain, Professors Spooner and Simonds of the Royal Veterinary College, and also by Dr. Murchison. "The local inflammation and the constitutional symptoms had then partially subsided; the vesicle contained a rather turbid, brownish fluid, and all the indications of a declining vaccine vesicle."

On December 20th, I visited Mr. Hancock at Uxbridge—the eighteenth day of puncturation, the thirteenth of papulation. There was then evident declining œdema of the integuments of the back of the hand, extending up to the elbow, with a slight blush of redness near it. The vesicle, which was still poulticed, was depressed in the centre, puckered at the margin, but still raised on a firm base. It certainly exhibited the appearances I have often observed, at a corresponding stage, on the back of the hand of milkers infected with casual cowpock. A similar vesicle I have depicted in Plate v, Fig. 2, of "Further Observations on the Variolæ Vaccinæ" (*Transactions of the Provincial Medical and Surgical Association*, vol. x, 1842).

The conclusion drawn from the appearance of the vesicle was corroborated by the history of its development. Its late appearance after the puncture; its tardy and *gradual* papulation and vesiculation; the period of the advent of the areola; its extent and period of decline—all corresponding to these phenomena when induced by the casual inoculation of the milker by the cow affected with vaccinia. Still it must be regretted that lymph was not abstracted at a time when it would have been available in settling all doubts as to its reality.

In the few cases in which I have attempted inoculation with the nasal discharge in cattle-plague, on subjects not having previously undergone variola or vaccine, the results have been negative—the production merely of evanescent papules.

ON THE NATURE, CAUSE, AND TREATMENT OF TUBERCULOSIS.

By Horace Dobell, M.D., Physician to the Royal Infirmary for Diseases of the Chest, etc.

The greater part of my leisure during the last sixteen years has been devoted to a study of the natural history of pulmonary consumption and other forms of tuberculosis, and to collecting, assorting, comparing, and testing the facts recorded by others, directly and indirectly connected with the subject.

The ideas which led to this plan of work were set forth in a paper which I read to the Abernethian Society of St. Bartholomew's Hospital in 1848, and afterwards published in the *London Medical Gazette* of 1851, "On the Class of Medical Literature most needed in the Present Day."* The object was to bring together in an epitome all the most reliable facts concerning tuberculosis, and, from a careful study of them as a whole, to frame hypotheses which seemed capable of co-ordinating and explaining large numbers of the principal facts; then to select the one which included the largest number, and to contrive some crucial experiments to test its correctness.

This plan of procedure was carried out with the effect of annihilating one hypothesis after another, each time suggesting some apparently better arrangement of the facts and some more appropriate ideas with relation to them, until, at length, one hypothesis, with certain possible variations, appeared to grow nearer and nearer to a complete theory.

I have again and again been on the point of publishing this view of the causes of tuberculosis; but have hesitated from a feeling that, before doing so, it ought to be brought up to the completeness of a theory; and my attempts to give it this completeness having always failed to satisfy me, I have been thus deterred from bringing it forward. I have, however, gradually become impressed with the belief that this incompleteness may have been due in some measure to my own want of a sufficiently profound knowledge of physiology and organic chemistry, and of the leisure necessary to acquire this knowledge and to carry out experiments in physiological chemistry. I have hoped to engage the assistance of those whose acquirements in this respect are better than my own, and who, being less occupied with the practice of medicine, have more time for the required class of work. In this hope I have been, at present, disappointed, both because the number of such men is limited, and because they have their heads and hands preoccupied with their own studies, and are naturally unwilling to leave these and apply themselves to such as may be suggested by other persons.

The reasons which have deterred me so long would deter me still from venturing to bring my hypothesis before the profession, were it not that having, during the last two years, published in the *Lancet* (Sept. 10,

* These papers, as corrected and reprinted in 1857, may be obtained from Messrs. Churchill.

1864, June 10, 1865, Nov. 11 and 18, 1865), the practical results of a crucial experiment, without giving any account of the hypothesis on which it was based, and these results having attracted the attention of my medical and scientific brethren, and given rise to many inquiries, I find myself called upon, in simple courtesy, to give some answer to these inquiries. Under these circumstances, and as the views which I entertain, whether they prove true or not, are at least the result of an inquiry conducted on philosophical principles, I feel that I cannot do better than lay them before the profession for discussion.

The hypothesis may be briefly stated as follows.

Tuberculosis is due to defect in the action of the pancreas on the fat taken as food (especially the solid fat). The supply of properly prepared fat is cut off from the blood: 1, by the fats not being brought into a proper condition by the pancreas; 2, by loss of absorbing power in the small intestine, due to the contact of unhealthy pancreatic juice and of defectively prepared food with its mucous membrane. Thus the blood becomes deficiently and defectively supplied with fat-elements from the food; is unable to afford those required for direct combustion; does not replace those taken up during interstitial nutrition; but, on the contrary, takes up more to compensate the deficient supply from the food. This having gone on up to a certain point, the fat-elements of the albuminoid tissues are seized upon, and these tissues are minutely disintegrated in the process. This disintegrated albuminoid tissue is nascent tubercle; and this process of disintegration is tuberculisation.

Tuberculisation will take place first wherever the following combination of conditions is most marked.

1. Greatest activity of interstitial nutrition.

2. Smallest amount of fat-elements able to be spared by the tissues.

3. A double process going on, consisting of: (*a*) ordinary interstitial nutrition in albuminoid tissue; (*b*) interchange of oxygen and carbonic acid, or carbonaceous matter through this tissue.

The tubercle thus formed may be allowed to remain on the spot where it is formed, constituting a *primary deposit at the point of origin*, and this will especially occur when formed under the three conditions just specified; or, it may not be allowed to remain on the spot where formed, but be at once carried away by the lymphatics in a minutely divided condition, and either arrested in the lymphatic glands or carried on into the blood to be deposited from it, constituting a *primary deposit distant from the point of origin*; or, having been primarily deposited in either of these ways, it may be taken up by the lymphatics and deposited in the lymphatic glands, or carried into the blood and deposited from it, constituting a *secondary deposit*.

In the *advance* of these diseased processes, any part of the body in which nutrition is going on in albuminoid tissue may become both the source and seat of tubercle; and any part, whether albuminoid or not, if supplied with lymphatics or blood-vessels, may become the seat of tubercle.

Pure tuberculosis commences when fats, properly acted upon by the pancreas, cease to pass in normal proportions into the blood.

Tuberculisation commences when albuminoid tissue is abnormally seized upon for its fat-elements.

A secondary state is superadded when tubercle has been carried into the circulation, which constitutes tuberculæmia or tuberculous blood-poisoning.

Tuberculosis may stop short of the production of tubercle (tuberculisation), if the normal supply of fat, properly acted upon by the pancreas, be restored to the blood before the albuminoid tissues have begun to be disintegrated; and it will not return so long as this supply is kept up to a normal standard. Tuberculosis may stop short, after the production of tubercle, if the normal supply of properly prepared fat be restored; but, in this case, the tissues must have become so poor in fat-elements that it will be difficult to escape the formation of fresh tubercle in the defective tissues, while the reconstruction of normal tissue is going on. A very rapid and superabundant supply of properly prepared fat to the blood will, therefore, be required.

The balance of fat-elements in the blood and tissues having been restored, tuberculosis will cease; but tuberculæmia, with all the difficulties due to the presence of foreign decomposable and absorbable matter in the tissues and blood, may remain.

In progressing tuberculosis, after the occurrence of tuberculisation, tuberculæmia is added to and combined with the original disease. An ordinary case of consumption is a combination of these three states.

If the second portion (*b*) of the third condition specially favouring tuberculisation—viz., "an interchange of oxygen and carbonaceous matters through tissues nourished by blood deficient in fat-elements"—can be provided for by supplying carbonaceous matters to the circulating medium of the part otherwise than by the normal processes and channels, a temporary protection from tuberculisation will thereby be given to the tissues through which the interchange occurs.

If this part were previously the one in greatest danger of tuberculisation, it will for a time give precedence to the part not so protected; *e. g.*, the lungs may be thus protected by the introduction of oleine through the portal system, the small intestine and mesenteric glands taking precedence in the order of tuberculisation from the want of such protection.

But, as nothing can permanently protect the albuminoid tissues from disintegration except solid fat properly acted upon by the pancreas, the protection by the means above described is only temporary; and, unless the normal conditions be soon restored, the previously protected part will become tuberculous at last. By these means, however, the succession in which parts ordinarily suffer may be changed; and if the normal state be restored in time, the part temporarily protected may permanently escape disease.

The defective function of the pancreas causing defective action upon fats may be temporary or permanent, and a tendency to such defect may be hereditary.

When the normal function of the pancreas has been restored, the mucous membrane of the small intestine may not have recovered its absorbing powers, and thus the fats, though properly prepared by the pancreas, may not enter the blood.

Defect in the function of the pancreas may be produced:

1. By any cause which for a prolonged period greatly reduces its activity, by diminishing the normal demand for carbonaceous matters in the blood.

2. By the action on the nervous system of powerful or prolonged depressing influences.

3. By inflammatory and other abnormal conditions of neighbouring parts.

4. By prolonged loss of absorbing power in the small intestine by which the function of the pancreas is rendered useless.

The normal function of the pancreas may be restored (within certain limits as to the duration of the existence of the cause of its defect) by means which make a healthy demand upon its active functions, remove the depressing influences from the nervous system, and permit the absorption of properly pre-

pared fats by the mucous membrane of the small intestine.

This hypothesis having been constructed step by step to explain the phenomena of tuberculosis, I feel safe in asserting that there is hardly a well established fact connected with the origin, course, terminations, and therapeutics, of tuberculosis, which cannot be more satisfactorily explained by this hypothesis than by any other yet suggested. I have carefully compared all its parts with the best established views in modern physiology; and, so far as my knowledge and judgment are competent to decide, there is nothing essentially inconsistent with these views in any portion of it. At the same time, I am quite aware that there are many important points in physiology, unavoidably involved in every theory of nutrition, whether normal or abnormal, on which our knowledge is, at the best, vague and unsatisfactory. All that can be expected, therefore, in this respect, is that conditions shall not be required by a theory of morbid nutrition which are forbidden by the knowledge we have of normal nutrition. I believe it will be found that I have studiously kept within these limits; but, as I have already said, I am conscious of my deficiency in profound physiological and chemical attainments; and I am, therefore, the more desirous that my views shall be examined by those who possess these qualifications, in order that their truth may be strictly tested.

It is not my intention, then, to enter into a discussion of the purely physiological and chemical details of this hypothesis, but rather to direct attention to some of the most striking points in which it is consistent with the clinical history and pathology of tuberculosis, and especially to those in which it reconciles and explains apparently incongruous phenomena.

In the first place, it is necessary to impress the importance of the position occupied by fat in the processes of life; and I cannot do this better than by quoting the following statements by recognised physiologists, in which my own opinions are embodied.

"In considering fat as an important agent in the various phases of the metamorphosis of animal matter, we cannot, however, refer its action solely to mere contact or catalytic force; but we are constrained to assume that it co-operates in the metamorphic action, and experiences metamorphoses, combinations, and decompositions." (Lehmann's *Chemistry*, vol. I, p. 269.)

Under certain circumstances and for a certain time, "animals can be maintained by a nourishment from which fat is entirely excluded"; and, when the increase of fat in their bodies is in excess of the substances soluble in ether taken as food, "the formation of fat is due to a process of life." (Letter from Professor Liebig to the author, April 3, 1853.)

"In all the forms in which albumen naturally occurs, it is combined with fatty matter." (Kirkes's *Physiology*, 3rd edition, p. 12.)

"The usual function of fat is unquestionably, like that of starch or of sugar, to keep up the heat of the animal.....We require the combustion of all the non-nitrogenous constituents of food to enable us to account for animal heat.....But it is, nevertheless, a fact that fat is always present in healthy muscle; and it is desirable to consider its relation to muscular action..... The experiments made by Bidder and Schmidt on starving cats, and by Bischof and Voit on a starving dog, throw light upon this subject.... When Bischof and Voit supplied their starving dog with fat, the waste of the body, as evidenced by the lessened amount of urea excreted, was diminished, because the fat supported the respiration, which before had partially to depend on wasting tissues. The fat cast over them a protective influence, and limited their waste to the support of their own dynamic functions; and in this fact would seem to be the use of fat after it is stored up in the muscle. We allude to its chemical use; for its mechanical advantage in lessening friction and its possible histogenetic employment in the formation of cells are not under consideration..... A man in ordinary health and activity wastes daily 1750 grains of dry flesh or 7000 grains of fresh muscle, which would contain 150 grains of fat..... We refer to fat distributed in and inherent to healthy muscles, and not to masses of adipose tissue..... The chemical use of fat deposited within muscle may be to protect it from the assaults of oxygen during repose. A muscle, when at rest, gives out carbonic acid, which is, no doubt, partly due to the oxidation of its effete particles, but also to the oxidation of fat..... Tissues may, and do, evolve heat by transformation when required to do so." (Dr. Lyon Playfair, *The Food of Man in Relation to his Useful Work*: 1865.)

A part of the heat necessary to maintain a constantly elevated temperature in birds and animals, "depends upon the *direct* combination of certain elements of the food with the oxygen of the air by the combustive process. The quantity of carbonic acid that is generated directly from the elements of the food, seems to vary considerably in different animals and in different states of the same individual.....In man and other animals which can sustain considerable variations of climate, and can adapt themselves to a great diversity of habits, the quantity of carbonic acid formed by the *direct* combination of the elements of the food with the oxygen of the air differs extremely under different circumstances. It will serve as the *complement* of that which is formed in other ways." (Carpenter's *Principles of Physiology*, 6th edition, p. 265.)

"The fatty matters of the blood are obviously destined to furnish the contents of the adipose and nervous vesicles, whilst their presence seems also to be required in the early stages of the production of cells generally. One of the principal sources of their expenditure, however, is that combustive process by which the heat of the body is maintained; and the amount deposited in the tissues as fat may be looked upon as the surplus of the quantity ingested that is not thus consumed. . . . The question of the capability of animals to produce fat has been much disputed. There seems, however, no reason for doubting that it may be generated, not only from the hydrocarbonaceous constituents of the food (sugar and starch), but also from the splitting up of the albuminous compounds." (Carpenter, *op. cit.*, page 341.)

"It is clear that fat exerts a protective influence over the albuminous tissues, sparing their consumption or oxidation by its own greater affinity for oxygen. . . . When fat is added to the food, its direct combustion takes up the oxygen, and prevents its action on the nitrogenous tissues." (Carpenter, *op. cit.*, p. 332.)

In the second place, I must point out that, although reliable observations on the blood in phthisis are very scarce, those which we have are consistent with my hypothesis. "In this disease, the saponified fatty matters of the blood decrease perhaps more than in any other." (Becquerel and Rodier's *Animal Chemistry*, Speer's translation, 1857.)

In the next place, all reliable analyses and observations of the nature of tubercle itself give results consistent with my statement, that it is albuminoid tissue disintegrated by the combustion of some of its fat elements.

From the analyses of Scherer, "tubercle may be

regarded as protein from which five atoms of carbon, one of hydrogen, and one of oxygen, have been removed." (Simon's *Chemistry*, translated by Dr. Day, p. 479.)

"Chemistry, equally with the microscope, has failed to point out any essential difference between 'grey miliary' and 'crude yellow' tubercle. Chemists are agreed in regarding tubercle as consisting of some modified protein compound or compounds with fat and earthy salts." (Dr. Fuller, *Diseases of the Chest*, etc., p. 355.)

"It exhibits no tendency to form perfect cells, but rather abortive corpuscles, which form slowly, and slowly break down. Elementary molecules are not formed capable of further development. . . . The tissue which is occasionally seen mixed with it in expectorated matter, is disintegrated lung (Andrew Clark), and only means that so much pulmonary structure has been destroyed." (Dr. Pollock, *Prognosis in Consumption*, p. 111.)

"The destructive change which takes place in tubercle is not a vital act, but is determined by a conversion of the chemical components arising out of an interchange of the elements." (Rokitansky, Sydenham Society's edition, vol. i, p. 299.)

In the fourth place, it must be observed that not only all the symptoms of confirmed phthisis, but the earliest appreciable symptoms of impending tuberculisation, upon which physicians are generally agreed, are entirely consistent with my hypothesis. These latter have been briefly and pointedly stated by Dr. Pollock in his recent work. "A preexisting disorder of health is invariably present before there is any evidence of deposit in the lungs. . . . These are symptoms not referable to any disease of the lung, so far as the function of respiration is concerned, but clearly indicative of a general disorder of the system. . . . The earliest of all this group is emaciation." (*Op. cit.*, p. 39.)

The next point to which I would direct attention is the occurrence of hæmoptysis in the early stage of phthisis. It so often happens that the first occurrence of hæmoptysis is followed by a steady descent of the patient, that, *popularly*, the hæmoptysis is looked upon as the cause of consumption. Although this is proved to be erroneous, it is a fact that, in a large proportion of cases, the first attack of hæmoptysis, even though slight in amount, is followed by marked symptoms of phthisis, and especially by loss of weight. The first Medical Report of the Brompton Hospital (1849) shows that hæmoptysis occurs in 63 per cent. of all cases of phthisis, and is more frequent in the first stage, as 3 to 1. Dr. Pollock says: "I have observed 351 cases of profuse hæmoptysis, of which 204, or more than one-half, occurred in the first three months of the illness." "An early profuse hæmoptysis is to be regarded as a bad prognostic; the softening being likely to take place early, and the remission in the progress of the disease to occur only at a period when already much structural mischief has taken place. "The prognostics to be derived from slight repeated hæmoptysis are, on the other hand, not favourable, this being the commencement of the ordinary form of phthisis." (*Op. cit.*, p. 139.)

This is entirely in accord with my hypothesis. For, so long as there is a sufficient supply of fat in the system to protect the albuminoid tissues, there is no reason why tissue should be invaded; but, as soon as this ceases to be the case, the first breaking up of organic structure will occur; and this is the moment at which hæmoptysis may be reasonably expected to take place for the first time. The first hæmoptysis, therefore, although in no sense the cause of the tubercle or of the emaciation, may, in truth, often mark the point in the case at which the formation of tubercle begins, and also the point from which emaciation and other general symptoms of disease must advance in a marked degree, until the progress of tuberculosis is stopped.

A sixth and still more interesting point is the relation of tuberculosis to the menstrual function, with respect to the effect upon the carbon in the system. Menstruation in health has a definite relation to the quantity of carbonic acid discharged from the system by other means. From the occurrence of puberty to the cessation of menstruation, so long as healthy nutrition is maintained, everything which arrests menstruation increases the discharge of carbonic acid from the lungs; and the recurrence of menstruation reduces that discharge. It is evident, therefore, that the menstrual flux is a means of eliminating carbon. Now, it is well known that, previous to the appearance of local symptoms of tubercle, the catamenia usually become irregular, and gradually diminish in quantity until, as the disease goes on, they entirely cease; that permanent arrest of menstruation is a usual occurrence in confirmed and progressing tuberculosis; that any prolonged arrest in the disease is usually attended with a restoration of menstruation; that, when menstruation coincides with confirmed and progressing tuberculosis, all the symptoms of the disease are usually increased at the monthly period; that the cessation of menstruation during pregnancy is commonly accompanied by quiescence in the symptoms of tuberculosis; that a large number of cases of phthisis commence at the age of puberty; and (which appears at first very curious) that at this age, among those attacked, there is a large preponderance of males over females—"123 to 90." (Pollock, p. 295.)

As I read these facts, they have the following meaning. In females, the balance of their nutritive functions is so arranged that, at the age of puberty and during the whole generative period, there shall be, normally, a surplus of carbon in the system. At the age of puberty, this superfluous carbon protects them from some of the dangers of tuberculosis to which boys, who have no such surplus to fall back upon, are exposed. Thus, a girl at the age of puberty, deprived of some of the normal supply of properly prepared fats by a temporary arrest of the function of the pancreas, simply suffers a delay in the appearance of menstruation, appropriating her surplus carbon for the protection of the tissues; whereas a boy, similarly placed, has no such means of escape.

The disappearance of the catamenia when tuberculosis has set in is explained by the deficient supply of fat to the blood cutting off the surplusage of carbon for excretion. The latency of tuberculosis, when the catamenia are retained by pregnancy, is explained by the saving thus temporarily effected in the expenditure of carbon. The restoration of the catamenia during periods of arrested tuberculosis is the expression of a return to the normal proportion of carbon in the system. With this clue, many other analogous phenomena may be easily explained. It is important to remember that, although the number of reliable experiments on the quantities of carbonic acid exhaled by the lungs in tuberculosis, as compared with the quantity in health, is not large; and that such experiments are open to many sources of fallacy; yet, so far as they go, they are to the effect that the exhalation of carbonic acid from the lungs is diminished in tuberculosis, which is, like the above facts, in accordance with my hypothesis. (*Annalen der Chemie und Pharmacie*, 1846, p. 23.)

[*To be continued.*]

HÆMORRHAGE FROM DETACHED PLACENTA NEAR THE EIGHTH MONTH OF GESTATION: LABOUR INDUCED BY BARNES'S DILATOR: RECOVERY.

By W. J. Tubbs, M.R.C.S.Eng., Upwell, Cambridgeshire.

Mrs. ——, aged 44, had had three children, each labour being normal. She said she was standing in a cart on the 25th of November, and giving her little girl to her husband, who had just got out at his own door, when the horse went on and she was thrown forwards, but was saved by her husband from falling. She was frightened, but soon recovered from the shock. During the night, she got out of bed to pass urine, when a large quantity of blood poured from her. When she returned into bed, the hæmorrhage ceased. In the morning, she rose and continued her domestic duties as usual.

On that day week (December 2nd), she had a return of the hæmorrhage, which, according to her account, was profuse. It came on while she was in bed, and continued until she was faint. Her husband got up and came for me about twelve o'clock at night. I went immediately, and found her still faint. She had lost a great deal of blood, which was still oozing from the vagina. The os uteri was tilted upward and forwards; it was a little larger than a sixpence, and rigid. I plugged the vagina with a silk handkerchief; applied cloths dipped in cold water over the pubes and to the vulva; raised the legs; admitted air freely into the room; removed some of the bedclothes; and gave twenty drops of oil of turpentine and a dose of ergot as soon as I could.

I watched her the following day and night, giving her diffusible stimulants, with an egg in some tea or gruel occasionally. She did not have any pains from the very first of my seeing her.

I left word that, in the event of any more loss, I was to be sent for immediately; and that she was not to get up for some days. In the course of two days, she came down stairs at noon, and continued much the same until seven o'clock in the evening, when, on crossing the room, the hæmorrhage returned, and she fainted. She was taken to bed, and I was again sent for, and arrived shortly afterwards, when I found her very pale and almost pulseless. The vagina was filled with coagulated blood; the os uteri flaccid, and a little more dilated than on my first examination. I could just make out that it was a vertex presentation. I did not think it advisable to rupture the membranes, as I might, if necessary, turn better with them entire. I decided to use No. 1 dilator, and deliver by turning as soon as the os became sufficiently expanded. Desiring assistance, I sent to Wisbeach for the first surgeon who might be in the way, and at once began dilating the os. I found some difficulty in making the India-rubber remain in the os; but at last I succeeded by passing it in with a piece of whalebone. This answered admirably. There was no pain complained of during the dilatation; and, when the os was sufficiently opened, I left off injecting, and allowed it to remain until the arrival of the surgeon. When Mr. Wm. Groom arrived, he examined the expanded os, and agreed with me that I might introduce my hand. Just at this time, it seemed that the dilator had got its full volume of cold water; for, in attempting to inject a little more, to show Mr. Groom how it acted, the dilator burst with a loud report. As soon as the gush of water had come away, I passed up my hand by the side of the head and brought down the feet. The only little difficulty I experienced was from the os uteri contracting on the head, which I liberated as soon as I could introduce my finger into the mouth. The patient had not felt the child move for some hours; and it was still-born.

December 15th. She was going on favourably, feeling only weak from the excessive loss she had sustained.

I have now used the dilators three times, with good results.

Transactions of Branches.

SHROPSHIRE SCIENTIFIC BRANCH.

ON DEODORISERS AND DISINFECTANTS.

By Thos. P. Blunt, B.A.Oxon., F.C.S., Shrewsbury.

[*Read November 3rd, 1865.*]

At the present time, when the attention of the public generally and of medical men in particular, is powerfully drawn to the means of preventing the spread and propagation of infectious diseases, a few remarks on the above subject may not be out of place.

It should be premised, that the very idea of disinfection is grounded on the assumption that diseases of a certain class are capable of communication to a healthy subject, by means of minute material particles given off among the secretions or excretions from the body of a person affected by them; it is assumed that these particles, like all true organic substances, are capable of oxidation and destruction by certain chemical agents; and it is the power of producing this result which forms the essential property of the disinfectant. Since, however, the liability to infection is vastly increased, and the general health seriously impaired by many external conditions, among which the habitual presence of foul odours takes a prominent place, various substances of another class have come into use, which, without possessing any general oxidising power, combine with and fix some of the gases which always accompany animal decomposition, and add greatly to its depressing influence upon the system.

These substances may be termed *deodorisers*, in contradistinction to the true disinfectant. Of the the latter we shall speak first, as it forms by far the more important portion of the subject.

Disinfectants, then, owe their power in every case to nascent oxygen, *i. e.* to that gas in the act of emerging from a state of combination, under which circumstances its affinities are unusually strong, and it so far resembles that much talked of, but little understood body—ozone.

The hypochlorite of calcium, or "chloride of lime," is the most valuable member of this group, since it alone, of all the substances at present in use, is capable of directly purifying the atmosphere, whether by decomposing gases diffused through it, or oxidising organic particles suspended in it, as well as of destroying the source of infection or pollution; this important end is attained by virtue of the property it possesses of disengaging hypochlorous acid by contact with water, and especially with mineral acids.

Hypochlorous acid consists of chlorine and hydrogen, one equivalent of each; that is, in the right proportion for forming hydrochloric or muriatic acid, combined loosely with one equivalent of oxygen. Hence, on contact with any organic particle, the latter gas is immediately surrendered to it, the result being the virtual combustion of the particle and the formation of hydrochloric acid. The hypochlorite of calcium itself acts in an exactly similar manner if it

be brought, either in solution or in the solid form, into direct contact with the matter to be destroyed, the residue of the reaction being here chloride of calcium; the organic substance is of course, in each case, decomposed by the oxidation of its carbon to carbonic acid, as if it were subjected to actual combustion. It may be remarked in passing, that chlorine itself is comparatively inert as a disinfectant, the little power it possesses being due to its reaction with the moisture of the atmosphere to form hypochlorous acid. From these facts we may draw two practical conclusions:—

(*a*) That where an atmosphere is to be disinfected, a mixture should be made of the solid chloride of lime with a mineral acid,—the hydrochloric by preference,—in order to set free, as far as possible, the combined hypochlorous acid.

(*b*) That where fixed matter only is under treatment, the action of the hypochlorite will be more perfect and concentrated, if it be allowed to retain its normal alkaline condition. It may, perhaps, be used with advantage under the latter circumstances in the state of solution, which promotes its diffusion amongst the substances submitted to its action.

The disinfectants next in value to "chloride of lime" are undoubtedly the solutions of the manganate and permanganate of potassium, commonly known as "Condy's green," and "red disinfecting fluids," respectively; they consist essentially of highly oxidised compounds of manganese, of an unstable character, which readily yield up the greater portion of their oxygen to any organic substance presented to them. The permanganate of potassium contains, weight for weight, a larger proportion of loosely combined oxygen than the manganate, and, where solutions of equal strength are used, is so far the better preparation.

Condy's fluids, from their non-volatile character, act only on fixed substances; and it may be well to draw attention to a serious error found in the directions for their use which usually accompany them. It is there stated that cloths may be saturated with the fluids, and waved in the infected atmosphere, which will be thus purified. The fact, as I can readily demonstrate to you, is, that on contact with cloth or any similar substance, such as paper or the human skin, the compounds are decomposed as completely as by foul gas or any other objectionable matter; and their efficacy is thus at once destroyed. It seems probable, however, that the solutions might be used with advantage in another way—viz., by dispersion in the air by means of one of Rimmel's "odorators", one of which I have in my hand—a method suggested a short time ago for use with a solution of peroxide of hydrogen.

The oppressive and perhaps infectious atmosphere of the sick-room might thus be rendered fresh and wholesome. The experiment is at least worth a trial.

Charcoal, when freshly burned, has a powerful action in the destruction of noxious vapours, and presumably also of the germs of infection when contained in fixed matters, and thus capable of contact with it; though, when suspended in the atmosphere, they would only be destroyed within a certain radius around it. Its activity is due to a remarkable property which it possesses of condensing oxygen within its pores to the extent of many times its own volume. The gas, when thus compressed, has much the power of combination which characterises it when in the nascent condition.

The natural deodorising power of fresh earth, which is worthy of special notice, is probably due to a similar property, which all porous bodies display in greater or less degree. Some such account as this must be given of two disinfectants which have been much advertised lately—viz., Bird's and Macdougall's. Bird's disinfectant consists of a clay—apparently Fuller's earth—in a dry condition, and flavoured with carbolic acid, commonly called creasote oil, which has itself an antiseptic action, and may supplement that of the earth by checking further fermentation in the substance to be deodorised. Macdougall's disinfectant has a powerful smell of gas-liquor, and, upon analysis, appeared to consist of the carbonate and the sulphite of lime, with a little gypsum or sulphate of lime, a trace of oxide of iron and of organic matter, of strong odour. It is just such a substance as would be formed by exposing the refuse lime, which has been used as a gas-purifier, to the atmosphere for a considerable time.

We have now to consider the class deodorisers. Solutions of the nitrate of lead and the chloride of zinc, the latter of which passes by the name of Burnett's fluid, both come under this head; they decompose sulphuretted hydrogen, with formation of sulphide of the metal and free acid. The solution of nitrate of lead is preferable to that of chloride of zinc, for two reasons:

1. Because it is capable of acting in the presence of an acid; while the chloride of zinc is inert, unless the substance subjected to its action is in either a neutral or alkaline condition.

2. Because the nitric acid set free during the reaction (where there is not sufficient ammonia present to neutralise it) is in itself a powerful oxidising agent, and, when reduced by organic matters, is converted into the lower oxides of nitrogen (hyponitric acid, etc.), which are bodies of even greater oxidising power than itself, and possess many of the properties of hypochlorous acid.

Lime derives its deodorising faculty from its property of fixing sulphuretted hydrogen by the formation of sulphide of calcium and water; and partly also, no doubt, from its earthy character.

The peroxide of iron, well known as the subject of many recent patents as an agent for the purification of coal-gas from sulphuretted hydrogen, acts upon and decomposes the latter by converting its hydrogen into water, losing oxygen in the process, and becoming reduced to protoxide. The sulphur is precipitated in the form of powder. Now, since, upon exposure to air and moisture, the protoxide of iron readily resumes the oxygen necessary for its conversion into peroxide, the mere spreading of the exhausted compound in thin layers, in an open place, is sufficient to restore its power until it becomes completely clogged with sulphur.

The persalts of iron in solution thus form useful deodorisers; and I believe they are at present prepared in large quantities for the purpose.

From these facts may be drawn the following conclusions.

1. That the only disinfectants upon which full reliance can be placed are, (*a*) the chloride of lime, solid or in solution, neutral, or used in conjunction with mineral acids, according to circumstances; and (*b*) Condy's fluids, the red by preference.

2. That, as the matter stands at present, the chloride of lime is more worthy of confidence where an atmosphere, in contradistinction to a fixed source of infection, is to be purified; but that otherwise the "Condy's fluid" has great advantage in the absence of the pungent and disagreeable smell which always attends the use of chloride of lime.

3. That mere deodorisers have a tendency to produce fatal deception, by destroying the disagreeable smell of dangerous substances, which, while it is Nature's index of their poisonous character, is itself of minor importance from a sanitary point of view.

BATH AND BRISTOL BRANCH.

CASES OF POLYPUS UTERI; WITH REMARKS.

By J. G. Swayne, M.D., Physician-Accoucheur to the Bristol General Hospital, and Lecturer on Midwifery at the Bristol Medical School.

[*Read Nov. 30th*, 1865.]

The two following cases of polypus uteri are similar in many respects, and appear to me to be worthy of notice; because in both the polypi were larger than usual, and it was, in consequence, found necessary to modify the operation proposed for their removal.

Case I. On May 18th, 1865, Mr. Parsons requested me to see an unmarried lady, Miss P., of about 38 years of age, whom he had been attending for six weeks. He stated that she had had a tendency to menorrhagia for the last two years, but that he was first consulted on account of a rather profuse hæmorrhage, followed by a copious and very fœtid discharge, from the vagina, and accompanied with some pain and aching in the loins. On examining, he detected a large tumour in the vagina, which he was inclined to consider a cauliflower excrescence; but, as he did not feel quite satisfied on that point, he requested a consultation with me about it.

When I first saw her, her general health did not appear to have suffered much, although she was rather pale and exsanguine in appearance. The discharge from the vagina was so offensive, that it rendered the room in which she was very disagreeable. On examining *per vaginam*, I felt, just within the os externum, a tumour, apparently of about the size of a large orange, filling the vagina and distending it considerably. The lower portion of the tumour was rather soft and irregular, as if shreds of it were partially detached and in a state of decomposition; but it had not the peculiar soft spongy feel of a cauliflower excrescence, nor did it bleed so readily on being examined. When viewed through the speculum, its surface appeared of an ashy gray colour, and not bright red like a cauliflower excrescence. On passing my finger up as far as I could reach around it, I was able to feel the pedicle of the tumour, which seemed to be about as thick as my middle finger and more firm and fibrous than the rest of the tumour.

After a short consultation, we agreed that it was a large polypus growing from the os uteri, and we decided on an operation for its removal.

This I accordingly performed on May 23rd. The patient being placed on a firm table and lying on her back in the lithotomy position, I endeavoured for some time to draw down the tumour beyond the os externum in order to excise it; but the vaginal orifice was rather narrow, and although I made repeated efforts both with a vulsellum and an ordinary obstetric short forceps, I could not bring the polypus out beyond the os externum without using more force than I thought justifiable. The tumour also gave way in two or three places, and in consequence of this a very copious hæmorrhage ensued. At least a pint of blood was caught in a basin, besides a good deal which saturated her clothes and ran on the table. I therefore, as she was becoming faint, thought it prudent to desist from further efforts; and contented myself instead with passing a firm ligature of whipcord round the neck of the polypus by means of Gooch's double cannula. As soon as the ligature was tightened, the hæmorrhage entirely ceased.

When we visited her on the next day, the polypus did not feel so firm as before; and, by getting three or four fingers of the left hand behind it, I succeeded in dragging it completely out. The double cannula and whipcord were then removed; and, instead of it, I passed a needle armed with a double thread of strong silk through the pedicle. This was tied on each side, and the pedicle cut through close to the ligature. No unfavourable symptom followed the operation.

On examining with the speculum two days afterwards, the ligature was observed to have come away, together with the remains of the pedicle, and to be lying loose in the vagina.

The patient made a good recovery.

Case II. On August 7th, 1865, Dr. Crocker requested me to see with him an unmarried lady (Miss H.), aged 40, who had been under his care for some weeks. She had been suffering from repeated hæmorrhages from the vagina, which had brought her into a very weak state; and also from retention of urine, necessitating the daily use of the catheter.

On making a vaginal examination, I felt, just within the os externum and pressing very much on the meatus urinarius, a large ovoid tumour, which filled the vagina and presented most of the characteristics of an uterine polypus. It was firm and fibrous to the touch, and bled freely when roughly handled. I could not reach any pedicle with my finger; but, by using the uterine-sound and passing it round it, I could make out that it was attached to the uterus by a narrow stalk. The discharges from the vagina were not offensive, and no kind of decomposition seemed to be going on in the tumour. As the tumour was evidently a polypus, we at once decided on its removal.

This I proceeded to do on August 21st. Having a vivid recollection of the hæmorrhage which followed my attempts to draw down the polypus in the former case, I began by placing a ligature round the pedicle by Gooch's double cannula. When the ligature was tightened, it appeared, in a great measure, to control the hæmorrhage from the tumour. I then applied a short obstetric forceps, and having obtained with it a firm hold of the tumour, I made several endeavours to draw it beyond the os externum; but I was completely foiled in my attempts by the contracted state of the entrance of the vagina, which I felt that I could not overcome without undue violence. I therefore tightened the ligature, and left her.

I saw her on the next day, and again tightened the ligature. The tumour had now become less firm and resisting; and, from the offensive smell of the discharges, appeared to be undergoing rapid decomposition; but yet I found it impracticable to remove it.

On the day following, the whipcord broke whilst I was tightening the ligature. I then made several attempts to draw the tumour out by the obstetric forceps; but still failed, owing to the great resistance of the os externum. No hæmorrhage, however, resulted; but so much soreness of the parts was occasioned thereby, that she begged me not to make any further attempts for some days. I therefore merely directed her to inject twice a day into the vagina about a pint of water containing Condy's solution.

On the 29th (eight days after the ligature was first applied), whilst using this injection, a powerful bearing-down effort was induced by the stimulus of the fluid, and the tumour was suddenly expelled into the chamber-utensil. It was large and pear-shaped, and appeared to have been attached by a rather narrow pedicle.

I saw her again on September 1st. She was then apparently going on well. I examined her with the speculum, and observed a small remnant of the pedicle just within the os uteri. This I touched freely with nitrate of silver.

About a week after the polypus came away, she had an attack of phlegmasia dolens in one leg, apparently in consequence of absorption of the putrid discharges. The attack was not severe, and soon passed away under the usual treatment. With this exception, she made a good recovery.

Remarks. There are two or three points in these cases which are worthy of notice, on account of the bearing which they have upon the pathology and treatment of polypus uteri. The source of the repeated hæmorrhages which characterise this disease, has long been a *vexata quæstio;* some being of opinion that the bleeding proceeded from the uterine mucous membrane, whilst others have thought that it came from the polypus itself. The history of the two cases above related would seem to favour the latter hypothesis; because, in both, copious hæmorrhage ensued when the surface of the polypus was torn or even roughly handled, and this was at once arrested when a ligature was applied round the pedicle; nor could it be re-excited by any handling or dragging of the tumour immediately afterwards. Such an effect is too instantaneous to be accounted for (as has been stated by Dr. West), on the supposition that "the ligature interrupts the vital relations between the tumour and the womb, and thus renders the polypus a far less powerful excitant of the uterine mucous membrane than it was before." On the other hand, the amount of blood which flows at various times from the uterus seems to bear no relation to the size or vascularity of the polypus, as it ought to do if it proceeded entirely from it and not from the uterine mucous membrane. In a case, for instance, where I removed by excision a polypus not larger than a nut, the hæmorrhage previously had been quite as great, if not greater, than in either of the two cases I have related above, and yet the excision was unattended with any bleeding. On the whole, I am inclined to think that the hæmorrhage may proceed from both these sources, the quantity furnished by each depending very much upon their respective vascularity and a variety of other circumstances.

With respect to the operation required for the removal of polypi, the ligature was at one time very generally adopted for this purpose; but it has of late years fallen, I think, very deservedly into disrepute, excision being now more frequently adopted. The old idea, that the removal by ligature is a much safer operation, has been effectually disproved by facts. The removal by ligature is a tedious operation, for frequently several days elapse before the tumour sloughs off; it is a dirty operation, for, all the time the tumour is decaying, a horribly offensive discharge is issuing from the vagina; and it is a dangerous operation, because the putrid *débris* of the decaying polypus may be absorbed and set up uterine phlebitis and peritonitis. I shall not readily forget a case of this kind which occurred some years ago at the Bristol General Hospital. A woman was admitted who had a polypus, of about the size of a hen's egg, growing from the uterus. A ligature was placed around the pedicle by Gooch's double cannula; and the operation was so effectual, that the polypus came away in three days. But, before a week had elapsed, the woman died of metro-peritonitis. The danger of this accident is, I believe, much greater when the polypus is attached, as it was in this instance, to the mucous membrane lining the cavity of the uterus, than when it grows from the lips of the os. Many such untoward events have occurred; but, as Dr. West well remarks, "there is nothing that places the dangers of this operation in so strong a light as the fact that, out of twenty cases of removal of fibrous polypi by ligature, recorded by a most strenuous defender of that operation, Dr. R. Lee, nine, or almost half, had a fatal result—a mortality more than double that of the operation of lithotomy, as high as that which occurs in placenta prævia, and higher than the mortality from malignant cholera."

In the two cases described this evening, I was compelled by circumstances to employ the ligature; but in one of them I was able to excise the tumour on the next day, whilst in the other I found it impossible to do so; and the risk which the patient incurred in this instance is shown by the attack of phlegmasia dolens which supervened.

The operation of excision, which is in every other respect so preferable to the ligature, has been objected to on account of the risk of hæmorrhage which attends it—without, as Dr. West observes, any sufficient reason. He states that, according to the experience of Velpeau, Lisfranc, and Dupuytren, such an accident is very rare; and that, in his own experience, twelve cases of excision were unattended with any hæmorrhage whatever. My own experience, however, does not prove that the operation is quite so free from danger in this respect. Although it is very limited, as I have excised polypi in but seven cases, yet in one of these considerable hæmorrhage ensued. I removed *in situ*, by a pair of curved scissors, a small soft polypus, not thicker than the first joint of the forefinger, and was astonished by observing a copious gush of blood from the vagina immediately afterwards. To arrest this, I introduced a large speculum, in order that I might cauterise the pedicle; but found it quite impossible to do so, as the speculum in a very short time became quite filled with blood. I therefore introduced a large sponge coated with gallic acid, and firmly plugged the vagina. This completely checked the hæmorrhage, but not before rather alarming syncope had ensued. On examining the polypus, I found that it was supplied with blood by an artery quite equal in size to one of the digitals.

In the first case which I read this evening, an examination of the polypus showed that it was fed by an artery quite as large as the radial at the wrist; and in this instance, no doubt, simple excision would have been followed by alarming hæmorrhage.

On account of the risk of hæmorrhage, it is better, in all cases where it can be applied, to remove a polypus by the écraseur, rather than by the knife or scissors; and this, could it have been adopted, would have been by far the best operation in the two cases above mentioned. But, in consequence of the large size of the polypi and the contracted state of the vaginal orifice in both cases, I was unable to get at the pedicle so as to use the écraseur or even the curved scissors; and I therefore very reluctantly used the ligature and excision in one case, and the ligature alone in the other.

Hospital Accommodation. A deputation from St. Pancras about fever hospitals has waited on Mr. Villiers, and has clearly made out the present insufficiency of hospital accommodation. More than once sufferers with small-pox and fever have been brought to the workhouses, owing to the Fever Hospital being full. In 1860, there were 80 cases; in 1863, no less than 225. Mr. Villiers admitted that the case was very strong, but asked who was to pay for the four hospitals proposed. No one denies the want of proper hospitals; but it is generally felt that the parishes must not shift their burdens to other shoulders. If we are to have a municipal body for the metropolis, one of the first things it would be called on to do would be to provide for cases of illness. But, till we have such a body, what will be done by the bodies which act as its substitutes?

Reviews and Notices.

THE ELEMENTS OF PROGNOSIS IN CONSUMPTION: with Indications for the Prevention and Treatment. By JAMES EDWARD POLLOCK, M.D., Fellow of the Royal College of Physicians; Physician to the Hospital for Consumption and Diseases of the Chest, Brompton; etc. Pp. 432. London: 1865.

THIS work of Dr. POLLOCK differs widely from the many valuable treatises on Consumption which are in the hands of the profession. The difference, however, is not one of degree, but of kind. In all our standard works on Phthisis, the diagnosis of the disease—the physical diagnosis especially—is given with an elaborateness that cannot be equalled; and the treatment is described according to the best knowledge of the authors. But Dr. Pollock enters on untrodden ground—at least, comparatively untrodden—and gives us a treatise on prognosis, bearing at the first sight the aspect of being the result of no small amount of observation and thought.

The book is divided into twenty-nine chapters, of which the first is preliminary, and the others are headed as follows. 2. General Considerations in Chronic Organic Disease; 3. Resistance of the System; 4. Phthisis, a Disease of the System; 5. Duration of Phthisis; 6. Premonitory Stage of Ordinary Phthisis; 7. Acute Phthisis; 8. Ordinary Phthisis—the First Stage—its Nature and Results; 9. First Stage—the Deposit absorbed; 10. Ordinary Phthisis—the First Stage—its History—Signs and Tendencies; 11. Chronic First Stage—the Deposit tolerated; 12. Calcareous Deposits in the Lung; 13. Chronic Second Stage; 14. Chronic Third Stage; 14A. Strumous Phthisis; 15. Aged Modifier of Phthisis; 16. Rheumatism, Gout, Disease of the Heart; 17. Emphysema of the Lung with Phthisis—Asthma—Chronic Bronchitis; 18. Menstruation—Pregnancy—Lactation; 19. Hæmoptysis; 20. Gastric Symptoms—Diarrhœa, Fistula; 21. Pneumothorax; 22. Hereditary Influence; 23 and 24. Preventive Treatment of Phthisis—Infancy—Childhood—Occupation; 25. Specific Treatment of Phthisis; 26. Direct Treatment; 27. Treatment of the Different Stages of Phthisis; 28. Climate.

Before entering on the consideration of the special subject of the work, the author gives three chapters, which may all be considered as introductory. In the first, he insists on the necessity of a more extended knowledge of phthisis, in any given case, than is implied in an acquaintance with the physical signs of the disease. In his title-page he quotes as a motto, and, as it were, uses as the text for his discourse, an expression of that profoundly observant and reflective physician Dr. Latham, that

"Pulmonary consumption is no more than a fragment of a great constitutional malady, which it would be vain to think of measuring by the stethoscope, and which it belongs to a higher discipline than any mere skill in auscultation rightly to comprehend."

In order to be able to form an accurate prognosis of any given case of phthisis, the physician, says Dr. Pollock, must be acquainted

"With the origin of the disease, with its history, usual course, and terminations, with its average duration, its modification by treatment, by inherited or individual tendencies, and by its complication with other diseases; and, finally, with the actual physical condition of the patient."

Neither on physical signs alone, nor on systemic symptoms alone, says Dr. Pollock, can we justly found a prognosis. They are often not in proportion to each other; and the physician who would form an exclusive opinion from either may commit a grave error. "The man who, in the present day, pretends to despise physical aids, is in darkness when surrounded by light"; and the auscultator who forms an unfavourable prognosis from certain pulmonary sounds, without observing that in other respects the patient presents the evidences of a healthy sanguification, "is in the position of one who declares that the building is falling because a wintry storm has displaced some bricks from the roof."

In the following two chapters, the author offers some general considerations regarding chronic organic disease. Disease, he says, is not a mere negation—a departure only from the laws of health. And the term "disorder", as applied to disease, is not appropriate. There is no disorder, but regularity even in wrong action.

"The new condition is simply a substitution of one set of actions for another; and this is not the less true because the transaction is productive of mischief to the economy as a whole. So far as natural laws are concerned, the morbid process is as much under their power as the healthy. There is never one moment of interregnum; such a cessation of government would be death..... Disease is only another phase of Nature's processes—a new form—but equally subservient to rules as health." (P. 5.)

Disease, then, and chronic organic disease especially (as the subject of the author's remarks), must be studied as a definite series of actions in accordance with equally definite causes.

The author goes on to comment on the characteristics of organic disease, and on its relation—which is not always a commensurate one—with the systemic disturbance. In the course of his remarks, he calls special attention to the modification which the system undergoes when disease of one organ is assuming a chronic character.

"The system has accommodated itself to the altered structure and to the impaired function; the fever subsides, the pain becomes trifling, secretion from the injured organ returns, but in a lessened degree, or with manifest differences in its composition, and a condition which is called 'delicate health' renders the patient an invalid, perhaps for life. This state deserves study, and has an undoubted use in the economy which has not been sufficiently dwelt on. Its leading features are, emaciation and resulting muscular weakness, impairment of all the processes of assimilation, and a marked tendency to a renewal of irritation in the already enfeebled organ by causes of whatever kind, which in a state of perfect health would lead but to slight disorders, such as cold-catching and errors in diet. To this we might perhaps add a singular immunity from epidemic and other acute affections, which do not directly and ordinarily fall on the organ diseased. The system is, in fact, in a lowered state in all its powers. It has adapted itself to an inferior par of health, for the condition described can scarcely be called disease; and, like a machine which has been damaged in one part, the remainder of its complex mechanism must

be worked at less pressure, if it is to work at all." (Pp. 10-11.)

In the third chapter, he reviews the various results which may arise from the resistance offered by the system to diseased action. All cases, he says, may be found in one or other of three conditions:

"1. Resistance terminating in recovery;

"2. Resistance just sufficient to tolerate the mischief, and preserve the organism at par;

"3. Resistance which is overpowered and succumbs; the organic affection proving fatal." (P. 16.)

Examples of these conditions are adduced; and the author repeats, at p. 34, what he elsewhere says: that we cannot rightly study the disease of any organ *per se*. We must study *all* the phenomena, general as well as local.

"The neglect of this method of studying disease has led to the greatest abuses, the most opposite opinions on disease, and the most shameful errors in practice. Were it universally adopted, we should no longer have complaints that specialism leads to narrow pathological views, for the study of individual classes of disease could never then be limited to the local organ affected, but would of necessity embrace every possible derangement of system. Localisation may be possible in general pathology, but separation is clearly impossible." (Pp. 34-5.)

Having disposed of these preliminary matters, Dr. Pollock proceeds to the performance of the task which he has proposed to himself; and first offers some remarks on the nature of phthisis. He examines the question whether it is a disease of local or of systemic origin; and expresses himself in favour of the latter view.

"That a peculiar alteration in the health occurs preceding the local manifestation of tubercle in the lung, admits of little doubt. It is a subject involved in much obscurity; and the evidence on which its existence rests is of a character only appreciable by those who have themselves undertaken its study earnestly and impartially.

"There are, in other words, symptoms before there are physical signs; and, still further, there are symptoms not referable to any disease of the lung so far as the function of respiration is concerned, but clearly indicative of a general disorder of the system." (P. 39.)

This view must not be confounded with that of a pretubercular stage of phthisis, of which the physical indications are to be found in the lungs. What Dr. Pollock says is, that certain constitutional symptoms precede the local manifestation of the disease; and the earliest of these symptoms, and one to which he attaches much importance, is emaciation. Of this he examines the physiological meaning; and argues that it is the result of a process by which imperfectly elaborated material is rejected by the tissues—"a conservative process which, while it weakens and emaciates, retains the organ comparatively sound." The rejected material is thrown back into the blood. If it cannot be eliminated by the secretions or become oxidised, this waste material accumulates in the blood, and is deposited in the form of tubercle.

The author notices the arguments in favour of the local origin of tubercle, and the relation of pulmonary disease to the general symptoms; and sums up his meaning in the following words.

"It is to be maintained that the disease never arises without a preceding disorder of general health; that the fever and emaciation may, and frequently do, indicate established local mischief, but that they are not found invariably in this relation; that it has never been demonstrated that a hæmoptysis has given rise to tubercle in the lung, and that all arguments derived from analogy are opposed to this view; and, finally, that there is no invariable direct relation, but a very constant difference, observed between the amount of local mischief and the intensity of constitutional disturbance." (P. 45.)

He also examines the question as to the probable origin of tubercle from pneumonia or bronchitis; and gives the reasons which in his opinion negative the supposition that pulmonary consumption can arise from such causes—except where the constitutional predisposition is already present, when an attack of pneumonia may develope it.

In the fifth chapter, Dr. Pollock commences his remarks by observing that "the basis of all prognostic calculations regarding cases of consumption must be founded on a knowledge of the actual average duration of the disease." Now this is a point on which, as he shows, our knowledge has hitherto been very imperfect. Any attempt to estimate the probable duration of phthisis from an an average of any number of cases taken indiscriminately, the disease being regarded as uniform, destructive, and irremediable, must obviously lead to erroneous and contradictory results. This would be the case, even if it were always possible to obtain reliable information from patients; but here again difficulties present themselves. The patient may, by referring the commencement of the illness to some prominent symptom, give a wrong account as to the length of time during which he has been ill; the attack may be a mere lighting up of a latent disease, or one of a series alternating with remissions; the character and duration of the disease vary in different localities and climates; and the numbers from which the estimates are attempted to be formed are too small. These difficulties, however, Dr. Pollock has done his best to overcome in the examination of the patients who have come under his care at the Brompton Hospital.

"An attempt has been made to form a natural classification of phthisis derived from an analysis alike of physical signs and of symptoms, of the whole history and antecedents of the patient, including the age and sex, the personal temperament, the exciting causes, the intercurrent affections, and to assign a relative duration to each. . . .

"The method adopted has been to note with care every single case in the presence of the patient, and this has been done personally by the author to the amount of upwards of twelve thousand. The state on leaving off treatment has been recorded, and the earliest symptoms have been sought for with scrupulous care. The physical condition has been invariably recorded at the time, and the complications and prominent symptoms noted as they arose. Out of the large number of cases occurring among the out-patients of the hospital during a period of seven years, all the instances of tubercular disease of the lung of undoubted character have been selected, and such only as presented the physical signs of consumption retained. All spurious or doubtful cases have been rejected, and every affection but phthisis sifted out. About three thousand five hundred cases thus selected for analysis were thrown into groups according to their peculiar features, every case-paper being separately studied, margined, and classified,

and the duration at the period of leaving off attendance at the hospital recorded." (Pp. 65-6.)

In this way Dr. Pollock has been enabled to collect data on which to found such a classification of phthisis "as may lead to an easy recognition of its different forms," so as to enable us to estimate and calculate the duration of individual cases. He has divided his cases of phthisis under various classes, ascertaining the average duration of the disease in each class. These classes are: *e. g.*, rapid phthisis; ordinary phthisis (an assumed standard of the disease); rapid waste; larynx affected; phthisis with pregnancy and lactation; marked predisposition; phthisis with suspended catamenia; etc.—the conditions, in fact, which are expressed in the titles of the chapters numbered 7 to 22, both inclusive; and he gives tables showing the relative average duration of life met with when each of these conditions was present. It is by this method of study alone, he says, that we can arrive at any accurate and useful results.

"It is when we come to study the relative duration of the different varieties of the tubercular disease, that something applicable to the exigencies of our daily practice arises. No one could with reason assign a duration to any given case from a most perfect knowledge of the most perfect statistics on phthisis, taken as a whole, even put together; but with the assured information that certain varieties of disease lead to great prolongation—say a single cavity in the right lung—in a male aged forty and without hereditary taint; with this knowledge, strengthened by the history of numbers of instances of a similar kind, we may offer a prognosis, based on rational facts, that such a case may last not only four, but twice four years. Judging from the older views on the subject, such a patient would be in the last stage of consumption; but, while assigning it a place in the third stage, we may prognosticate for it a duration far beyond that of any individuals who are in the stage of softening." (Pp. 70-1.)

Dr. Pollock takes in hand each of the varieties of phthisis of which his classification consists, and works out, in regard to them, the data on which a prognosis is to be founded. It is not possible, from the nature of the contents of these chapters, to give an analysis of them: they must be read; and, having been read, they will without doubt leave the practitioner more enlightened, and more competent to answer the question "How long is the patient likely to live?" than he was before.

In the chapters on treatment, those on the prevention of phthisis are especially worthy of consideration.

Dr. Pollock deserves the best thanks of the profession for the extreme care and diligence with which he has endeavoured to place the prognosis of phthisis on a satisfactory basis. Whether all his conclusions, as to the relative average duration of the disease, will or will not be found consistent with experience, further and more extended observation alone can decide. He has at least shown the direction to be followed; and we hope that he will, as his opportunities increase, yet again apply them to the confirmation or modification of the opinions which he has here so ably expressed. In the meantime, we recommend his work to our readers, as one in which, though apparently written on a well known subject, they will find much that is new, interesting, and practically instructive.

ON CANCER: ITS ALLIES AND COUNTERFEITS. By THOMAS WEEDEN COOKE, Surgeon to the Cancer Hospital, and to the Royal Free Hospital, etc. Pp. 226. London: 1865.

THIS book, which is founded on the author's experience as Surgeon of the Cancer Hospital, is divided into eleven chapters.

In the first chapter, Mr. COOKE speaks of the Nature, and of the Primary and Secondary Causes of Cancer. He holds the doctrine of the constitutional origin of cancer, and traces a close similarity in behaviour between it and phthisis. More than this, he believes that cancer and tubercle are "interchangeable creatures." He has noticed, he says:

"That adenoid tumours nearly always occur in persons who had phthisical relatives: and further, that adenoid tumours sometimes become cancerous. I find in a very large number of instances, that phthisis exists in the families of most cancerous patients, who have not an hereditary tendency to cancer itself; and that a cancerous parent will often beget children that become phthisical." (Pp. 12-13.)

After referring to the remarks, bearing on the relation of cancer and tubercle, of Wedl and Velpeau, the author quotes largely from Mr. Paget. This eminent surgeon, in his *Lectures on Surgical Pathology*, gives the following reasons for regarding cancer and tubercle as diseases of the same order.

"1. Tubercles sometimes appear as distinct tissues, like tumours in the brain, and in other instances of so-called encysted tubercle.....

"2. The general characters of malignant tumours, as deduced from cancer, are also observed in tuberculous diseases.....

"3. The tuberculous diathesis, the constitutional state which precedes the formation of tubercle, is scarcely producible by any external agencies, except climate, but it is frequently hereditary.....

"4. The cancerous and tuberculous diatheses appear to be incompatible, and naturally exclusive.....

"5. The tuberculous diathesis, like the cancerous, regularly increases, and is attended with cachexia, which is often disproportionate to the local disease."

These aphorisms, Mr. Cooke regards, after modifying the fourth, and adding another, as embracing all the points which go to prove, not only the constitutional origin of cancer, but its intimate relation and interchangeability with tuberculosis. The addition which Mr. Cooke makes is this:

"The cancerous and the tuberculous diatheses are capable of interchanges, so that the cancerous parent shall beget tuberculous offspring, and the tuberculous parent cancerous offspring, and further, that some of the children shall be tuberculous, and others of the same family cancerous." (P. 19.)

This statement is a startling one; and we are by no means disposed to accept it as proven, if by it we are to understand, that Mr. Cooke means that cancer and tubercle are capable of producing each other. Great care, we would remind him, is necessary to prevent mere coincidences from being placed in a causal relation to each other. We would, too, recommend to his perusal, the words of Mr. Moore, in his recently published essay on the *Antecedents of Cancer*.

"It is not altogether inconceivable that cancer and

tubercle are related; but not as cause and effect. The occasional though very rare occurrence of a subsidence of cancer upon the outburst of pulmonary phthisis, apparently establishes the fact of a connection, though it be an antagonistic one, between them. Consumption, moreover, is in some few families a kind of alternative of cancer, proving fatal to those members of the household who do not die of the latter disease. But, in the relation of cause and effect, it must be admitted that no definite connexion is made out between tubercle and cancer. There is little resemblance between the antecedent conditions of those who are liable to the two diseases. And it is likely that their somewhat frequent coincidence in the same persons, albeit at different periods of life, and in different organs of the body, is due to the fearful prevalence of phthisis in the community. If in one year 66,612 persons amongst us die of tubercle in some of its forms, traces of once active tubercle may be very frequently found in the bodies of those who survive it and die of other diseases. But these facts furnish no ground for supposing cancer more than other diseases to be an offspring of tubercle, but rather for regarding it as equally independent of them all, and as springing up with indifference to all known morbid conditions, whether of the body in general or of any its organs."

After two chapters, on the Diagnosis of Cancer in its different forms, the author treats of the disease as it affects various parts of the body; viz., the Breast, Tongue, Lips and Face, Genital Organs, Arms and Hands, Eye, Rectum, and Internal Organs. The information contained in these chapters is derived mainly from the author's practice; but we do not find much that calls for special notice. The chapter on the Tongue, however, contains some useful remarks on the diagnosis of cancer of that organ from the various diseases with which it may be confounded.

A Meteorological Inquiry into the Physical Cause of Epidemic Diseases, accompanied with Tables. By Alexander Hamilton Howe, M.D., Honourable East India Company's Service. Pp. 171. London: 1865.

The object of the author of this book is to establish a series of propositions regarding the occurrence of epidemic diseases, of which the leading ones are, that

"Epidemic visitations recur at regular intervals of time, of which eighteen and a half years may be taken as the type.

"The length of the interval between successive periodic visitations corresponds with the period of a single revolution of the lunar node, and a double revolution of the lunar apse line."

The bulk of the work is made up of ancient and modern notices of visitations of epidemic diseases. These are, however, placed in such an irregular manner, that we cannot say from an inspection of them whether or not the author has made out his proposition. Perhaps, in a future edition, he will endeavour to show, by some more orderly arrangement, a connexion as to time between certain revolutions of the moon and the outbreak of epidemics. But we have very grave doubts whether he will succeed in giving convincing proofs of the existence of such a relation.

We are requested to remind members of the Association that the annual subscriptions became due on the 1st of January. They can be paid either to the Secretaries of the Branches; or to the General Secretary, T. Watkin Williams, Esq., 13, Newhall Street, Birmingham.

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WHAT LANZONI SAYS OF THE CATTLE-PLAGUE.

In 1713 and 1714, Lanzoni tells us, the contagious Cattle-Plague raged to such an extent in the Duchy of Ferrara as to threaten the utter destruction of the cattle. The loss was great; and so also was the fear lest the disease should be communicated from the animals to man.

The oxen when attacked refused food; their ears drooped; the hair became staring; general tremors seized them; tears flowed from their eyes; large quantities of lymph ran from the nostrils; the bowels were relaxed; and in certain of them pustules appeared in the skin, so that some persons thought the oxen were affected with small-pox (*in aliquibus pustulæ sub cute prodibant*, etc.). The oxen died in the short space of seven days, and in great pain, as appeared from their moanings. "I considered this" (says Lanzoni) "to be a contagious and malignant fever; for, when one animal fell with the disease, immediately others were seized; and when one died, almost all perished. And, as the illustrious Nigrisolus tells us, not only was it a malignant but a burning fever; for the oxen were intensely heated, exhaling from their nostrils and mouths breath like fire; so that some horse-doctors (*mulo-medici*), who put their hands there could hardly bear the heat; and, besides, the animals were constantly drinking and yet never satisfied. The immediate cause, therefore, of this fever is an unnatural fermentative movement of the humours, arising from acrid saline arsenical particles, which alter the constitution of the blood.

"In dissections, the viscera were found healthy; but in some I have seen the omasum almost sphacelated.

"Rustics have eaten the flesh of these dead animals, and without injury.

"Some medical men have thought that the acrid saline particles enter the bodies of the animals with the air; some that they were derived from bad food; many that they were the result of moist and rainy weather; and others, indeed, were pleased to ascribe the disease to the influence of the heavenly bodies.

"My own opinion is that, from inundations and previous bad seasons, the earth was ill disposed—I

might say ailing (*ægrotantem*); and that hence arose those malignant vapours, which passing into the animals excited this worst of fevers."

Many remedies were tried for the cure, but all in vain (*omnia verò incassum*). Bleeding also, and setons, were useless. "I have always judged it vain to try exotic remedies; for, as Seneca says, medicine is the science of herbs. I, therefore, advised the use of grass, chicory, the sacred thistle, etc., in decoctions."

Why these acrid particles should fall on oxen only, Hippocrates tells us, when he says that bodies differ from each other, one nature from another, and one food from another. Would that the scourge may cease, lest that

——"Ad miseros damno graviore coronos
Pestis, et in nostræ dominetur mœnibus urbis."

THE IRISH MEDICAL ASSOCIATION AND THE MEDICAL COUNCIL.

At a late important meeting of Irish medical practitioners at the Limerick Junction, the Medical Council was freely discussed, and strongly taken to task for its inaction, or rather want of effective action. Dr. Mackesy, the respected chairman, spoke strongly of the defective education of medical men, and pointed out the causes thereof.

"The medical profession," he said, "have been sadly disappointed from the want of unanimity, action, and firmness on the part of the Medical Council in not having, after seven years, made due provision for the preliminary education of medical students. That incompetent persons have obtained such qualification, from the want of a stringent examination, has been abundantly proved by the examination of candidates for commissions in the medical department of the army. All candidates must have a diploma in medicine and a diploma in surgery before being admitted to examination, and yet one-third of those competing failed to obtain the minimum number of marks required to qualify them for admission into the service. The examintion of candidates to the medical department of the navy was still more discreditable; for some of the competing candidates, holding legal qualifications in medicine and surgery, were so totally ignorant of the Latin language that they could not translate the *Pharmacopœia*. Now all this is anything but creditable to us as a learned body. Its explanation, I presume, is only to be found in the sharp competition that exists amongst the numerous licensing corporations for the fees paid on the diplomas of those they admit to practise; and the obvious prevention exists in the adoption of a uniform curriculum and course of study by all of those bodies granting licences or degrees, which should be firmly enforced by the Medical Council, and, if required, by the Privy Council."

Dr. Harvey, who followed, proposed a resolution to the effect that the Medical Reform Act, as carried out by the Medical Council, has failed in securing for the medical profession the advantages originally intended, and that no adequate return has been given for the expenses incurred; that a *uniform curriculum* of high preliminary education and of professional and scientific study be adopted for all licensing bodies. In speaking of the Medical Council, he said:

"I believe it is universally acknowledged that we have received no benefit whatever from the Medical Act; that, at the end of seven years, we have not reaped one of the benefits we expected from it. One thing alone has been granted to us—the registration of the qualified practitioners; but this is rendered useless, for the Council never think of prosecuting the unqualified men who violate the Act. As to medical education, the question stands to-day where it did this day seven years. The Medical Council have taken no step whatever to insure that none but educated men shall enter the profession. In fact, within the last seven years things have become worse, and increased facilities given to men to enter into the profession with little or no education. The result is that at the Government boards, to the disgrace of the profession, twenty-five per cent. of the army candidates were rejected, because they were not men of ordinary education. For seven years the Council has been in existence, and it has as yet done nothing. It refuses to ask for further powers; it does not even act up to the powers it has. The Council has not done its duty. The Council is composed of a number of gentlemen, every one of whom is of necessity inclined to seek to promote the interest of the body to which he belongs himself. In the matter of education, what the profession should imperatively demand are not preliminary examinations, for these are quite useless; but that no man should be allowed to enter on his medical course without, as a *sine quâ non*, having obtained an arts degree."

Professor Macnamara added:

"Every one of the medical corporations has a preliminary examination; but in many cases these examinations are mere shams. Any boy who can stammer through a line or two of Greek or Latin is sure of passing the preliminary examinations at some of the corporations; and nearly all of them recognise the certificates obtained at any one. Of course, it is the interest of every corporation to get a student, for the sake of the fees he will pay them; and accordingly, nearly every where, they are trying to have the preliminary examinations easier than elsewhere. The matter should be taken entirely out of the present hands, and placed in those of some body to whom it would be perfectly indifferent whether the candidate passed or not. The Medical Council appears to have done nothing but tax us heavily, and then to bring disgrace on the country by a *Pharmacopœia* which has been rejected by the London College of Physicians, and in every possible way laughed at and snubbed. While I am on the subject, I would also suggest that no student, having presented himself for his diploma at any corporation and having been rejected, should be allowed to present himself at any other corporation for six months after his rejection. I know as a fact, that men, having been rejected by us, instead of spending six months preparing themselves for another examination, go on board the steamer the very next day and go to another place; if they fail there, they go to a third, and so on *unde, unde*, until in the end they are sure to return with their diploma. I state this from my own experience; and I appeal to Dr. Mapother, who can confirm my statement. If a man, having been rejected at Dublin, were not allowed to proceed for examination to either London or Edinburgh for six months, this system would be put an

end to, and the man would spend his six months in improving his knowledge of medicine and preparing himself for his examination."

TRICHINIASIS.

Dr. Kratz of Hedersleben gives an account, in the *Wiener Medizin. Wochenschr.*, of the trichina epidemic lately raging in that town. At the end of October last, twenty workmen in the sugar-factory suddenly fell ill, and all complained that the eating of chopped up raw pork was the cause. The number of sick increased in a few days. On Nov. 2nd, one of these sick came under Dr. Kratz's charge, and on the 3rd and 4th many more; leaving no doubt in his mind that they were suffering from trichiniasis. On the 9th, a *post mortem* examination revealed the trichinæ in the intestines; but as yet none were found in the muscles. The meat at the suspected butcher's was at length confiscated; but at this time no trichinæ were found in it. From the very large number of people who were infected, there appears little doubt that the diseased pork had been mixed up with other healthy meat and had thus infected a large quantity. The truth of the matter was difficult to get at, as both the butcher and his wife had died of the disease. About 350 cases of the disease occurred; and of these eighty have already died. The symptoms of disease differ much in kind and in intensity, as well as in the time of their appearance. At first there was generally purging, and sometimes vomiting, with intense neuralgia in the cœliac and mesenteric plexuses. In milder cases these symptoms were absent. But there was one characteristic symptom which was never absent, a peculiar sensation, a partial tension of the flexor muscles of the extremities and of the cervix. Some of the patients regarded this as a form of paralysis; some complained of it as of a loss of elasticity of the muscles. These signs generally ushered in the disease; remitting for some days; and then returning again with greater intensity. Dr. Kratz regards them as sympathetic only, as they occurred at a time when the trichinæ could not have yet entered the muscles. Later appeared œdematous swellings. Ten days after infection, first appeared œdema of the eyelids. These œdematous swellings were never absent; but their seat, time of appearance, and extent varied greatly. As regards *post mortem* appearances, there was little observable within the first fourteen days beyond slight inflammation of the mucous membrane of the stomach and intestines, and large quantities of trichinæ in the intestines. Dr. Kratz says that he was so occupied with the patients, two hundred and sixty of whom he had under his own charge, that he was at first unable to make careful autopsies. At the end of the third week, however, the examinations were carefully made by Dr. Cohnheim, Virchow's assistant. Fatty disease of the liver and hypostasis of the lungs were constantly present in patients who had lived five or six weeks. Death was caused at the end of from three to five weeks by paralysis of the respiratory organs, resulting from the immense number of trichinæ which had found their way into the diaphragm and intercostal muscles. After this period, marasmus resulted, and carried off the patient. Of the treatment Dr. Kratz promises to tell hereafter.

GRATUITOUS MEDICAL SERVICES.

At a late meeting of the governors of the Hospital at Cambridge, we are glad to note that the abuses of the charity were noticed by both Dr. Paget and Dr. Humphry. Dr. Paget mentioned that some subscribers had even gone so far as to recommend themselves as patients, and had, in fact, for months thus received gratuitous advice at the hospital. Dr. Humphry took a view of the case which we have always advocated; viz., that those persons who were able only to pay small sums should be admitted as patients. The Board is to report upon the subject. We sincerely hope that, from this movement at Cambridge, some general attempt to reduce the monster evil of gratuitous medical services will result. No doubt both Dr. Paget and Dr. Humphry appreciated the fact that, unless the medical officers of the hospital are paid for their services, the small sums received (as proposed) from paying patients will only be so much money taken out of the pockets of the profession.

Apropos of this, it is worth noting that the three medical officers of the Self-Supporting Dispensary, which has now been for many years established in Northampton, divided during the past year £1200 amongst them. This money, let it be remembered, is paid by the same class of persons—artizans—as those who elsewhere receive gratuitous medical services at our hospitals, etc. Could a more striking proof be given of the folly and the mischief done by the system of gratuitous medical services which is in operation on such a large scale throughout this country? If the artisans of Northampton can pay their medical men, why cannot the artisans of all other towns? The only answer is, because medical men prefer attending them gratuitously.

Moreover, at the present moment, when those very desirable institutions, Village Hospitals, seem to be taking hold upon public attention, it is needful that these things should be considered. As at present carried out, Village Hospitals will become extensions of the evil system. It is quite true that they are made to a certain extent self-supporting. This is a move in the right direction. But why is the doctor to do the work of them without pay? Seriously, we should be glad if those medical men who are supporting and promoting these charities

would consider this vital question, and would give us their reasons for supplying medical advice gratis. Here is assuredly a very great opportunity which the profession might well avail itself of; and discuss with the public the unreasonableness of gratuitous medical services. Our own belief is, that the public would agree that such services are unreasonable, if it were properly explained to them, and would meet it in a liberal spirit. Of one thing we are very sure, and that is, that they would value infinitely more the medical services in question if they were paid for.

THE DISADVANTAGES OF FREEDOM.

M. Bouley, at the French Academy of Medicine, has criticised our English method of dealing with the cattle-plague. It is interesting and instructive sometimes to hear what the Frenchmen think of us.

"In a former communication, after my return from England, I predicted," he said, "that England would have to pay in millions the faults she was committing in not opposing to the scourge the barriers which for fifty years had arrested its progress in Germany. Already 60,000 cattle have been officially declared as destroyed, and doubtless the real number is much greater. The disease is even on the increase. The causes of this disaster are many: the powerlessness of the central government, its constitutional scruples keeping it from assuming the responsibility of energetic action; freedom of markets; concentration of cattle in weekly markets, which thus become focuses of infection; private interests acting in opposition to the public good. But what is the reason of all this? It is the ignorance of the government and of the public, which has been systematically fostered by the daily press. The public, unfortunately, have no faith in veterinary science in England; and this want of faith is not altogether undeserved. Doubtless there are some veterinaries of the highest intelligence, who would have saved the country from all these disasters, had their voices been heard; but the great body of veterinaries have no influence over public opinion. This powerlessness of the profession I attribute to their defective education. Holland has committed the same fault. There the central government is also wanting in power. Each burgomaster is the little king of his district; and every proprietor is lord in his own domain. M. Reynal tells us of a proprietor who, on being informed that his stalls were to be inspected, placed himself at the door with an axe in his hand, and threatened to finish the first inspector who dared to enter his sacred home! In *Belgium*, where the sanitary laws are the same as those of France, things have gone much better. Only five or six hundred oxen have been lost there, thanks to the energy with which the disease has been met. In *France*, the moment the disease was recognised, the government instantly set energetically to work. Unhappily, only two days before the issue of the Imperial decree, an infected cow had been imported from Malines into the commune of Waterloo (whose name recalls another fatal event). From thence the disease was imported into the Pas de Calais. But, thanks to the measures enforced, not more than forty-three animals were lost, and in a few weeks the disease was eradicated; and no case has occurred in any other part of France —a marvellous result, compared with the misfortunes of England and of Holland, and which shows what a provident government, which has sense enough to listen to the teachings of science, can do."

We are glad to hear that the Commissioners will shortly issue rules or suggestions for the benefit of those who are desirous of attempting vaccination upon cattle. Still more shall we hail from the Commissioners a report or a suggestion as to the actual or probable value of the remedy in question.

Our readers will observe that Mr. Ceely states, in his paper in this day's Journal, the following very important fact, that "in the few cases in which he has attempted inoculation with the nasal discharge in Cattle-Plague on subjects not having previously undergone variola or vaccinia, the results have been negative."

Vaccination of cattle is going on amazingly over the country. Upwards of 1000 head of cattle, we hear, have been so operated on in one division of Cheshire. But what is the prospective value of the operation? Is it of any value at all? Is it being performed (as performed in this popular way) according to satisfactory rules? Alas! to all these questions we have as yet no guide to give us an answer. In this matter the cart has clearly gone ahead of the horse; we mean, the people have taken bit in mouth and run clean away from our Cattle-Plague Commissioners. We could well have wished that the Commissioners had decided something as to the worth of the prophylactic remedy; and had issued orders as to its mode of application before it had thus been so widely adopted. Happily the operation can do no harm to the beast, if it does no good; but, carelessly or unwisely applied, it may produce very great disappointment. At all events, let us hope it will not divert attention from the main point; viz., the extinguishing of the plague by the arrestment of the movement of cattle throughout the country.

The *Standard* of the 11th instant has a very long notice of "An Admirable Institute." It is the "London Surgical Home." We need hardly say that we thoroughly agree with the principle that patients should pay to charitable institutions according to their means; but we doubt whether the profession will approve of the way in which this particular institution is brought before the public. Comparisons are always odious; and a superfluous amount of self-laudation is not always a real recommendation. We are told that

"Mr. Baker Brown, F.R.C.S., the founder of the Home, has not only brought to bear upon these cases ordinary and known surgical treatment, but he has actually succeeded in accomplishing with success

operations never before performed in England; in one class of cases at least, never, we believe, previously done anywhere."

Further we read that, at the annual meeting last year, Mr. Baker Brown is reported as detailing the following cases.

"One sufferer had been ill for thirteen years, and had spent her substance in obtaining medical aid; but God had not seen fit to give her relief. I said to her: 'I think I can cure you, but the operation is new; it is almost experimental.' She replied: 'Do what you like'; and I think her expression was, 'Cut me to pieces, if you can cure me.' She returned home perfectly well. She has not only been blessed with health, but with a family; and she has brought with her to-day a young child whom she could not leave at home. The child is now upstairs as a living trophy of the success of this institution..... You may recollect, a few years ago, I said I thought we had discovered a mode of curing a class of cases hitherto perfectly incurable—I mean cases of epilepsy, sometimes including insanity and hysteria. We have had many cases in the Home of this description. One of these fell down very frequently, day and night. That patient was only here five weeks, and she has never had a fit since she left. One poor girl came in here from Lewisham, one of ten daughters, who had epilepsy every night, ushered in by violent screaming; and such was the electric effect of this screaming, that the sisters were aroused up in their sleep, and screamed for sympathy. The father and the mother were continually watching over this poor child at night. She heard of this Home from a grateful patient who had been here, and who had been sixteen years a sufferer from these fits, falling down in the streets continually, and having been in every hospital in London. This girl was only in the Home six weeks. Her father was a poor clerk in the city; she went home to him perfectly cured; and he has written a letter, which we have preserved, in which he states, 'You may make use at any time of my name, or refer any people to me.' I will only mention one more case. A poor servant maid, from fits, had fallen into a state of idiotcy. The saliva ran down her face, her eyes were fixed, and she had fits every day. She was here only a month, when a rapid improvement took place. The other day, in going to the house of our old friend Mrs. Day, who has a house for the reception of lady-patients, a woman opened the door whose face I recognised. I said, 'Is not this a patient of the Home?' 'Yes,' said Mrs. Day, 'it is the poor idiot. She is now my cook, and the best cook I ever had; and she has never had a day's illness since she left the Home.'"

Our French *confrères* are unhappy, in a pathological sense, through not having an occasion of studying the Cattle-plague. On Jan. 10th, for example, M. Bouvier gravely tells the Academy of Medicine that he has been struck with analogies between cattle-"typhus" and small-pox, and is consequently surprised that no one has experimented by vaccinating oxen as a prophylactic measure. M. Bouley, however, told him that these experiments were now being made in England. The most surprising thing is that M. Bouley, who knows all this, and who tells us that in one of the animals which died at the Jardin d'Acclimatisation the intestinal mucous membrane was found covered with an eruption precisely resembling confluent small-pox in man, should actually tell the Academy he thought the disease was typhoid fever. It appears, and is worthy of recording, that a certain number of the bovine animals which died in the Jardin of the epidemic Cattle-plague, had been vaccinated a few months previously by MM. Turenne and Mathieu. M. Bouley, as a reward for his services, has been appointed Inspector-General of French Veterinary Schools.

"Since 1861," says M. Diday, "I have constantly defied MM. the Homœopaths to cure a case of gonorrhœa with homœopathic remedies. I invited them to the Hôpital Antiquaille; but my invitation was refused. But I, on the other hand, was invited to come and see a case treated at the Homœopathic Dispensary of Lyons; and I accepted the invitation. But four months have passed, and I have heard no more of it. Is this civil on your part, *chèrs confrères?* And what will people think? You invite me. I accept; and have now been for four months waiting for you to fix the time and the place."

The *Wiener Medizinische Wochenschrift* announces that the trichina disease has extended into Austria, and has appeared in Weigsdorf, Seitendorf, Königshain, Türnau, and Dornhemmersdorf. The Government at once sent off Professor Klob and Dr. Müller (a veterinary surgeon) to investigate and report upon the disease.

ANOMALIES OF VARIOLOUS ERUPTION.

The following is worthy of note at the present time, in connexion with cattle-plague.

In the British Medical Journal for 1864, there was published by Dr. Tilbury Fox a paper on Impetigo Contagiosa, being an account of an epidemic of a special and definite character observed at the Farringdon General Dispensary. The disease was "characterised by the presence of circular *umbilicated* quasi-bullous spots, which increased centrifugally, and became covered by yellowish flat crusts, covering over superficial ulcerations of an unhealthy kind, and leaving behind, in process of cure, dull red stains." Various gradations were observed between appearances identical with variola, vaccinia, and quasi-impetigo. The disease was inoculable; *the lymph, introduced into the skin of healthy persons, reproducing the same disease in all its characters.*

The paper also went into the question of anomalous allied forms of variolous eruption in animals, and contained full details in regard to the diagnosis of impetigo contagiosa from contagious furunculoid (of Laycock), ecthyma, pemphigus, rupia, scabies, etc. The conclusion was arrived at, by a series of arguments, that the disease was an anomalous form of the variolous manifestation, often conjoined with an impetiginous habit.

Progress of Medical Science.

SURGERY.

Excision of the Spleen. Mr. Spencer Wells has published a full account of his case of Excision of the Spleen. The patient was evidently dying from a large spleen, and so far as Mr. Wells could discern, had no other disease. She was a married woman, 34 years of age, who had been married at the age of 19. She had three children, the youngest of whom was born eleven years ago. She had never miscarried. The catamenia had been regular, but very scanty for the last five years. Leucorrhœa was constant. She had always been very weak after her confinements, but had never had any serious disease. Her father and mother were both insane, and she had lost a brother and two sisters with phthisis. She had been as well as usual till the latter part of 1864, when she began to feel ill and weak, and continued to do so; but it was not till last April that any swelling in the abdomen was noticed. It was first observed beneath the left false ribs, and grew downwards, and to the right. At his first visit on October 12, 1865, he found the spleen extending as high as the seventh rib, and so low in the pelvis that it could be felt by the vagina in front of the uterus. The notch was distinctly perceptible a little above the umbilicus. On the right side below the umbilicus it extended within three inches of the anterior superior spine of the ilium. On the left side the posterior border was felt quite free and well defined in the loin. It was impossible to ascertain by palpation or percussion where the enlarged spleen and left lobe of the liver met, nor could any enlargement of the liver be detected. Some dilated superficial veins ran over the tumour and left side of thorax to the left axilla. There was no œdema of the legs, nor any sign of dropsical effusion nor glandular enlargement. The complexion was rather pallid, but the lips, gums, and conjunctivæ were of a good colour; indeed, rather florid. She had been confined to her bed for nearly a month, owing to the pain in the abdomen and general uneasiness; but the appetite was tolerably good. There was a tendency to constipation. Mr. Wells explained the nature of her disease to the husband, and said that nothing but an operation, which had never been done in England, and only twice abroad unsuccessfully, offered a hope of saving life; and he prescribed bromide of potassium once a-day and quinine once a-day. He saw her again in a fortnight. She had been unable to take the quinine, as it caused headache, but had taken the bromide. The tumour had increased a little; otherwise, there was no change. Iron was ordered, and he saw her again a fortnight later, November 11. The catamenia had appeared twice within the month. Her nights had been more disturbed by pain; she had a little cough, but air entered both lungs freely. The heart was pushed a little upwards, and to the right. The urine was acid, deposited urates, and was free from albumen. The spleen was rapidly increasing in size, and he proposed a consultation with Dr. Jenner, who saw the patient with me on November 14. He observed a soft anæmic cardiac murmur, and a small tumour just above the umbilicus, to the right of the notch in the spleen, which we supposed either to be a splenculus or a part of the pancreas. The blood was carefully examined, and a slight excess of white corpuscles was observed, but not greater than is often seen in pale persons.

Dr. Jenner expressed his opinion that the patient could not live long if left to medical treatment only, but that excision of the spleen did give the "*shadow of a chance*" of saving life. The patient and her husband considered the matter, and Mr. Wells performed the operation, by their desire, on November 20. Mr. Clover administered chloroform; and Drs. Bowen, Ritchie, and Wright assisted. An incision was made along the outer border of the left rectus abdominis, which extended five inches above and two below the umbilicus. Two arteries were tied before the peritoneum was opened. In opening the peritoneum rather a large artery was cut across in a piece of omentum, which was loosely adherent between the surface of the spleen and the abdominal wall. The vessel was tied. The adhering portion of omentum was separated, and by putting in the hand and turning the lower edge of the spleen first through the opening the whole of it was easily removed. The intestines were prevented from escaping by Dr. Wright, who kept the edges of the opening carefully together behind the spleen which was held only by the vessels and the gastro-splenic omentum. Mr. Wells was beginning to twist the spleen round to bring the vessels into a sort of cord preparatory to applying a ligature, when the splenic vein, which was as large as a small finger, gave way, and blood ran freely from the spleen; but none was allowed to enter the abdomen, and he at once enclosed the vessels in a large clamp, and cut away the spleen. Before tying the vessels temporarily secured by the clamp, he passed eight silk sutures to keep the edges of the incision well together. The peritoneum was thus protected and the viscera retained while he was dealing with the vessels. These were tied in two bundles above the clamp, which was then loosened, and two arteries and a vein were also separately tied before it was finally removed. On taking it off, he found that a part of one end of the pancreas, as large as the end of a thumb, had been bruised by it. All the ligatures, except those on vessels in the abdominal wall, were cut off close and returned with the included tissues. The sutures were then tied, and the abdomen was well supported by plaster, pads of lint, and a bandage.

Mr. Clover stated that the patient was thirty-five minutes under the influence of chloroform; that she had borne it with less evidence of shock than he had often observed during ovariotomy; and that her pulse throughout was between 80 and 90.

The spleen is now in the museum of the Royal College of Surgeons. It weighed on removal 6lbs. 5oz. avoirdupoise; but nine ounces of blood drained out of it, leaving the weight 5lbs. 12oz. It measured 11 inches in length, 8 in breadth, and between 3 and 4 in thickness. (*Med. Times and Gaz.*, Jan. 6, 1866.)

As our readers are already aware, the patient sank on the fifth day after the operation. The operation has been twice before performed on the human subject by Quittenbaum of Rostock, in 1823, and Kückler of Darmstadt, in 1855. A full account of both these cases, and of the operation generally, is given by Dr. Simons of Rostock, in a treatise, *Die Extirpation der Milz am Menschen*. Giessen, 1857.

Removal of Membraniform Obstructions from the Pupil. At the Meeting of the Ophthalmological Society at Heidelberg, Dr. Agnew, of New York, described an original operation for the purpose of removing membraniform obstructions from the pupil. The patient having been first brought under the full influence of ether or chloroform, a Bowman's needle is passed through the cornea about half a line from its inner edge, and made to penetrate the membrane. With a cataract or lance-knife a small wound is next made half a line from the outer

corneal edge, care being taken to evacuate as little as possible of the aqueous humour. Through the last wound a small and sharp hook is now passed into the interior chamber, engaged in the capsule at the point where it has been penetrated by the needle, and made to lacerate it. If the membrane is tough. it is wrapped round the hook by rotating its handle, and then withdrawn; if fragile, the pupil is simply opened. This operation is also applicable to cases of closed pupil, where masses of exudation have collected behind the iris, the needle offering a fixed point from which traction can be made with comparative safety. (*Phil. Med. and Surg. Reporter*, November 11th, 1865.)

Case of Fracture of the Larynx: Œdema Glottidis: Tracheotomy: Recovery. Dr. Maclean was called on June 15th, 1865, to see William Rancier, a farmer, aged 32, married. The patient was propped up in bed in a sitting posture, unable to articulate or perform the act of deglutition; bloody saliva trickled from his mouth; his expression of countenance was extremely anxious, his respiration was difficult and stertorous, the face, neck, head, and upper part of the chest were distended by emphysema; pulse feeble, and extremities cold. Chasing a dog, and in the act of throwing a stick at it, he tripped and fell forward, striking his neck with great violence against a stump. Making a strong effort, he sprang to his feet and attempted to recover his breath, but found it impossible to take a full inspiration. On putting his hand to his throat he discovered that it was much swollen, and that the swelling was extending rapidly upwards over the face and back of the head. At the same time blood began to flow freely from his mouth. With assistance, he walked to his house, a distance of about two hundred yards. About twelve hours after the accident, Dr. Maclean arrived at his residence (about twenty miles distant) and found him in the condition already described.

There was no difficulty in discovering that the thyroid cartilage (at least) was fractured; crepitus could be distinctly felt over and above the crepitation of the emphysema; and by pressing on the left ala of the thyroid cartilage, respiration was entirely arrested, and acute pain was felt. It was impossible to discover the exact extent of the fracture. Dr. Maclean attempted to restore the thyroid cartilage to its natural position and form, but with only very partial success. A bandage was applied pretty firmly around the neck with the effect of facilitating respiration to some extent, and enemata were ordered, first laxative and afterwards nutritive. At an early hour, on the morning of the 16th, Dr. Maclean left him with instructions to report progress. On the 17th, a very unfavourable report was received, and Dr. Maclean revisited him early on the 18th. He was very much changed for the worse; his respiration laboured and painful; pulse small and irregular; countenance intensely anxious and haggard. He had not slept since the accident occurred, nor had he attempted to swallow anything since the previous visit; his whole body was bathed in a cold clammy sweat, and altogether he appeared to be in immediate danger of sinking. Deglutition could now be performed with comparative ease; consequently a mixture of brandy and milk was administered, with the effect of rapidly improving his condition. He was now removed to Kingston so that his case might receive close attention. On the 19th and 20th he complained a good deal of sleeplessness, in fact he had hardly slept at all since the accident occurred; otherwise everything seemed to be going on well. On the night of the 20th, he became restless and anxious, complained of difficulty of breathing and pain in the neighbourhood of the larynx. He walked about the room nearly the whole of the night, and at daylight on the next morning became suddenly much alarmed by the rapidly increasing dyspnœa. At ten a.m., several unsuccessful efforts were made to obtain a view of the rima glottidis; the most cautious manipulation inducing violent reflex action. The power of deglutition, though impaired, was not altogether lost, and fluid food and stimulants were freely administered. At 8 p.m., the dypsnœa had become very distressing, and it was evident that unless relief could be afforded in some way very soon, the man would die asphyxiated. Dr. Dickson revisited the case with Dr. Maclean, and succeeded in obtaining a satisfactory view of the fauces and upper part of the windpipe, when it was seen that the glottis was all but occluded by œdema.

Dr. Maclean proceeded to perform tracheotomy. Between emphysema and exudation, the trachea was very deep, the veins of the neck were of course distended to their utmost capacity, and the patient was struggling violently for air. After opening into the trachea and introducing the largest sized tracheotomy tube, it was found that no air passed into the lungs, from which it was feared that an insurmountable obstacle existed lower down. The man was on the point of dying asphyxiated, when Dr. Maclean passed a silver male catheter into the trachea and beyond the obstruction, with the immediate effect of affording the patient an adequate supply of air. He subsequently prolonged the incisions downwards, and introduced the tracheotomy tube, which now worked quite satisfactorily. The tube having been tied in the usual way, the patient fell into a natural sleep for more than seven hours. On the next morning respiration was performed with perfect ease, and he was able to partake freely of food and stimulants. Nevertheless, there was an evident tendency towards sinking, the pulse did not respond to the stimulants which were administered with the utmost liberality. He slept a great deal, and was frequently suffused with a cold sweat. After two days, he gradually recovered his strength. The emphysema disappeared and the neck and face resumed their normal appearance. On June 29th, Dr. Maclean removed the tube, and stitched up the wound with metallic sutures. Since then the patient has been in perfect health. (*Canada Medical Journal.*)

Compound Dislocation of the Astragalus: Reduction: Recovery. Dr. James A. Grant relates the following case. J. Moore, aged 35, a farmer, of robust habit, was, on June 24th, 1864, driving a cart, when his horse took fright, and he was thrown out with violence and dragged for some distance, his foot having caught in the wheel during the fall. He attempted to walk, but was unable. The boot being removed, the following appearances were to be observed. The foot was inverted so that the sole looked inwards, the tendo Achillis was not tense, the astragalus was driven forwards entirely out of its place, where it took a transverse position, and the anterior extremity protruded fully an inch through the integument on the outer side of the foot. On the upper part of the tarsus the skin was stretched tightly over the displaced astralagus. There was no fracture of either the tibia or fibula. There was very little surrounding effusion, so that the outline of the various parts could be well defined. An unsuccessful attempt was made to reduce the dislocation, by extension and pressure. The limb was placed quietly on the bed, and by moderate pressure the bone turned and shot into its place quite unexpectedly. An outside splint was placed on the leg,

and a cold lotion applied over the ankle. An opiate was given at bed time, and the following day he entered the General Protestant Hospital. The cold water cloths were constantly applied until the eighth day after the accident, and then a purulent discharge from the joint having been observed, a linseed poultice was substituted. The discharge continued more or less until the end of August, at which time the wound closed perfectly. The limb continued in a weak state until March 1865; he was then able to throw aside the sticks, and use the limb with considerable freedom. From this date the parts gained strength, and at present he walks about as well as ever, and performs the various duties of farm life, the limb having regained perfect motion, the parts surrounding the displaced bone resembling in every respect those of a healthy joint. (*Canada Med. Jour.*)

Re-amputation for Intense Neuralgia in a Stump: Anæsthesia by Nitrous Oxide Gas. John McCollom, aged 24, of strumous diathesis, was admitted into the Pennsylvania Hospital, under Dr. T. G. Morton, in October 12, 1865. On September 28, 1864, his left foot was carried away by a piece of shell, and amputation was performed a few hours afterwards at the inferior third of the leg, by antero-posterior flaps. Union progressed favourably for three weeks; but there was an unusual tenderness in the stump, especially in the course of the anterior tibial and peroneal nerves. Over the position of the end of the last nerve a hard nodule could be readily felt through the skin, intensely sensitive to pressure, and evidently involved in the cicatrix. Several small nodules could be felt in other parts of the stump. The skin was adherent to the end of the bones and the whole stump had the feeling of hardness, and immediately over the peroneal nerve at its termination, the skin was discoloured and had frequently been the seat of ulcerations. The only operation that could give relief was amputation. As an anæsthetic, the protoxide of nitrogen was used. The gas is carried in gutta-percha bags, having a flexible tube and a hard rubber mouthpiece, with a stop-cock attached, which is placed against the teeth, the mouth being held open by a small wedge. The lips are drawn over the mouthpiece and, the nose being closed, the patient is directed to take a full breath. From twenty to thirty seconds is quite sufficient to induce total anæsthesia.

The patient was put under the influence of this agent in about fifteen seconds, and the amputation performed by making lateral skin flaps and a circular of the muscles, without the slightest pain or unpleasant effect. The operation lasted two minutes. (*Philadelphia Medical and Surgical Reporter.*)

Ligature of the Common Iliac Artery. Dr. J. B. Cutter of Newark, New Jersey, relates a case of ligature of the common iliac artery, after ligature of the external iliac for aneurism of the femoral artery. The aneurism had been produced by a wound inflicted accidentally with the large blade of a pocket-knife in the inner side of the left thigh, about two inches below Poupart's ligament, the blade entering the femoral artery and vein near the origin of the profunda. He never experienced any trouble in consequence until about seven years after the receipt of the injury, when the existence of an aneurism became plain, and rapidly growing, the external iliac was ligatured Feb. 6th, 1864. Relief was at first experienced, the enormous swelling and distension of the leg yielding; but a few months later, (in June,) returned and gradually increased, rendering his suffering extreme, so that, on September 17th, ligature of the common iliac artery was decided upon. The patient died September 21st, from peritonitis. On making the autopsy, the whole surface of the peritoneum was found coated with lymph, and there was a small collection of serum. The lymph in some places was in flakes; in other situations it was of the consistency of thick gruel, closely resembling pus. During the operation, the fascia transversalis was found firmly fastened to the peritoneum, which was very much thickened, and firmly adherent to the surrounding parts. It was impossible to separate the peritoneum from the iliac fossa. *The peritoneal sac was therefore opened*, and the artery secured in that manner. (*American Journal of Medical Science.*)

Cancer of the Eye. A translation of a paper by Professor von Häsner, in the *Ophthalmic Review*, gives valuable statistics concerning Cancer of the Eye, and its Appendages, taken from the observation of 155 cases, admitted as in-patients to the Eye Clinic at Prague. As regards recurrence of the disease after operation, Dr. von Hasner says: "Twelve (17 per cent.) of the 68 cases treated by operation were again admitted for recurrences. Unfortunately, we rarely receive any reliable account of the further course of the disease, and we cannot therefore venture to consider the remaining 83 per cent. as radically cured. But in respect to a number of these patients, no recurrence had occurred during a period of six years. It matters not what view is held as to the radical cure of cancer by operation: it is at least certain, that when it is possible to perfectly remove the neoplasm and to heal the wound in a short time without endangering life, the operation will so far restore the patient that he can again fulfil his ordinary duties. It is yet by no means settled whether all true cancers recur: certainly they often do not reappear for many years; even if only for a year, the operation must be considered to be indicated. Dr. von Hasner has already in a number of cases thrice repeated the operation, each time gaining a cessation of the morbid process for a longer time."

ANATOMY, PHYSIOLOGY, & PATHOLOGY.

Pyæmia. In a discussion on Pyæmia, which took place at the New York Academy of Medicine, Dr. Krakowitzer recapitulates the essence of his remarks, as follows. 1. Pyæmia is not the result of the admixture of pus with the blood; 2. The metastatic abscesses produced by emboli from venous thrombi are not pyæmia; 3. Pyæmia and septicæmia are different diseases; 4. Both occur frequently together in the same individual; 5. Pyæmia is an infectious specific disease; 6. The infectious substance is either produced in the diseased individual; or 7. By pyæmic miasma generated outside of the patient; 8. The name of pyæmia should be abandoned, and that of purulent diathesis substituted. (*Phil. Med. and Surg. Reporter.*)

Essential Nature of Amaurosis. Professor von Gräfe, in his clinical lectures, remarks that cases which reveal no intraocular cause for the impaired vision are habitually referred to cerebral or spinal amaurosis. Favourable cases of amblyopia, susceptible of recovery, depend, as a rule, on anomalies in the circulation or innervation, of which pathological anatomy has in most cases failed to give any noteworthy explanation. But even in the forms leading to progressive blindness and atrophy of the papilla, we are by no means always able to discover any

tangible disease in the central organs. The ordinary appearances are atrophy of the fibrous and ganglionic layers of the retina, with atrophy of the optic nerves, which sometimes stops at the chiasma, at others is continued further back, and is associated with atrophic changes in the thalamus and region of the corpora quadrigemina. If thus the amaurotic disease is to be regarded only as progressive atrophy of the parts connected with the retina and optic nerve, it remaining quite an open question whether the atrophy pursues a centripetal or a centrifugal direction, still this partial atrophy is undeniably in a notable proportion of the cases connected with more widely-spread disease of the central nervous system. Thus the atrophy must sometimes be considered as a further extension of the central disease, at others as the focus from which the disease spreads. The connection of progressive amaurosis, firstly with paralytic amentia, and secondly with grey degeneration of the posterior columns of the cord, is particularly interesting. It is known that during the course of mental diseases amaurotic conditions are not uncommonly observed; but it is, I think, not sufficiently insisted on, that a considerable number of amaurotic patients, who at the time their vision was becoming affected did not exhibit the slightest aberration of intellect, afterwards become insane. While then amaurosis is not at all uncommonly the precursor of mental disease, on the other hand, in grey degeneration of the posterior columns of the cord, the reverse is almost unexceptionally observed. Characteristic signs of the spinal disease (especially anomalies of sensibility) are already present at the commencement of the amaurosis. This is explained by the anatomically proved fact that the degeneration proceeds in an upward direction from the vertebral canal to the cranial cavity. (*Ophthalmic Review*, October, 1865.)

Death of Sir John M'Gregor, K.C.B. The death is announced of Sir John M'Gregor, M.D., K.C.B., on Saturday last, at Ryde. The deceased (who assumed the name of M'Gregor in 1863) was the second son of Mr. Duncan M'Andrew, and was born at Perth in 1792. Having studied for some time at the University of Edinburgh, in 1809 he entered the medical department of the army, and saw considerable service. In 1856 he received the appointment of Inspector-General of Hospitals; and three years later, in 1859, was appointed one of the honorary physicians of Her Majesty, in the same year being created a Knight Commander of the Order of the Bath.

Defects in Sanitary Legislation. Dr. Mapother, medical officer of health, Dublin, in a paper read before the Statistical Society, on the Unhealthiness of Irish Towns, has proved to demonstration the want of sanitary legislation, and the necessity for the interference of Government. The account which he gives of the non-sanitary condition of very many Irish towns is truly deplorable. "I will assert," he says, "that these statistical facts and suggestions for amendment would have been long since brought under public notice with greater effect by my medical brethren who possess local information in various parts of Ireland, were it not for the natural reluctance on the part of professional men to agitate public questions, the effectual settlement of which would seem to advance their personal interests. But how long is this state of things to last? Are our people to continue to be decimated by avoidable pestilence, because a few professional men might derive emolument from the measures taken to stay it?"

Association Intelligence.

BRANCH MEETINGS TO BE HELD.

NAME OF BRANCH.	PLACE OF MEETING.	DATE.
Bath and Bristol. [Ordinary.]	York House, Bath.	Thursday, January 25.
Metropol. Counties. [Ordinary.]	37, Soho Square.	Friday, Jan. 26, 8 P.M.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH: ORDINARY MEETING.

The fourth meeting of the present session was held in the Medical Department of the Old Library, Birmingham, January 11th; James Russell, M.D., President, in the chair. Ten members were also present.

Paper. Mr. Furneaux Jordan read a communication entitled "Observations, with Cases, on the following Operations: Operation for Prolapse of the Uterus; a simplified Extraperitoneal Operation in Strangulated Hernia; Holt's Operation for Stricture of the Urethra."

The paper was followed by a discussion.

Reports of Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, January 9th, 1866.

James Alderson, M.D., F.R.S., President, in the Chair.

ON CERTAIN PRACTICAL POINTS IN THE PATHOLOGY AND TREATMENT OF LATERAL CURVATURE OF THE SPINE. BY RICHARD BARWELL, F.R.C.S.

Certain cases under the care of, certain investigations undertaken by, the author, led him to perceive that the lateral flexibility and rotatory power of the spine during movement of the limbs had not received sufficient attention either in a physiological or curative point of view. The results of his experiments might be thus briefly stated. The act of walking produces serpentine undulations of the spine. When the weight is on the left leg, and the right about to be lifted from the ground, the lumbar spine curves to the right, and the dorsal to the left. In bringing the right leg forward, the column straightens; and, when that foot is put down, the curve reverses, again becomes straight as the left foot is brought forward, and so on. Some peculiarities of these inflexions induced the author to extend the number of his observations on living persons. The lateral movements of the spine, as above described, were found constant in character, various in amount, and with each lateral bend a commensurate amount of rotation takes place. The spinous processes always incline towards the front of the vertebræ from the cord of curvature. In fact, Mr. Barwell declared the spine incapable of assuming a lateral bend without at the same time undergoing rotation, which, although perhaps in part due to the reason given by Shaw, the sideways distribution of the weight, is also caused by the lateral and posterior position of the forces which bend the spine, and more especially by the action of the semispinalis dorsi and rotatores spinæ muscles. To ascertain the amount of rotation of which the spine is normally capable, the average of ten experiments was taken. The normal rotation

average was 43° 17′; the largest amount just over 49°. Movement and weight-bearing with the arms also produce a certain amount of lateral flexion, whose object is twofold—fixation of the spine as a sure basis of action for the shoulder, and balance and economy of power. This flexion is not produced by direct action of the muscles passing between spine and scapula, but by the spinal muscles proper on the opposite side. Thus the column is constantly bending laterally and rotating. These positions are, therefore, not in themselves abnormal, but may become morbid either by fixity or amount. A posture much beyond what the spine can normally assume may, nevertheless, be simply due to muscular action on the one side, inaction on the other; but such cases will (unless treated) overstep the limits of any posture muscular force can produce, and are then due also to some external agency—weight, relaxation of ligament, alteration of bone-surface, etc. But these organic changes are always secondary. Want of balance between muscular forces, either by redundancy or deficiency, is the primary and efficient cause of lateral curvature; and our treatment must be directed to restoration of balance. The mere transference of a weight always carried on one arm to the other side, will not merely be inefficient, but often injurious; so also are many of the exercises prescribed for the left arm. The author, taking advantage of the necessity of balance, and the consequent normal tendency to form double curves, throws the spinal column out of its abnormul balance and rest on the ligaments by causing the pelvis to slope downwards from left to right, thereby necessitating a lumbar carve to the right, a position which, if carefully watched, cannot be long maintained without producing a contrary curve in the dorsal region. Thus in both parts of the spine a posture the reverse of the abnormal is enforced, not by machinery, but by muscular action. Several exercises were used by the author. A few were described as most potent. 1. The sloping seat, with a fall commencing at an inch and a half in the foot, used for a quarter of an hour thrice a day. 2. Lateral gyration of the body, in strict measure with the back against the wall, the pelvis sloped by a block under the left foot. 3. The patient, standing with the feet together, knees straight, a block under the left foot, lifts the left hand over the head, and in it is placed a spring attached above and to the right side. This is extremely potent, and requires careful watching. Certain other contrivances—viz., a thicker sole to the left boot, weighting the right leg and left arm, were used only late in treatment. Against rotation, the following exercise was used: The patient, standing with the right shoulder about three inches from the wall, lifts the left hand over the head, and leans over till it comes against the wall, and supports some of the weight. She then, with the feet together, passes the head and right shoulder under the left forearm, and tries to see as much as possible behind the left shoulder. All these exercises must be used with caution and in order generally as above given, though variations may occur for particular cases. After each, horizontal repose is to be enforced. In all but very slight cases, these exercises will not suffice without some form of support. The machine commonly called a spinal support is false in principle, aiming at superseding muscular action, thereby weakening the muscles; moreover, it is clumsy, heavy, and barbarous. If it fulfilled its office of keeping pelvis, spine, and shoulder stiff and immovcable, it would be unbearable; not fulfilling its office, it is merely irksome and inefficient. A patient with moderate curvature can be straightened by placing one hand on the point of greatest dorsal excurvation, the other in the opposite axilla, and pressing in contrary directions. The bandage invented by Mr. Barwell is so contrived as to prolong this action in the same directions. It consists of webbing straps secured to the pelvis, to the right side below the point of greatest curve, and to the left shoulder. In certain parts of the webbing, strong india-rubber springs are placed in such wise that the forces act from the pelvis exactly in the directions of greatest mechanical advantage, such as in practice are found most efficacious in straightening crooked spines. By placing the pad at the right side, a little posteriorly, much power may be exercised on the rotation. The construction of the bandage is such that there is no tendency to flatten the ribs against the spine. The whole apparatus weighs but a few ounces, is worn with ease and relief, and is very efficacious. By means of the exercises above described and the bandage, the action of them being rigidly under surveillance, the author had been very successful in the treatment of even advanced curvatures, as is shown by the appended cases.

Correspondence.

THE CATTLE-PLAGUE.

LETTER FROM ROBERT CEELY, ESQ.

SIR,—In reply to the inquiry of Mr. Belcher in the JOURNAL of last week—"Can the cattle-plague be transmitted from sheep to ox? and does it then lose its infectious powers?"—I beg to inform him that abundant evidence has been adduced both in Germany (*Die Rinderpestähnliche Krankheit der Schöfe und Ziegen*, von Dr. M. F. Roll; Wien, 1864) and in England that the cattle-plague, transmitted through the sheep, either by inoculation or infection, to the ox, loses none of its powers. Of this fact I have witnessed many examples at the Royal Veterinary College and elsewhere. It is as malignant and as infectious as before. I am, etc., ROBERT CEELY.

Aylesbury, January 15th, 1866.

POOR-LAW MEDICAL REFORM: CATTLE-PLAGUE.

LETTER FROM RICHARD GRIFFIN, ESQ.

SIR,—Since the last report published in your JOURNAL, I have received £7:3:6, as the annexed list will show; which has not only placed the Association out of debt, but leaves a small surplus for future proceedings. To this surplus, I trust the Poor-law medical officers generally will add their subscriptions, and thus enable the Association to take active proceedings during the ensuing session of Parliament.

There is a question now before the country, to which I desire to call the attention of the Poor-law medical officers—viz., cattle-plague; which, should it be proved to be a malignant form of small-pox, will compel the Government to consider the question of the compulsory vaccination of all calves, not to be killed as such, so as to prevent the spread or reappearance of the cattle-plague in the United Kingdom. Should such be the case, and the Poor-law medical officers not consider it derogatory to vaccinate these animals in their respective districts, a very material addition might be made to their at present miserable incomes. Besides this, it would be the means of keeping up the supply of lymph for the human subject. If, however, they should decline

to do this, I feel certain that those who are deputed to vaccinate the calf (a much more difficult operation than that in the human subject), will after a time vaccinate the infant, and thus a material reduction, instead of an increase, may be made in the incomes of the Poor-law medical officers. I throw this out for the consideration of my brethren, that steps may be taken to insure the attainment of this object, should they desire it. I am, etc.,

RICHARD GRIFFIN.

12, Royal Terrace, Weymouth, Jan. 13, 1866.

R. Griffin, Weymouth, 21*s.*; H. T. Matthews, Horsham, 21*s.*; C. F. Lewis, Horsham, 5*s.*; W. Martin, Horsham, 10*s.*; R. Harrison, Kendal, 5*s.*; A. Cheeves, St. Germans, 5*s.*; H. E. Sargent, Launceston, 5*s.*; H. B. Goold and W. B. Norman, Portsea Island, 10*s.*; W. A. Raper, Portsea Island, 5*s.*; J. T. Allnutt, Portsea Island, 5*s.*; J. E. Brine, Shaftesbury, 21*s.*; J. H. Swaine, 10*s.*; W. H. R. Bennett, 10*s.*; J. S. Miles, 10*s.*

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND. The following members of the College, having been elected Fellows at previous meeting of the Council, were admitted as such on January 11.

Allard, William, Tewkesbury; diploma of membership dated April 12, 1839

Taylor, Henry Sharp, Guildford; June 12, 1840

APOTHECARIES' HALL. On January 11th, 1866, the following Licentiates were admitted:—

Dickson, John Thompson, Logie Lodge, Clapham Park

Fowler, William, Birmingham

APPOINTMENTS.

GRIFFITH, G. de Gorrequer, M.D., elected Physician-Accoucheur to St. Saviour's Maternity Charity.

HOPKINSON, W. L., M.D., appointed Consulting-Physician to the Stamford and Rutland Infirmary.

*NEWMAN, William, M.D., appointed Surgeon to the Stamford and Rutland Infirmary.

*SHORE, Offley Bohun, M.D., appointed Physician to the Stamford and Rutland Infirmary, in the room of W. L. Hopkinson, M.D., resigned.

*SKINNER, Thomas, M.D., has been appointed one of the Medical Officers of the Lying-in Hospital, Liverpool.

*STEELE, Arthur B., Esq., appointed Lecturer on Midwifery and the Diseases of Women at the Liverpool Royal Infirmary School of Medicine.

ROYAL NAVY.

MACLAREN, George D., Esq., to be Deputy Inspector-General of Hospitals on the retired list.

MITCHELL, John F., Esq., Surgeon, to the *Pantaloon*.

THOMSON, John, M.D., Staff-Surgeon, to the *Visgard*.

YEOMANRY CAVALRY.

BOROUGH, F., Esq., to be Assistant-Surgeon Derbyshire Yeomanry Cavalry.

VOLUNTEERS, (A.V.=Artillery Volunteers; R.V.=Rifle Volunteers):—

ALGER, J. S., Esq., to be Honorary Assistant-Surgeon 5th Buckinghamshire R.V.

GRAY, J. R., M.D., to be Honorary Assistant-Surgeon Liverpool Volunteer Rifle Battalion.

PEARCE, F. D., jun., Esq., to be Honorary Assistant-Surgeon 26th Devonshire R.V.

PYCROFT, G., Esq., to be Assistant-Surgeon 1st Administrative Brigade Devonshire A.V.

RUMSEY, C., Esq., to be Honorary Assistant-Surgeon 8th Wiltshire R.V.

BIRTHS.

DAY. On January 15th, at Harlow, Essex, the wife of Robert N. Day, Esq., Surgeon, of a daughter.

DUKES. On January 13th, at Enfield Highway, the wife of M. C. Dukes, M.D., of a son.

MORGAN. On January 11th, at Bayswater, the wife of Wm. Taylor Morgan, M.D., of a son.

SANDS. On January 10th, at Foot's Cray, Kent, the wife of J. Lee Sands, M.D., Surgeon R.N., of a son.

SOPER. On January 13th, at Stockwell, the wife of *William Soper, Esq., of a daughter.

SQUIRE. On January 12th, at Wivenhoe, Essex, the wife of S. N. Squire, Esq., Surgeon, of a son.

VIPAN. On January 11th, at Uxbridge, the wife of W. H. Vipan, Esq., Surgeon, of a daughter.

DEATHS.

DAUGLISH, John, M.D., at Malvern, aged 41, on January 14.

GAYE. On January 14th, at Minehead, Somerset, aged 70, Elizabeth Ann, wife of William Gaye, Esq., Surgeon.

GROGAN, John, Esq., Surgeon-Major 4th Royal Irish Dragoon Guards, at Brittas Castle, on January 6.

HULKE, William, Esq., Surgeon, at Deal, aged 74, on January 12.

JARDINE, James B., Esq., Staff-Assistant-Surgeon Royal Army, eldest and last surviving son of *J. B. Jardine, M.D., at Chatham, aged 28, on January 10.

MACGREGOR, Sir John, M.D., K.C.B., late Inspector-General of Army Hospitals, at Ryde, aged 74, on January 13.

PAYNE, Henry, M.D., at Nottingham, aged 80, suddenly, on December 31st, 1865.

SIMPSON, David J., M.D., at Edinburgh, aged 24, on January 14.

STUART, William A. P., Esq., Senior Physicians' Assistant at University College Hospital, of typhus fever, aged 21, lately.

TRAVERS, James W. G., Esq., Surgeon, of Millpond Street, Bermondsey, aged 51, on January 13.

DR. KENNION was admitted a Fellow of the Royal College of Physicians of London on the 22nd ult.

A COTTAGE HOSPITAL is to be started by the Marchioness of Ailesbury for the poor of the Savernake estates, etc.

A NEW HOSPITAL is about to be built for the southern district of Liverpool. The new building is estimated to cost £35,000.

DEATH FROM CHLOROFORM. A fatal case, resulting from the administration of chloroform, occurred on the 12th ult. at St. Mary's Hospital.

THE PARISIAN STUDENTS. The students of the French Faculty of Medicine have quietly recommenced operations; but no Dean has yet been appointed.

DEATH OF DR. DAUGLISH. We regret to announce the death, on Sunday last, at Great Malvern, of Dr. Dauglish, whose name is identified with the manufacture of aërated bread.

MR. BENJAMIN TRAVERS. There is no truth, we are happy to announce, in the statement which has appeared in some of the daily newspapers, that the above gentleman has just died.

UNIVERSITY COLLEGE HOSPITAL. Her Majesty has consented to become the patroness of a concert in aid of the funds of the above hospital. This is the first occasion since the death of the Prince Consort on which Her Majesty has been pleased to bestow her patronage upon any sort of public entertainment.

COURT MARTIAL. The sentence passed on Private Bernard Daly, of the 40th Regiment, for his savage attack on Surgeon-Major Webb, M.B., during the time he was undergoing a medical inspection at the General Hospital, has just been promulgated. It is, that he be dismissed Her Majesty's service with ignominy, be branded with the letters "B. C.", and be kept in penal servitude for five years.

MR. T. L. PRIDHAM of Bideford, according to his annual custom for the last thirty-five years, on New Year's Day entertained at his residence about fifty-four poor old people, who partook of a liberal supply of good old English fare. The united ages of twenty-five amounted to 2,003 years, averaging 83. It is a fact, one worthy of record, that all the same party dined together on the previous occasion, and that not one who assembled then had since died. Out of the number, there were five whose ages were between 90 and 100.

Death of Dr. D. J. Simpson. We deeply regret to record the death of Dr. D. J. Simpson, eldest son of Professor Simpson, on the 14th instant, after a short illness. The loss of this highly promising young gentleman, who was in his twenty-fifth year, is, we need scarcely say, a deep affliction at home, and will be sincerely lamented by a wide circle of friends. (*Edin. Courant.*)

Royal College of Surgeons. During the past week, sixty-six gentlemen have undergone their primary examinations in anatomy and physiology; of whom seventeen have been referred back to their studies for three months, being rather more than a fourth of the entire number. Of the sixty-six, it is stated that thirty-two had previously been rejected. The pass or surgical and pathological examination takes place this day (Saturday).

New Baronets. The Queen has been pleased to direct letters patent to be passed under the Great Seal granting the dignity of a Baronet of the United Kingdom of Great Britain and Ireland unto each of the undermentioned gentlemen, and the respective heirs male of their bodies lawfully begotten; viz., Sir Roderick I. Murchison, of Belgrave Square, in the county of Middlesex, K.C.B.; and William Fergusson, of Spittlehaugh, in the county of Peebles, and of George Street, in the parish of St. George, Hanover Square, in the county of Middlesex, Esq., one of Her Majesty's Surgeons Extraordinary.

The Cattle-Plague. Regarding, then, the nature of this virulent disease, we must evidently suppress it, if it can be suppressed at all, by other agencies than physic. The disease is clearly proved to be contagious, and with equal certainty is it established that it does not originate spontaneously. The infection must be carried, from or by the infected animal, to the next victim. Stop this conveyance, and the pestilence is at an end. If this stoppage is to be successful, it must be complete. If an ox is to be prevented from infecting a neighbouring herd, neither the inspector, nor the butcher, nor the herdsman or his dog, must be allowed to convey the poison. These are secondary, though most important matters. The movement of cattle from place to place is the grand source by which contagion is propagated. If the plague is to be arrested, that movement must be stopped. (*Saturday Review.*)

Pathological Society of London. The annual meeting of this Society was held on January 2nd. The Council, in their report, congratulated the members on the continued prosperity of the Society, as evidenced by the amount of work done. The number of annual subscriptions actually received in the past year, was the largest recorded in the Society's books; and the number of new members admitted during the session, hitherto justified the hope that even this number was on the increase. The crowded condition of the Society's rooms on every night of meeting, testified to the interest and practical value of its labours. The attendance book showed the great and continuous increase; and also that while fresh members came forward, those of older standing did not cease to attend. The number of those who attended the meetings of the Society had lately averaged nearly one-third of the total number of the subscribing members. The Council referred to two minor inconveniences attendant on prosperity; viz., that the number of subjects for exhibition was usually so great, that it was hardly possible for all of them to be taken at the meeting to which they are presented; so that the discussion of previous specimens was curtailed, and some very interesting questions were passed over. Another irregularity was that gentlemen, knowing that the reception of their specimens was somewhat uncertain, were not so careful in bringing them to the meeting as they otherwise would be. The Council were not disposed to innovate on the rules for exhibition of specimens which had hitherto worked so well; but would merely call attention to the state of the Society's business, in order that only cases of real value and interest may be produced, and that as long a notice as possible may, in all cases, be given to the secretaries. The latter would always be happy to give information to gentlemen who had announced their intention to bring specimens, if there was a probability of their exhibition being deferred; and failing this, the Council thought that the specimens ought to be brought to the rooms on the evening for which notice was given. The second inconvenience was, that a habit had arisen of bringing preparations from incomplete cases. The Council hoped that this practice would not be continued, since it introduced confusion into medical literature, and tended to diminish the value of the Society's *Transactions*. In cases lasting over long periods of time, a preparation must sometimes be exhibited before the case is complete; but the conclusion of the case should always, if possible, be recorded in the Society's *Transactions*. The order of the meetings had been somewhat disturbed by the introduction of living patients into the meeting-room, in whose presence it was impossible to continue discussion. Again, some of these living specimens were brought to the meeting without previous notice, and then priority was claimed for them over pathological specimens, in order that the patients (often children) might not be delayed. The Council therefore had ordered—1. That no living specimen shall be seen without previous notice, and that this notice shall, if possible, be given at the previous meeting of the Society. 2. That they shall always be directed to attend a quarter of an hour before the time of meeting, and wait in the room adjoining the meeting-room, in order to be examined by the members before they go into the meeting. The Council wished to discourage the practice of bringing forward drawings, cases, and preparations which had been published, or were in course of publication in other works; and had directed—"That specimens or cases previously exhibited at other societies, or the details of which have been already published, shall not be received for exhibition, except under special circumstances." The Council calls the attention of those members who bring forward microscopical specimens, to the desirability of accompanying them in all cases with a microscopical drawing. It was proposed to substitute in Law IV, the words "six miles of Charing Cross, for "ten miles of the Post Office." The total income of the Society for the year was £395 : 6 : 2, and the total expenditure £359 : 7 : 3½. The balance in hand at the commencement of the account was £87 : 1 : 1; and adding to this the excess of income over expenditure, the present balance in hand was shewn to be £122 : 19 : 11½. The annual income was made up of the following sums, viz. :—£39 : 14 : 11 derived from the sale of *Transactions*; £9 : 1 : 3, dividends on £308 : 11 : 4 invested in Consols; £28 7*s.* for twenty-seven entrance fees; £318 3*s.*, the proceeds of 303 annual subscriptions. The items of expenditure included merely the usual expenses: £63 as rent for the rooms, and £229 : 14 : 2½, the expense of publishing the sixteenth volume of the *Transactions*. This sum was greater than the expenses of the fifteenth volume, but the number of copies was also greater, the increased number of members having rendered it necessary to print 450 copies instead of 400.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....Metropolitan Free, 2 P.M.—St. Mark's for Fistula and other Diseases of the Rectum, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TUESDAY. .... Guy's, 1½ P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.

WEDNESDAY... St. Mary's, 1 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.

THURSDAY.....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Great Northern, 2 P.M.—London Surgical Home, 2 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.

FRIDAY.....Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

SATURDAY.....St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1·30 P.M.—Charing Cross, 2 P.M.—Lock, Clinical Demonstration and Operations, 1 P.M.—Royal Free, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY. Medical Society of London, 8 P.M. Dr. Francis Edmund Anstie. Lettsomian Lectures on "Certain Painful Affections of the Fifth Nerve."

TUESDAY. Royal Medical and Chirurgical Society, 8 P.M. Dr. Radcliffe, "Case of Acute Uncomplicated Myocarditis"; Mr. C. H. Moore, "Arterio-venous Cyst in the Popliteal Nerve: Amputation: Recovery."

TO CORRESPONDENTS.

*** *All letters and communications for the* JOURNAL, *to be addressed to the* EDITOR, 37, *Great Queen St., Lincoln's Inn Fields, W.C.*

COMMUNICATIONS.—To prevent a not uncommon misconception, we beg to inform our correspondents that, as a rule, all communications which are not returned to their authors, are retained for publication.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

DR. HEYGATE ON THE CATTLE-PLAGUE. In the course of the discussions at the late quarter sessions for the county of Derby on the Cattle-Plague, Dr. Heygate said: "Since the cattle-plague has become such a fearful scourge in this country, I have carefully studied the disease; and, though its nature is most mysterious, I am inclined to think it more closely approximates, in its fearfully contagious nature and the character of its symptoms, a species of *suppressed* virulent small-pox than anything else. Hence, complete isolation and vaccination should be adopted; and were I a farmer, and the disease threatened to approach the boundary of my farm, I would have every animal vaccinated. With complete isolation and vaccination, the disease, like a fire, might soon die out. Two diseased actions are seldom in force at the same time. Vaccination might divert or so modify the disease as to render it comparatively harmless."

CATTLE-PLAGUE.—SIR: I find that all accounts relating to the disease among cattle are conflicting as regards the nature of the disease, and would recommend that the Special Commissioners appointed by the Government should endeavour to find out the cause and treatment of the distemper. In the Isle of Axholme, I understand that about five hundred beasts have been destroyed by the disease, and many more are still suffering.

I am, etc., W. M. TROUSDALE, F.R.C.S.Eng.

West Butterwick, January 10th, 1866.

P.S. Vaccination has been proposed as a preventive of the disease.

COMMUNICATIONS have been received from:—Dr. FREDERICK J. BROWN; Mr. TUBBS; Mr. T. P. BLUNT; THE REGISTRAR OF THE MEDICAL SOCIETY OF LONDON; Mr. T. H. BARTLEET; Mr. T. M. STONE; Dr. H. DOBELL; Mr. A. B. STEELE; Dr. JAMES WILLIAMS; Mr. GREENWAY; Dr. KENNION; Dr. HEYGATE; Dr. J. B. PITT; Dr. SHORE; Mr. TROUP; Mr. CEELY; Mr. HAYNES WALTON; THE HONORARY SECRETARY OF THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY; Mr. S. E. STANGER; Dr. GEORGE JOHNSON; Mr. HAMILTON; Dr. R. BRUSH; Dr. T. FOX; Mr. T. JACKSON; F. C. H.; Dr. H. MAYSMOR; Dr. GIBSON; THE HONORARY SECRETARIES OF THE OBSTETRICAL SOCIETY; Mr. J. W. HULKE; and Dr. E. CRISP.

ADVERTISEMENTS.

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Pathological Explanation

OF

THE DIMINISHED ABSORPTION BY THE LUNGS DURING THE STAGE OF CHOLERAIC COLLAPSE.

BY

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[*Continued from p.* 62.]

In a previous communication (British Medical Journal, Jan. 20th, p. 61), I have endeavoured to explain the phenomenon of diminished absorption, which occurs during the collapse stage of cholera, by showing that, in accordance with well established and familiar physiological facts, this diminution of the process of absorption is a necessary consequence of the scanty and slowly moving stream of blood. All other conditions remaining the same, absorption is rapid and active in proportion to the velocity of the blood-current, and *vice versâ*. In the present communication, I purpose to illustrate the same subject by referring to the phenomena of *absorption by the lungs*.

It is a well known fact that many gases and vapours, when inhaled by the lungs, rapidly enter the blood, and are thus speedily conveyed through the whole system. It is well known, too, that such substances as are capable of exerting an injurious influence, act with extraordinary rapidity and power when they are thus introduced into the system in a gaseous form. In illustration of this, I need only refer to such familiar examples as those of the vapours of chloroform and of ether when employed as anæsthetics, and to the poisonous effects of arseniuretted hydrogen and sulphuretted hydrogen gases when inhaled even in minute quantities. These gaseous bodies enter the blood by a process of endosmose; in other words, they are absorbed or sucked up by the blood. In the same manner—by the same physical process—the atmospheric gases are absorbed by the blood in the pulmonary capillaries during the process of respiration. In the phenomena of respiration, too, we have a simple and beautiful illustration of the processes of absorption and exhalation going on simultaneously through the same sets of vessels. There is absorption of oxygen from the air into the blood, and at the same time an exhalation of carbonic acid and aqueous vapour from the blood into the air.

Then, again, we know how intimate is the relation between the blood-current through the lungs and the demand for air to combine with the blood in its passage through the pulmonary capillaries. When the heart's action is quickened by exercise, so that the blood is sent more rapidly through the lungs, simultaneously the respiratory movements are increased in force and frequency, in order to meet the increased demand for air to be taken up by the rapid blood-stream. On the contrary, when the heart's action is slow, as during rest in the recumbent posture, and more especially during sleep, the breathing is in a corresponding degree slow; there is less demand for air to be absorbed by the diminished and retarded current of blood. Here, in the phenomena of absorption of gases and vapours by the lungs, we have a very simple and intelligible illustration of the general principle, that, *other conditions remaining the same, absorption is active in proportion to the rapidity of the blood-current through the vessels.*

Let us now pass on to consider in what way the process of absorption by the lungs is modified during the stage of choleraic collapse. And, first, we know that absorption by the lungs is not absolutely suspended during collapse. This is shown by the undoubted fact, that the inhalation of the vapour of chloroform by a patient in collapse is attended by the usual anæsthetic effects of that drug. The chloroform vapour is absorbed through the pulmonary vessels, enters the circulation, and acts upon the brain.

That absorption by the lungs is much diminished during the stage of collapse, is proved by certain chemical phenomena which I now proceed to mention. Several observers agree in stating that, during the stage of collapse, the expired air contains less than the usual proportion of carbonic acid. (See Dr. Budd's article, "Cholera", in the *Library of Practical Medicine*, vol. iv, p. 111; Lehmann, *Lehrbuch der Physiologischen Chemie*, 1853, vol. iii, p. 332; Twining's *Clinical Illustrations of the more important Diseases of Bengal*, 2nd ed., vol. ii, p. 15.) The most careful and complete observations that I have met with are those recorded by Twining. He states that, during the cold stage of cholera, he has several times found the quantity of carbonic acid in the expired air as low as 1.5 per cent., and seldom as high as 2 per cent. It is estimated that the normal amount of carbonic acid exhaled with the expired air is 4.35 per cent. (See Carpenter's *Human Physiology*, 6th ed., p. 287.) A comparison of these numbers, however, affords insufficient data for determining the actual decrease in the amount of carbonic acid exhaled during collapse. We must also take into consideration the total amount of air expired. This has been found to be considerably diminished. Twining (*op. cit.*) appears to have experimented with great care; and he states that "it is often very difficult to procure even ten cubic inches of air in a satisfactory manner from the lungs of a patient in the stage of lowness and collapse, when restlessness and extreme anxiety prevail." The normal amount of air taken in and given out by each act of respiration is estimated at from thirty to forty cubic inches. (Carpenter, *op. cit.*, p. 287.) If, therefore, the expired air be reduced to one-third of the normal amount, and if the proportion of carbonic acid in that reduced volume of air be less than half the standard quantity, it is evident that the amount of carbonic acid exhaled during the stage of collapse must be less than one-sixth of the normal average; and this diminished exhalation of carbonic acid, as we shall presently see, involves a correspondingly diminished absorption of oxygen. Here I would remark, that the results of Twining's experiments on the amount of respired air are in strict agreement with other facts which have been repeatedly observed—namely, the incompleteness of the respiratory movements during collapse; the imperfect expansion of the chest; the feebleness and sometimes even the complete absence of the vesicular respiratory murmur; and the peculiar feebleness of the voice, the most probable explanation of which is, that it is due to the smallness and feebleness of the expiratory current of air. All these phenomena point to the conclusion, that, during the stage of col-

lapse, much less than the usual amount of air is respired.

The explanation of the diminished respiration during collapse is this. Owing to the arrest of blood in the minute branches of the pulmonary artery, and the greatly reduced volume of blood which, in consequence, passes through the capillaries of the lungs, there is less demand for air to be absorbed into the blood. We have here, again, an illustration of the principle, that absorption is checked when the current of blood moving through the vessels is retarded and greatly reduced in volume.

It is manifest that the diminished exhalation of carbonic acid during collapse must be associated with a corresponding diminution in the amount of oxygen absorbed. This is evident, from certain physiological considerations. For instance, if we compare and contrast the phenomena of cholera with those of ordinary asphyxia, it appears certain that if, with the same degree of impediment to the passage through the lungs as exists during collapse, oxygen were absorbed and carbonic acid generated within the blood as rapidly as in ordinary circumstances, the patient would be killed by the narcotic influence of the carbonic acid within a few minutes. The passage of blood through the lungs in cases of extreme collapse is so much obstructed, that the arteries are comparatively empty, and the pulse is often imperceptible. This obstruction, occurring in the minute branches of the pulmonary artery, lessens the volume of blood passing through the pulmonary capillaries, and, in the same degree, it lessens the absorption of oxygen and the consequent formation of carbonic acid. In the case of asphyxia, on the contrary, whether it occur slowly during the progress of disease, or suddenly from drowning or other modes of suffocation, the obstruction to the flow of blood through the lungs exists, not in the pulmonary artery (which, being accustomed to receive and to transmit black blood offers no impediment to its passage), but in the pulmonary capillaries, and it is a direct consequence of the excess of carbonic acid in the blood. But the animal, whether human or brute, is rendered insensible by the action of the carbonic acid on the brain long before the stream of blood through the lungs can be diminished to the degree in which it is during the collapse of cholera; indeed, before it is perceptibly diminished in any degree. This statement admits of the most conclusive proof from observations made on the lower animals as well as on man. Thus, it was observed by Dr. Reid (*On the Order of Succession in which the Vital Phenomena cease in Asphyxia*), that, for a period of about two minutes after a dog had been rendered insensible, and had ceased to struggle, in consequence of air having been shut off from the lungs, the arteries continued to be unusually distended with black unaërated blood.

Again, in the human subject, when a patient is gradually dying from the slow asphyxia resulting from emphysema of the lungs, with bronchitis and effusion into the air-tubes, we often find the pulse full in consequence of the impeded flow of black blood through the minute systemic arteries. And long before the volume of the pulse can be lessened by the limited passage of unoxygenated blood through the lungs, the patient has usually passed from a state of increasing drowsiness to one of profound and fatal coma.

Now a patient in collapse from cholera, with so scanty a stream of blood through the lungs that the arterial pulse is quite imperceptible, is often as free from drowsiness and as fully in possession of his mental faculties as a person in perfect health. It is obvious, therefore, that in these cases there can be no great accumulation of carbonic acid in the blood. This relative deficiency of carbonic acid in the blood is explained by the fact that the small current of blood through the pulmonary capillaries involves, as a necessary consequence, a correspondingly diminished absorption of oxygen and an equally diminished formation of carbonic acid. We see, then, that the reduced supply of oxygen to the blood during the stage of collapse, is a result of that diminished activity of the process of absorption which is necessarily associated with the slow and scanty current of blood.

The one great central fact in the pathology of collapse, is the arrest of blood in the minute branches of the pulmonary artery. This is a demonstrated anatomical fact. The other leading physical and chemical phenomena of collapse are connected with that one, as necessary consequences. I maintain, then, that the question as to the pathology of cholera—the relation of the symptoms to each other and to their primary cause—is, of all the great pathological problems that have ever been presented to us, the one which admits of the most complete and simple and intelligible solution.

Military Surgery in America. The Surgeon-General of the United States has published a report, which shows that over 87,000 cases of wounds and 17,000 surgical operations were recorded up to September 1865. In comparing the numbers of cases of gunshot fractures of the femur, it is found that in the French Crimean army there were 459 such injuries, and in the English army 194, while over 5,000 such cases were reported in America. Of excision of the head of the humerus, the Crimean returns give 16 in the British and 38 in the French army, but the American registers contain the detailed histories of 575 such operations.

Clinical Hospital at Naples. The foundation-stone of the new part of the building, which formerly belonged to a monastery, was laid two years ago by Victor Emmanuel. Last summer it was inaugurated, and but for the visitation of the cholera would have been opened earlier. Professor Tommasi, in an admirable speech, addressed a crowded audience. The hospital makes up three hundred and fifty beds. The baths and other necessary institutions are all constructed on an excellent system, and standing as the building does on a considerable eminence, the best guarantees are given for the health of the convalescent. The hospital of "Gesù e Maria", a suppressed monastery, is, in fact, to be the school of the medical students of the University; and the many eminent men who now fill the chairs connected with the profession give promise that a medical school which once was celebrated will be equal to the demands of modern civilisation. At present, there are seventeen chairs in the University connected with medicine and surgery, filled, many of them, by very distinguished men. That of pathological anatomy and microscopical anatomy is filled by a German, M. Schrön; and it is to the honour of the Italians that there are four Germans occupying chairs in as many Universities—M. Moleschott, Professor of Physiology in Turin; M. Schiff, Professor of Physiology in Florence; M. Schrön, Professor of Pathological Anatomy in Naples; and M. Lieben, Professor of Organic Chemistry in Palermo. Since the new order of things, a great impulse has been given to education. As there are no registrations in the University of Naples, the lectures being gratuitous, it is difficult to ascertain the precise number of the students; but, as a correct approximation, it may be stated that they amount to 10,000, of whom it is calculated 4,000 are medical students.

Illustrations OF HOSPITAL PRACTICE: METROPOLITAN AND PROVINCIAL.

ROYAL LONDON OPHTHALMIC HOSPITAL.

ON ENUCLEATION OF THE EYEBALL.

By J. W. Hulke, F.R.C.S., Assistant-Surgeon to the Middlesex and Royal London Ophthalmic Hospitals.

Enucleation of the eyeball—that is, its removal by dissecting it out of its capsular fascia—was proposed in 1841 by O'Ferral and Bennett, nearly at the same time, and independently, as a comparatively safe and simple substitute, in certain cases, for the method of extirpation then commonly practised. In this proceeding, after division of the outer and occasionally also of the inner commissure, for the purpose of gaining space, the eyeball was transfixed by a thread or hook, which served to pull it forcibly forwards, while it was scooped out of the orbit with a scalpel. The ocular muscles, the lacrymal gland, and the orbital cellular tissue, were more or less completely removed, together with the eyeball. The unavoidable division of the larger branches of the ophthalmic artery, occasioned copious and often troublesome bleeding; and the exposure and frequent injury of the periorbital membrane, which is continuous with the dura mater, made the operation so severe as greatly to restrict its employment.

O'Ferral and Bennett pointed out that these sources of danger were avoidable, if the incisions for the removal of the eye were restricted to the inner surface of the capsular fascia, and the tendons of the external ocular muscles and the optic nerve were severed close at the outer surface of the eyeball. In this way, only the smaller arterial twigs would be cut, the muscles and cellular tissue would be left, the periorbital membrane would be uninjured, and the risk of inflammation extending from the orbit to the cranial cavity correspondingly diminished.

Their suggestion was adopted in the following year by Stoeber of Strasbourg; and ten years later, the first enucleation in this country was, so far as I can learn, performed by Mr. Critchett, in the Royal London Ophthalmic Hospital.

Instruments. A wire speculum, a dissecting-forceps, a small strong blunt-pointed scissors curved on the flat, and a strabismus-hook, are the only instruments required. Some small pieces of soft sponge, a little cotton wool or charpie, and a bandage, complete the apparatus.

Operation. The patient lies on his back chloroformed. The eyelids are held apart by the speculum. The operator pinches up the conjunctiva with the forceps, and divides it with the scissors in its entire circle, close to the cornea. He next opens the capsular fascia, in the same way, over the insertion of the rectus externus, catches up this tendon with the hook, and cuts it. The tendons of the other recti and of the oblique muscles are similarly divided close to the sclerotic. Any cellular connections between the eyeball and its capsule are next severed. Lastly, the optic nerve is cut, and the eyeball being now free is lifted from its bed, and its removal is complete.

The order in which the muscles are divided is unimportant. It is sometimes convenient to leave the division of the oblique muscles till the nerve has been cut.

Where the eyeball is not unnaturally enlarged, nor abnormally adherent to its capsule through inflammation, the strabismus-hook may be laid aside, and the recti tendons caught by slipping one blade of the scissors beneath them, as recommended by Mr. Dixon.

I think, owing to the slope of the outer wall of the orbit, the optic nerve is more easily reached from this side (the cornea should be drawn to the nasal side by seizing the stump of the tendon of the outer rectus, which may be left rather longer for this purpose); but some operators reach the nerve from the nasal side of the orbit. From whichever side it is reached, it is important to keep the scissors against the surface of the globe until the nerve is felt.

The bleeding is generally slight, and soon ceases spontaneously. Where it continues, the wound should be held open, and a stream of cold water squeezed on it from a sponge, or a small soft sponge may be bound upon it with a turn of bandage as a temporary compress. When the bleeding has entirely ceased, the conjunctival wound may be drawn together with a fine silk thread passed through its edge at three or four points. In order to avoid unnecessary pain, the suture should be put in loosely before the chloroform stupor has passed off, but need not be tied till afterwards. Where the orbital tissues are inflamed, or much infiltrated with extravasated blood, suppuration will ensue. Here the suture is not advisable, since the early closure of the external wound prevents the escape of the pus, and adds to the suffering.

The *after-management* is of the simplest kind. The patient need not keep his bed. A light compress of cotton wool, or a fold of wet lint, whichever is most comfortable, is commonly all that is necessary. When suppuration impends, warm water dressing or a light poultice is the best application; and, when the discharge is free, lead-lotion. The latter is also useful where the eyelids are ecchymosed. Where the wound heals, as it frequently does, without suppurating, an artificial eye may be worn at the end of a week; but in other cases not until the acute symptoms subside. Its introduction should not be deferred indefinitely; for the support it affords to the eyelids is usually grateful; and, by preventing the accidental intrusion of the eyelashes, it hastens convalescence. At first, a smaller eye may be worn provisionally, and a larger when cicatrisation is complete. I always warn patients that, under no circumstances, ought they to continue to wear the eye when it has become rough. I have seen great distress produced by the neglect of this. The rough edge of the eye at first frets and inflames the conjunctiva; then it causes ulcerations and granulations, compelling the patient to lay the eye aside; and irregular scars result which make it difficult, and in some cases impossible, to adopt another.

Indications for Enucleation. I know no other operation of equal magnitude which is attended with so little risk and followed by so quick a recovery. This enables us confidently to recommend it in cases where we should hesitate to perform extirpation in the old manner. The domain of the operation naturally varies with different surgeons, some giving it wider, others more restricted limits; and it has changed at different times in the practice of the same surgeon, as improved methods of treatment and operating have been substituted for it. Taking the practice of the Royal London Ophthalmic Hospital as a guide, I find from an analysis of 135 cases which occurred

there in the year 1863-64, the following indications in the order of their frequency: 1. Painful, otherwise intractable, states—often sequelæ of recurrent deep-seated inflammation — sometimes eventuating in staphylomatous enlargement, or wasting of the eyeball; 2. Sympathetic irritation and inflammation; 3. Severe injuries destroying the eye at once; 4. Acute, recent, internal ophthalmia, idiopathic and traumatic, disorganising the eye, and attended with tedious convalescence; 5. Intraocular tumours; 6. Conditions preventing the adaptation of an artificial eye.

1. The two following cases are examples of the first class.

Case I. A woman, aged 27, was admitted into the Royal London Ophthalmic Hospital on April 13th, 1861. She complained of severe aching pain in the left eye, which was only half its proper size. In its present severity, the pain had lasted nine weeks; and during the four preceding years, she had been frequently laid aside by it.

Ten years previously, she had inoculated the eye by using a towel with which the eyes of an infant with ophthalmia neonatorum had been wiped. Violent inflammation ensued; sight was lost; and she had a tedious convalescence.

April 15th. I enucleated the eye. Four days later, she was easier than she had been for a long time. The wound had contracted so much that it was nearly closed. The conjunctiva was slightly œdematous; but there was no swelling nor ecchymosis of the eyelids. A few days afterwards, she returned home convalescent, and continued free from pain.

Case II. A feeble nervous woman, aged 47, came under my care at the Royal London Ophthalmic Hospital in October 1857, for chronic neuralgia of the left eye. At that time, it perceived only differences of light and shade (quantitive perception of light), and it had no perception of the shapes of objects (qualitative perception). Its cornea was hazy, and its vitreous humour cloudy and diffluent. Large white patches, fringed and speckled with black pigment, told of former extensive choroiditis. The optic nerve was atrophied. The lens had been removed fourteen years previously by Mr. Mackmurdo. In each eye, there were characteristic signs of a staphylomatous extension of the coats at the posterior lobe; and in the right eye myopia of a very high degree was found with trial-glasses.

She attended regularly during several months; but did not derive any relief from treatment. Quantitative perception of light ceased. The neuralgia increased. Frequent accessions of inflammation occurred; and I proposed enucleation, but she could not then make up her mind to it. She came, however, on April 17th, 1860, worn out with pain, and begged to have it done. The cornea was ulcerated, the pupil closed, the aqueous humour cloudy, and ciliary region congested. I enucleated the eye the same day; and in a few days afterwards she left the hospital convalescent.

2. Passing to the second class of indications, we find cases of sympathy much more numerous in hospital than in private practice. This is owing to the exigencies of the poor, which do not allow the rest and care requisite after an accident. The mechanic, whose family lives from hand to mouth upon his daily wages, too often returns to work while his injured eye is yet tender; and, by exposure, he provokes an inflammation which destroys not only this, but frequently the other eye also. Sympathetic cases fall into two subclasses; the one characterised by hyperæmia and hyperæsthesia, with little disturbance of visual acuity—symptoms indicating a state of irritation; the other marked by the superaddition of exudations and other evidence of inflammation of the choroid and iris, with secondary implication of the retina. The distinction of *irritation* from *inflammation* is important, since the first is less dangerous, and the prognosis is less unfavourable; for it almost certainly ceases on enucleation of the wounded eye; while sympathetic inflammation, particularly if it has already made some progress, is much less certainly controlled by this measure.

Case III. A lad, aged 15, was sent to me at the Royal London Ophthalmic Hospital September 20th, 1857. His left eye was so weak and irritable that he had been compelled to give up work. His right eye (about one-third of its natural size, and quite blind) was neuralgic, the pain during the paroxysms being excessively severe. It had been wounded by an arrow ten years previously.

I excised the injured organ; and the relief was very striking. Neuralgia ceased, and the left eye became strong. I saw him several months after the operation. He was working in a printing-office, and had good sight.

Here the ophthalmoscopic signs in the sympathetic eye were those of congestion, without exudation.

Case IV. A lad in a shop snapped a capped rifle, not knowing that it was loaded with a blank cartridge, at a girl who was looking in at the window. The glass and part of the sash were blown out, and a splinter struck her left eye. Eleven days afterwards, she came under my care at the Royal London Ophthalmic Hospital. The wounded eye was soft, slightly shrunken, and free from pain, though it had been very red and painful. An oblique scar extended completely across the cornea into the ciliary region at each end. The iris was entangled in the scar, the pupil being obliterated; and the lower half of the anterior chamber was filled with a blood-clot. The conjunctiva was slightly œdematous. Perception of light was lost.

Six weeks and a half afterwards, the wounded eye, which had continued to shrink and be free from pain, became red and painful; and this was followed by congestion, aching, and diminished visual acuity of the right eye. A fortnight later, there were signs of choroiditis—great congestion, with patches of exudation in the choroid, and haziness of the vitreous humour; and a further loss of visual acuity. I now enucleated the wounded eye. At the end of a fortnight, the vitreous humour was less hazy; the exudation-patches in the choroid were sharply defined. In another week, the vitreous humour had regained its transparence; and the exudation had disappeared from the choroid, leaving only a slight irregularity in the epithelium beneath which it had been. During this time there was a progressive increase of visual acuity. She now read No. 2 of Jäger's types (pearl); and, a month afterwards, No. 1 (brilliant).

In the enucleated eye, a piece of wood 6‴ long by 2‴ thick was found. It had passed through the iris and edge of the lens, and was imbedded behind the iris in the vitreous humour. Had its presence been known at the first visit, I should then have at once proposed enucleation; but the subsidence of the acute inflammatory symptoms so soon after the injury did not appear consistent with the lodgment of a foreign body.

Case V. A carpenter, aged 53, was struck by a cricket-ball in the right eye, causing immediate loss of sight. His eye was very red and excessively painful during eight weeks, after which the redness subsided and the eye shrank. It continued frequently painful; and, during these accessions, the left eye was weak and irritable. At length, three years after the accident to the right, the sight of the

left eye began to fail. The diminution of visual acuity slowly progressed; and, five years from the time of the injury, when he came to the Royal London Ophthalmic Hospital, he was only able to read No. 19 of Jäger's types (four-line condensed), and this with hesitation. The wounded eye was a small, irregularly shaped button. Its cornea had remarkably shrunk, being only about 1‴ in diameter. The pupil of the left eye was dull and sluggish, and the retina congested and œdematous.

In so very chronic a case I did not expect much benefit from enucleation; but, as it was his only chance, I performed it February 11th, 1863. From that time the left eye slowly improved. In the following September, he read No. 4 (minion); and the improvement continued when I saw him a year after.

3, 4. As regards the third and fourth indications, primary enucleation has been lately ably advocated by my colleague Mr. Lawson. I have myself practised it with the best results. The patient is convalescent in a few days; he is spared the suffering and long illness which inflammation of the eyeball entails; and he avoids the risk of the wounded eye sympathising. Unfortunately, but too often acute inflammation has set in before these cases come under our care. When this has occurred, it is prudent to wait till the inflammation begins to subside before operating; for grave symptoms are related in a few instances to have arisen from extension of the inflammatory process within the cranium. I may add, that I have never myself seen this; but the delay is in accordance with the principles which regulate other surgical operations by which portions of the body are removed.

5. With respect to the fifth indication, among those surgeons who regard cancer as a constitutional disease *ab initio*, there are some so strongly prejudiced against removing the eye for it, that they neither do it at any time, nor sanction it. I am so firmly convinced that it is initially a local malady, that I hold enucleation for intraocular cancer to be not merely permissible, but a proceeding that the surgeon should urge upon his patient. (Even when a cancerous growth has broken through the coats of the eyeball and filled the orbit, the case is not always beyond aid; for a thorough extirpation of the whole contents of this cavity, and the free application of the chloride of zinc to its walls, has been followed by entire relief from present suffering and long immunity from recurrence.) I purposely use the word cancer in a wide sense, and not in a restricted sense, including all new growths characterised by infectiousness and extension, irrespective of the kind of tissue invaded. For examples, I would refer to a series of cases which I published in the third and fourth volumes of the *Royal London Ophthalmic Hospital Reports*.

6. Most of the cases falling under the sixth and last indication are blind shrunken globes too tender to bear the contact of an artificial eye, or staphylomatous globes too large to allow one to be adapted. Some of the latter may be reduced by abscission of the front. Where the enlargement is restricted to the front and the ciliary region, this is often a good proceeding; but, where the back of the eyeball is unsound, I prefer enucleation, because, in such cases, intraocular hæmorrhage sometimes occurs between the choroid and sclerotic, and also in the choroid and retina; and the reduced globe often suppurates and remains painful.

Not unfrequently a girl comes to the hospital unable to enter domestic service in consequence of the disfigurement caused by an anterior staphyloma resulting from sloughing of the cornea in purulent ophthalmia in infancy. Behind the ciliary region, all the tissues are sound. In such a case, I abscise the front of the eye, get a good stump for an artificial eye to rest upon, and the obstacle to service is removed.

In other cases, where there has been choroido-iritis, the staphyloma is not restricted to the front, but the whole eye is enlarged in all its dimensions. Here I enucleate, for the reasons already stated. The enlargement of the eyeball has produced wasting of the orbital cellular tissue; and the cushion for the artificial eye is too scanty to give the same prominence and mobility as after abscission. Still this is less inconvenient than a fuller stump, which is occasionally painful, and which sometimes in after years is so troublesome that enucleation becomes imperative. The fact, too, that a large proportion of cases of melanotic and medullary cancer in mid life and in elderly persons occurs in shrunken globes, is not without significance.

CENTRAL LONDON OPHTHALMIC HOSPITAL.

BLACK CATARACT.

Under the care of HAYNES WALTON, Esq., Surgeon to the Hospital; and to St. Mary's Hospital, Paddington.

A FEW years ago, Mr. Walton brought the subject of black cataract before the profession, in a paper which he read at the Royal Medical and Chirurgical Society. It was by the aid of the ophthalmoscope that the cataract was discovered. Neither Mr. Walton nor any of the other surgeons who had seen the patient, could tell by a naked-eye examination what caused the blindness; for the pupil seemed black and natural. When the front of the cataract was illuminated, however, a very deep colour was observed. No operation was performed, on account of objections on the part of the gentleman. Since then, Mr. Walton has met with a few parallel examples; and others have been noticed and described by other men. Whenever the cataract has been extracted in any of these instances, it has been of the deepest brown colour.

But an actual black cataract has been lately removed by Mr. Walton, of which we shall give the particulars, as there are some points of physiological and pathological interest connected with it.

A man, 65 years of age, was sent to Mr. Walton by Mr. Philbrick of Colchester, because of his blindness. In both eyes there was the congenital defect, coloboma iridis, or deficiency of a segment of the iris, in a marked degree. His sight was so little affected by it, that he worked successfully as a gardener, and his employers never knew that he had any defect.

The coloboma is sometimes accompanied with a split or fissure in the retina. It is impossible to say whether this existed; probably not, because of the quality of the sight.

Except that there were a few minute dots of grey in the pupil of the left eye, nothing could be recognised there, as all else was black. Even when the light of the ophthalmoscope was concentrated on it, nothing more could be seen; but as the interior of the eye could not be illuminated, sufficient light not entering for the purpose, it was evident that there was some black body that intercepted the rays. There was scarcely any sight in the eye, only the mere perception of light from darkness.

Mr. Walton operated by extraction, and made the lower section of the cornea, because the iris was cleft

in that direction. The cataract proved to be quite black, and of the usual consistence. It was put aside for minute examination, but unfortunately was destroyed. The grey markings spoken of must have been in the capsule, for no such appeared on the cataract.

The case proceeded without a bad symptom, and the cornea healed well, but there was no beneficial result. There is no more sight than existed before the operation. This important question then arises. Are those changes in the interior of the eye, by which the eye is spoiled, and the nature of which cannot be ascertained by the ophthalmoscope when the crystalline lens is lost, associated with the peculiar alteration in the lens? Do they go together as allied diseased states, or is their association accidental?

But a few years ago, every case of loss of sight, in which the pupil looked black, was called amaurosis. It is very likely that many a black cataract was so designated. This shows how necessary it is to use the ophthalmoscope, both for the positive and the negative information we get from it.

In the right eye also there was cataract. The centre of it was quite black, while a small marginal portion was rather deep brown than black. The interior of the eye could not be illuminated by the ophthalmoscope. There was very little sight. Mr. Walton did not operate; he thought it most probable that the back of the eye was defective, as on the opposite side; and the patient was not at all willing for an operation.

Transactions of Branches.

SOUTH MIDLAND BRANCH.

LABOUR COMPLICATED WITH RUPTURE OF THE UTERUS.

By Frederick Cox, F.R.C.S., Welford, Northamptonshire.

[*Read October 26th*, 1865.]

Mary Wilson, of Welford, aged 46, was in labour with her eleventh child. All her previous confinements had been quick and easy. When I arrived, I found the os uteri dilating freely; the head presenting, and nearly on the perinæum. Her pains came regularly and tolerably quickly, but were not remarkable for force—rather the contrary. After ascertaining that all was going on well, and but little progress making, I went down stairs and sat by the fire. In about half an hour, she was sick (a circumstance which I did not much note), and had one very strong, severe pain. As, after this, I heard no sign of advancement, I went up stairs, and found my patient very ill, complaining of extreme faintness. She said she had had no pains since the time she vomited, and then she felt that something had given way. On examination, I found a large clot of blood filling the vagina. The head of the child had receded; and it was evident, from the sudden cessation of labour-pains, from the collapse of the features, the hurried and laborious respiration, the rapid and feeble pulse, the coldness and pinched appearance of the features, and the vomiting of dark coloured fluid matters like coffee-grounds, that a serious internal injury had been inflicted on some vital organ. I at once suspected its nature—viz., laceration of the womb. The head of the child was easily felt above the brim of the pelvis, beyond the clotted blood. The os uteri was fully dilated; the pelvis roomy.

I deliberated within myself as to the best course to be pursued under rather trying circumstances. In a country place, away from medical friends, and in the night, a consultation is not always to be thought of; and, the peril often being instant, one has to depend entirely on his own resources. May I say, parenthetically, that this isolation, like adversity, is not without its uses in making us competent and self-reliant? We may err in our conduct in the hour of trial; and I apprehend we shall all help each other to become good practitioners as much by the frank confession of our errors as by making them. My self-deliberation placed before me, as alternatives, the forceps, the perforator, and turning; but, above all, it told me that, whatever the operation, "if it were done, it were well it were done quickly." Delivery by the forceps was out of the question; and of the remaining alternatives, turning appeared to me the more advantageous, the pelvis being so roomy, and the os uteri fully dilated; and, moreover, I had reason to believe that the child was living. On being resolved, I at once proceeded to turn. Notwithstanding that the child was large, the operation was soon and easily effected; although, there being no auxiliary force from within, the traction required for the withdrawal of the child was very considerable, especially of the head. The child was dead when born; but the death had been caused *in transitu*. During the operation, I had distinct evidence of its life. The child born, I proceeded to remove the placenta; and, cautiously as I introduced my hand, instead of passing into the cavity of the uterus, it passed through a large transverse rent in the posterior wall of that organ, just above or about the neck, into the cavity of the peritoneum; and the palm of my hand was in contact with the peritoneal surface of the uterus, which had fairly contracted, obeying a well understood law of adapting itself to its contents. I carefully withdrew my hand, being cautious that no portion of abdominal contents followed it; and then removed the placenta, encouraging the uterus to contract on my left hand, while at the same time the right hand grasped the uterus externally, and withdrawing it only as it was contracted on, lest any portion of the intestines should protrude through the fissure.

I need hardly say that the after treatment was long and tedious. Peritonitis, uterine phlebitis, at first retention, and then incontinence of urine, each in turn or together, presented themselves. So fully convinced was I for a few days that the woman must die, that, beyond supporting her strength and administering opiates, I did nothing; and to this *far niente* system I attribute in a great measure her recovery. For recover she did, and is now alive and well, although never again has she been, happily for her, "the joyful mother of children". I enjoined great cleanliness, and had the vagina frequently syringed with tepid water and chlorides, the discharges being for a long time offensive. I quite believe that, had I set to work *secundum artem*, as enjoined a generation or two back, first combating the peritonitis with calomel and opium and depletions, and then the crural phlebitis with its appropriate remedies, the woman would have died surely. A good and efficient bandage, diffusible stimuli, brandy, and, above all, opium, were, if I now recollect aright, my first remedies; while, locally, I took great care that the long and constant discharge of offensive lochia, mixed with pus in large quantities, should be frequently cleared away by the injection of dilute chloride of lime and tepid water. If any plan can prevent blood-poisoning, it will be found in such cleanly proceedings and generous diet.

I will now proceed to narrate another and different

kind of rupture of the uterus which came under my notice.

Mrs. H., a farmer's wife, residing at Lilbourne, short, stout, of nervo-sanguineous temperament, was in labour of her sixth child. She was attended by my friend Mr. Harday of West Haddon. She had been in labour about four hours; the os fully dilated; the presentation a soft large tumour, apparently from the scalp; and the presentation above the brim. The pains had been for some time powerfully expulsive, when she was seized with a most severe pain at the lower part of the abdomen, at which she loudly screamed. The pains suddenly ceased; and the usual symptoms indicative of the occurrence of injury to some vital part set in, but not at all to the extent they did in the former case narrated, as I gathered from Mr. Harday's statement.

I arrived three hours after the accident; and I then found Mrs. H. much exhausted, and suffering from the shock to the system. Stimuli had been judiciously administered. On examination, I found a quantity of blood in the vagina; and, on removing this, the head could be felt above the brim of the pelvis, through a pulpy mass, evidently the distended scalp. An unusually large head could be clearly defined; and to this cause was undoubtedly owing the rupture of the uterus. The rent was perpendicular through the anterior part of the os, rather inclining to the left side, and apparently extending into both the body of the uterus and the vagina. Now, in this case, we assured ourselves that the child was dead, and, had it not been, craniotomy was the only means of delivery, since a manifestly disproportionate head was to be extracted. We delivered, therefore, by the perforator, a child with a hydrocephalic head. The placenta was removed, and all went well.

The woman had a tedious recovery, suffering from uterine phlebitis and incontinence of urine. Rest, injections of alum and water, and nitrate of silver, after a time set her right, and she has been quite well since. The case occurred six years since. By the aid of the speculum, the rent through the os was very plainly discernible for some weeks.

The practical remarks on these two cases resolve themselves into two heads—those referring to the treatment to be adopted with regard to delivery, and those suggestive of the treatment to be pursued when the delivery has been accomplished.

Some authorities, and among these Dr. Burns, advocate the use of the forceps as the best means of delivery. I apprehend so much difficulty would arise from the recession of the head, and from directing the blades so as to avoid the seat of injury, that it would be found in most cases and in most hands impracticable, and that the plan will meet with but few followers. Dr. Robert Lee advises and practises delivery by means of the perforator and crotchet, always provided, in this as in the other case, that the head is the presenting part. This is the easiest of all methods beyond a doubt. The plan of the forceps, if practicable, offers a chance for the child; the other, of course, none.

Now what I want specially to bring before you, and elicit your opinion concerning, is the delivery by turning, as adopted by me in the case of Mrs. Wilson. From the very severe shock to the maternal system, it may be expected that, in the large majority of cases, the child will be dead, and then no objection can be urged to the use of the perforator; on the contrary, it offers every advantage without one drawback; but if the hæmorrhage be not great, and the placenta be not detached, the child will not necessarily die; indeed, in the case of Wilson, although the hæmorrhage was considerable, the child was not dead at the time of turning, although it died immediately after. I am anxious to know what objections can be urged against the operation of turning, as practised by me. It can be done with safety to the mother; does not exhaust her much more than the delivery by the perforator; and gives the child a chance of living, if performed sufficiently early. In my case, had I been sooner cognisant of the mischief done; and, even then, had the child been less in size, I believe it would have lived.

The uterus, no longer possessing expulsive power, can give no aid to the operator; and all the force must be exercised from without, but so it must also in extraction by the crotchet, but truly here you have a diminished head. It seems to me that the matter is worth grave consideration; and I should really like to know the full grounds of objection that can be urged against the plan.

There can be no question that the operation of turning, when the child is large and the liquor amnii has escaped, is a severe trial to the mother. It is reasonable that it should augment the mischief already caused by the rupture of the uterus; and it is at least problematical whether it is good practice. Although the case in which I pursued this plan was a bad one, the child large, and the difficulties great, it was successful. Nevertheless, I am free to confess that I should hesitate to repeat the practice in a precisely similar emergency.

If the child have passed into the cavity of the abdomen through the rent, the operation of turning is the only one open to us. Why should it not, then, be resorted to when no such escape has happened, provided there exist evidence of life in the child. I say the only one; for, although Craig, a continental accoucheur, took great glory and honour to himself for having proposed the Cæsarean section in this or a like dilemma, he is, I apprehend not likely to find any among us anxious to rob him of a single leaf of his laurels, either by laying claim to his plan or by putting it in practice. In fine, if, by the stethoscope or by other evidence, we are assured of the existence of the child, ought the perforator to be employed while a means of delivery is open to us which, if carefully performed, does not injure the mother and offers a fair chance of life to the child?

As regards the treatment to be pursued when delivery has been accomplished, little need be said; and, if the experience of the above two cases teaches anything, little need be done beyond watching and lending a slight helping hand to our kindest and best friend, Nature. One cannot help being struck by the great curative powers exercised by Nature in cases seemingly hopeless. From the apparently hopeless case of Wilson, we should learn never to despair while there is life. Another reflection forces itself on our notice—namely, that however good and useful it may be to be armed at all points with remedies, and to use them skilfully—the *far niente* system is not without its advantages. Perhaps the greatest discovery of modern medicine is the recognition of Nature's claims as a physician; let us hail her not only as our best ally, but our guide, philosopher, and friend.

The Treatment of Insanity. At the Social Science Congress, held at Sheffield, on October 10th, 1865, a paper, prepared by Mr. Blake, M.P., was read, "On the Moral Treatment of Insanity, with Suggestions for the Appointment of a Royal Commission to Inquire into the Treatment pursued in the Asylums of the United Kingdom, and to Report upon the System which appears best adapted for carrying out the most approved Principles of Moral Treatment." This paper has been since published in a pamphlet form.

Progress of Medical Science.

SURGERY.

Limited Disease of the Knee-Joint. At a meeting of the New York Pathological Society, Dr. Voss presented the right knee-joint of a girl, seven or eight years of age, who, for some time past, had been suffering from strumous disease of that part. She first presented herself to the doctor with a large abscess on the outer aspect of the joint. This was opened. Subsequently sloughing took place in the abscess, and the patient ran down so rapidly that exsection could not be performed. The thigh was accordingly amputated, to save life.

On examination of the joint, after the removal of the limb, a most interesting condition of the part was seen to exist. The outer condyles of the joint were very much roughened and diseased, while the inner condyles were perfectly smooth and uninjured. These two parts were separated from each other by a vertical false membrane, and the partition thus formed seemed to be complete enough to prevent the extension of the disease further than the affected part. (*New York Journal of Medicine*, October, 1865.)

Separation of the Epiphysis of the Humerus. At a meeting of the New York Pathological Society, Dr. Hamilton presented an example of separation of the lower epiphysis of the humerus, for which he was indebted to Dr. Rives, of Dayton, Ohio. A girl ten years old fell upon her elbow, causing a fracture at that point. A surgeon was called, who applied a splint. Three weeks subsequently, Dr. Rives was called to see the case, and found that the upper fragment had been thrust through the flesh; but, in addition, he found a large excoriation on the arm above, caused by the splint. As the parents refused to have exsection performed, which was the proper operation, Dr. Rives amputated the limb. Dr. Hamilton remarked that separation of the epiphyses was of very rare occurrence, very rarely reported, and the verification of its existence was very seldom made when an autopsy was obtainable. He had been able to diagnosticate a separation of the epiphyses in the upper end of the humerus and lower end of the femur, but with those two exceptions he had never been able to make out an epiphyseal separation. (*New York Journal of Medicine*, Sept., 1865.)

Deep-seated Abscesses. At a meeting of the New York Pathological Society, Dr. Buck cited the following case, which was under his care in the New York Hospital. The patient, a man, aged 25, was admitted into the Hospital, with an inflammatory swelling of the neck, on the left side, occupying the lower portion, including the region of the sterno-cleido-mastoid muscle, and extending three fingers upwards from the clavicle, and spreading outwards perhaps two fingers' breadth beyond the outer margin of the clavicular region of the sterno-cleido-mastoid muscle. The swelling was diffuse, and its surface was red, tense, hard, and resisting. The integuments and subcutaneous tissues were thickened, and did not admit of any slipping upon each other. The patient suffered a good deal of pain, and had great difficulty in moving his head in any direction, on account of the disturbance in the neck caused by it. He complained of trouble at times in his breathing, at night, and also in his deglutition. The swelling was of recent origin, and evidently of an inflammatory character; it had existed a certain number of days, long enough for suppuration to have taken place, though no distinct fluctuation could be felt. On the corresponding side half of the edge of the epiglottis, and the arytæno-epiglottidean fold which constitutes the margin of the entrance of the larynx, were thickened. Though there was no fluctuation, yet Dr. Buck could recognise one spot where the surface yielded more than elsewhere. This was to the outside of the course of the external jugular vein, and sufficiently above the clavicle to be above the course of the arteries which occupied that region. Dr. Buck made an incision through the skin to the depth of about a half or three quarters of an inch, and then made use of a director, pressed it through the tissues, and presently arrived at a place where no further resistance was met with; when by a little forcible stretching of the opening, a drop of matter flowed along the groove. He then carefully enlarged it, giving exit to the contents of the abscess. There was no further increase of the symptoms which gave us solicitude; the patient was conscious of relief, in a greater facility in swallowing. In the progress of the disease, the matter showed a disposition to approach the surface at the median line, above the notch of the sternum, where the parts softened and where evidently the communication was more direct with the matter. A free opening was made at that point, and since then the case had gone on steadily and well, and the swelling in the epiglottis and neighbouring parts had disappeared.

He also related a case of deep abscess in the iliac fossa. The patient had been at first treated in the medical wards, and the abscess had opened into the bowel, causing a discharge of pus *per anum*. When the patient came under Dr. Buck's care, there was in the right iliac region a swelling, filling up the iliac fossa as far as the brim of the pelvis, so that the finger could not be inserted between the crest of the ilium and the abdominal wall. This swelling filled up the depression seen at that point, and could be traced a certain distance towards the median line, when it was gradually lost. It extended down to Poupart's ligament, and distended its outer half. The integument overlying the tumour was neither red nor adherent. The thigh was slightly retracted, and was kept in that position, whether the patient were standing or recumbent. The swelling had extended upwards, and overlapped nearly one half of the crest of the ilium posteriorly. This portion of the swelling was resonant, and contained air. Dr. Buck carefully made an opening over the posterior portion of the swelling. He cut down carefully, and satisfied himself that he could transmit an impulse from the portion of the swelling occupying the fossa, anteriorly to this posterior portion which was resonant. The question was, whether the gut had not made its way to the surface; but the transmission of the fluctuation from one portion of the swelling to the other settled the question that such was not the case. An opening was made at the point indicated, when a free escape of pus and gas took place. An interesting point in the progress of the case was, that pus no longer discharged itself from the bowels, except immediately after the operation, when the matter appeared in the stools two or three times in succession. The opening was closing, and the patient was doing well.

Dr. Buck remarked, that deep-seated abscess, of which the previous case was an illustration, had for many years interested his attention. It is an abscess which may originate in the iliac fossa or in the lumbar region, but it is important to determine that point in reference to the treatment which should be employed. He had met with it in both sexes. In two cases it was preceded by erysipelas of the limb

affecting the absorbents. These latter were both males. The youngest case that he had met with was in a girl of tubercular diathesis, and highly scrofulous. In one case the abscess was produced by a foreign body which had made its way from the cæcum, and set up inflammation posteriorly in the fossa of that side. The foreign body afterwards presented itself in an opening in the groin which had previously been made for the evacuation of matter, and proved to be a pin which was extensively incrusted. That patient, a male, ultimately recovered. In several of the cases the abscess had originated in the puerperal state. The proper treatment, which has been successful in his hands, has been this: upon ascertaining the existence of the abscess, he without even waiting for fluctuation to establish itself, makes an outlet for the matter below the outer half of Poupart's ligament, and parallel with it, first through the integument, exposing the fascia of the thigh, then passing under the ligament, and behind the iliac fascia. The incision is to be kept open by a plug of lint, renewed every twenty-four hours. (*New York Medical Journal*, October, 1865.)

MEDICINE.

Empyema of the Left Pleural Cavity: Cure effected in a novel manner. On August 2nd, 1862, Mr. J. B. Malcolm was called to see a man, aged 26, who had been ill for a fortnight, and had been attended by a club doctor. The man was suffering from a violent cough, with little sputa, and great difficulty of breathing. On a careful examination, Dr. Malcolm diagnosed extensive inflammation of the left pleura, with effusion into its cavity. He treated him in the usual manner; but although the cough became less frequent and troublesome, and the febrile symptoms began to subside, the breathing became not less difficult, and the extensive dulness on percussion of the side increased instead of decreasing. About the end of August, after a violent fit of coughing, the poor fellow expectorated a quantity of pus, and continued daily to do so; but still there was no real improvement. In fact, all the symptoms began to be worse. He continued to suffer from night-sweats. The sputa smelt more and more disagreeably, and what little appetite he had was failing. The click of the aortic valve was clearly to the right of the sternum, and on measuring the respective sides of the chest, Mr. Malcolm found the left about three inches more in bulk than the right. On August 31st, after consultation with Dr. McGrath of Castlemaine, it was decided not to risk tapping, but to trust to nature. Day by day the symptoms became more urgent. It was manifest that the entire of the enlarged pleural cavity was filled with pus; also that there was an outlet from it, leading through the upper and front part of the lung, was equally apparent. The patient could remain for any length of time only in the sitting posture, but if he desired to rest he first leaned forward for a short time, and in this position he expectorated profusely. Afterwards he could lean backwards and rest for an hour or so without coughing or spitting. The idea occurred to Mr. Malcolm of turning the man upside down and allowing the pus to escape through the opening which the progress of the disease had already made, and which seemed to be a safe and sure means of exit. The patient was simply made to hang his head downwards over the front of the bed, he being meanwhile held for fear of his falling, when about a quart of horribly offensive pus ran out of his mouth. This simple plan being followed night and morning, perseveringly but cautiously, the pus was gradually drawn off, the heart began to return towards its normal position, the lung to expand, and the appetite to improve. On Sept. 22nd, every bad symptom was gradually disappearing, except a slight cough, with a moderate expectoration which was no longer offensive. On October 21st he drove over to Mr. Malcolm's residence (twelve miles) a wonderfully improved man. The heart had regained nearly its natural position. The side had fallen in very little. (*Australian Med. Journal.*)

Aneurism of the Abdominal Aorta. Dr. Imans relates in detail three cases of aneurism of the abdominal aorta, and comments on the lessons in diagnosis to be derived from them. We shall, he says, probably never be able to recognise an aneurism of the aorta in its very first commencement, and before it has attained a certain size. An early diagnosis is, however, of the highest importance for the treatment and the possibility of cure (filling up and closing of the aneurismatic sac by fibrinous coagula.)

In none of the cases communicated was the diagnosis made before the aneurism had attained a large size. In the first, the existence of an aneurism was early suspected, and the patient was consequently repeatedly examined, but without any definite result; it was not until the tumour had caused a slight projection at the side of the vertebral column, in which at the same time a feeble pulsation, isochronous with the radial pulse, was heard, that the diagnosis of an aneurism appeared to be sufficiently justified. In a second case, the recognition of the aneurism might probably have been possible at an earlier period, if the tumour had not been entirely covered by the greatly enlarged liver, until the moment of the bursting of the sac, which gave rise to the effusion of blood behind the peritoneum, and the consequent formation of a fluctuating tumour in the abdomen, together with syncope, etc. The third case was observed at a time (1822) when aneurisms of the abdominal aorta had as yet in general but very little attracted the attention of physicians. The tumour was not discovered, until it was probably on the point of bursting, and of pouring out its contents into the retroperitoneal connective tissue.

The most characteristic symptom in each of the cases was the violent pains. These proceeded from a defined point in or close to the vertebral column, and extended along the side of the trunk into the arm or leg. Such pains are violent beyond all description, sometimes torture the patient for days and nights consecutively, almost without any respite, extort from him loud cries, and may lead to despair, or even to suicide. These painful periods are sometimes followed by others, in which the condition is tolerable, or wherein absolutely no pain is felt. Narcotics, even in large doses, were, in the cases related, only rarely of any avail; more frequently, but not always, local depletion by leeching, especially in the second patient, gave some relief. The pains appear first to arise, or at least to become violent, when the tumour has attained a certain size. We naturally seek their cause in pressure, or probably also in destruction, of the nerves, where the pulsating tumour lies against the resisting posterior wall of the thoracic or abdominal cavity. But they occur also in no less violent degree in aneurisms where such conditions do not exist. About four years ago, Dr. Imans saw an example of this in a woman, who had already suffered long from violent pains in the abdomen. On her admission into hospital, a pulsating tumour, of the size of a cocoa-nut, was felt in the left side of the abdomen, at the distance of some finger-breadths from the middle line just below the hypochondrium. The tumour was hard and tense, movable, and ap-

parently adherent to the vertebral column. In the tumour, and lower along the course of the abdominal aorta, a strong blowing murmur was heard with each impulse of the heart. The woman had constantly violent pains, which increased, particularly at night, compelled her to leave her bed, and to run, as if in despair, about the room, stooping forward and pressing both hands against the abdomen. She died suddenly in a few days, before it was ascertained whether the tumour should be regarded as an aneurism, or as a tumour which was pressed on by the aorta. The *post mortem* examination showed that bursting of the aneurismatic sac had produced a fatal effusion of blood into the abdominal cavity. The tumour, nearly completely filled with firm fibrinous coagula, was attached to the anterior wall of the abdominal aorta, and lay otherwise quite free among the small intestines.

Another symptom also deserves mention—namely, a torpid state of the bowels observed in two patients, and which probably existed also in the third case. It must, as well as diminution of the urinary secretion and subsequent œdema and coldness of the lower extremities, be explained in the first case by the diminished force with which the blood is impelled towards the parts situated beneath the aneurismatic distension, particularly when the latter is of great extent, or by its pressure diminishes the calibre of the artery, or by a wide opening communicates freely therewith.

Percussion and auscultation are in general capable of affording but little information, and certainly only when employed in connexion with the observation of other symptoms. A dull sound on percussion, a peculiar sibilant or thrilling murmur, single or double pulsation, are in some instances found to exist. In most cases, however, they are not present, while they may, moreover, occur under totally different circumstances. An example of this last Dr. Imans had in a woman, aged 50, who, after having been, during the last few years, repeatedly under treatment in the hospital, was again admitted on March 18th, 1862, suffering from pleuritis of the left side. A considerable time after having recovered from this, she began to complain of pains in the left half of the back, between the vertebral column and the edge of the scapula and in the left arm. She had already, in the preceding year, occasionally complained of such pains, which, however, usually soon gave way, after the application of dry cupping or of a poultice. But now they were more obstinate, and required small local depletions; the woman began to complain of a feeling of pulsation in the part of the back already mentioned, which was also objectively perceptible, together with a feeble, persistent murmur. Some weeks later these phenomena disappeared and did not return. The pains, however, continued, and gradually increased in extent and violence, reaching to the inferior extremities, particularly the right. But they never attained to so great violence, as exists in sufferers from aneurism, and they were, even persistently, moderated by narcotics, though, it is true, in tolerably large doses. The strength of the woman slowly but steadily decreased, without the nature of her disease becoming manifest. In the spring of 1863, a small soft tumour, in which very faint fluctuation, but no pulsation, was perceptible, appeared first above the left sterno-clavicular articulation, and up to the date of the death of the woman (9th May, 1864) increased but little in size, without opening. On *post mortem* examination, performed by Professor Koster, it was found, among other things, that the aorta posteriorly and along the whole arch was surrounded by a large quantity of thick pus, which was continued inferiorly into the posterior mediastinum, and was produced by tubercular ulceration and degeneration of the nine superior dorsal vertebræ. Undoubtedly the pulsation and murmur observed here for some time, were the result of a change of form or displacement of the aorta by the pressure of the pus accumulated behind it, and they ceased when the latter had made an exit for itself, and when the pressure was thus removed.

For diagnosis, and particularly for early diagnosis, the pain would seem entitled to be considered as the most important symptom (although perhaps some cases of aneurism of the aorta are on record in which there was no pain) when, that is to say, it occurs with the above described peculiar character. Where, whether after or without a probable exciting cause, a fixed spot in the neighbourhood of the vertebral column becomes painful and continues so in a greater or less degree, and this pain radiates thence in the corresponding side of the trunk in a defined line, and extends to the leg or to the arm, while from time to time, particularly after sudden and rapid movement or exertion, it all at once becomes very violent, we ought, unless another cause for the phenomenon is with certainty demonstrable, to bear in mind the possibility of the existence of an aneurismatic distension of the descending aorta. In proportion as the pains in general increase, and at the same time the paroxysms become more violent, the probability of this is greater. The longer or shorter periods during which the patient's state continues perfectly tolerable, and even no pain is felt, appear also to be characteristic. An anxious expression of countenance and a stooping forward position are not constant characters. Symptoms of a less energetic supply of blood to the parts situated beneath the suspected aneurism; infrequent constipated evacuations of the bowels, diminished secretions of urine, and coldness of the lower extremities, etc., are not to be overlooked. A negative result obtained on percussion and auscultation proves nothing against the existence of an aneurism, while an abnormal dulness in the place whence the pains proceed, and pulsation subjectively or objectively perceptible, a peculiar sibilant or thrilling murmur, although in themselves often capable of another explanation, may, in connexion with the first mentioned phenomena, very much confirm the suspicion. Certainty is not obtained until the pulsating tumour becomes visible or palpable.

In a therapeutical point of view the diagnosis of an aneurism, especially in the commencement, but also in the later periods, is of very great importance. So long as the existence of an aneurism is only suspected or probable, it will be advisable to warn the patient against fatiguing work in an unfavourable position, etc., but especially against any sudden and rapid movement or exertion—in a word, against anything whereby the pressure of blood in the tumour may be either permanently or momentarily increased. When great probability or perhaps certainty exists, that we have to do with an aneurism, it will be our duty to prevent, so far as possible, its bursting, and to this end to promote the filling up of the sac with firm coagula, and so to cut off its cavity from that of the artery. In this direction the greatest advantage is to be expected from long continued rest in a proper position, unless the general state of the patient forbid it; from the internal use of astringents and chalybeates, especially of perchloride of iron; from suitable good nourishing diet; and from the external employment of cold applications near the probable seat of the aneurism. As a matter of course, symptomatic remedies are not excluded, particularly narcotics, when necessary, in free doses; local depletions, to relieve pain, etc. In the majority of cases we may not succeed in obtaining a cure, but we may

expect by such means to make the patient's sufferings more tolerable and to prolong his life. (*Nederlandsch Archief voor Genees- en Natuurkunde*, and *Med. Press.*)

Reviews and Notices.

History of a Successful Case of Amputation at the Hip-joint (the limb 48 inches in circumference, 99 lbs. weight). By J. Sampson Gamgee, Surgeon to the Queen's Hospital, Birmingham. With four Photographs. Pp. 33. London: 1865.

This is a quarto volume, the mechanical getting up of which is of a kind rarely met with in medical works. In it is related the history of a remarkable case which came under Mr. Gamgee's care in the Birmingham Queen's Hospital.

Joseph Bramwell, aged 37, was admitted into the Queen's Hospital at Birmingham on September 3rd, 1862. In 1851, while following his calling as a coal-miner, a large mass of coal (about 2 cwt.) fell on his right great toe, bruising it severely. About a fortnight afterwards, he observed that the right thigh was somewhat enlarged—nearly uniformly so, and without pain. The swelling—which was from the first perceived to be seated in the bone—increased until 1859, when he was obliged to give up working as a miner, and was admitted into the Bedford Infirmary, under Mr. Sharpin; but, as he objected to surgical interference, which was correctly held to be the only remedy, he was discharged. In 1860, the greatest circumference of the right thigh was twenty-nine inches; his health appeared good, and he could still walk considerable distances. In 1861, the patient was seen by Mr. H. M. Morgan of Lichfield. The circumference of the thigh at the thickest part of the swelling was now forty inches; that of the left at the corresponding part being sixteen inches. Above the swelling, the circumference was the same in both limbs—twenty inches. He was able to move about, doing farm work, until August 1862; but the increasing weight of the limb prevented him from walking with freedom. His earnings being but small, his diet was necessarily restricted.

On admission, he was greatly emaciated; the countenance was pale, but not indicative of cachexia; the internal organs were healthy. On the left tibia, just below the tuberosity was an exostosis of about the size and shape of two filberts joined at their base; and another just above the left ankle-joint. These were believed by the patient to be congenital; they had never caused any pain or inconvenience. The right lower limb was so greatly enlarged that the patella could not be felt, nor could the knee be bent. The skin, anteriorly and externally, was pale and shining, but healthy; posteriorly and towards the under and lower part, it was red and superficially sloughed; this condition was stated to be of very few days' date. Venous ramifications, some as large as a goose-quill, were spread over the tumour, chiefly on the outer and front aspects. There was a distinct feeling of fluctuation at the inner and lower part, over a space measuring nearly five inches in each direction. The movements of the hip-joint were nearly unimpaired. The lymphatic glands on the right side were enlarged, but were freely moveable, painless, and but slightly more cold than in the normal state. The right foot was slightly œdematous; the circulation in the limb appeared to be practically unimpaired. The circumference of the thigh, on a level, three and a half inches above the opposite patella, was 48 inches. The longitudinal extent of the enlargement was 29¾ inches. The upper part of the swelling was four inches from Poupart's ligament. The patient was not weighed on admission into hospital; but, in 1861, his weight was 161 lbs. The limb, after removal, weighed 99 lbs.; so that the body must have been left at least less than half its previous weight. In March 1865, he had increased in weight up to 199 lbs.

From a careful consideration of the case, Mr. Gamgee arrived at the conclusion that the disease was not malignant, but that the case was one of ossifying enchondroma. The next point to be considered was the possibility of operating; and what operation should be performed.

"The great matter," says Mr. Gamgee, "was to determine the chances of life which, in this case, it might reasonably be presumed, were much smaller than in amputation of the hip-joint generally, on account of the very great development of the vessels, the man's emaciated condition, and the shock inseparable from the removal, as was evident must be the case even before the operation, of half the weight of the body..... From the first, I weighed the evidence bearing on disarticulation of the hip, to the exclusion of amputation through the trochanters. The fact is, that the latter operation scarcely admitted of satisfactory mechanical performance; but clinically it was inadmissible on account of the uncertainty attaching to the condition of the medullary canal of the femur. Experience teaches that, alike in the simple cartilaginous and in the various forms of cancerous growths of the long bones, two deposits very often co-exist—one as a plug in the marrow-hole, the other as a ferrule, of variable size, round the outside of the osseous structure..... In the case of Joseph Bramwell, the diagnosis was in favour of benignancy; but there was so little room for the knife, that..... I resolved to give the patient the benefit of the anatomical doubt; to insure the removal of the disease in its entirety, in the event of operation being determined on."

The operation having been determined on, the first thing to be considered was, how to check hæmorrhage during the proceeding; it being obvious that the ordinary methods would not suffice. Through the kindness of Professors Syme and Lister, Mr. Gamgee was presented by them with the large tourniquet devised by Mr. Lister for compressing the abdominal aorta. The operating-table was provided with rings and bandages for securing the patient; and an apparatus of towels, fastened to a rope attached to a pulley, was arranged for slinging the limb, which, on account of its great weight, it would have been difficult to support steadily by the hand.

On September 11th, 1862, the operation was performed by Mr. Gamgee, assisted by Drs. Wade and A. Gamgee (who gave chloroform), and Mr. Gamgee's surgical colleagues in the hospital. The limb having been raised in the sling, the point of a straight narrow long-bladed knife was introduced just in front of the tuberosity of the ischium; the capsule of the joint was transfixed; and the point was brought out just behind the antero-superior spine of the ilium. An arc of a circle was then cut from the point of issue nearly to the middle line, close to the tumour; and a similar segment was cut so as to join the former one, the great vessels being divided at their point of union. The limb was then readily removed. Eighteen arteries and the femoral vein were

tied. The regurgitant flow of blood was great; but the tourniquet acted so effectually, that there was no greater hæmorrhage than in an ordinary amputation of the forearm. Silver wire sutures were introduced at intervals of an inch; a light water dressing was applied; and the patient was soon removed to bed in a small airy ward, having in constant attendance a nurse and one of the surgical dressers—who, nine in number, relieved each other by turns, and whose conscientious and able discharge of their duty, as well as the valuable assistance afforded by his colleagues in the operation, Mr. Gamgee specially notices. In the afternoon, there was some free hæmorrhage from an artery in the posterior flap, which was restrained by a ligature. On September 15th, there was a gush of arterial blood from the centre of the wound, which was restrained by the aortic tourniquet. For two or three days there was diarrhœa; but the progress of the case throughout was most satisfactory, and on November 26th the stump was quite healed.

But little medicine was given—only so much as was required by special symptoms; and a liberal diet was allowed. At the time of the publication of the essay, Mr. Gamgee says,

"Bramwell has enjoyed uninterruptedly good health since the operation, having increased nearly 100 lbs. in weight. His appearance is that of robust health. The cicatrix has never been a source of discomfort. The exostoses on the left tibia preserve their size unaltered; they are never the seat of pain; and none have appeared in other parts of the body."

A careful examination of the limb after removal proved the correctness of the diagnosis made as to the nature of the tumour.

The case narrated is one which reflects very high credit on Mr. Gamgee's judgment, decision, and operative skill. The history is interspersed with some very judicious remarks on surgical dietetics and other matters of interest to the surgeon.

On Some of the Causes and Effects of Valvular Disease of the Heart: Being the Croonian Lectures of the Royal College of Physicians for 1865. By Thomas B. Peacock, M.D., F.R.C.P., Physician to St. Thomas's Hospital, etc. Pp. 114. London: 1865.

In commencing these Lectures, Dr. Peacock expresses an opinion that attention has been too exclusively directed to the influence of inflammatory affections in laying the foundation of cardiac diseases, to the comparative neglect of other causes which, though operating in a small proportion of cases only, give rise to disease. The deficiency here pointed out he endeavours to supply.

In his first Lecture, he speaks of Malformation as a Cause of Disease. He first notices malformation of the valves, both semilunar and auriculo-ventricular. The semilunar valves may either be in excess or defective in number: in the former case, the malformation, Dr. Peacock believes, arises from the want of union between the two portions of which a segment is originally composed; while in the latter, adhesion has taken place during fœtal life between two valves. Having explained his reasons for believing these conditions to be the result of extra-uterine disease, he observes that, while there does not appear to be an impairment of function in the case of supernumerary valves, the blending of the segments produces more or less disturbance.

"When there are only two semilunar valves, and one of the curtains is considerably larger than the other, the larger curtain, not being adequately supported in its middle, must have a tendency to become stretched, and to fall below the level of the other segments, so as incompletely to close the orifice during the diastole of the ventricle. Regurgitation must thus be permitted." (P. 6.)

"In the form of defect in which the whole of the curtains are blended together, and a kind of septum, perforated by a larger or smaller opening, is stretched across the aperture, more or less obstruction to the flow of blood from the ventricle is necessarily occasioned. Generally, also, the opening which exists is incapable of being closed, so that regurgitation from the artery into the ventricle, also occurs..... The valves very generally become greatly thickened and indurated with the progress of life, so as to become rigid and unyielding, and to reduce the opening to a very small size.....Most aggravated disease of this kind may exist during many years without being productive of any symptoms of cardiac defect." (Pp. 7-8.)

Several illustrative cases are related.

Congenital disease, Dr. Peacock believes, may also affect the auriculo-ventricular valves.

"The tricuspid valves are occasionally found blended together at their edges, so as to form a kind of membranous septum separating the right auricle and ventricle, and perforated by a larger or smaller aperture generally of a triangular shape, in the centre."

In regard to this malformation, the evidence in favour of its intrauterine origin, though very probable, is only presumptive; still the idea is strongly supported by several cases, especially one related by Dr. Mossman of Berlin, of "recent endocarditis of the mitral and tricuspid valves in a child which survived birth only twenty hours."

Regarding union of the mitral valves, Dr. Peacock speaks less positively as to its intrauterine origin; but points out as a significant fact that the most complete cases of this description are almost always met with in young persons, in whom there may be no history of cardiac inflammation, but who have from birth been subject to cardiac symptoms.

Dr. Peacock then notices the condition described under the name of "atrophy of the valves". This he believes to be of little importance generally; but it may aggravate the evil when the orifices or cavities of the heart are dilated.

In general, congenital want of proportion between the heart and arteries is not a cause of disease, in Dr. Peacock's opinion. An exception, however, is pointed out.

"When the ductus arteriosus is prematurely contracted, the pulmonary artery remains permanently small; and when the portion of the descending aorta, between the origin of the left subclavian artery and the entrance of the ductus arteriosus, is not fully dilated, the aortic orifice and ascending portion of the aorta are less than natural. If either of these conditions exist to a marked degree at birth, the closure of the foramen ovale or of the ductus arteriosus would be prevented, and the cases would be regarded as malformations. The defects may, however, at that time only be slight, so that the heart may undergo the usual changes; yet there may be sufficient obstruction to the circulation to give rise to disease

in after-life. It is apparently in this way that contraction or obliteration of the aorta beyond the origin of the left subclavian artery is occasioned. The narrow or rigid portion of the aorta interferes with the transmission of the blood to the lower parts of the body; the heart acts with increased power to overcome this obstruction; the left ventricle, therefore, becomes enlarged and its walls increased in thickness. The ascending aorta also becomes dilated, while the pressure of the blood in the contracted part causes irritation, the coats become thickened and indurated, not unfrequently fibrinous material is deposited in the canal, and ultimately, as the result of changes occupying a long period, the calibre of the vessel may be entirely obliterated. Of this, as it has been termed, *quasi-malformation*, a considerable number of very remarkable examples has been placed on record. In 1860 I collected and analysed forty instances of the kind, of which ten were examples of entire obstruction, and thirty of more or less contraction. At the present period there are on record about forty-six cases, eleven of the former class, and thirty-five of the latter." (Pp. 29-30.)

In the second Lecture, Dr. Peacock speaks of Injuries as Causes of Valvular Disease or Defect; and of Alterations in the Capacity of the Orifices and Cavities of the Heart as Causes of Valvular Defect: and, in the third, he treats of the Weight and Dimensions of the Healthy Heart, and the Changes which occur in the Organ in different forms of Valvular or other Disease.

The volume contains many valuable remarks in addition to those which we have noticed, and will well repay perusal.

PHOTOGRAPHS (COLOURED FROM LIFE) OF THE DISEASES OF THE SKIN. By ALEX. BALMANNO SQUIRE, M.B.Lond., Surgeon to the West London Dispensary for Diseases of the Skin, etc. Numbers IX, X, XI, XII. London: 1865.

WE have before us four more of Mr. BALMANNO SQUIRE'S plates of skin-diseases.

The first of these—No. IX in the series—represents, as an example of the class Maculæ, a case of Nævus Vascularis in the face of a girl aged 15.

The second—Number X—is illustrative of the class Exanthemata, and represents the lower limbs of a boy aged 14, studded with Erythema tuberculatum. In commenting on Erythema, Mr. Squire groups its varieties as those of local and those of constitutional origin. In the former division are comprised erythema simplex, intertrigo, læve, paratrimma, and pernio; the latter is further subdivided into evanescent erythema (Erythema fugax) and rheumatic erythema, including the varieties erythema nodosum, tuberculatum, papulatum, circinatum, and marginatum. Of the rheumatic erythema, Mr. Squire says:

"The varieties which the author has grouped together as a subgenus, and to which he has given the collective name of Rheumatic Erythema, have many characters in common. They all alike run a subacute course; in each of them the reddened patches are manifestly elevated above the level of the skin, are tender to pressure, and are accompanied with firm exudation into the subcutaneous areolar tissue. Again, a progressive change in the colour of the patches from a rose-red to purple, and from purple to a yellowish hue, and a coincident softening of the exudation and subsidence of the swelling, are common to all. They agree, too, in the occurrence of several successive crops of the eruption during the continuance of the disease; in their choice of persons (the young and feeble); in the seasons of the year at which they prevail (spring and autumn); and no less in their evident connection with the rheumatic diathesis."

In the third plate—No. XI—is represented a case of chronic Eczema, typical of the class Vesiculæ. The photograph is taken from a man aged 62, the dorsal surfaces of whose forearms are represented. The eruption was also present on the anterior surface of both legs from the knees to the ankles.

The fourth and last of the plates—Number XII of the series—is illustrative of the class Bullæ. It shows a case of chronic Pemphigus on the right foot and left hand of a boy aged 10, who had been affected about three months.

These photographs complete the series which Mr. Squire some time ago announced his intention of publishing. It was, he says, for his own instruction that he was led originally to take photographs of skin-diseases; and, finding his attempt so far successful, he was induced to believe that the publication of a series, such as has just been completed, would be useful to the profession. In this he has, we think, formed a correct judgment. He has given the profession an opportunity of being provided with a series of very good illustrations of various skin-diseases, taken by the photograph from the actual patients, and coloured from life. We thank him for what he has already done, and are glad to hear that he has announced his intention of bringing out another series of a similar kind.

THE ANATOMICAL REMEMBRANCER OR COMPLETE POCKET ANATOMIST; containing a concise Description of the Bones, Ligaments, Muscles, and Viscera; the Distribution of the Nerves, Blood-vessels, and Absorbents; the Arrangement of the several Fasciæ; the Organs of Generation in the Male and Female; and the Organs of the Senses. Sixth Edition. Pp. 148. London: 1866.

THIS book may be found useful for refreshing the memory in matters of anatomical detail apparent to the unaided eye; but, in regard to structural anatomy, the information which it conveys is very meagre, and not at all on a level with what is known in the present day.

THE EAR IN HEALTH AND DISEASE; WITH PRACTICAL REMARKS ON THE PREVENTION AND TREATMENT OF DEAFNESS. Illustrated by Wood Engravings. By WILLIAM HARVEY, F.R.C.S., Surgeon to the Royal Dispensary for Diseases of Ear, etc. Fourth Edition, revised and improved. Pp. 248. London: 1865.

THIS is a practical work, founded mainly on the large experience of the author. During the ten years which have elapsed since its first appearance, it has apparently met with a considerable amount of professional favour, and has now reached a fourth edition, in which the author has made such alterations and additions as have seemed to him calculated to maintain the practical value of the book.

We are requested to remind members of the Association that the Annual Subscriptions became due on the 1st of January. They can be paid either to the Secretaries of the Branches; or to the General Secretary, T. Watkin Williams, Esq., 13, Newhall Street, Birmingham.

British Medical Journal.

SATURDAY, JANUARY 27TH, 1866.

NOTES ON CHOLERA BY DR. JOHNSON.*

THE appearance of Dr. G. Johnson's unassuming little volume will, we trust, be the means of calling the serious attention of the profession to the terrible subject of The Cholera. For a time this destroyer has ceased its ravages in Europe, and our shores have so far escaped its visitation. But who will assure us that this present year will pass away and leave us still unmolested? The history of former epidemics justify us only too well in anticipating that, before many months are passed, medicine may be again trying conclusions with the enemy here within our very doors.

Dr. Johnson's book, therefore, comes opportunely. It will lead us to ask ourselves whether we are prepared to do battle with this fearful disease; whether we have any fixed method of encountering it; whether the experience of former epidemics has taught us lessons which may help us now; whether (as heretofore) we are still to proceed in treatment by the rules of the barest empiricism; or whether theory has anything to offer us as a guide amidst so much darkness. He who has followed the dealings of our French and Italian brethren in the treatment of cholera during the past six months, and has read the suggestions of our countrymen on the subject, will, we think, agree with us that, in the all important matter of treatment, we are very much where we were when the disease first visited Europe. But more than this. If we have attained to no positive knowledge of a treatment of the disease, it would appear that neither are we able to decide whether our remedies are simply negative or actually injurious in their effects. Is it not indeed true that our present dealing with the cholera—our search for a remedy for it—is very much of the same kind as are the proceedings of a chemist who indiscriminately throws into his crucible any variety of substances which first come to hand, and hopes, therefore, by some happy accident to tumble on a great discovery? Let any one read the divers methods—the in some cases opposing methods—of cure adopted by estimable practitioners; let them reflect upon the thousands of different remedies, the infinite number of cures, boasted of by legitimate members of the profession; let any one conscientiously make himself master of what the abundant pages of medicine can tell him on this score, and we are sure he will agree with us, that our preparedness to meet another advent of cholera is not a thing to boast of. We are proud of being a practical people, not over given to theory; but we are sadly apt to forget that in the application of medicine to the cure of the disease, no one of the helps on which we rely is more likely to deceive us than the one on which we rest ourselves so lovingly and so firmly, the prop experience. We forget that the wise Father of Medicine taught how fallacious in medicine experience is—*experientia fallax*; how difficult a right judgment of things; how easy to draw false conclusions, and to make the *post* stand for the *propter*. We are apt to laugh at theories in medicine; but we believe it would not be hard to show that the very greatest advances in the practice of medicine have arisen not from the lessons of mere empiricism, but have followed upon a change of theory. Buckle has a very remarkable observation on this point. He tells us:

"There is no well authenticated case on record of any theory having been abandoned because it produced dangerous results. As long as a theory is believed, men will ascribe its evil consequences to any cause except the right one..... Every practical change may, by careful analysis, be shown to depend in the first instance on some change of speculative opinions."

Every one who has read the history of medicine, must admit that there is at all events great truth in Buckle's remark which is quoted by Dr. Johnson; and, doubtless, as an illustration of his own exposition of the pathology of cholera.

Dr. Johnson comes before us with a new theory of cholera; and, if his theory be right, it follows that the generally accepted practice—what we might call the "orthodox" treatment of cholera—is founded on a completely erroneous basis, and is therefore itself completely wrong. And Dr. Johnson has a right to be heard in this matter. No man more so; for he has long and carefully studied the question upon which he writes; and he is an accomplished observer; and has put his theory to the test of a large practical experience, and still finds it a good theory.

Dr. Johnson, first of all, clears the ground by proving the fallacy of the ordinarily accepted theory of cholera; viz., that the collapse attending it is the result of purging and vomiting. Loss of blood-serum (as it is argued) produces collapse. Arrest the flow of serum by opium, etc., and you will prevent the collapse. Now this Dr. Johnson utterly denies; and his statements require refutation at the hands of those who adopt the serum-arresting and astringent practice. If he be right, their practice is assuredly prejudicial to life.

* Notes on Cholera; its Nature and Treatment. By George Johnson, F.R.C.P., etc. London: 1866.

He proves his case in this way. In the first place (he argues), there is no direct relation between the loss of fluids and the degree of collapse in cholera; rather do they stand in an inverse ratio to each other; for experience shows that the most rapid and fatal collapse is attended with little or no purging or vomiting. Then, again, the symptoms attending the collapse are not such as mere loss of the fluids of the body would produce: blueness of skin and other signs of obstructed breathing; absence of syncope; remaining muscular power; and remarkable rapidity of recovery, as if from suspended animation by drowning, are not the signs of loss of blood or of its equivalent. Neither is the influence of treatment such as we should expect of it, if the popular theory of collapse were true. Alcoholic stimulants, Dr. Johnson asserts, increase the symptoms of collapse. "They have been given," he says, "freely and boldly; and the result has been that, in the stage of collapse, they are not only useless, but positively injurious."

No doubt the striking temporary benefit produced by injections of hot water into the veins of cholera-patients has gone far to confirm the theory that the collapse results from loss of water. But this explanation, Dr. Johnson says, is erroneous. The benefits attending the water-injections result from this—that the heat relaxes the spasm (above spoken of) of the small pulmonary arteries, and so allows a freer temporary circulation of blood through the lungs; and confirmatory of this is the fact, that no such good effect is produced by merely tepid water injections. Thus, in truth, the results of this mode of treatment, which seem, at first glance, to upset Dr. Johnson's theory, are, in reality, confirmatory of it.

Again, the effects of venesection in the hands of those who have employed it in cholera, are exactly the reverse of what they should be if the popular theory were true. Instead of producing syncope, it strengthens the pulse, and removes the faintness and debility. The experience of the highest medical authorities in India attests this fact. As to purgatives, indisputable records show that recoveries from collapse have occurred when both purging and vomiting have been encouraged by emetics and purgatives. And on this point, Dr. Johnson throws out a challenge which requires an answer from those who oppose his theory:

"I defy you to shew me," he says, "a single case of recovery from collapse, in which the intestinal discharges have not continued, in a greater or less degree, while the symptoms of collapse were passing off."

Now, if the popular theory and practice were correct, surely the very opposite of Dr. Johnson's assertion should be the case.

The issue is here clearly stated. *If Dr. Johnson be right, the popular practice—the astringent and alcoholic treatment of collapse of cholera—is founded on a false theory, and is a deadly aud destructive treatment.*

But, if the collapse be not the consequence of loss of serum (as popular error teaches), what is its true cause? Now here, in the answer to this vital question—vital truly to the patient, because of its direct bearing on practice—comes the theory of Dr. Johnson. It is this. The best observers of the bodies of cholera patients who died during collapse have noted, as uniformly and constantly present, those appearances which indicate arrest of the pulmonary circulation—that is, arrest of the blood in the small branches of the pulmonary artery before it reaches the capillaries: the left cavities of the heart empty; the right cavities and pulmonary artery distended; the minute tissue of the lung anæmic, pale, and dry.

Moreover, it is a fact, that the symptoms which we should naturally expect to represent such an abnormal condition of organs are the very symptoms which actually attend the collapse of cholera—viz., little or no pulse; the blood sometimes not even flowing from a cut artery; shrinking of the features; sinking of eyeballs; etc.

We may, therefore, start from this point, *that the partial arrest of the blood in the lungs in the collapse of cholera is a demonstrated fact.* That this arrest does not result from the thickening of the blood through the loss of its water, is proved by this, that the collapse is a sudden event; that it passes off whilst the loss of water is still going on; and that the worst cases of collapse are those in which there is neither purging nor vomiting—*i. e.*, where there is but little loss of blood-serum.

But what then causes the arrest of pulmonary circulation? Dr. Johnson maintains that the cause is to be sought in the contraction of the muscular coats of the pulmonary arteries, induced by the irritative action of morbid matter in the blood. And he adds, that the thickened condition of the blood is the consequence, not the cause, of the arrest of the pulmonary circulation; and argues it out in the following way. The stream of blood through the lungs being greatly lessened, the supply of oxygen is also necessarily lessened, and in a corresponding degree. Hence, in the collapse of cholera, there is defective oxygenation of blood and tissues; and we note its obvious results in coldness and blueness of the surface of the body, diminished amount of expired carbonic acid, and almost (though never complete) suppression of bile and urine.

To this last statement, touching the cause of the suppression of bile and urine, we would call special attention. We believe it is entirely Dr. Johnson's own; and certainly his explanation seems conclusive. He argues: Bile, urine, and carbonic acid are products of oxygenation; therefore, suppress oxygenation, and, *pro tanto*, you suppress the formation of these compounds. And he explains the fact which

has been noticed, of the secretion of milk continuing in nursing mothers when suffering from cholera, by a simple chemical theory: that the constituents of milk—oil, sugar, caseine—require no oxygen for their formation.

The thickening of blood, therefore, is a consequence of defective aëration. It always occurs when respiration is impeded, as in pulmonary and cardiac diseases, and during the cold stage of ague. Dr. Dundas Thomson found the blood of a patient suffering from some affection of the bronchial mucous membrane thicker with excess of solids than any cholera-blood he had ever examined. Moreover, whenever reaction sets in, the blood becomes rapidly thinner; or, in other words, whenever the blood begins to flow freely through the lungs—*i. e.*, when its due oxygenation is re-established. And it is worthy of note, that this thinning of the blood under improved aëration will go on even though the diarrhœa may continue. Bile also then appears in the stools, as the result of the oxygenation of blood-constituents which have accumulated during the collapse.

Purging and vomiting, Dr. Johnson not unreasonably concludes, are the natural cure of cholera. They are efforts of nature to be rid of the blood-poison. The worst and most deadly cases of cholera collapse are those in which neither vomiting nor purging occurs. Nature attempts to throw off this poison through the intestinal mucous membrane, just as she attempts to throw off the poison of small pox by the skin. To interfere with the purging, therefore, is to interfere with the process of cure—to assist in retaining the poisonous element within the body, or within the digestive tube, and thereby probably to produce diarrhœa, excite fever, and increase the risk of collapse. Moreover, experience approves this view, by showing that the astringent practice is an injurious practice. Dr. Johnson affirms statistically that, under the astringent treatment, fewer patients recover from cholera than they do under that treatment which has for its object the elimination from the bowels of the poisonous secretions poured out into them.

Now it is to the consideration of the value of the theory of Dr. Johnson of cholera collapse that we would call the attention of the profession, because we verily believe, with Mr. Buckle, that no failure in treatment will ever bring men to see the error of any treatment, so long as they have full belief in the theory on which that treatment is founded. Dr. Johnson proves the error of the "orthodox" theory of collapse; and he substitutes for it another theory, which, to say the least of it, has undoubtedly remarkable claims, upon scientific grounds, to the consideration of the profession. We may truly say this of it, that there is perhaps no instance in which the theory of a disease, founded on physiological and pathological facts, more strikingly explains the symptoms and dictates the course of treatment. We therefore think that the profession is greatly indebted to Dr. Johnson for thus enforcing upon their attention at this moment so vital a question. He offers us a pathological theory which suggests a truly scientific treatment of cholera. To oppose the excretory efforts, he asserts, is the same thing as applying cold to the burning skin of scarlatina. Recovery, on the contrary, is favoured by the use of means which facilitate the escape of the morbid secretions. Emetics, mild purgatives, and diluents are the means suggested by this theory, which knows nothing of specific cures or chemical antidotes. By this means Nature is aided in her efforts at cure; and we, at all events, if we do not cure the patient, do not impede his chance of cure. Dr. Johnson argues: The old heating method of treating small-pox, which compelled the patient to breathe an atmosphere charged with the poisonous exhalations from his own skin, was suggested by an erroneous theory. The treatment of epidemic diarrhœa and cholera by opiates and astringents is also an offshoot from an erroneous pathological theory; and, now that the theory in question has been shown to be untenable, it necessarily follows that the mischievous practice which has been based upon it has become indefensible.

Such, we believe, is a correct exposition of what we must venture to consider the most valuable and original work which this publishing season has added to medical literature.

MORTALITY IN LYING-IN HOSPITALS.

Dr. Hervieux, of La Maternité, has published in several late numbers of *Gazette Médicale*, a series of interesting papers on the Etiology and Prophylaxis of Puerperal Epidemics. These papers are full of most valuable information.

So long, Dr. Hervieux says, as the number of women in the Vienna Lying-in Hospital was less than 3,000 per annum—*i. e.*, from 1784 to 1819—the maximum mortality was not above 4 per cent.; but, since the number has exceeded 3,000—*i. e.*, since 1819—the mortality has largely increased. Thus, in 1819 it was 4.9 per cent.; in 1823, 7.4 per cent.; in 1825, 8.8 per cent.; in 1837, 10.4 per cent.; and in 1841, 16.9 per cent. The same fact is illustrated in the Maternity at Paris. In the Vienna Lying-in Hospital, again, we find that during thirty years, from 1784 to 1813, the highest annual proportion of deaths was 2.1 per cent.; from 1814 to 1822, it was 4.9 per cent.; from 1823 to 1839, 10.4 per cent.; and from 1840 to 1846, 16.9 per cent. And just the same fact do we note in the Paris Maternity. From 1802 to 1818, the maximum annual mortality was 6.94 per cent.; from 1819 to 1828, 7.39 per cent.; from 1829 to 1860, 11.62 per cent.; and from 1861 to 1864,

18.43 per cent. Dr. Hugenberger, professor at the School of Maternity at St. Petersburg, states that from 1845 to 1859 there were 8,006 confinements in the St. Petersburg Maternity, and 306 deaths—about 4 per cent.; whilst of 235,293 confinements in the city during the same period, there were 2,520 deaths—showing that in private practice the deaths were 0.66 per cent., and in hospital 4.3 per cent. M. Husson gives the following statistics of percentage of deaths after delivery in the special wards of general hospitals in Paris.

	Deliveries.	Deaths.	Morty. per cent.
From 1802 to 1862, at St. Louis	15,709	.. 628	.. 3.98
From 1811 to 1862, at St. Antoine ..	3,979	.. 278	.. 6.98
From 1835 to 1862, at Les Cliniques	21,957	.. 1,002	.. 4.56
From 1854 to 1862, at Lariboisière ..	5,022	.. 395	.. 7.86

The highest mortality in one year was as follows. Hôtel Dieu, in 1819, 10.25 per cent.; St. Antoine, in 1822, 10 per cent.; St. Louis, in 1833, 12.46 per cent.; Cliniques, in 1837, 12.50 per cent.; Lariboisière, in 1855, 10.50 per cent.

He gives the following as the *resumé* of his opinions.

1. Moral and physical distress, primiparity, protracted labour, difficult labour, obstetrical manœuvres, merely act as predisposing causes of puerperal epidemics.

2. Infection and contagion are, *par excellence*, the efficient causes and propagators of these epidemics.

3. The vitiation of the air by the morbid or physiological secretions of women recently confined, the permanent occupation and the over-crowding of lying-in wards, are the causes which give rise to the infecting principle.

4. Confinement at their own homes, although only feasible in very few of the cases which come to hospitals, ought to be practised wherever it is possible.

5. The first measure to be taken in an epidemic is the complete evacuation of the lying-in establishment.

6. The prophylaxis of these epidemics comprises, amongst others, the following measures. The alternate occupation of wards and beds, a large space given to the beds, the employment of natural and artificial ventilation, the suppression of curtains, the frequent renewal of mattresses, the washing of the walls with chlorine-water, etc.

7. Lying-in hospitals should be of small size.

In reference to the discussion on vaccination as a prophylactic against cattle-plague, we would call the attention of our readers to the Report of an elaborate investigation which was carried on by a Committee of the Société des Sciences Médicales de Lyon, the results of which were incorporated in a Report presented to the Society by Professor Chauveau, assisted by MM. Viennois and Meyret. The Report, under the title "Vaccine et Variole, Nouvelle Etude expérimentale sur la Question de l'Identité de ces deux Affections," was published in 1865. The investigation was a more complete one than has ever been undertaken on the subject, and its results are highly interesting. One of these results is entirely opposed to the conclusion that variolous matter inoculated into the cow will produce vaccinia. Variolous matter may be transmitted by successive inoculations from cow to cow, and ultimately, when re-inoculated into a human body, induces, not vaccinia, but variola, or rather a highly modified variola—a very slight attack of varioloid. That the disease is, however, truly variola, is, it is said, proved by the facts—1, that the eruption is not limited to the inoculated parts, but is more or less sparsely distributed over the body; 2, that the affection may, by infection, be communicated from the inoculated to the healthy; and 3, that, when re-inoculated into the cow and horse, it does not induce cowpox in the former, nor the peculiar vesicular eruption in the latter, but the papular eruption characteristic of inoculated variola in these animals. We hope very shortly to give a full account of this very interesting inquiry. However mortifying it is to find that the facts elicited by the French Committee are entirely at variance with Mr. Ceely's experiments, yet it is obvious that their publication at the present time is very desirable.

No better proof could be given of the goodness of the work done by Dr. Lankester in calling special attention (through an inquest) to a case of fever in the parish of Marylebone, than the remarks of some of the vestry. We read, in a report of a late meeting of the vestry, as follows.

"In reply to inquiries, it was stated that, at the inquest held by Dr. Lankester on Wednesday on the body of a youth, who died from fever in Providence Place, the jury said, in returning their verdict, that, in their opinion, the vestry of Marylebone and their Medical Officer of Health had done their duty with regard to the sanitary arrangements. Remarks were made that the coroner's only object in holding the inquest was to bring the vestry into disrepute. It was also further stated that the coroner was acting illegally in holding an inquest in a case of fever."

In the paper from which the foregoing extract is taken, we find also an account of a discussion in the St. Pancras Vestry on a report presented by Dr. Hillier, the Medical Officer of Health for the district. Dr. Hillier, in urging the importance of precautionary measures, such as have been put in force in Islington, remarked that "St. Pancras is the most populous district in the metropolis; it should have the character of being the most prudent and energetic in caring for the health of the population. This is a character which it has not yet acquired." Thereupon Mr. Ross, one of the members of the Vestry, said that "this portion of Dr. Hillier's report was bordering on impertinence"; another speaker (Mr. North) "protested against medical officers of health meeting in conclave and concocting sensational reports"; while a third (Dr. Collins) said that

"The medical officers of the metropolis had precisely the same object in view; and *with the wretch*

of a coroner for Middlesex at their head, they sought by all means in their power to bring ridicule on the various vestries, by asserting that they were careless as to public health."

It has been decided by several of the London hospitals to appeal against the decision of the Master of the Rolls in the case of Lord Henry Seymour's will, whereby all the hospitals were excluded from participating in his lordship's bequest. The appeal will be carried on in the name of St. Bartholomew's Hospital, the senior institution.

The profession are much indebted to the medical men of Bridgewater, who have evidently taken great trouble and care in drawing up a set of Rules and a Tariff of Fees, to meet the modern requirements of the profession.

"The following medical practitioners of Bridgewater," we read, "have met together, have well considered the whole subject of medical fees, and have drawn up a code of rules for their mutual guidance.

"Richard Axford; Henry Brook; Frederick Farmer; Alfred Haviland; James Haviland; Henry B. Hurman; John Parsons; Henry Symes; W. L. Winterbotham.

"*Tariff of Medical Fees for Bridgewater and Neighbourhood.*

"Class C.—When the rental is under £25 per ann.
" B.—When the rental is from £25 to £50.
" A.—When the rental is from £50 upwards.

A. General Practitioners.	Class C.	Class B.	Class A.
1. Ordinary Visit ..	2s. 6d. to 3s. 6d.	3s. 6d. to 5s.	5s. upwards.
2. Special Visits, as per Rule II	4s. to 5s. 6d.	5s. 6d. to 7s, 6d.	7s. 6d. upwds.
3. Night Visits, as per Rule II	5s. to 7s.	7s. to 10s.	10s. upwards.
4. Mileage beyond toll-bars	1s. per mile.	1s. 6d. to 2s.	2s. upwards.
5. Advice at Practitioner's House..	2s. 6d. to 3s. 6d.	3s. 6d. to 5s.	10s. upwards.
6. Letters of Advice	2s. 6d. to 3s. 6d.	3s. 6d. to 5s.	5s. upwards.
7. Consultations ..	1 guinea.	1 guinea.	1 guinea.
8. Attendance on Servants.....	2s. 6d. to 3s. 6d.	3s. 6d. to 5s.	5s. upwards.
9. Attendance on several Patients in one House.....	2s. 6d. to 3s. 6d.	3s. 6d. to 5s.	5s. upwards.
10. Midwifery	1 guinea.	2 gs. to 3 gs.	3 gs. upwards.
11. Abortions, etc. ..	1 guinea.	2 gs. to 3 gs.	3 gs. upwards.
12. Certificates	as per Rule VIII.		
13. Post Mortems ..	£1 1s.	£2 2s.	£3 3s.
B. Consultees.			
1. Class I, *intra urbem*	£1 1s.	£1 1s.	£1 1s.
2. Class II, *extra urbem*	£2 2s.	£2 2s.	£2 2s. upwds.

It appears, from the following statement, that of all amputations performed in America during the late war, Mr. Syme's amputation of the ankle-joint was the most successful—that is to say, was attended with the smallest mortality. It is therefore shown to be the least dangerous of all large amputations.

"During the first two years of the war, surgical operations were performed on 187,470 wounded soldiers. These operations are being examined and classified. Statistics such as these, if published, as is the ultimate intention of the department, will be invaluable. There were 9705 cases of amputation that resulted in death, and the mortality was in the following proportion: Amputation of the forearm, 16 per cent. of the cases; of the arm, 21 per cent.; of the shoulder, 39 per cent.; of the ankle-joint, 13 per cent.; the leg, 26 per cent.; the knee-joint, 55 per cent.; the thigh, 64 per cent.; and the hip-joint, 85 per cent. In 575 cases of excision of the shoulder-joint, the mortality was 32 per cent. There were 11 excisions of the knee, of which but one patient recovered; and of the hip there were 32 excisions, of which four recovered."

Dr. Mantovani, in remarks on bleeding, in *L'Imparziale*, tells us that

"The new method of treating inflammations without bleeding has been of late adopted in Italy. Concato of Bologna, Tommasi of Pavia, Zimmermann of Turin, and Bartolini of Pisa, have given up bleeding in the treatment of inflammations, and espccially of pneumonia. In one of the large wards of the great Milan Hospital, under Schivardi, there has not been a case of bleeding since February 1864. Several cases of pleuropneumonia, observed and condemned to death by his colleagues, recovered without bleeding."

Mr. Henry Thompson has just been appointed Surgeon-Extraordinary to His Majesty Leopold II, King of the Belgians.

Professor Wurtz has been appointed Dean of the Faculty of Medicine of Paris.

Madame de Castelnau, wife of the French consul at Singapore, asserts that she has discovered the animal which causes the cholera. It is a "winged leech."

Mr. Gason of Rome gives a theory and a treatment of cholera, founded on a large experience of the disease in Tuscany in 1855. His theory—not a new one—is that, through loss of its watery particles, the blood cannot circulate freely in the vessels; and that death results from consequent asphyxia. His treatment is, the opposing of a mechanical impediment to the exit of the serous fluids from the intestines. He fixes a roller tightly between the buttocks, so as to compress the anal opening; and, if need be, plugs the anus also. An observation at the end of his paper seems, however, to kill both his theory and practice. "Some of the most rapidly fatal cases were unattended by spasms and by little vomiting or purging." If no purging occurred, then no loss of water by the blood, and no asphyxia!

L'Union Médicale says that high medical honours are rarer in France than in England. Dupuytren was the last of doctors created Baron. He and Boyer are the only surgeons who have been made Barons since the first Empire. No doubt, he adds, the dignity of Baron is much greater. In England, they only make simply Baronets!

VACCINATION FOR CATTLE-PLAGUE.

The Cattle Plague Commisioners state, that the efficacy of vaccination as a preventive of Cattle Plague is not yet proved, but is being made the subject of careful experiment by the Commissioners. With a view to the assistance of persons who may wish to make the trial, they have issued the following suggestions as to the performance of the operation and its results which have been drawn up by Mr. Ceely.

I.—Mode of Performing the Operation.

"The vaccination of the cow with the lymph naturally and casually developed on the species is, in general, a successful operation, but unfortunately such lymph is rarely procurable.

"The retro-vaccination of the cow with humanised lymph is a different affair, and to insure but a moderate amount of success, when indiscriminately performed, needs more attention to many particulars than is generally supposed.

"In the first place it is necessary to shelter the animal from cold and wet.

"In the next place it is desirable to employ recent liquid lymph, conveyed in capillary tubes, or contained in well-developed vesicles on a child's arm.

"It is important also to select certain regions for the operation.

"Those regions are the most eligible which possess the thinnest skin, are void of hair, not likely to be subjected to friction, and yet afford facility of access in operating and inspecting.

"In the milch cow the back part of the udder, the thin lax skin on each side of the vulva, or in close proximity to its cutaneous margins, are parts most eligible. In the dry cow and in the female calf the teats and udder will be available, although the parts above mentioned are more convenient of access. In the male the perinæum and the scrotum afford the best sites. But in individuals difficult to manage, the inside of the ear, or some part of the neck, or behind the shoulder, denuded of hair, and possessing some of the above-named requisites, may be chosen.

"The modes of operating, like those on man, vary, each having its advocates and advantages:—

"First.—By incision.

"Secondly.—By puncture.

"Thirdly.—By scratching or abrading the cutaneous surface.

"1. Incision has advantages as regards celerity of execution and facility of introducing the infecting, as well as abstracting the resulting, lymph. It may be effected by a small scalpel or short bistoury, or still better, by the Danish vaccinator.*

"The incision should be made from half to three-quarters of an inch in length into the skin, just deep enough to make the edges of the wound slightly to gape. Wait till the oozing of blood has ceased, then supply the lymph into and upon the edges of the incision. The Danish vaccinator resembles a small 'Valentine's knife,' or the steel pen usually found in a pocket case of mathematical instruments—only this has a cutting edge. The instrument being well charged by applying its point to the liquid lymph discharged from the capillary tube, or oozing from the punctured vesicle on the child's arm, is made to penetrate the skin to the requisite depth, not drawing much blood. The lymph by this means is deposited at the time of making the incision. With a little practice, half-a-dozen incisions are quickly made and charged.

"2. Puncture.—This is best suited to the practice of inserting the end of a doubly charged vaccine point, which may be broken off from the shaft, and allowed to remain in the puncture for a quarter of an hour.

"3. Scratching.—This is tedious, but in thin skins is often advantageous for the application of lymph preserved in large or small ivory points. The lymph, previously moistened, is rubbed off the point into the scratched surface. From four to six clusters of scratches should be made. These, if executed by a large modification of Weir's vaccinator, are done with much more celerity than with a single pointed instrument.

"II.—Results of the Operation.

"About the fourth or fifth day after the operation, a slight redness and elevation, with some hardness and heat, may be discerned. These phenomena gradually, but not uniformly, increase till the sixth or seventh day, when a small central crust fills the incision, and plugs the punctures.

"On the scratched surface, the exuded and dry lymph occupies the furrows, or more or less overspreads the abraded surface.

"The vesicles now become more and more elevated and extended till the tenth or eleventh day, when they flatten and rapidly decline, more or less covered with a thick blackish-brown crust.

"Unless the skin be thin and very fair, no areola is visible; but the margin of the vesicle is felt hard and tense. When the areola is visible on a fair skin, it is often not more than three or four lines in width.

"Although the vesicle assumes the form usual in man, as determined by the mode of operating, its margin is, from the thickness of the skin of the animal, solid, and if punctured will yield only blood. Lymph can be procured rarely before the ninth or tenth day, and then only by removing carefully the central crust, and waiting patiently for its exudation through the original puncture.

"Vesicles raised by very slight punctures or superficial abrasions of the cutis resemble more closely those on man, and yield lymph earlier; but they are liable to earlier rupture or abrasion, and yield but a scanty supply of turbid lymph.

"It not unfrequently happens that the stage of progressive papulation is indistinctly marked or apparently arrested, so as to lead to the apprehension of failure, when suddenly the characteristic form of the vesicle appears, and it advances to maturity.

"It is not rare, however, to find among several papulæ some of them arrested in their progress, and prove abortive. When this event befalls the major part or the whole of the punctures or incisions, a repetition of the operations in the same site may nevertheless succeed.

"During the progress of the disease, scarcely any constitutional symptoms are observed; sometimes an acceleration of the pulse may be detected.

"The retro-vaccine lymph obtained from these operations, little as it is, should be used as far as possible for other vaccinations."

* An instrument in general use in Denmark, procurable at a small expense in London.

The United States Army Medical Staff. The medical staff of the United States that served in the late war was composed of a surgeon-general, one assistant surgeon-general and medical inspector-general, 16 medical inspectors, 170 surgeons and assistant-surgeons of the regular army, 362 volunteer staff-surgeons and assistant-surgeons, 3,000 regimental surgeons and assistant-surgeons of volunteers, 2,500 acting assistant-surgeons and physicians serving under contract, and six medical storekeepers.

Association Intelligence.

BRANCH MEETINGS TO BE HELD.

NAME OF BRANCH.	PLACE OF MEETING.	DATE.
Northern. [Special.]	Library, Newcastle-upon-Tyne Infirmary.	Thurs., Feb. 8, 2 P.M.
Birmingham and Midland Counties. [Ordinary.]	Medical Department, Old Library, Birmingham.	Friday, February 9.

NORTHERN BRANCH.

A meeting of the members will be held in the Library of the Newcastle Infirmary, on Thursday, February 8th, at 2 P.M., to consider the propriety of giving an invitation to the Association for the holding of the Annual Meeting in Newcastle in 1867.

G. H. Philipson, M.D., *Hon. Sec.*

Newcastle-upon-Tyne, Jan. 24th, 1866.

Reports of Societies.

OBSTETRICAL SOCIETY OF LONDON.

Wednesday, January 3rd, 1866.

Robert Barnes, M.D., President, in the Chair.

Eleven gentlemen were elected Fellows.

Communications. Dr. Swayne, of Clifton, read a case of Double Monstrosity.

Mr. W. Owen read a case of Mechanical Obstruction to the Growth of a Fœtus.

Dr. Cory exhibited an Ovum Forceps.

Dr. Murray showed two large Kidneys, weighing seven ounces four drachms, and six ounces three drachms and a half, which had been removed from a still-born fœtus otherwise normally made.

Brief Notes on some Uterine Therapeutics. By H. E. Eastlake, M.R.C.P. The author first drew attention to the action of the resin of podophyllum on the uterus. He found an emmenagogue effect produced in several cases where it had been prescribed for constipation. He referred secondly to the beneficial use of the spiritus pyroxylicus rectificatus in cases of obstinate vomiting; and, lastly, spoke of iodoform as a sedative in cases of cancer especially attacking the uterus. Dr. Eastlake had used it with much success locally, by means of medicated pessaries, the effect produced being a marked diminution of pain and discomfort.

Dr. Greenhalgh stated that eighteen months ago Dr. Eastlake called his attention to iodoform, suggesting its use as an anæsthetic and alterative, especially in cases of cancer. He (Dr. Greenhalgh) first gave it in quarter-grain doses, but soon found that it might be administered in pills of three to five grains thrice daily. He had prescribed the drug in carcinoma, epithelioma of the uterus, rheumatic gout, neuralgia, and other painful diseases, in most of which it had been followed by good results. In some cases, but slight effects appeared to result from its use, whereas, in a limited number, when given at once in full doses, sickness was occasioned. He considered it had the advantage of never producing that *malaise* frequently attendant upon the use of opium.

Mr. Gaskoin remarked that for many years he had been aware of the employment of iodoform as a disinfectant in many parts of the continent; but that he had been unsuccessful in obtaining much information concerning it. The objection to its general use was the expense when compared with other disinfectants.

Dr. Woodman said that a small quantity of iodoform is produced when the compound tincture of iodine is prescribed with liquor potassæ—a favourite combination with many country practitioners, and considered by many to be more efficacious in the treatment of bronchoceles than iodine alone.

Fibroid Tumour of the Uterus with Early Pregnancy. By J. Hall Davis, M.D. At first there had been retroversion of the womb and retention of urine. The latter was relieved by the catheter, the patient being placed in the kneeling posture; the former by the caoutchouc ball air pessary. Nine days later (Sept. 29th) the patient came into hospital, presenting a considerable-sized solid enlargement of the abdomen, extending as high as the last rib. She was feverish, reduced in flesh, frequently vomiting; subsequently dysuria and renal pain appeared; later scanty urine and drowsiness, and also sloughing of the cornea, etc. She died on the 18th of October, after on the day previous discharging a putrid fœtus of about four months' growth. The morbid specimen, which was exhibited to the Society, showed a large fibroid tumour, of kidney shape, attached to the fundus of the uterus; also others much smaller growing from the cervix, in the substance, others bulging on the surface of the body of the uterus. The kidneys contained purulent deposits; the ureters were dilated. Dr. Davis concluded that this patient died from pyæmia, and that had an early discharge of the decomposed fœtus been brought about, the patient's life might have been saved. It first became apparent at the autopsy that the largest fibroid might have been easily removed; others, however, would have remained for subsequent development had the patient survived extirpation of the tumour.

Dr. Routh said the case was important, viewed in the aspect of what should be done in such cases—*i.e.*, when we had abdominal tumours and pregnancy coexistent. The post-mortem examination revealed a large fibroid extra-uterine, with small pedicle; precisely the case most favourable for gastrotomy. Should this patient have been operated upon before labour had taken place, or should labour have been prematurely induced first? He thought the latter: First, because it commonly happened that when abdominal tumours, whether ovarian, but especially if fibroid, were operated upon before labour, a miscarriage or premature delivery occurred; occasionally death. Secondly, if premature labour was induced, then not only was diagnosis made more easy as to the exact nature and bearings of such a tumour, but the impetus given to its rapid growth by pregnancy was removed.

ANNUAL MEETING.

The report of the auditors of the accounts of the treasurer for the year ending Dec. 31st, 1865, was read, from which it appeared that the balance in the hands of the treasurer is £234 : 18 : 8, and the amount invested in Consols is £881 : 10 representing in Three per Cent. Annuities £955 : 15 : 1.

Dr. Tyler Smith moved the adoption of the report, and warmly congratulated the Society on its present very flourishing condition.

Mr. Mitchell seconded the resolution, which was carried unanimously.

The report of the hon. librarian (Dr. Meadows) was then read. After detailing the general condition of the library, the report recommended that attempts should be made to establish in connexion with the library a museum of pathological anatomy, by preserving such specimens as, having been exhibited to the Society, were afterwards presented for that

purpose. The entire cost of the library for the year was £61 : 3 : 5. The number of works presented was upwards of sixty, making a total of nearly 900 volumes, a classified catalogue of which is about to be published in the forthcoming volume of *Transactions*.

Dr. GREENHALGH moved that the report be received and adopted. He warmly commended the suggestion of the establishment of a museum, and offered a donation of five guineas towards a separate Museum Fund, and a similar sum towards a Library Fund.

Dr. WYNN WILLIAMS seconded the resolution, which was unanimously carried.

Dr. MARTYN proposed, and Dr. CORY, seconded, "That the best thanks of the Society be and are hereby given to the President and officers of the Society for their services during the past year, and that the special thanks be given to Dr. Braxton Hicks, the retiring Honorary Secretary, for the very efficient way in which he has discharged his duties."

The President (Dr. Barnes) and Dr. Braxton Hicks respectively returned thanks.

ANNUAL ADDRESS.

After adverting to the continued prosperity of the Society, and the place which its *Transactions* occupied in obstetric literature, he observed that hitherto the annual surplus had been invested in the Funds; but now, the position of the Society being secure, it was thought better to put out what money could be spared at scientific interest. There was nothing so fruitful as knowledge spread abroad. It gathered increase at an infinitely quicker rate than did capital in the Three per Cents. He hoped therefore that more money might in future be spent upon the library and in forming a museum. The sale of *Transactions*, indeed, during the past year had more than covered the rent and cost of maintenance of the library. The President then passed on to recount the losses the Society had sustained amongst its Fellows. It had never before fallen to the lot of its President to record so long a series of losses by death. He gave sketches of the lives of the late Dr. F. W. Mackenzie, Dr. Edwin E. Day, Mr. D. N. Frampton, Mr. A. O. Arden, Dr. T. Herbert Barker, Mr. Henry M. Gould, Mr. Charles Saunders, Dr. W. Bloxam, and Dr. C. G. Ritchie. He dwelt more especially upon the personal and professional merits of Dr. Barker and Dr. Bloxam. Turning from the task of commemorating the lives of lost companions in labour, the President directed attention to the work before the Society. He hoped the proposed conversazione and exhibition of instruments would prove interesting and instructive. By bringing together the instruments that had been used in different ages and in different countries for the purpose of overcoming those obstetric difficulties which are met with in all ages and in all countries, we should be able to read by those tangible symbols the most important chapter in the history of obstetrics; we should be able to enter into the thoughts of our predecessors and contemporaries by studying the visible expressions of their minds labouring in the cause of our common science; and do something towards identifying and preserving the original forms of instruments as they were designed and used by their inventors. An instrument was not less the offspring of a man's mind than was a book. Libraries preserved books in their original form. But the security for preserving an instrument so that it should, even for a brief time, tell truly the working of the mind that produced it, and continue to answer in the hands of others the purpose for which it was designed, was very small. Instruments were made under instructions that were more or less faithfully observed; and there was a constant tendency to depart from the original forms under the hands of mechanicians and the ideas of subsequent practitioners. Considerations such as these suggested to the President the project of instituting this exhibition. It had met with the cordial approval of the Council; and the College of Physicians had, in the most liberal spirit, given him permission to hold the exhibition in their building. The Council would endeavour to preserve a scientific record of the specimens sent; a *catalogue raisonné* would be drawn up; and drawings would be procured of such ancient and modern instruments as could not be presented for actual exhibition. It was anticipated that we might thus lay the foundation of a museum of instruments that should render a service to science similar to that which libraries rendered to literature.

A vote of thanks to the President for his valuable address was proposed, seconded, and carried by acclamation. The Society then adjourned.

Correspondence.

CATTLE-DISEASE.

LETTER FROM RICHARD GRIFFIN, ESQ.

SIR,—As the "Rinderpest" is a disease which affects more or less the entire population of this kingdom, I have ventured to address the Privy Council on the subject; and, as the letter may be of interest to your readers, I beg to enclose you a copy.

I am, etc., RICHARD GRIFFIN.

Weymouth, January 20th, 1866.

"12, Royal Terrace, Weymouth, January 16th, 1866.

"MY LORDS AND GENTLEMEN,—Should the experiments now being carried on by the many able men engaged on the subject prove that the 'Rinderpest' is small-pox in a most malignant form, I assume you will take immediate measures to prevent, if it be possible, the spreading and continuance of this most frightful murrain. For this object it is, that I venture now most respectfully to offer the following suggestions.

"In the first place, I would not allow any of the bovine tribe to travel or be removed from one parish to another unless the fields of the owner of the animal be situate in two parishes, until it be satisfactorily proved that the animal had been successfully vaccinated, or was unsusceptible of vaccination, or had the small-pox in the natural way, at least one month prior to such removal, and had not been in contact for a like period with any animal that had the disease now called or known as the 'Rinderpest,' in proof of which a certificate should be produced from a medical man or member of the Veterinary College as to the former; and the owner of the animal should be compelled to make a declaration before a magistrate as to the latter.

"In the second place, it should be made compulsory that all calves should be vaccinated before they are three months old, a time sufficient to allow all those not intended to grow up to be killed as calves. In order to facilitate this measure and do away with any objection by the owner to vaccination, on the plea of expense, let similar arrangements be carried out as are now in force for vaccinating the human subject, and the parish or union will then have to defray the expense, it is now, I believe, a parochial charge; and if the district medical officers of unions, parishes, and incorporations would consent to become

the vaccinators, then you will at once have a staff in England and Wales of over three thousand medical officers, fully competent, with a few general instructions, to carry out the plan. A similar course might be ordered for Ireland and Scotland.

"In the third place, it should be made a law that no foreign cattle of the bovine tribe should be allowed to be imported into the United Kingdom unless proof be given that they had been successfully vaccinated at least one month prior to their exportation to this country. The result would follow that those engaged in the traffic would be compelled to vaccinate their animals, and thus we should set an example to foreign nations which would be highly beneficial to them.

"In order to facilitate the proof of successful vaccination, not only should a certificate be given by the vaccinator of each animal, but he or the inspector should be furnished with a pair of cutting nippers of a peculiar shape, by which he should remove a portion of one ear; and without that mark no beast of the bovine tribe should be admitted into any market or taken by any railway. The payment for vaccination must be higher than that now paid out of the public funds for human vaccination, as the labour would be considerably more.

"The lymph to be used should be taken direct, if possible, from an animal, and not from the human subject, as the latter will not always succeed. A payment should be made for the vaccination, and an extra sum for the inspection and granting the certificate, without which no animal should be allowed to be removed with its skin on, from one parish to another, without a penalty attaching to both purchaser and seller, excepting either should turn informer, when he should be exempt.

"If these or similar regulations be carried out, I feel confident, should the 'Rinderpest' be proved to be small-pox, that in the course of a very few months the disease would cease to exist in the United Kingdom, literally for want of animals susceptible of it, as of course all the present animals, as well as calves, would be allowed to be vaccinated at the public expense. Means must be provided for the supply of lymph, especially at first starting, and this can only be done through the medium of a government establishment with a proper staff of inspectors.

"I have the honour to be,
"My Lords and Gentlemen,
"Your obedient Servant,
"Richard Griffin, J.P., M.R.C.S., L.S.A.
"The Hon. the Privy Council."

THE CATTLE-PLAGUE AND VACCINATION.

Letter from Charles Dayers, Esq.

Sir,—In your last number a letter appears from Mr. Richard Griffin of Weymouth, in which he calls the attention of the medical profession to the vaccination of cattle, predicting that, in case such should prove the means of preventing the spread of the cattle-plague, the Government would make the same compulsory, and suggesting that the members of the medical profession, more especially the poor-law medical officers, should take up the subject. By doing this Mr. Griffin ignores the existence of the duly qualified veterinary surgeon, whose more legitimate province it must necessarily be to perform such an operation; and I cannot think that, upon reflection, he would wish to augment the incomes of medical gentlemen by depriving the members of the veterinary profession of means to which they would be more justly entitled. I also repudiate any desire on the part of those who may be deputed to vaccinate the calf (by which I assume that Mr. Griffin alludes to veterinary surgeons) to encroach (even if such were allowed) upon the domain of the medical man. I may be permitted to acknowledge the aid which veterinary science has received, and the great kindness and consideration I have at all times individually met with from the members of the medical profession, several of whom I have the honour of numbering amongst my best friends. I am, etc.,

Charles Dayers, M.R.C.V.S.

Longnor, Shropshire, January 23rd, 1866.

EPSOM COLLEGE.

Letter from John Propert, Esq.

Sir,—I hasten to announce to my professional brethren, through your widely circulating Journal, that our much esteemed friend, Sir William Fergusson, Bart., has most kindly consented to devote his first public exertions to advocating the cause of those who, alas! have not been as fortunate as himself in life, by taking the chair at the fourteenth anniversary festival of the Royal Medical Benevolent College on Thursday the 26th of April next, at Willis's Rooms, when I hope, nay confidently anticipate, that every member of our noble profession who can, will gladly and immediately enrol his name as a steward to support our much respected friend on the interesting occasion.

The first list of stewards will shortly be published.

I am, etc.,

John Propert.

New Cavendish Street, 24th January, 1866.

THE LONDON SURGICAL HOME.

Letter from I. Baker Brown, Esq.

Sir,—The article in the *Standard* to which you allude in last week's Journal was written by a distinguished member of the press connected with that paper, to shew his gratitude to the institution for the cure of his wife.

This article was not seen by any of the medical officers, nor by any other official connected with the "Home" until it appeared in the paper. The report of the seventh annual meeting is published by the committee for circulation, and is in the hands of all the governors and friends of the institution. From that report, the extract of a portion of my speech is taken. I am, etc.,

I. Baker Brown.

17 Connaught Square, Hyde Park, Jan. 22, 1866.

[We do not see that the fact of the extracts being made from a report which has been circulated amongst the governors of the institution in any way removes their objectionable character. On the contrary, it shews that they have been deliberately circulated, and are not the words of an after-dinner speech. Mr. Brown and all the medical officers must, we conclude, have seen the report before it was issued, and the extracts we made from the paper were the words of the report itself and of Mr. I. B. Brown. Editor.]

Bequests. By will, Mr. George Richard Elkington, formerly of Birmingham, electro-plater, makes the following charitable bequests:—To the Birmingham General Hospital and the Bluecoat School, each £500; to the Queen's Hospital and the General Dispensary, Birmingham, and to the Blind Asylum and Deaf and Dumb Ayslum, both at Edgbaston, £300 each.

Medical News.

APOTHECARIES' HALL. On January 18th, 1866, the following Licentiate was admitted:—

Gowing, Benjamin Chaston, Lowestoft

APPOINTMENTS.

ARMY.

BLACK, Surgeon W. T., 11th Foot, to be Staff-Surgeon, *vice* J. H. West, M.D.

BONE, Surgeon G. F., M.D., Royal Artillery, to be Surgeon-Major, having completed twenty years' full-pay service.

BROCK, Assistant-Surgeon E., 1st Foot, to be Staff-Assistant-Surgeon, *vice* M. S. Grace.

FOWLER, Surgeon H. D., 82nd Foot, to be Surgeon-Major, having completed twenty years' full-pay service.

FRASER, Surgeon Thomas, M.D., 10th Hussars, to be Surgeon-Major, having completed twenty years' full-pay service.

KENDALL, Surgeon H., M.D., 7th Hussars, to be Surgeon-Major, having completed twenty years' full-pay service.

OUGHTON, Staff-Assistant-Surgeon T., half-pay, to be Staff-Assistant-Surgeon, *vice* J. J. Verdon.

ROBERTSON, Staff-Surgeon H. F., to be Staff-Surgeon-Major, having completed twenty years' full-pay service.

SAUNDERS, Surgeon G., 9th Foot, to be Surgeon-Major, having completed twenty years' full-pay service.

WEST, Staff-Surgeon J. H., M.D., to be Surgeon 11th Foot, *vice* W. T. Black.

WHITE, Assistant-Surgeon M'L., Royal Artillery, to be Assistant-Surgeon 1st Foot, *vice* E. Brock.

VOLUNTEERS, (A.V.=Artillery Volunteers; R.V.=Rifle Volunteers):—

WINTERBOTHAM, W. L., M.B., to be Assistant-Surgeon 2nd Administrative Battalion Somersetshire R.V.

BIRTHS.

BROWN. On January 18th, at Nottingham, the wife of Edward A Brown, M.D., of a daughter.

DUNCAN. On January 22nd, at 88, Gower Street, the wife of B. A. Duncan, L.R.C.P.Ed., of a son.

FREEMAN. On January 18th, at Hartley Row, Hants, the wife of T. A. Freeman, Esq., Surgeon, of a son.

MARSHALL. On January 23rd, at Mitcham, the wife of Edward Marshall, Esq., Surgeon, of a daughter.

SMITH. On December 14th, 1865, at Ootacammid, Madras, the wife Colvin Smith, M.D., of a son.

WAGGETT. On January 18th, at Stanley Terrace, the wife of John Waggett, M.D., of a son.

MARRIAGES.

*BELL, James Vincent, M.D., Rochester, to Susannah Charlotte, youngest daughter of the late E. M. SPARKES, Esq., of Lee, Kent, at Clapham, on January 22.

CHOLMELEY, the Rev. Robert, D.D., vicar of Findon, Sussex, to Constance Mary, daughter of the late Theophilus THOMPSON, M.D., F.R.S., at St. Mary's, Bryanstone Square, on January 9.

DODS, George, M.D., of Hongkong, to Maggie, daughter of John CRABBIE, Esq., at Edinburgh, on January 11.

DEATHS.

CROSSE, Thomas, Esq., Surgeon, at Thorverton, Devon, aged 68, on January 22.

DALGAIRNS, William, M.D., late Medical Service Bombay Army, at Woodcot Dollar, aged 70, on January 18.

*MACINTYRE, Peter, M.D., at Canning Street, Liverpool, aged 68, on January 19.

TICEHURST. On January 11th, at sea, in the steamship *London*, aged 27, Arthur William Ticehurst, eldest surviving son of Frederic Ticehurst, Esq., Mayor of Hastings.

WRIGHT, George E., M.D., Assistant-Surgeon H.M.S. *Rattlesnake*, at Sierra Leone, of fever, aged 24, on December 24, 1865.

WYSE. On January 20th, at Newington, Edinburgh, Mary, widow of James Wyse, Esq., late Superintending Surgeon, Madras Establishment.

BRISTOL ROYAL INFIRMARY. The handsome sum of £115:9:9 has been contributed by the workmen of Messrs. Derhain, wholesale shoemakers, in aid of the funds of the above institution.

THE PRITCHARD CASE. Dr. James Paterson of Glasgow has raised an action of damages against the *Glasgow Morning Journal* for a letter which appeared in its columns.

MUNIFICENT GIFT. The sum of £20,000 was, on the 23rd inst., presented to the Middlesex Hospital, through the hands of the chairman of the weekly board, from an anonymous donor.

COMPARATIVE ANATOMY. Professor Huxley, F.R.S., will give a course of twenty-four lectures in the theatre of the College of Surgeons, on the Structure and Classification of the Mammalia, commencing on Friday, the 2nd proximo.

NO NAVAL MEDICAL OFFICERS. The *Rattlesnake*, recently returned from the West Coast of Africa, reports that the deficiency of medical officers was being severely felt by the squadron, three of which were without surgeons, and the *Sparrow* had been compelled to take one from Ascension.

EUROPEAN SANITARY COMMISSION. The formation of the European Sanitary Commission is reported to be complete. It will meet early in February, and proceed to examine into the best means of arresting the progress of cholera and protecting Europe from its ravages.

BARONETCY CONFERRED ON DR. CORRIGAN. Dr. Corrigan, formerly President of the Royal College of Physicians of Ireland, to which office he was repeatedly elected by his brethren, has received from Her Majesty the dignity of baronetcy. For the last six years, the medical profession in Ireland has not been honoured by a dignity of this kind. Sir Henry Marsh, Physician in Ordinary to the Queen, died in 1860; and Sir Philip Crampton, Surgeon in Ordinary to Her Majesty, died in 1858. A Dublin morning journal remarks that "the honour thus graciously conferred on our distinguished fellow-citizen by the Queen will, we are certain, be acceptable to the country generally, not only as an acknowledgment of the eminence he has won in his profession, but as a dignity bestowed on an Irishman who has been ever identified with the people and the advancement of their interests." Sir Dominic Corrigan is Physician in Ordinary to the Queen in Ireland, and a member of the Medical Council. He is the author of many valuable contributions to medical literature on fevers, etc. He also a short time ago published a pamphlet on education, in which he, as a Roman Catholic, deprecated the establishment of denominational colleges and a chartered Catholic University.

DEATH OF SIR JOHN HALL, M.D. Sir John Hall, M.D., K.C.B., Inspector-General of Hospitals, died at Pisa, on the 17th instant, aged 72. Sir John Hall served in the campaign of 1815, in Flanders: in the campaign of 1847, in Kaffraria, as head of the medical department under Sir George Berkeley, and was thanked in general orders (medal.) In 1848 he accompanied Sir Harry Smith across the Orange River, as principal medical officer of the force employed against the emigrant Boers; was present at the battle of Boem Plaaty, and specially mentioned in Sir Harry's dispatch for services on the field, and subsequently thanked in general orders; was principal medical officer of the army in Kaffraria under Sir Harry Smith during the campaign of 1851, and thanked in general orders on his being ordered to India; served as principal medical officer of the Eastern army from the 18th June, 1854, to 5th July, 1856, without being absent from duty for a single day; was present at the affairs of Bulganac and Mackenzie's Farm, battles of Alma (mentioned in dispatches,) Balaclava, Inkerman, Tchernaya, capture of Balaclava, siege and fall of Sebastopol, taking of the rifle pits and quarries, assault of the Redan, on the 18th June (medal with four clasps, K.C.B., Officer of the Legion of Honour, third class of the Medjidie, and Turkish medal.)

University of Edinburgh. It is reported that the Senatus Academicus have resolved to petition Government to establish a chair of Geology.

Entertainment at Colney Hatch Asylum. The annual winter entertainment given to the inmates of the Colney Hatch Lunatic Asylum took place on the 17th instant, under most pleasing and satisfactory auspices. This asylum, though covering an area of twenty-five acres, is not sufficiently large to accommodate numbers of applicants; from want of accommodation, ninety females were refused admission during last year. There are already 2000 inmates, 800 of whom are females. The entertainment passed off with delight to the afflicted inmates, and to a large number of visitors; among whom were Dr. Paul of Camberwell; Dr. Lindsay of Hanwell; Mr. Ellis of St. Luke's; Dr. H. Tuke of Chiswick; Mr. Bodkin; etc. The programme provided was a theatrical representation, followed by dancing. The performances commenced with a farce, and then followed a burlesque. After refreshment, dancing was commenced and was kept up till eleven o'clock.

The Murderer Southey. A cast of the head of the murderer Southey was, it appears, at his own particular request, taken for the consideration of a "competent phrenologist". A report has been issued of the result of the inquiry, which, we should think, must be exceedingly edifying to the lovers of that perplexing science. According to this statement, the basilar or animal region of the brain, posterior and lateral, is by no means coarsely developed. The coronal region does not show meagre "Conscientiousness"; neither "Self-esteem" nor "Love of Approbation" has a predominating organ; and of "Firmness" there is a good development. "Hope", "Sympathy", and the other organs of the class moral, are fairly developed. The intellectual region, or forehead, though by no means of a superior type as regards the higher spheres of thought, is far from being of a meagre and cramped type. All the perceptive organs are excellently developed—giving a more than ordinary power to acquire a large share of practical and varied knowledge, had education come to fertilise and utilise so competent a congeries of capabilities.

Action for Recovery of Fees. At the Upton-on-Severn County Court, on the 8th instant, an action was tried, which had been brought by Dr. James Williams, of Malvern, to recover of Charles Davies, a carpenter, the sum of six guineas, for attendance upon his wife in 1864. In February or March of that year, she slipped down in the yard of her house, whereby the bones of her knee-cap were fractured. Mrs. Davies was in the last month of pregnancy; and, in consequence of her condition, some disturbance took place in the injured limb, and certain symptoms having set in, the doctor called in Dr. Weir to see the case, and give an opinion upon it. Dr. Weir found that the treatment was proper and correct, and such as medical skill and science would suggest. The woman was confined, and the injured knee sufficiently recovered to allow her to go about her ordinary domestic avocations; but Dr. Williams strongly advised her not to move about more than she was obliged to. Mrs. Davies, however, did not follow the doctor's advice; she walked about, and again slipped down on the injured knee, and retarded its further progress towards complete recovery. In the month of June, Dr. Williams ceased to attend her. No complaint was made to him by either the woman or her husband, but they expressed themselves grateful for the trouble he had taken; and, at the woman's solicitation, he agreed to raise his claim of six to eight guineas, on her representation that some friends who had heard of her case had expressed their intention of paying what costs might be incurred. The claim was not pressed; and subsequently it was thought that Mrs. Davies might obtain admission to the Infirmary, when Mrs. Palmer sent another medical man, Mr. M. Coates, of Malvern, to see her, and it seemed that he differed with Dr. Williams as to the treatment which she had received; but Mr. Coates did not see the injured knee till after the second accident had taken place. Then the defendant expressed some dissatisfaction with Dr. Williams's claim, and the matter again remained in abeyance. Dr. Williams did not seek, by legal remedy, payment of his bill, although several promises had been made by the defendant's wife to pay. In November last, a letter reached Dr. Williams, claiming compensation from him for injury which the defendant's wife was alleged to have sustained. The letter was to the effect that the defendant intended to dispute the claim, and to bring to an issue whether he (Dr. Williams) had, in the treatment of Mrs. Davies, exercised proper skill and care. Dr. Williams, therefore, determined to sue the defendant for the money owing him. Dr. Weir, Dr. Croker, and Dr. Haughton, gave evidence in favour of the plaintiff. Mr. Coates was called, and gave evidence on the side of the defence. Mr. Carden and Mr. H. B. Marsh were called on the same side, but did not appear. The judge pronounced in favour of the plaintiff, who, it was intimated by his counsel, being satisfied with the result of the case, declined to enforce his pecuniary claim.

Cholera in Paris. There has not been for several days a single case of cholera in the civil or military hospitals, or in private houses, in Paris. During the last fifteen days of its decline, there was one death per day regularly registered, and several days ago this solitary case disappeared. The cholera first invaded Paris on the 15th of September, and completely ceased on the 15th of the present month of January. It continued with variable severity for four months. The last return of the officers of the Board of Health at the Prefecture of Police, and officially communicated to the Academy of Medicine, shows the general movement of the epidemic from its first appearance to its final cessation. Admissions to the civil hospitals, 2,865; cases occurring in the hospitals, 707. Deaths: in the civil hospitals, 1,844; in the military hospitals, 162; in private houses in the twenty arrondissements of Paris, 3,837; in the rural communes since the last bulletin, 545; total deaths, 6,388. During the 122 days, from the 15th of September to the 15th of January, there were fifty-two deaths from cholera (in round numbers) daily in the Department of the Seine; *i. e.*, there died two persons per day out of every 100,000 inhabitants in private houses. The highest rate of mortality, 230, was on the 14th of October. After that date, the epidemic declined very slowly, and began to decrease rapidly during the first fortnight of December.

The late Sir John M'Gregor, M.D., K.C.B. Sir John M'Gregor was the second son of the late Mr. D. Macandrew of Culross, Perth. He was born Oct. 20, 1791, and educated at the University of Edinburgh; entered the medical department of the army 1809; served in the expedition to Walcheren in 1809, and was present at the taking of that island and the forts of Torbeer and Ramakins; was present at the siege of Flushing, and with the army in South Beveland; served in the Peninsula under the Duke of Wellington from 1811 to 1813, present at Badajos, and in all the cavalry actions against the French in Lord Hill's advance to Merida, and the retreat from Burgos, as well as in various other operations of the

second division of the army in Spain and Portugal; was appointed surgeon to the Duke of Sussex, Feb. 1st, 1819; served in Madras and Bombay, twice in Bengal and the island of Ceylon; was present at the capture of Fort Minora and the surrender of the town of Kurrachee in Lower Scinde; was senior medical officer of the army sent to the relief of the forces employed against the Fort of Kujjuck, Upper Scinde, 21st, 22nd, and 23rd of February, 1841; present during the investment of Kandahar, end of 1841, beginning of 1842; senior medical officer of the force sent under Brigadier Wymer for the relief of Kelat-i-Ghilzie, 1st of May to the 7th of June, 1842; present during the second Afghanistan campaign, 1842, and with the army on its return to the British provinces, through the Khoord, Cabool, and Khyber Passes, 1st of August to the 23rd of December, 1842; and was present at the following actions fought during the foregoing period—the battle of Kalle Shuck, 12th of January, 1842; at the actions of Runga Ruck, Pangwaria, and Zilla-Ostracy, 7th, 8th, 9th, and 10th of March, 1842; at the battle of Baba Walla, 25th of March, 1842; battle of Gowine, 30th of August, 1842; at the capture of Ghuznee and the storming of the heights of Bellool, 5th and 6th of September; present at the affairs of Bene Bedam and Mydam, Sept. 14th and 15th; during the attack on the rear-guard at Khoord Cabool Pass, October 19th; affair with the rear-guard from Lundekama to Ali Musjid (Khyber Pass), 4th and 5th of November, 1842; was principal medical officer with the Kandahar field force during the whole of these operations under Major-General Sir W. Nott; present, and acted as principal medical officer of Queen's troops, at the battle of Maharajpore, December 1843; served a second time in the island of Ceylon, and was senior medical officer in the Kandian provinces during the rebellion in 1848; was three years principal medical officer in Hongkong, 1850 to 1853; three years as deputy inspector-general and principal medical officer at Madras, 1853 to 1856; one year and two months as inspector-general in Bengal, and travelled during the latter period, in the performance of his duties, 4,462 miles. He served in the North-West Provinces of India during the mutiny of the native Bengal army. He was present at the siege of Delhi, and at the storming and capture of the city on Sept. 14th, 1857. He was sent as principal medical officer with the army proceding to Lucknow under the command of Sir C. Campbell, and was present at the capture of the city in March 1858; recommended for promotion by Lieutenant-Colonel Hibbert, commanding the 40th, and Major-General Sir W. Nott, for services performed as chief medical officer of the Kandahar field force in Beloochistan, Scinde, and Afghanistan; recommended for promotion by his Excellency the Commander-in-Chief in India, for services performed at the battle of Maharajpore, *but was the only officer at the head of a department in Sir W. Nott's army not promoted on its return to India.* As before stated, he entered the medical department, as hospital assistant, June 27, 1809; became assistant-surgeon February 15, 1810; regimental surgeon, April 30, 1822; staff-surgeon, July 7, 1846; deputy inspector-general, 1853; inspector-general, 1856. Sir John was made an honorary physician to Her Majesty in August 1859, and was, in recognition of his eminent professional services, created a Knight Commander of the Bath the same year. In August 1863, he assumed the name of M'Gregor instead of his patronymic, the family being descended from the M'Gregors of Rora, the name having been changed after the rebellion in Scotland in 1745. He died at Corstorphine Lodge, Ryde, Isle of Wight, on January 13th, 1866, at the age of 74. He was buried at the cemetery in that place.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....Metropolitan Free, 2 P.M.—St. Mark's for Fistula and other Diseases of the Rectum, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TUESDAY. .... Guy's, 1½ P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.

WEDNESDAY... St. Mary's, 1 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.

THURSDAY.....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Great Northern, 2 P.M.—London Surgical Home, 2 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.

FRIDAY.....Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

SATURDAY.....St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1·30 P.M.—Charing Cross, 2 P.M.—Lock, Clinical Demonstration and Operations, 1 P.M.—Royal Free, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY. Medical Society of London, 8.30 P.M. Dr. Francis Edmund Anstie. Lettsomian Lectures on "Certain Painful Affections of the Fifth Nerve."

THURSDAY. Harveian Society of London, 8 P.M. Mr. Victor de Méric, "On Syphilisation."

FRIDAY. Western Medical and Surgical Society, 8 P.M. Mr. C. Hunter, "A Case of Stricture of the Œsophagus; with Remarks."

TO CORRESPONDENTS.

*** *All letters and communications for the* JOURNAL, *to be addressed to the* EDITOR, 37, *Great Queen St., Lincoln's Inn Fields, W.C.*

COMMUNICATIONS.—To prevent a not uncommon misconception, we beg to inform our correspondents that, as a rule, all communications which are not returned to their authors, are retained for publication.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

F. O.—A most excellent article on the Cattle-Plague appeared in the *Saturday Review* of the 30th ult. It was manifestly written by a member of our own profession; and from the knowledge and masterly dealing with the disease shown in it, and the style of it, we are reminded of the pen of a writer in the *Times* under the signature of Q. He speaks thus of the Dutch homœopathic farce of cow curing.

"It is true that a gleam of hope brightened the gloomy prospect a few weeks ago, when we were assured by Mr. Caird that 75 per cent. of the plague-stricken animals had been cured in Holland by homœopathy. The Cattle-Plague Commission were at once pressed to recognise, and put into operation, this successful plan of treatment. These gentlemen—wisely adopting the Spanish maxim, 'Hagase il milagro y hagalo Mahoma' (Let the miracle be done, even though Mahomet do it)—so far sanctioned the practice as to send their representative to witness and report on it. The result was, as might have been expected, a failure. In a first essay, made in Norfolk, by the homœopathic practitioners, twenty-one animals were treated, and the whole of them died. In a second essay, forty-four animals were treated, and four only are now alive. Mr. Caird tells us that the results in England, so different from those in Holland, depend on the difference in the constitution of the animals, and of the food. Oh, happy Dutch bullocks, that are so happily constituted as to appreciate homœopathy!"

ALLEGED PERSECUTION.—SIR: A Clergyman and Magistrate is persecuting me, because (he says) I do not attend the poor properly. If he hears that I am attending any tradesman in his village, or his curate, he persuades them to dismiss me; and, in the former case at least, knowing his malicious temper, my patient tells me he is afraid to disobey him. The extent of injury I am suffering from this man's insatiable revenge is serious. Pray tell me whether I have any redress?

I am, etc., F. C. H.

[In a case of this kind, injury through slander may be sometimes proved in a Court of Law. EDITOR.]

THE LAST VOLUME OF GUY'S HOSPITAL REPORTS contains papers by the industrious and scientific pen of Dr. Wilks, On the Value of the Study of Morbid Anatomy; Cases of Suprarenal Disease; Cases of Enlarged Spleen; Report on Lardaceous Disease; and Cases of Enlargement of the Lymphatic Glands and Spleen. Dr. Bryant has a Clinical Report on Diseases of the Testicle; and a paper on Vesico- and Recto-Vaginal Fistulæ. Dr. Hicks contributes a paper on Cystic Disease of the Chorion; and Dr. Habershon papers on Abdominal Tumour, and on Diseases of the Skin. Dr. Steele describes the Ventilation, etc., of the New Wards of Guy's Hospital. Dr. Taylor gives Cases, etc., in Medical Jurisprudence; On Poisoning with Fungi; and on the Effects of the Anamirta Citrina on a Woman and Child. Mr. Hilton gives his Clinical Lectures; Mr. Poland, a Case of Ruptured Popliteal Artery. Dr. Barlow gives Select Clinical Reports; and Mr. Bader a Description of the Ophthalmoscopic Appearances of the Eye in Health and Disease. Dr. Owen Rees and Dr. Sutton give Cases of Acute Rheumatism treated with Mint-Water.

POOR-LAW MEDICAL REFORM.—Mr. Griffin requests us to state that he has received the following subscriptions towards the funds of the Association. J. Davison, Boston, 5s.; O. Johnston, Newark, 5s.; G. McMaster, Portsea Island, 5s.; P. Frank, M.D., late 80th Regiment, Mentone, £3; G. Bury, Whetstone, 10s.; B. Hands, Edmonton, 10s.; A. F. Brett, Watford, 10s.; H. Terry, jun., Hardingstone, 5s.; E. Dudley, Hardingstone, 5s.; W. Percival, Northampton, 5s.; J. M. Bryant, Northampton, 5s.; J. H. Willis, Tavistock, 5s.—Mr. Prouse of Amersham has received the following. R. Brent, St. Thomas's, £1; H. Kelley, Uxbridge, 10s.; J. Dickenson, Chelsea, £1:1; R. Kerswill, St. Germans, 5s.; E. M. Wrench, Bakewell, 5s.; H. Brooks, Bridgewater, 10s.; J. Burton, Walsall, £1; N. Buckley, Rochdale, £1; W. Wilson, Chesterfield, £2:2; Wright and Allen, Basford, 5s.; J. Hembrough, Caistor, 5s.; E. Buckell, Winchester, 10s.; W. H. Griffith, Hinckley, 10s. 6d.; E. G., 10s.; Dr. Bell, Cockermouth, 10s.; R. Bryden, Tiverton, 5s.; C. E. Claremont, St. Pancras, 10s.

TREATMENT OF CONTRACTED VAGINA.—SIR: I am induced by the report of Dr. Swayne's Cases of Polypus Uteri, to remind your readers that the contracted vagina in the unmarried female may be rapidly and safely expanded by Barnes's dilators sufficiently to admit the hand. The patient should be under the influence of chloroform. I am, etc., GEORGE MAY, JUN.

Reading, January 23rd, 1866.

THE GRIFFIN TESTIMONIAL FUND.—SIR: The following subscription has been further received on behalf of the above Fund:—Heynes Hardwicke, Esq. (Hempnall), 5s.

Amount previously announced, £142:3:3.

I am, etc., ROBERT FOWLER, M.D.,
Treasurer and Hon. Sec.

145, Bishopsgate Street Without, January 24th, 1866.

COMMUNICATIONS have been received from:—Mr. RICHARD GRIFFIN; Mr. W. J. TUBBS; Mr. W. T. GIRDLESTONE; THE HON. SECRETARIES OF THE WESTERN MEDICAL AND SURGICAL SOCIETY OF LONDON; Dr. DOBELL; Dr. WAHLTUCH; Mr. HENRY SMITH; Mr. I. B. BROWN; Mr. S. WOOD; Mr. C. DAYERS; Mr. G. MAY, JUN.; Mr. J. H. HOUGHTON; Mr. H. THOMPSON; Dr. GEORGE JOHNSON; Dr. WINTERBOTHAM; Dr. KIDD; Mr. J. D. SCURRAH; Dr. J. BARCLAY; Mr. T. M. STONE; Dr. R. FOWLER; Dr. JAMES WILLIAMS; Dr. G. H. PHILIPSON; Mr. A. NAPPER; A RESIDENT PRACTITIONER (Brighton); Dr. KIRKMAN; Mr. PROPERT; and Mr. T. H. BARTLEET.

BOOKS RECEIVED.

1. On Hip-Joint Disease. By W. C. Hugman. Second Edition. London: 1866.
2. Notes on Cholera; its Nature and Treatment. By G. Johnson, M.D. London: 1866.
3. The Moral Treatment of Insanity, and Suggestions for the Appointment of a Royal Commission. By J. A. Blake, M.P. London and Waterford: 1866.
4. Observation in Medicine; or, the Art of Case-Taking. By J. S. Warter, M.D. London: 1865.
5. Symptomatologie und Diagnostik der Hirngeschwülste. Von Dr. P. Ladame. Würzburg: 1865.
6. Das Chloroform. Eine Zusammenstellung der bisher über dasselbe gemachten wichtigsten Erfahrungen und Beobachtungen. Von Dr. F. Sabarth. Würzburg: 1866.
7. A Manual of Minor Surgery and Bandaging. By Christopher Heath, F.R.C.S. Third Edition. London: 1866.
8. Lectures on Clinical Medicine. By Professor Trousseau. Translated by P. V. Bazire, M.D. London: 1866.
9. A Manual for the Classification, Training, and Education of the Feeble-Minded, Imbecile, and Idiotic. By P. Martin Duncan, M.B.Lond., and William Millard. London: 1866.

ADVERTISEMENTS.

ESTABLISHED 1848.

Mr. J. Baxter Langley, M.R.C.S. Eng., F.L.S., (late of King's College, London), PROFESSIONAL AGENCY, 50, Lincoln's Inn Fields, W.C.

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Transactions of Branches.

METROPOLITAN COUNTIES BRANCH.

ON THE REFORM OF SANITARY LAWS.

By Robert Druitt, M.R.C.P., President of the Association of Metropolitan Medical Officers of Health.

[*Read January 26th*, 1866.]

I have to thank the Council of your Branch of the Association for doing me the honour of inviting me to open the discussion this evening on such amendments as may be expedient in the existing sanitary laws. In so doing, I feel that they have paid a compliment to the body of medical officers of health of this metropolis, whom I venture to represent on this occasion; and I shall endeavour to produce from their experience a few instances of the manner in which existing laws might be strengthened and extended with benefit; and I shall pray this Association, if it think fit, to use its great influence, for this object, with those in whose power it is to make laws.

But, as sanitary law has a very wide scope, I propose, in order to fulfil the task of merely opening a discussion, not to enter on the general subjects of public hygiene, such as water-supply or nuisances arising from manufacture, but to confine myself to such topics as may concern every gentleman in this room. Should an epidemic of cholera arise, we shall probably have power enough, for panic will grant anything; but I would take the case of scarlet fever and typhoid, and ask, Have we power to apply the measures which are of known efficacy to limit their ravages? For most certain it is that whatever may be necessary, on the large scale, to check a widespread epidemic that comes like a flood once in ten years, must be necessary in due measure to check the driblets of disease which are draining our resources every year.

I must, however, guard myself at the outset against being supposed to condemn our existing sanitary laws as worthless. Quite the contrary. I think an enormous amount of benefit has been produced by them. Still there are cases in which they are too slow and too blunt; and for these we want them to be sharpened and pointed. There are exceptional cases which enable house-owners to evade the present laws; and for such cases the meshes of the legal net require to be made tighter and more stringent. Again, a grave doubt has arisen in my own mind and in that of many others, as to whether the present machinery or executive is the best possible. To these points I shall draw the attention of the members in the course of my remarks. And now, to be precise, I shall divide what I have to say under these three heads: 1, a very short description of the existing sanitary legal machinery and powers; 2, the cases, especially those which are met with in the ordinary routine of medical practice, in which they cannot cope with an emergency; and 3, some suggestions as to amendment.

1. In the first place, let me remind this meeting that the process for the redress of sanitary grievances rests upon that true principle of self-government which ought to be dear to us who are born in a free country, and which supposes that it is the interest and will be the duty of every citizen to assist in redressing grievances which affect himself and his fellows. In some districts, the community may require to be enlightened; in some, to be controlled by some kind of check. Still the system is a sound one; and, making allowance for common human infirmity, it works well in enlightened districts, and might be made to work well in others. I am sure that that man is an enemy to the cause of steady progress, who is incessantly railing at popularly elected assemblies, as if of necessity corrupt, ignorant, selfish, and despicable. On the contrary, every well-wisher to the community would, in my humble judgment, desire to see those bodies more powerful and more respected. With more power and more responsibility, the lower municipal offices, such as those of vestrymen, would be more sought after by men of weight and education; and the more men are put on the pinnacle of public authority, the more would they be induced to respect themselves, and exercise their authority with dignity and discretion. If the members of vestries had, as they ought to have, or as some of them, as I hope to show, should have, conferred upon them, for sanitary purposes, a dignity equivalent to that of justice of the peace, there would be little fear but that such offices would be sought and held by men whose qualifications and conduct would admit of no question.

Moreover, I may throw out the suggestion that members of the medical profession, as a whole, have little right to sneer at vestries; for, in the first place, very few members of our profession have time, or, if time, that sense of public duty which would impel them to seek to be members; and I am afraid I must add that, in the instances in which medical men have become members, they have not always set examples of dignity of conduct, or of an appreciation of the importance of sanitary law.

The starting-point, or fulcrum, if I may use such a metaphor, of existing sanitary legislation, is, then, an assembly of persons elected by the ratepaying inhabitants of each district, whether it be a Vestry, Board of Guardians, body of Improvement Commissioners, Local Board of Health, or the like. These persons, or a Committee elected by them out of their own number, called usually a "Committee for carrying out the Nuisances Removal and Diseases Prevention Acts," or shortly, the "Sanitary Committee," form what is called in every parish or other district the *Local Authority*, which is the authority which wields such sanitary power or law as exists, and is, in fact, a petty Sanitary Court or Sessions of what the French would call *the first instance*.

I may further call attention to the fact, that it is the Nuisances Removal Act of 1855 and 1860, and the Diseases Prevention Act of 1855, only, which the Committee is usually authorised to work. The former Act is in force habitually. The latter may be put into force by the Privy Council upon the outbreak of any epidemic disease; its powers are so wide and valuable, that I could wish it in force always.

Other sanitary powers are given by other Acts, as the Metropolitan Local Management Act; but the Local Authority does not usually wield those Acts, but must refer, for cases under them, to the Vestry, which is sure to be a larger, more divided, and less manageable body than the smaller Committee, which constitutes the usual Local Authority.

For instance, in our own parish there is a Committee for carrying out the Nuisances Removal and Diseases Prevention Acts. It meets once a month; and the medical officers of health attend it, and report upon all cases of nuisance that may have been brought to their knowledge during the month, whether arising from the presence of disease, or from any other cause. To this Committee we do, as a matter of fact, report anything which comes within

our knowledge as to vaccination, or adulteration of food, impure water, and similar topics bearing upon the public health; yet this Committee has not the power to take a single step with reference to either of these important subjects, but can only refer them to the vestry at large, or to some other Committee. In like manner, it has not power to touch a single sewer, nor to cause a public sewer to be made, cleansed, or repaired, of its own authority, without reference, as I have said, to the whole Vestry, or to some other Committee. Then, as it appears to be an inherent faculty of the human mind, that all bodies contain members jealous of all committees, and all committees are jealous of one another, the occasional consequences, as to despatch of nuisances, may easily be inferred.

At any rate, this "Local Authority", which has at its command the machinery of a clerk, of the medical officers of health, and of one or more sanitary inspectors or inspectors of nuisances, is virtually the prime mover in sanitary work in any given district.

I would call your attention again to this point especially—viz., that this Local Authority has already, in a certain feeble degree, the character of a court of justice for dealing with sanitary matters. I very much desire that its scope should be enlarged, and its powers made more summary. But we will first of all see how it works as it is.

In the first place, we must suppose a complaint; and complaints may proceed either from the inhabitants or from the officers of the local authority—viz., the medical officers and inspector, whose business it is themselves to look out for causes of complaint, and to verify and report on complaints brought forward by private persons.

The matters of complaint are, first, the existence of sickness, such as small-pox, scarlet fever, typhus, diphtheria, and the like, which, when brought to the knowledge of the medical officers, are by them formally complained of as so many nuisances requiring the infected premises to be inspected, in order that such an amount of cleansing, etc., as can be enforced, shall be practised.

Secondly, there are nuisances of various sorts; and it is curious, on looking over a list, to see the number of circumstances which may make houses unhealthy, and which can be redressed by the intervention of the Local Authority. It is surprising to see in how many cases, for instance, pure water leaks from one house into another, through defects in pipes, cocks, cisterns, and kitchen-boilers, making walls damp for weeks, with the risk of rheumatism to persons who sleep in the damp apartments. Still worse, in a number of instances the drains of one house overflow into another; or water-closet pipes, leading down a wall or imbedded in a wall, leak or discharge vapour into the next house. And it is a significant fact, that, whereas nuisances in the houses of the poor require to be hunted out with the utmost vigilance by the Local Authority, rich people are only too willing to come forward and make complaints about their own premises, and to absorb the whole time of the inspector, if permitted, in searching out the causes of some possibly imaginary impurity.

When any nuisance has been complained of to the Local Authority, and the inspector has verified the cause of complaint, if permitted to enter, and the medical officer has reported on its nature and on the expediency of removing it, then it is the custom of the local authority to cause a notice to be served, directed to the owner of the premises on which the nuisance exists, requiring him to abate it within a reasonable number of days, and threatening him with legal proceedings if he do not. Or, in case access be denied to the inspector who comes to inspect the premises in question, then the owner is served with a notice informing him that application will be made to a magistrate to give power of entry, and, if necessary, of digging drains, etc., so as to make a thorough exploration. In ninety-nine cases out of a hundred, these notices have the desired effect; or very likely no notice at all is requisite. If the owner of the premises complained against be an educated person, or an obliging well-to-do person, a mere intimation from the medical officer or inspector suffices; and infected premises are cleansed, drains laid down, crowded apartments thinned out, and other nuisances removed, with no further trouble.

But, supposing that the person owning the premises complained of be not amenable to a friendly suggestion, nor yet to a formal notice, then the higher powers of the law must be had recourse to. And it must be observed, that, if all men were reasonable, there would be no need of laws; and, consequently, that laws, to do any good, must be sharp enough to catch the unreasonable and unruly.

The first thing is to take out a summons, requiring the owner of the premises complained against to appear before a police magistrate, if in London, or before two justices of the peace. On the party appearing, the justices enter into the matter; and, if proved to their satisfaction that the nuisance exists, or did exist, or is likely to be repeated, they make an order, requiring the same to be discontinued, and the costs of the case to be paid. The matters to which the order of the justices extends comprise most kinds of nuisance and their removal, and include the declaring a house not fit for human habitation till it shall have been so rendered in their opinion.

The order of the justices is enforced by penalties, which they may inflict to the amount of not more than ten shillings for every day during which the defendant continues disobedient to the order, from the date thereof; and, if this be not paid, he may be summoned for non-payment, and, if need be, a distress warrant may be issued against his goods and chattels.

There is another alternative; viz., the magistrate may require the Local Authority to enter the premises, and remove the nuisance by its own workmen, and recover costs and charges from the owner; the premises meanwhile continuing chargeable with them, provided that the sum so charged do not exceed one year's rack rent.

Such, then, is a short sketch of the existing sanitary legislation as provided by the Act in daily use for the Removal of Nuisances. I may say, also, that this Act has distinct and most useful clauses relating to over-crowding and to the seizure of unwholesome meat, poultry, game, corn, or other food. I may speak with the highest commendation of the spirit in which it is conceived, and of its general good effects. It is true that any private person may make complaint of a nuisance to a magistrate, without the intervention of the local authority. Still the existence of this last is a great boon. Most complaints are quietly settled without any litigation whatever; at any rate, all complaints are sifted, so that those which are frivolous, or which the officers of the local authority believe to be unfounded, are suppressed; whilst those which the Local Authority believes to be reasonable are carried forward at the expense of the Local Authority and by the exertions of its officers, with no expense and very little trouble to the parties aggrieved.

2. Now let me come to the difficulties; and, amongst these, let me frankly say at first, that no tribunal could be thought of worse adapted for its purpose, than is a London police court for dealing

with questions of nuisances. It is true that the magistrates are ready to receive evidence of offences against sanitary acts, and to adjudicate accordingly. Still it must be said, that there seems an entire want of sympathy in the legal mind for such subjects, which shows itself in some cases by a coldness, an unwillingness to enter into the merits of the case, and a disposition to *advise* rather than to *order*, and give the defendant the benefit of every technical point in his favour. Functionaries accustomed to deal with civil questions, or with cases affecting the purse, or possibly safety from violence, will listen with the acutest attention to the details of the robbery of sixpence or an assault that may blacken an eye; nay, even the most shadowy threat of a constructive assault is received eagerly, and adjudicated willingly and justly. But, as for nuisances or cases of scarlet fever, matters affecting by possibility the lives of numberless persons, from the clerk or constable upwards, there seems no taste for them. Moreover, the police courts are so overwhelmed with business, that it is difficult in some cases to obtain a hearing; and, with the most unfeigned respect for all lawyers, and especially for the admirable police magistrates of the metropolis, I must say that I could wish them relieved of primary jurisdiction in cases which, to use the mildest expression, they must feel nauseous. In this opinion, I believe that every medical officer of health who has ever had occasion to carry such cases to a police court must coincide. Many magistrates, I repeat, entertain the case with attention, treat the sanitary officers with courtesy, and decide with rigid justice; so that their decision has a good effect upon the outside multitude, and encourages the Local Authority and its officers in their labours for the public good. But it is not always so.

The defects in our sanitary machinery, as at present existing, may be summed up thus, so far as they relate to cases liable to be met with by the medical practitioner in daily life.

Suppose a case of scarlet fever in a crowded room of a crowded house, through which all the excreta of the patient must be carried, to be emptied at some *cloaca* frequented by all the inhabitants, and itself dirty enough to engender and propagate disease. To "stamp out" suc han epidemic, prudence would say, remove the patient from a crowded room. But this cannot be done against his will, even though he must be attended by a medical man whom you pay, and supplied with medicines which you buy, and soup and wine which you provide. I have been unable to move the Committee of our Model Lodgings to enforce such a course on their tenants when small-pox was introduced into one of these crowded human hives. But if the patient cannot be removed, neither can others be prevented from associating with him. There is not as yet, though I hope there soon will be, an easy apparatus for disinfecting clothes, before they are allowed to disseminate their vapour from the washtub. There is no power to cause interment of the body if dead.

What there is power to do, is to cause premises to be cleansed and disinfected, and infected clothes and bedding to be removed; but justice halts terribly behind the necessities of the case.

Let us count up the various steps.

There are the complaint; next the notice; then the meeting of the Local Authority, which authorises legal proceedings; then the summons; then the serving the summons on the owner of the premises; then the hearing before a magistrate. If the case be proved, he generally allows the defendant a time of grace—*i.e.*, he adjourns the case for a fortnight, if the defendant promises to do what is required.

Add these up, and you will find that it can be little under three weeks or a month that is required to do anything. Add to these causes of delay that, when a landlord or owner sends to whitewash a room, his workmen may be met with one of those easy going documents styled a "certificate from a medical man", stating that the occupants cannot be disturbed with safety to their lives, and that the rooms must not be cleansed.

In order to illustrate the matter by actual examples, let me read some cases from the "Quarterly Summary of the Sickness and Mortality of St. George's, Hanover Square, and of the Proceedings of the Medical Officers of Health, No. v, for the quarter ending Christmas 1858."

"*Grosvenor Mews*, No. 10. This is a house which, from its crowded state and the imperfect nature of its drainage, requires constant observation. A population of twelve families, comprising between fifty and sixty peasons in one house, cannot be maintained in health without scrupulous care; and, on the outbreak of epidemic disease, such a house is liable to furnish one or more victims. Besides, there is scarcely a family inhabiting a single room in the parish that does not occasionally take in a servant out of place as a lodger; hence, infection may be carried into the families of the richer classes. Moreover, common sense and experience alike show that, if three or four people live night and day, and wash and cook in a single room, their bedding, as well as the walls and ceilings, become impregnated with effluvia, and that fever once introduced will remain till it has affected every person susceptible of it.

"Considering then that two deaths from scarlet fever occurred in this house in October, and that cases occurred of '*febricula*', 'sore throat', and 'dropsy after scarlet fever', in the same house, seventeen cases of illness altogether, and that the rooms in which the scarlet fever patients died, had not been emptied or cleansed (as was alleged by the occupiers) for two years at least, it became a clear matter of duty to call upon the owner to cleanse these rooms at the least'; and, on his peremptory refusal, the local authority ordered him to be summoned to Marlborough Street.

"He accordingly appeared before the magistrate on the 19th of November, to answer to the complaint of having premises in such a state as to be a nuisance and injurious to health; and tried to set aside the proceedings on technical grounds. The magistrate, however, without listening to his objections, advised him to comply with the wish of the local authority, and adjourned the case for a fortnight to give him the opportunity of so doing. During this fortnight, the work was done. The case is valuable as a precedent."

This was a very favourable and successful example of legal proceedings, in which the defendant yielded to the magistrate's *opinion*, without the necessity of a written order. Be it observed that the point we carried was, that a house should be cleansed, not because it was dirty, but because scarlet fever had been present in it.

The next case tells a different story.

"*No.* 11A, *Farm Street.* This is a stable; and it appeared from the books of the Dispensary, Mount Street, for the week ending August 22nd, 1863, that three children, aged 9, 4, and 3, were there ill of scarlet fever. One of them was entered as suffering from 'debility after fever,' in the week ending Sept. 5th. One of them had been entered for 'gastric fever', in the week ending June 20. A visit was paid, and the place found in an extremely dirty state, such as would breed or keep any fever; and, as it belonged to a respectable physician, a recommendation was

given that it should be cleansed. As nothing was done, a notice was served on 24th October, followed by a summons, taken out on December 2nd, and heard on the 9th. Then, as it appeared that it had been served by the constable at the wrong house (the officers of the Marlborough Street Police Court complain against the system of serving summonses on 'owners', and not on *persons* duly designated), it was withdrawn, and another taken out, to be heard on the 16th. Then nobody authorised to represent the 'owner' appeared; so the magistrate adjourned the case till the 23rd, then again to the 4th of January, and then to the 18th, when the rooms were reported to be cleansed, and the costs paid. Proceedings repeatedly adjourned like this, are more comfortable to the defendants than to the complainants." (*Quarterly Summary*, No. xxv., Jan. 2nd, 1864, p. 19.)

In this case, the defendant was allowed to do as he pleased, and the penalty, in the shape of a cruel waste of time, was inflicted on the sanitary officers of the Local Authority.

The next case gives another instance of delay.

"In *Quarterly Summary*, No. xxii, we speak of a girl of 13, named T., who was sent from No, 4, Thomas Street, with scarlet fever, to the Fever Hospital, on 29th January. She was sent home on 15th February, and died on 13th March. She was kept unburied for ten days, and our interference was called for by the occupier of the house, in order to get her interred. In May, her father, mother, and sister, aged 4, were seized with typhus. The father died on 25th May; the rest recovered. Then the disease attacked a woman, named B., in the next room. This family consisted of a husband, who worked at Clerkenwell, and only spent Sunday at home, his wife, and two grown-up daughters of the wife by a former husband. The wife was seriously ill, and had a narrow escape. Of course, our exertions were unremitting to get the only remedy applied which could be of any avail to stop the mischief; that is, to have the infected rooms emptied of their tenants, and cleansed; and to give the tenants the benefit of fresh quarters for the recovery of their health, and for the purification of their apparel and goods. Meanwhile the drains of the house became stopped up, and a most dangerous nuisance was created. The removal of the sick persons was, of course, postponed till they were able to be moved with safety; and then they resisted it, and were only got out by the intervention of the magistrate at Marlborough Street. A summons was taken out June 22nd, heard on the 29th, adjourned to July 8th, and again to the 15th, when the families were reported to have been removed, the rooms cleansed, and fresh windows put in, for their better ventilation in future." (*Quarterly Summary*, No. xxiv, pp. 11-12.)

The above were cases in which the "owner" was known and accessible; the next is one in which he was doubtful or inaccessible.

"*No. 3, Steele's Court, Lee's Mews.* In this case, the powers of the Sanitary Committee of the Vestry were set at nought by a peculiar combination of circumstances. The history of this case begins so far back as April 13, when a complaint was entered in the inspector's book of a stoppage of the drainage. On May 2nd, a second complaint was entered in the inspector's book, to the effect that there was offensive rubbish in the yard; first floor dirty; no water to the closet. A notice was served on May 21. As nothing was done, a summons was ordered by the Sanitary Committee at their meeting on June 16; and heard at Marlborough Street on July 8, when a person appeared, representing the owner; and as he promised to do what was required, the magistrate, as usual, adjourned the case for ten days, to give opportunity for his fulfilling the promise. But nothing was done, and no one appeared to represent defendant when the adjourned summons was heard on 18th July; so the magistrate granted a written order that the work should be done forthwith; viz., 'within ten days from the service of a true copy of the order to whitewash and cleanse the premises, limewhite the yard, and repair the supply pipe to the water-closet.' A copy of the order was served on the 24th, on a person said to be son of the owner—the same that appeared on July 8th. Still nothing was done, and the Committee at their meeting, on August 18th, directed a summons to be taken out, calling on the defendant to show cause why he should not suffer the penalties provided by the 14th Section of the Nuisances Removal Act; which says, that 'any person not obeying such order for abatement, shall, if he fail to satisfy the justices that he has used all due diligence to carry out such order, be liable for every such offence to a penalty of not more than ten shillings per day during his default.' This summons was taken out, and came on for hearing on the 1st September. The owner did not appear; but as the constable who served the summons was not present, the case could not be gone into. So a fresh summons was forthwith taken out, to be heard on Monday, Septemper 7th. Meanwhile a special meeting of the Sanitary Committee was held, on September 3rd, to consider the matter, at which it was ordered that the opinion and assistance of Mr. Capron, the solicitor, be had.

"We may remind the Vestry that the ordinary course of proceeding is as follows: A nuisance is believed or ascertained to exist; notice of it is given to the 'Local Authority,' *i. e.*, to the Sanitary Committee; the facts are formally verified by the officers of the Local Authority, who have power of entry, under the 11th Section of the Nuisances Removal Act; the Local Authority serves a notice on the 'owner' of the property where the nuisance exists, requiring him to abate said nuisance; if he refuses, a summons is taken out; and if the case be proved to the satisfaction of the magistrate, he may make an order requiring the person on whom it is made to do various things to abate the nuisance; and if the nuisance be such as to render the house unfit for human habitation, he may prohibit the using thereof for that purpose. (Sect. 13.) Or, he may order the Local Authority to do the work, and recover the costs from the owner, (Sect. 14 and 17.) Moreover, it is provided (Sect. 35) that it shall be quite sufficient to designate the 'owner' of any given premises as 'owner,' without name or further description; consequently, all our proceedings are impersonal, so to say; we leave a notice on premises, directed to the 'owner,' and never mention any name.

"This much enables us clearly to state the various complications which followed.

"For instance, when we appeared before the magistrate on September 1, we begged him, as the defendant disobeyed his order, to grant another order, under the 13th Section of the Act, declaring the house unfit for human habitation, and shutting it up. But he said, no; he had made one order on the defendant, requiring him to whitewash, etc., and he could not go back now and make a different order because the first had been disobeyed. If we had wanted the house shut up, we should have asked that at first. He said the alternative was, either to inflict a penalty on the defendant, or to order the Local Authority themselves to go in and do the work, and recover the costs from the defendant. But the Sanitary Committee, at their special meeting of the 3rd September, thought that to accept the latter

alternative would be a bad precedent, and encourage other owners of property to resist them; it would be easy to go in and cleanse a house, repair drains, etc., but often impossible to recover costs; as was exemplified by a case that once occurred; so they ordered the penalties to be sued for, with Mr. Capron's assistance.

"Accordingly Mr. Capron appeared at Marlborough Street, on the 7th September, when the magistrate imposed on the 'owner' of No. 3, Steele's Court, a penalty of 2*s.* 6*d.* per day, and costs, for disobedience to the order served on him on the 24th July; reckoning 26 days from the 24th July to the 20th August, when the summons for penalty was taken out. And now came to the surface a curious point. This 'order for payment of costs, expenses, and penalties' (*Sect.* 20, *Form I, Nuisances Removal Act,*) authorises seizures of goods of the defendant, or in default of sufficient distress, adjudges him to be imprisoned for some term not exceeding three calendar months. It is therefore a very serious penal kind of instrument.

"But whereas the *Act* says it is sufficient to designate the owner of any premises as 'the owner,' without mentioning his name, it so happens that the *order* (Form I) requires a name. It begins, 'To [*name the person on whom the order is made*]' and in three several places says '[*naming* the person against *whom the complaint is made*].'

"Whereupon the magistrate's clerk sent a polite message by a constable to the Medical Officer of Health, asking him to *name* the 'owner,' or if not this, at any rate to go and point out the owner to the constable who was to serve the order, or to authorise some one else to point him out; for, as he reasonably enough said, it would not do for the officers of the court to incur risk of actions and damages for serving on a wrong person an order that might end in seizure of goods or imprisonment. He said that it might be very well to use word 'owner' only, if the proceedings were to end in levying a distress on the premises concerned; but when it came to fines, or to seizing the goods of a person who lived a long way off, and still more to imprisonment, it was very necessary to have the exact *person* specified, and no other.

"It needs scarcely be said, that the Medical Officer of Health also declined to run this risk, and so the proceedings dropped, with Mr. Capron's sanction, who said they had come to a dead lock; for, as it happened, nobody knew who was the real owner. The supposed owner was insolvent, and the property seemed to be in the hands of persons for whom three legal firms were concerned, each of whom had some fruitless correspondence with us about this vexatious case. But the insolvency of the owner brought us a remedy. The woman who was supposed to be owner used to collect rents from the poor people who still clung to this dirty house, but she paid nobody. So at last the water was cut off on October 19th. Then we took out a new summons for declaring the place unfit for human habitation; but before it was served, some one had taken possession of the property, and turned all the tenants out; since which it has been repaired, and seems to be in good hands.

"There is a narrative of a case in which the powers, usually tolerably efficient, of the local authority, were set at nought. It is as well to remark, that throughout this business a man was employed by us to go from time to time and abate the worst nuisance, so that the poor tenants might not die of fever, whilst the local authority was fruitlessly trying its powers against an insolvent owner." (*Quarterly Summary*, No. xxv, Jan. 2, 1864.)

As for the alternative afforded by the provision that the local authority shall go in and do the work and recover the expenses, it would be a premium on insolvency and fraud. As I have said, these laws are quite enough to coerce known, respectable, well-to-do people. Others laugh at them; and the local authority, if it went in, would be sure to be defeated in the process of recovering costs on some technical ground.

3. As to remedies for these and other defects, I speak with the greatest diffidence; still there are some suggestions which I may venture to bring before you, and to solicit your aid in bringing before the proper authorities if you shall approve of them.

I. We want a consolidation of law. There are so many sanitary acts and so many amendments, and such a store of *obiter* sanitary provisions lurking here and there in acts unsuspected, that a general explanatory and consolidated act comprising all matters relating to the public health, would be a great boon to all concerned. I may allege, as an instance, that some time after some old slaughter-houses had been abolished in various parts of London, and some new ones of better construction had been erected and licensed, it was discovered that there were clauses in the Building Acts which forbade any new slaughter-house whatever from being erected within so few feet of a highway, that no new one could possibly be erected in London. At present, almost every sanitary item is provided by a different Act and regulated by a different machinery: nuisances, overcrowding, and unwholesome food, by one; adulterated food by another; the removal of refuse, the construction of sewers, and the appointment of medical officers of health and inspectors of nuisances, by a third; the appointment of vaccinators by another; the supervision of vaccination by another; the inspection and licensing of lodging-houses, smoke nuisances, and others, by different Acts. All these should, if possible, be consolidated, and committed to one authority to carry out; more especially, local authority should, at its discretion, be empowered to order removal of the sick, or separation, and burial of the dead; with immediate disinfection of bedding, clothes, and houses; the provisions, in fact, of the Diseases Prevention Acts.

II. We want more power in the court of first instance—namely, the local authority; and it is expedient that it should possess those powers summarily, which are exercised by the magistrates at the first hearing—power, that is, after hearing and investigating any complaint in open court (a thing now often done when a complaint of nuisance is brought before them), and examining witnesses on either side, of adjudicating the case at once, making such an order as the magistrate makes, and inflicting such a fine, with other powers to match. I venture to say that there are no vestries in the metropolis which might not elect a local authority that might fairly be entrusted with this power; more particularly if they were guided, as the magistrates are, by the advice of a legal assessor.

III. As for details, they are contained in abundance in a body of suggestions for the amendment of sanitary law, which have been drawn up by the body of Metropolitan Officers of Health, and which they are endeavouring to bring under the notice of Her Majesty's Government. They are far too numerous to be discussed with advantage at a public meeting; but I commend them, in conclusion, respectfully to the consideration of the Council of this Branch, as representing the details which can only be known by men who meet with them in their actual occupations.

LANCASHIRE AND CHESHIRE BRANCH.

ON THE PHYSIOLOGICAL RELATIONS OF COLLOID SUBSTANCES.

By Arthur Ransome, M.A., M.B.Cantab., etc., Manchester.

[*Read June 22nd, 1865.*]

The recent discoveries by Dr. Graham respecting the class of Colloid Substances, and their remarkable physical and chemical properties, cannot fail to have an important influence upon physiology, and may help to solve many vital problems. By them, not only has an entirely new field for investigation been opened up, but in the method of Dialysis we are supplied with a novel and most powerful instrument of research.

These discoveries are still too recent to permit any report of their effect upon vital science; but even now it may be useful to enumerate the characters of these bodies as described by Dr. Graham, and to endeavour to form some idea of their special action in the animal body.

It is not necessary to name the various colloids which are concerned in vital processes. They exist universally in organised beings; they form the chief part of the blastema, which is the basis of all growth; they appear largely in the blood, and in all the secretions of the body; and take an important part in the various processes of digestion.

An accurate knowledge of the general properties of these substances, therefore, must be essential to the physiologist.

Dr. Graham treats at length of these bodies in his papers on "Liquid Diffusion applied to Analysis" (*Philosophical Transactions*, 1862), and on "The Properties of Silicic Acid" (*Philosophical Magazine*, Oct. 1864, No. 189). From these sources I have extracted the following account, given nearly in his own words; the arrangement only being altered.

He observes that colloids differ radically from all crystalloid substances in their intimate molecular constitution. Every physical and chemical property is characteristically modified in each class. They appear like different worlds of matter, and give occasion to corresponding divisions of chemical science. The distinction between these kinds of matter is analogous to that subsisting between the matter of a mineral and the matter of an organised mass.

The first peculiar property of the colloid bodies, is that by which they were first discovered—their low diffusibility as compared with crystalloid substances. They are slow in the extreme to diffuse themselves either through fluids or through porous membranes, when submitted to osmose.

They are also distinguished by the gelatinous character of their hydrates; and, though often largely soluble in water, they are held in solution by a most feeble force.

Another and eminently characteristic quality of colloids is their mutability. Their condition is a continued metastasis. A colloid may be compared in this respect to water while existing fluid at a temperature under its usual freezing point, or to a supersaturated saline solution.

Fluid colloids appear to have always a pectous modification (*i.e.*, curdled, from πηκτος); and they often pass under the slightest influences from the first into the second condition. Thus, any solid matter in the form of powder will, simply by its contact, bring about the pectous change in the fluid hydrate of silicic acid. The solution of hydrated silicic acid cannot be preserved. It may remain fluid for days and weeks in a sealed tube; but is sure to gelatinise and become insoluble at last. Nor does the change of this colloid appear to stop at that point; for the mineral forms of silicic acid deposited from water, such as flint, are often found to have passed, during the geological ages of their existence, from the vitreous or colloidal into the crystalline condition. The colloidal is, in fact, a dynamical state of matter, the crystalloidal being the statical condition.

Colloids have little power of chemical combination, and appear singularly inert in the capacity of acids and bases, and in all ordinary chemical relations. The molecular weight of a colloid appears to be always high, although the ratio between the elements of the substance may be simple. Gummic acid, for instance, may be represented by $C^{12}H^{11}O^{11}$; but, judging from the small proportions of lime and potash which suffice to neutralise this acid, the true numbers of its formula must be several times greater. Dr. Graham says:

"It is difficult to avoid associating the inertness of colloids with their high equivalents, particularly where the high number appears to be attained by the repetition of a smaller number. The inquiry suggests itself whether the colloid molecules may not be constituted by the grouping together of a number of smaller crystalloid molecules, and whether the basis of colloidality may not be this composite character of the molecule."

Gelatine appears to hold an important place as a colloidal base. This base unites with colloidal acids, giving a class of stable compounds, of which tannogelatine only appears to be known. Gelatine is precipitated entirely by a solution of metaphosphoric acid added drop by drop; 100 parts of gelatine uniting with 3.6 parts of the acid. The compound formed is a semitransparent soft elastic stringy solid mass, presenting a startling resemblance to animal fibrine.

Many other substances, such as alumina, peroxide of iron, certain compounds of copper, of chromium and uranium, and tin, form peculiar colloidal compounds. Thus, soluble silicic acid combines with ordinary alkaline bases, such as potassa, soda, and ammonia; and also with gelatine, forming what Dr. Graham calls colli- or co-silicates, and the compounds are colloidal and differ entirely from ordinary silicates. The new compounds are interesting from their analogy to organic substances, and from appearing to contain an acid of greatly higher atomic weight than ordinary silicic acid.

One most remarkable property of many colloid substances is their power of combining with large quantities of water and other fluids. The water of gelatination thus taken up corresponds to the water of crystallisation of crystalloids. This water has been described as being retained by "capillary affinity"; *i.e.*, by an attraction partaking of physical and chemical characters. It is, nevertheless, believed that the character of gelatinous hydration is as truly chemical as that of crystalline hydration.

It is further interesting to notice that this water of hydration, whether of a fluid or of a gelatinous colloid, may be replaced by other fluids, such as hydrochloric, nitric, acetic, or tartaric acids; by glycerine, alcohol, and the syrup of sugar; giving rise to new substitution-products, such as the alcogel and glycogel or alcosol and glycosol of silicic acid.

But colloids have no power to crystallise. The hardness of the crystalloid, with its crystalline planes and angles, is replaced in the colloid by a degree of softness, with more or less rounded outline.

Though chemically inert in the ordinary sense, colloids possess a compensating activity of their own arising out of their physical properties. Thus, not-

withstanding their apparently feeble affinity for water, anhydrous colloids can decompose certain crystalloid hydratics. The water in alcohol, of greater strength than corresponds with the density 0.926, which represents the definite $C^4H^6O^2 + 6$ HO, is certainly in a state of chemical union. But alcohol so high as 0.906, contained in a close vessel, is concentrated in a notable degree by contact with dry mucus, gelatine, and gum, and sensibly even by parchment paper. Dilute alcohol, divided from the air of the atmosphere by a dry septum of mucus, gelatine, or gum, is also concentrated by evaporation, as it is in the well known bladder of Sömmering. The selective power is here apparent of the colloid for water; that fluid being separated from the alcohol and travelling through the colloidal septum by combination with successive molecules of the latter, till the outer surface is reached and evaporation takes place.

A further instance of this physical power of colloid is seen in their adhesiveness, and in the phenomenon of cementation; and the adhesion of colloid to colloid appears to be more powerful than that of colloid to crystalloid. Thus, two pieces of plate-glass left in contact will, after a time, adhere so closely that no division can be detected between them, and they may be cut and ground without separating; and, again, the intense syncœresis of isinglass dried in a glass vessel over sulphuric acid *in vacuo*, enables the contracting gelatine to tear up the surface of the glass.

While the rigidity of the crystalline structure shuts out external impressions, the softness of the gelatinous colloid partakes of fluidity, and enables the colloid to become the medium for liquid diffusion like water itself. Certain colloid substances, accordingly, greatly assist diffusive separations. The jelly of starch, that of animal mucus, of pectin, of the vegetable gelose of Payen, and other solid colloidal hydrates, all of which are, strictly speaking, insoluble in cold water, are themselves permeable when in mass, as water is by the more highly diffusive class of substances.

The diffusion of a crystalloid appears to proceed through a firm jelly with little or no abatement of velocity. But such jellies greatly resist the passage of less diffusive substances, and cut off entirely other colloid substances like themselves that may be in solution. They resemble animal mucus in this respect; and a mere film of the jelly has this separating effect. The phenomena of Dialysis arise from this property.

This process simply consists in the diffusion of crystalloids and the retention of colloids by means of a septum of gelatinous matter. The septum may consist of well sized paper, animal membrane, or mucus; but the most convenient material is the parchment paper manufactured by Messrs. De la Rue. This paper, applied to a hoop of gutta percha, forms a vessel which constitutes the dialyser. The mixed fluid, containing both colloids and crystalloids, is poured into the hoop, upon the surface of the parchment-paper, to the depth of about half an inch. The dialyser is then floated on a basin containing a considerable volume of water; and, in about twenty-four hours' time, the principal portion of the crystalloid ingredients will have passed through the septum into the water, and the colloids will still be found within the dialyser.

Dr. Graham supposes that the crystalloid owes its power of thus diffusing through a colloid septum, to the greater affinity for water possessed by crystalloids over colloids.

It may, perhaps, be of little consequence what explanation of the action is given, so long as the facts relating to it are observed; but I would notice, with great deference to so high an authority, that this theory scarcely accords with what has been said before respecting the attraction of colloids for water. Moreover, the endosmotic power of a fluid does not depend solely upon its affinity for water; but rather upon its molecular affinity for the material of the septum—in other words, upon its power of wetting the septum—and upon its miscibility with the opposite fluid. Thus, when an animal membrane forms the porous diaphragm, water will pass into alcohol; but when India-rubber or gutta percha is substituted, the alcohol current is the strongest; the molecular affinities of the membrane thus determining the result.

In the case of dialysis, the same influences are at work, but in a much higher degree. The particles of the colloid cling powerfully to the substance of the septum, and thus are unable to pass off into the opposite fluid, even if they had less tenacity of constitution; but, as we have seen, this colloid substance is easily penetrated by crystalloid solutions—as easily as is water itself. The crystalloid, therefore, readily traverses the colloid lining the pores of the membrane, and is taken up by the molecular affinities of the colloid solution on the opposite side.

The physiological bearings of his discovery have been fully recognised by Dr. Graham; and numerous allusions to vital problems occur in the papers in which the properties of these substances are described. There can be no doubt that both their physical and chemical characters render them peculiarly well fitted for the processes of organic life; and on many important points we may need to bring our views of these processes into accordance with a more accurate knowledge of the colloid constitution of many organic substances.

It is probable that we shall have to modify our views as to the relative proportions of colloid and crystalloid materials forming constituents of the different fluids of this body.

We have seen that colloids are capable of uniting with large quantities of water and other fluids; and it would seem that the hydrated form of a colloid is its most powerful dynamical condition. In physiology, we have to do with these substances in their most energetic forms; and it seems desirable, in any analysis of animal fluids, not only that we should have the quantities of their component parts estimated dry, as is usually done, but that the natural degree of hydration of the colloids they contain should be ascertained, and that the quantities of these should also be given to us. Thus, the quantity of ptyaline in the saliva, according to recent analyses, is less than two parts in the 1000; and that of pepsine in the gastric juice is less than one part per 1000. If we knew more correctly the active condition of these substances it is most probable that these proportions would have to be greatly altered.

The whole subject of the physiology of digestion will need to be studied afresh by the light of these researches. Thus, as Dr. Graham observes: "The secretion of free hydrochloric acid during digestion, at times most abundant, appears to depend upon processes of which no distinct conception has been formed. But certain colloidal decompositions are equally inexplicable upon ordinary chemical views. To facilitate the separation of hydrochloric acid from the perchloride of iron, for instance, that salt is first rendered basic by the addition of peroxide of iron. The comparatively stable perchloride of iron is transformed by such treatment into a feebly constituted colloidal hydrochlorate. The latter compound breaks up under the purely physical agency of diffusion, and divides in the dialyser into colloidal peroxide of iron and free hydrochloric acid. The superinduction of the colloidal condition may possibly form a stage in many analogous organic decompositions."

The theory thus cautiously indicated may or may not prove to be well grounded; but it certainly points out a wide field for fresh physiological investigations. There seems reason to hope that a study of the characteristic properties of these bodies may assist in explaining the action of the digestive fluids upon the food—the change of starch into sugar by the saliva, and the liquefaction of fibrine in the stomach.

Great differences of opinion even now exist respecting the parts taken in digestion by ptyaline and pepsine; some observers attributing all the activity of the digestive fluids to their influence, whilst others assert that any decomposing material would do as well. It seems to be agreed to affix to these substances the title of of *ferments;* but their mode of action remains in doubt. I believe, however, that their influence has never yet been ascribed to the presence of living organisms of low degree of organisation, such as M. Pasteur has discovered to be necessary to alcoholic, lactic, butyric, mucous, and other fermentations. The operation of digestive ferments has rather been compared to the so-called catalytic action of emulsine upon amygdaline in the formation of hydrocyanic acid; to the action of erythrozym upon rubian (described by Dr. Schunck); and to the kindred fermentations by which most of the essential oils are produced.

With reference to these actions, the views of Berzelius and Liebig are very generally accepted; and these may be thus briefly epitomised. "1. Nitrogenous matter, by contact with atmospheric oxygen, undergoes a change of composition by which the equilibrium of the attractive forces which holds its particles together is disturbed and new compounds are formed; and 2. The *motion* thus produced by the altered arrangement of the atoms is propagated through the whole of the nitrogenous body, and affects the atoms of any contiguous matter, producing movements in them which bring about new combinations."

It must be admitted that there are strong objections to this view of the action of this class of ferments, which may be briefly enumerated thus:

1. Contact with atmospheric oxygen is not by any means a necessary condition for the production of fermentation.

2. It has not yet been proved that decomposition of the ferment is essential to the action.

3. On the contrary, the preserving power of the gastric juice, and the fact that many of these fermentations will go on in the presence of the most powerful antiseptics, would lead us to an entirely opposite conclusion.

4. Moreover, in the case of a kindred ferment—erythrozym—Dr. Schunck found that, when it began to change and to putrefy, it lost in great measure its power over rubian.

5. The action of the so-called ferments, also, is a very specific one. Not only is it certain that any decomposing nitrogenous material will not effect the changes described, but each ferment will only act upon its appropriate material. Ptyaline will not liquefy fibrine; and pepsine will not change starch into sugar.

6. The result of these fermentations, in many instances, is not decomposition, but synthesis. In the case of salivary digestion, the starch is made to unite with at least two, probably four, equivalents of water.

It seems certain that these gastric ferments, however they may act, are of the nature of colloid substances; but, as we are ignorant of the peculiar arrangement of atoms to which colloids owe their properties, we cannot say whether or not these properties are due to the motion or vibration of their particles. We may discern, however, that the colloid constitution is one exceedingly well adapted for giving full play to the molecular attraction of these particles.

It would be sufficient if I were to adduce, in support of this statement, the singular property, common to these substances, of instability of molecular condition. The fluid forms of their hydrates, as we have seen, constantly tend, with time, to change to a semi-solid consistency; and the presence of small quantities of certain substances is sufficient to alter their condition from the fluid to the solid, or from the solid to the fluid form. This property must arm them not only with all the influence due to change of physical condition, but must give full play to any peculiar molecular force which their separate particles may possess.

But this is not all. It is remarkable how closely organic ferments resemble, in many points, the most powerful inorganic catalytes—such, for instance, as animal charcoal or platinum-black. Thus, like these bodies, colloids generally are singularly inert in all chemical relations; and nitrogen, the most indifferent of all the metalloid elements, seems to be an essential component in all ferments. This character, in fact, is essential to substances acting by contact. Although very little is known of molecular forces, it is certain that they require extreme approximation of the particles influencing each other; and that their power increases inversely as the distance, in some enormous ratio. It may easily be conceived, therefore, that this chemical indifference of catalytes enables the ultimate particles of these bodies to come into close contact with substances which would otherwise unite chemically with them and destroy their molecular power. This chemical inertness will be found, upon examination, to be characteristic of the whole range of substances which are capable of bringing about the so-called actions of catalysis.

Colloids further resemble inorganic catalytes in their penetrability. All these substances are easily permeated by the material upon which they act. Their molecules are loosely aggregated together; thus presenting a large surface and a series of points of force, from each of which any peculiar molecular influence (whatever it may be) can arise and act without perturbation from other surrounding molecules.

Moreover, as platinum-black and its congeners act with the greatest energy when their surfaces have been freed from all taint of vapour other than that upon which they are about to take effect, so these organic ferments are most active when they are in a nascent condition—their particles freshly formed, or at least freshly arranged, and free to attach themselves to the material which is appropriate to them.

I venture to think that the changes produced during digestion are brought about chiefly by purely molecular influences, analogous to the so-called catalyses wrought by many inorganic substances. On the hypothesis now brought forward, it is not difficult to understand why a very small proportion of a ferment suffices to act upon large masses of suitable material; for the molecular action once completed upon one part of the mass is not necessarily exhausted or neutralised thereby. If the substances formed by contact with the catalyte have less molecular affinity for it than the original material had, they will readily be given up; the original energy of the catalyte will return, it will attract fresh portions of the more appropriate material, and the action may go on almost indefinitely.

It is quite possible that, even in fermentations

brought about by living organisms, the eminently catalytic powers of nascent nitrogenous colloids may come into play. In his recent researches upon these fermentations, M. Pasteur concludes that the mycodermic plant which effects the change of alcohol into vinegar, or into carbonic acid and water, "does not act by means of some agent which it secretes", and then leaves to work by itself; but, as he goes on to remark, "the chemical phenomena which accompany the life of the plant depend upon some peculiar physical condition analogous to platinum-black." "It is, however, essential to remark that this physical condition of the plant is in some way closely bound up with its life." This observation of M. Pasteur need not be confined to fermentative operations; it is capable of much wider application. We cannot but feel sure that, in the vital processes in which colloid bodies are constantly being evolved in a nascent state, their peculiar physical constitution must have had a most important influence.

The changes wrought upon fibrine, albumen, and other protein compounds, by means of the gastric juice, are not without a parallel in the history of other colloid substances. Thus certain gelatinous colloids are liquefied in short spaces of time by very minute quantities of reagents. Gelatinous silicic acid is liquefied by very small portions of caustic potash. One part of this agent, in ten thousand of water, dissolves two hundred parts of silicic acid (estimated as dry) in sixty minutes, at 100° cent. The alkali, too, after liquefying the colloid, may be separated again from it by diffusion into water upon a dialyser. This solution, says Dr. Graham, is analogous to solution of insoluble organic colloids in animal digestion. Liquid silicic acid may be represented as the *peptone* of gelatinous silicic acid. Certain other colloids, such as the pure jellies of alumina, peroxide of iron, and titanic acid, are even more closely assimilated to albumen in this respect, since they are peptised by minute quantities of hydrochloric acid. These facts also recall forcibly the observations of Dr. B. W. Richardson with reference to the power possessed by ammonia and other alkalies in preserving the fluidity of the blood.

The remarkable osmotic characters of colloid substances have a most important bearing upon the subject of animal absorption. It seems very singular that substances like albumen and gluten, which, in their ordinary state, are perfectly "fixed" as to diffusiveness, should yet, after digestion, be capable of rapidly permeating the stomachal and intestinal walls, and become absorbed into the blood or lacteal vessels.

Dr. Graham suggests that the property exhibited by the hydrogels of some colloids of forming substitution-products with other fluids may partly explain this process. Thus, as the hydrogel of silicic acid assumes other fluids, such as alcohol or glycerine, in place of the water of combination, without disintegration or change of form, producing the so-called alcogels and glycogels of silicic acid—so may the albuminous matter of the membranous walls of the intestines take up fatty and other insoluble bodies from among the products of digestion.

So far as the absorption of albuminous matter is concerned, this theory would probably be received with considerable hesitation; but it seems quite possible that the fatty matters of the food may form, with animal colloids, compounds in which the oleine is substituted for the water of gelatinisation; compounds not only soluble in the blood, but capable of traversing animal membranes.

The rapid absorption of *albuminous* fluids after digestion seems rather to point to some change of molecular constitution effected by the catalytic action of the ferments, making the peptones, if not crystalloid in their character, at any rate diffusive and able to traverse membranous septa.

There would be nothing contrary to experience even in the first supposition. Dr. Graham has shown that colloids are capable of taking on the crystalloid form. Thus, in the so-called "blood-crystals of Funke", a soft and gelatinous albuminoid body is seen to assume a crystalline contour. The solid form of water, as in ice and snow, is either colloid or crystalloid; and Quartz declares the same power to be possessed by silica.

But it seems very probable that something short of true crystalline constitution may confer the power of diffusion upon colloids. Mialhe and Pressat have noticed that albuminose—the substance produced by the action of gastric juice upon albumen and its kind—is endosmotic. And this observation is easily confirmed by dialysing some chyme from a calf's stomach, evaporating the diffusate, and precipitating the albuminose, by means of alcohol or tannic acid. It would be sufficient to account for the diffusion of albuminose, if it were to be proved that digested albumen is so far altered as to make it less adhesive to animal membrane, and more easily miscible with the blood than pure unaltered albumen.

Many other interesting applications of Dr. Graham's observations to physiology might be noticed. I will, however, only mention one other, which he has himself brought forward, respecting the physiology of the organs of taste;—"that, while soluble crystalloids are always highly sapid, soluble colloids are singularly insipid. It may be questioned," he says, "whether a colloid, when tasted, ever reaches the sentient extremities of the nerves of the palate, as the latter are probably protected by a colloid membrane, impermeable to soluble substances of the same physical constitution."

In conclusion, it may be observed that, as a practical instrument for physiological and pathological research, and for the prosecution of toxicological analysis, Dr. Graham's dialyser will be most valuable.

Numerous experiments, illustrating the application of dialysers to medico-legal inquiries, are given in the work on *Liquid Diffusion applied to Analysis.*

The process has the advantage of introducing no metallic substance or chemical reagent of any kind into the organic fluid.

The arrangement for operating is also of the simplest nature. The organic fluid is placed, to the depth of half an inch, on a dialyser formed of a hoop of gutta percha ten or twelve inches in diameter, covered with parchment paper. The dialyser is then floated in a basis containing a volume of water about four times greater than the volume of organic fluid in the dialyser. The water of the basin is generally found to remain colourless after the lapse of twenty-four hours; and, after being concentrated by evaporation, it admits of the application of the proper reagents to precipitate and remove a metal or other poisonous ingredient from the solution. One-half to three-fourths of the crystalloid and diffusible constituents of the organic fluid will generally be found in the water of the basin.

By this means, arsenic was separated from albumen, gum, gelatine, and milk; also from porter, from blood, and from animal intestines. Tartar emetic was diffused from defibrinated blood, and from milk; and strychnine was obtained from organic fluids impregnated with it. "All soluble poisonous substances, whatever their origin, appear to be crystalloid, and accordingly pass through colloidal septa;" whilst the organic fluids which make their detection difficult are retained by the dialysing instrument.

In the examination of urine, the method will prove

of much service. Thus, in one experiment given by Dr. Graham, half a *litre* of urine, dialysed for twenty-four hours, gave its crystalloidal constituents to the external water. The latter, evaporated by a water-bath, yielded a white saline mass. From this mass, urea was extracted by alcohol in so pure a condition as to appear in crystalline tufts upon the evaporation of the alcohol.

Even in bedside examination of albuminous urine, the method may be used. Thus a piece of well-sized letter-paper was folded into the form of a filter, and filled with urine from a patient suffering from Bright's disease of the kidney. This was placed in a tumbler containing a known quantity of pure water. The relative specific gravities of the fluid within the paper, and of the diffusate, after twenty-four hours' dialysis, gave a much closer approximation to the proportion of albumen to urea, than could have been obtained by the use of the urinometer alone.

The importance of the subject must be my excuse for venturing to bring before your notice so much that is yet doubtful or hypothetical. I can only trust that sufficient has been said to induce members of our profession to contemplate with interest the physiological bearings of these discoveries, and to turn to practical advantage the instrument placed in their hands by Dr. Graham.

BATH AND BRISTOL BRANCH.

CASE OF RENAL CALCULUS.

By Joseph Hinton, Esq., Charterhouse Hinton, Bath.

[*Read January 25th*, 1866.]

The following case occurred to me many years ago; and, though perhaps of no great practical importance, is certainly interesting. Although it happened long since, and several different members of the profession saw the case, I am not aware that it has ever been brought before any Branch of our Association.

The subject, Mr. B., was a gentleman about 60 years of age, a personal friend of my own. He was a small spare man, very active in his habits, very interested in all athletic pursuits, and apparently of healthy condition. Somewhat accidentally, I learnt that he was the subject of a regular discharge in some portion of his back; that he used to wear a belt and pad over the aperture, and that the discharge was comparatively trivial. Afterwards, he gave me this history. Some twenty years before, when outside a coach, the passengers were landed before they reached their destination, and one of the wheels went over the lower part of his chest. This was followed by a long painful illness, in which Mr. Green, of St. Thomas's Hospital, attended him. Abscesses, etc., were set up; but, after many months, the only remaining trace was a sinus about the right lowest rib and six inches from the spine. Since the illness, he had enjoyed a fair general health and the sinus had never healed; indeed, I believe Mr. Green's opinion seemed to be that it would be dangerous for it to do so. My old friend himself had a great dread of its closing. I could never learn from him what Mr. Green considered the condition to be. Soon after I settled in his neighbourhood, I found that the increase of discharge had given some anxiety, especially as it was attended with loss of flesh as well as loss of power. I was not then in attendance on him; and he went up to consult Mr. Bransby Cooper and Dr. Addison. The former examined the discharge microscopically, and found chyle-corpuscles in it. His strength rapidly declined; he was confined to his room; I then attended him. The sinus never became much larger; but if he took any fluid, in a few minutes it would pass out at the opening. Once, when he had been eating mushrooms, I detected the small black pieces in the discharge; and on one occasion, I well recollect his standing whilst the back was being dressed, and he swallowed a glass of porter. In a few minutes, the porter had run down to his feet. Dr. Addison afterwards saw him at home, and so did Sir B. Brodie. Nothing more was made out regarding the case. I then suggested to him that, as it was palpable that there was some communication between the parts near the stomach and the sinus, we should make some attempt to close the latter. I urged him to give up nourishment by the mouth, and to live on injections; whilst, by stimulating injections and a position absolutely confined to the left side, I endeavoured to close the sinus. Whether accidentally or otherwise, but I am disposed to think the former, the external part decidedly closed, and there was no discharge for twenty-four hours. Then my old friend became alarmed; and his anxiety was such, that I put the probe into it to satisfy him. It never stopped discharging again; and gradually he was worn out.

The *post mortem* examination disclosed the following condition of parts. The right kidney, at first sight apparently absent, was reduced to a thickened cyst of about the size of a moderate walnut, containing in it a small mulberry calculus. To the upper portion of this the duodenum was attached firmly; and an opening in this communicated directly with the passage that had been formed.

The calculus I sent up to Mr. Cooper, requesting that the half might be returned to me. The jaws of a hospital are in this respect capacious, and no returns were made; nor could I ever get at the actual composition of the stone.

I am disposed to think the explanation of the case somewhat as follows. In the accident, considerable damage was inflicted on the kidney and neighbouring parts; probably blood was voided, and the nucleus of the said stone was blood; in the inflammatory condition which must have attended all these abscesses, the duodenum became tied down to the seat of disease without becoming implicated further, and at last the definite sinus was set up, and the patient so far recovered; the kidney dwindling away, but the calculus serving to keep up the irritation, and account for the discharge that steadily continued for the remainder of his life. Why the junction between the duodenum and the disease should have ultimately given way, the history does not explain to me.

Discovery of a New Chalybeate at Harrogate. Some months ago there appeared in the *Chemical News* a letter from Dr. Sheridan Muspratt, stating that he had discovered in a water (situated in the Cheltenham Gardens, of Harrogate) a very large quantity of protochloride of iron. The presence of this salt at all in a potable water is an anomaly, but when occurring to a considerable amount it renders the spring in which it exists unique. At first some of the medical men of the place were dubious as to the results, but when Dr. Miller of King's College, London, and Dr. Herapath of Bristol, ratified them, attention was at once turned to the spring, which is likely, from all that has since been written and said on the matter, to give to Harrogate a particular celebrity in cases that such a singular ferruginous water might benefit. There is no mention of the ferrous chloride in the *Pharmacopœia*, and not anything, up to September last, was elicited regarding its therapeutic effects.

Reviews and Notices.

On Wakefulness: With an Introductory Chapter on the Physiology of Sleep. By William A. Hammond, M.D., Fellow of the College of Physicians of Philadelphia, etc. Pp. 93. Philadelphia: 1866.

In the *New York Medical Journal* for May and June, 1865, Dr. Hammond published an essay on Sleep and Insomnia. The little work before us is founded on this essay, which has been enlarged, and in some parts re-written. It is divided into four chapters.

In the first or introductory chapter, the author speaks of the Physiology of Sleep. The especial nature of sleep, says Dr. Hammond, lies in allowing the nutrition of the nervous system to go on more rapidly than its destructive metamorphosis. In speaking of the causes of sleep, he refers to the opinion, which has prevailed from old times, and is supported by several authorities, that it is the result of "pressure of blood-vessels, filled to repletion, upon the cerebral tissues;" and believes that this idea has arisen from the long known fact that a comatose condition may be induced by the state of the cerebral circulation here described. He points out, however, that the two conditions—stupor and sleep—have almost nothing in common, either in their causes or in their phenomena. The difference is well illustrated by the action of opium, as shown in some experiments which Dr. Hammond relates, in which he gave three dogs, doses of a fourth of a grain, a grain, and two grains of opium, after having (under the influence of chloroform) removed a portion of their skulls. With the smaller doses, congestion soon passed off, and, in one animal, was followed by shrinking and paleness of the brain and sleep. In the third (which had taken two grains) the congestion also diminished, but the surface of the brain became dark, and stupor resulted. In other experiments, Dr. Hammond gave doses of one, two, and five grains of opium to dogs, and suffered artificial respiration by opening the trachea. The congestion of the brain was thereupon removed; but, on the animals being left to their own respiratory efforts, the surface of the brain became dark in the animals which had the larger doses, and stupor was produced. The stupor, he observes, is the result of the flow through the brain of blood loaded with carbon.

Dr. Hammond holds that sleep is dûe to a diminished circulation of blood through the brain. This opinion he shews to have been maintained, or supported by Blumenbach, Playfair, Dendy, Dr. A. Fleming, Dr. B. Brown, and especially by Mr. Durham; who, Dr. Hammond says, has produced "the most philosophical and most carefully digested memoir upon the proximate cause of sleep, which has yet been published." And, with honourable candour, he says:

"Although my own experiments in the same direction, which will be hereafter detailed, were of prior date, I cheerfully yield all the honour which may attach to the determination of the question under consideration, to this gentleman, who has not only worked it out independently, but has anticipated me several years in the publication, besides carrying his researches to a much further point than my own extended." (P. 26.)

Dr. Hammond's attention was first drawn to the subject of the cause of sleep, by a case which came under his notice in 1854. A man had been deprived of a large portion of his skull, by a railway accident. He was subject to severe epileptic fits, and Dr. Hammond observed that, at the beginning of the comatose condition preceding the fits, the scalp covering the deficiency in the skull was always elevated; while, as stupor passed away, and sleep ensued, the scalp gradually became depressed. He noticed also that, during natural sleep, the fissure was deeper, and that, on awaking, the scalp rose to a higher level. He also subsequently noticed a depression of the scalp, over the anterior fontanelle, during sleep in infants. In 1860, he performed a number of experiments on dogs and rabbits, by removing portions of their skulls; and found that, during sleep, the quantity of blood in the brain was lessened.

Referring to an observation of Dr. A. Fleming, that sleep may be produced by pressure on the carotid arteries, Dr. Hammond says that, in the only instance in the human subject in which he repeated the experiment, sleep, or a condition resembling it, was produced. In animals, however, he has several times produced the same result. He mentions also a case which he has had an opportunity of examining. A lady had both common carotid arteries tied at intervals (by the late Dr. J. K. Rogers, and by Dr. Van Buren) for crisoid aneurism of the scalp. The only peculiar symptom observed after the operation was "persistent drowsiness, which was especially well-marked after the last operation, and which, even now, is at times quite troublesome."

Some of the agencies which influence the amount of blood in the brain and so produce sleep, are next noticed: viz., heat, cold, diminution of the power of attention, excessive loss of blood, and debility. Regarding cold, Dr. Hammond observes:

"A slight degree of cold excites wakefulness at first; but if the constitution be strong it predisposes to sleep. This it does by reason of the determination of blood to the surface of the body which moderate cold induces in vigorous persons. The ruddy complexion and warmth of the hands and feet, produced in such individuals, under the action of this influence, are well known.

"But if the cold be very intense, or the reduction of temperature sudden, the system, even of the strongest persons, cannot maintain a resistance, and then a very different series of phenomena result. Stupor, not sleep, is the consequence. The blood-vessels of the surface of the body contract, and the blood accumulates in the internal organs, the brain among them. Many instances are on record showing the effect of extreme cold, in producing stupor and even death."

In the second chapter, the author speaks of the Pathology of Wakefulness. He shews that, as civilisation advances, affections of the nervous system necessarily become more frequent; not that high civilisation is antagonistic to long life or health, but, while we have improved the hygienic conditions of our habitations, clothing, etc., "we have made little or no progress in the hygienic management of those organs which place us in relation to the world, and a healthy condition of which is so essential to our happiness." He observes that, while cases of obstinate wakefulness have increased in frequency, the condi-

tion has not met with the attention which it merits; and expresses his opinion that

"No one cause is so productive of cerebral affections as persistent wakefulness, for not only is the brain prevented from obtaining rest, but it is kept in a state of erethism, which, if not relaxed, must sooner or later end in organic disease." (P. 41.)

In primary insomnia, Dr. Hammond says, there is always an increase in the quantity of blood circulating in the brain; but this increase may be absolute or relative.

"The former is the case when there has been no exhausting disease, hæmorrhage, or other debilitating influence in operation, and while, though general good health exists, the amount of blood in the cranium is augmented; the latter, when from any cause the system has become reduced, and when, while this condition prevails, a temporary activity takes place in the cerebral circulation. The first may properly be called active, the latter passive insomnia." (P. 46.)

Cases of both kinds of insomnia are related; and it is shewn that, while the cause may be essentially the same, the means of relief must vary.

In the third chapter, Dr. Hammond comments on the Exciting Causes of Wakefulness, arranging them in the following order: 1. Long continued or excessive intellectual action, or any powerful emotion of the mind; 2. Positions of the body which tend to impede the flow of blood from the brain, and at the same time do not obstruct its passage through the arteries; 3. Certain substances used as food or medicine; 4. Functional derangements of certain organs of the body.

In the fourth chapter, the Treatment of Wakefulness is described. In this, the remedies—which are, as employed in practice, accordant with the principles laid down in the preceding chapters—may be divided into two classes:

"1. Those which, by their tendency to soothe the nervous system or to distract the attention, diminish the action of the heart and blood-vessels, or correct irregularities in their function, and thus lessen the amount of blood in the brain.

"2. Those which directly, either mechanically or through a specific effect upon the circulatory organs, produce a similar effect."

The first head includes many agencies commonly known to produce sleep; such as music, monotonous sounds, repetitions of series of words, etc. The second class comprehends the means to be employed in cases of morbid wakefulness; and of this class, as the most important, several are treated of in detail, viz., food, which should be nutritious, accompanied in the passive or asthenic form of insomnia by stimulants; moderate but regular physical exercise; the warm bath; cold water applied to the scalp; and position—the recumbent position in certain cases being found to be productive of wakefulness. Among the medicinal agents, Dr. Hammond assigns the first place to bromide of potassium, in doses of from ten to thirty grains. Opium he very seldom uses, because its effects vary greatly with the dose, and its action is not limited to the mere production of sleep. Hyoscyamus is more admissible, in cases attended with great nervous debility. Of antispasmodics, he can say nothing good. Tonics, especially quinine and iron, are almost always useful. When the insomnia depends on mental overwork, intervals of relaxation must be insisted on, and, if necessary, all intellectual effort must be suspended for a time.

Dr. Hammond has written some sound sense on a subject that deserves attention. Probably, from the higher degree of mental strain which his countrymen put on themselves, his remarks will find a wider application in America than among us; but his little treatise is worthy of the careful study of physicians in every civilised country.

THE TREASURY OF BOTANY: a Popular Dictionary of the Vegetable Kingdom, with which is incorporated a Glossary of Botanical Terms. Edited by JOHN LINDLEY, Ph.D., F.R.S., F.L.S., etc., and THOMAS MOORE, F.L.S., Curator of the Chelsea Botanic Garden, etc.; assisted by numerous Contributors. In Two Parts. Pp. 1254. London: 1866.

THE nature of this book is nearly well enough indicated in its title. It does not aim at being exhaustive of all known genera of plants—for this would require several such volumes; but it comprises "a short history of those genera of plants which are known to possess especial interest on account of the medicinal qualities or the economical uses of their species, or by reason of their beauty or utility as garden plants; while to these two groups has been added a still larger one, comprising a selection of genera serving as representatives of the whole series of Natural Orders and their subdivisions."

The style of the work is popular; and the information conveyed in it—as would be expected from the names of the editors and contributors—is sound, and at the same time interesting and useful.

OBSERVATION IN MEDICINE, OR THE ART OF CASE-TAKING; including a Special Description of the most common Thoracic Diseases, and Abnormal States of the Blood and Urine. By JOHN SOUTHEY WARTER, M.D.Edin., M.R.C.P. Illustrated by Sixteen Wood-Engravings. Pp. 91. London: 1865.

IT is of the greatest importance to a student of medicine to acquire the power of observing facts accurately and completely, and of giving to each fact observed its right interpretation. An able and conscientious clinical teacher will naturally do his best to guide his pupils in this direction; but it is well, partly to meet the special capabilities of some minds, partly to aid in the work of oral instruction, that written guides to the student should be also placed within his reach. Among such works, the latest is that of Dr. WARTER; and, judging from an inspection of its contents, we have every reason to believe that it will be found to competently fulfil the purpose for which the author has designed it. The general plan of the work is described in the following extract from the preface.

"At the beginning a formula has been given to show how cases may be taken; but this of course may be altered to suit a physician's or clerk's particular fancy. Annexed to this is also a list of the principal things to be observed when a patient is in a fit, as I have found many students puzzled as to what to observe under such circumstances. In the ten chapters following, some of the most common symptoms noticed under each symptom have been

described; and parts of various methods of examination have here and there been introduced. It has been thought better, as an aid to the clerk's memory, to head each chapter with *all* the symptoms to be observed under that division or system, instead of only mentioning those points about which some detail is given. The last four chapters are devoted to the most common diseases of the heart and lungs, and abnormal states of the blood and urine."

We are requested to remind members of the Association that the Annual Subscriptions became due on the 1st of January. They can be paid either to the Secretaries of the Branches; or to the General Secretary, T. Watkin Williams, Esq., 13, Newhall Street, Birmingham.

British Medical Journal.

SATURDAY, FEBRUARY 3RD, 1866.

VACCINIA AND VARIOLA.

No very long period has elapsed since the French Academy of Medicine discussed, with great animation, questions relating to the origin of vaccinia and variola. M. Bouley, the distinguished Alfort professor, had directed the attention of the Academy to his researches on the vesicular affections of the legs of horses, which had been described some years before by Lafosse and Sarrans, and on those forms of *grease* to which Jenner, Tacco, Loy, and many others, had traced the origin of cowpox. His researches had led him to the conclusion that these affections were merely varieties of one morbid condition, for which he proposed the new term "horsepox", and which he considered to be the real origin of cowpox. M. Depaul, who had had the opportunity of studying at Alfort the affection which had engaged Bouley's attention, contended in the Academy in favour of the analogy existing between this *vaccinogenetic* affection of the horse and variola, and argued that the so-called horsepox, cowpox and variola are affections identical in their nature, and having variola as their common origin. In the discussion which followed, MM. Piorry, J. Guérin, Bouillaud, and Bouvier shared M. Depaul's opinion as to the origin of vaccinia; whilst MM. Bouley, Bosquet, Leblanc, Reynal, Magne, and Dévergie took the opposite side.

This discussion, like many others of a similar nature, although it shed little light on the subjects under dispute, showed that, in spite of the researches of Ceely, Thiele, Bouley, and others, much remained to be done before a satisfactory answer could be given to questions relating to the origin of, and the relations existing between, variola and vaccinia, and led to the appointment, by the Société des Sciences Médicales de Lyon, of a Commission for the purpose of instituting a searching investigation into the mutual relations of the two diseases. The Commission was composed of MM. Boudet, Chauveau, Delore, Depuis, Gailleton, Horand, Lortet, Meynet, and Viennois. Professor Chauveau of Lyons was elected its president; and it is almost entirely to his efforts that we owe the very remarkable Report presented to the Society—a Report which has, within the last few days, been deemed worthy of a prize by the French Institute.

The Report commences by an introduction in which, after a reference to the circumstances which led to the appointment of the Commission, and to which we have already alluded, the various and highly important reasons for a new and sifting investigation of the whole of the facts bearing upon the relation of variola and vaccinia are considered in a highly philosophical manner. The Commission, we are told, determined to examine *de novo* the whole of these facts; and the wisdom of this resolution is shown by the fact that their researches have led them to conclusions differing more or less on almost every point from those to which previous workers had arrived.

Never were finer opportunities given to a scientific commission to work out a difficult and abstruse subject. The whole of the animals belonging to the Imperial School of Agriculture of La Saulsaie, and consisting of a hundred and sixty cows and bulls, and forty pigs, were placed at the disposal of the Commission. The herds of the Parc de la Tête d'Or, consisting of about a hundred head of cattle, besides sheep, goats, etc., were in a similar manner made available for experimental purposes; whilst the Veterinary School of Lyons was likewise placed under contribution. This magnificent establishment furnished the horses used by the Commission, and afforded stabling, etc., for a certain number of the animals experimented upon. Lastly, the "service des vaccinations" of the large Hôpital de la Charité of Lyons afforded opportunities which the Commission availed itself of to the fullest extent. The peculiarly favourable conditions under which the experiments were undertaken must to a certain extent explain the great discrepancy which exists between the results of the researches of the Lyons Commission and those which had preceded them. Nearly the whole of the animals to be experimented upon had, for instance, been bred in the establishments alluded to; and the commissioners had the advantage of referring to strictly kept sanitary registers relating to the health of each animal. Thus the commissioners were able to ascertain with certainty that not one of the animals at the farm of La Saulsaie had ever had cowpox.

A very minute investigation of cowpox, comprising an examination of all those points, however trivial

they might appear, which had escaped the attention of previous observers, was obviously the first step in the investigation; and, accordingly, the first section of the first chapter in the Report relates to "the transmission of vaccinia in animals of the bovine species—cowpox." The first series of experiments were performed on thirty animals, and afforded the opportunity for a minute study of cowpox. These thirty animals were all inoculated with the matter of cowpox obtained from a cow brought from Naples, and placed at the disposal of the Commission by Professor Palasciano. The male animals experimented upon were inoculated on the scrotum and perinæum; all the females were inoculated on the skin covering the vulva. This region is considered preferable to the udder, as the skin is more vascular, and it is extremely difficult for all but very thin cows to lick the vulva. Before giving a verbatim translation of the description of cowpox contained in the Report, we would draw attention to the startling fact that all the inoculations, without one single exception, proved successful.

"Nothing is more regular and more constant," say the Reporters of the Commission, "than the progress of the eruption following the inoculation. On the second day, the point which had been pricked with the lancet is the seat of a little rose-coloured papule, which soon increases in size. On the third day, the papule becomes large and prominent, and its centre becomes depressed, whilst its whitish colour contrasts with the red colour of the periphere. On the fourth day, the pustule is definitely formed, with its central depression, its circular outline, and its areola. From the fifth to the eighth day, it continues to grow without its characters being changed. Having thus arrived at its maximum stage of development, it presents the following characters. An areola, of a bright red colour, usually forming only a very narrow circle, which is somewhat elevated, circumscribes, in a well defined manner, the pustule. The pustule, which is always umbilicated, had now already become brown at its centre, its circumference being of a straw colour, or sometimes of the pearly white colour observed in human vaccinia. The period of declension now commences. The brownish tint gradually and irregularly spreads over the surface of the pustule; the areola becomes effaced; the vaccinal mark becomes less raised above the surface; and about the twelfth day, this is merely marked by the central crust, which falls from the fourteenth to the twentieth day, leaving, as in man, a slight cicatrix, which persists indefinitely."

The size of the pustule varies remarkably, and would appear to be greatly influenced by the *condition* of the animal. As a general rule, the more vigorous and well-fed animals present very fine eruptions of cow-pox, whilst the converse is true of weak and ill-fed animals. The serous matter obtained from the depths of a vaccine papule, sixty hours after inoculation, was found capable of inducing cow-pox. The virulent serum retains its full activity until the completion of the seventh day. It then rapidly diminishes; so that virus collected on the ninth day may be inert.

The Commissioners specially investigated whether any constitutional symptoms accompanied cow-pox; but failed in discovering any. They likewise sought, but in vain, for general eruptions over the surface of the body. They actually tested whether vaccinia might, under any circumstances, be transmitted by infection; but were led to answer the question unconditionally in the negative. They subjected a large number of animals which had been successfully vaccinated to re-vaccination, and invariably the second vaccination failed to take effect.

Having supplemented, in this way, certain lacunæ left by previous experimenters, the Commissioners proceeded to vaccinate a large number of children with the matter of cow-pox; and instituted a comparison between human vaccinia and cow-pox. The comparison established the almost absolute identity of the two. The only points of difference are, that the pustules of cow-pox on the cow are usually larger than those of human vaccinia, and that the period during which inoculable matter can be obtained from the latter is longer than in the case of the former. Is the smaller size of the vesicle of vaccinia induced by the ordinary process of vaccination a proof that by long transmission through the human system the cow-pox virus becomes attenuated or weakened? and does this tend to give support to the supposition that the vaccine virus becomes, by long transmission, more and more inert, and less capable of protecting the system from variola? This conclusion does not, according to the Commissioners, appear to be warranted by the facts. There is, it is true, a slight diminution in the size of the vaccine vesicle when the matter of cow-pox is transmitted to man; and this may be held to denote a modifying—possibly a weakening—influence upon the virus. If, however, this attenuation of the cow-pox virus, by transmission from the cow to man, take place at all, it does so at the time of the very first inoculation. The first eruption of vaccinia induced by direct inoculation from the cow, is noticed to be somewhat smaller than a typical eruption on the cow. After this, however, vaccinia undergoes no further changes. After being transmitted for an immense number of generations, from one human being to another, the matter of vaccinia, re-inoculated in the cow, induces cow-pox with as great certainty as does the matter taken directly from the vaccinia of the cow.

The absolute identity of the eruption produced by inoculating with cow-pox matter obtained directly from the cow, and with the matter of human vaccinia, was ascertained by vaccinating the same animals, at the same time and in different places, with matter taken from these different sources. The vaccine-matter of the Charité Hospital, which had undergone an indefinite but enormous number of transmissions through the human system, produced cow-pox as perfectly and as certainly as cow-pox matter taken directly from the cow.

The results of this first series of experiments on vaccinia, lead the Reporters to the extraordinary conclusion that, when the cow is inoculated with the matter of human vaccinia, an eruption of cow-pox *invariably* takes place; providing, of course, that the cow have not suffered from a previous attack of vaccinia or variola—two affections which, in the cow as in man, appear to be altogether distinct.

How can the extraordinary discrepancy existing between the statements of the French Commission and those of previous experimenters, as to this simple question of success of vaccination practised on animals of the ox tribe, be explained? The only explanation that suggests itself to us is that, whilst the whole of the animals used in the French experiments are positively known not to have had cow-pox, many of the animals vaccinated by other observers had probably been the subjects of the disease. The experience of the last few weeks has, however, proved that, even in the indiscriminate vaccination of animals whose history is unknown, the operation is much more frequently successful than could have been anticipated from the statements of English writers on this subject.

Having thus drawn attention to the chief points of interest in the French Report, which bear on the transmission of vaccine from the cow to man and *vice versâ*, we shall reserve for our next an account of the researches of the Commission relating to the transmission of vaccine to other animals. We shall then be in a position to examine by far the most interesting section of the report; viz., that relating to variola.

VACCINATION versus CATTLE-PLAGUE.

This case has been tried, and decided in favour of cattle-plague. Vaccination, over-rapidly inflated, has still more rapidly collapsed. Science, carried away by hope, has been over-hasty in its conclusions; and the result is a certain degree of rather painful disappointment. Of course, all see now that it would have been much better had we doctors calmly awaited the result of the scientific inquiries carried on by Dr. Sanderson, under the Cattle-Plague Commission, before we committed ourselves, even by implication, to the theory that cattle-plague was small-pox. However, if we have set the cattle owners in a blaze, no great harm is done, but some good; for the experiment has now been made on a grand scale, and is therefore more conclusive.

Dr. Bence Jones objects to Mr. Tollemache's remark, that

"'The most eminent authorities seem satisfied that Rinderpest is bovine small-pox.' Mr. Tollemache," he says, "has no authority for saying this. It would be much nearer the truth, if he had said that cattle-plague in many respects resembles small-pox, and belongs to the same class of diseases; but that it is not bovine small-pox, and cannot be kept off by vaccination or by inoculation, but only by insulation."

It would have been fortunate, had some such authoritative remark as this appeared some weeks ago. It comes rather late in the day. We must venture to say, the general impression in the country has been, that "eminent authorities" *were* satisfied that cattle-plague is bovine small-pox. Certainly nothing has ever been said by the Cattle-plague Commissioners to lead the public to believe they had any doubt on the point. To Dr. Sanderson and Mr. Gamgee belongs the credit of warning the public against the over hasty conclusion. This Journal was, we believe, the first and the only journal which advised people to moderate their expectations in the matter. We did this by showing that the history of cattle-plague told dead against the idea of identity. We also showed that it was an error to suppose that the authorities of a hundred and fifty years ago—Lancisi, Ramazzin, Lanzoni, etc.—had stated their belief in the identity. We showed that Lancisi and Fracastor had distinctly denied it. Also we referred to the very remarkable fact that, in 1711, a discussion on this very point, "Is Rinderpest small-pox?" was had in the Philosophical Society at Padua, and was answered in the negative. It will be remembered that the great fact which set fire to the present vaccination blaze was the case of Mr. Hancock—the quasi-vaccine pustule on his hand, derived (as supposed) from cattle-plague *alias* small-pox virus. This case was used as those would employ one swallow who make a summer out of it. We suggested, in answer to it, this unanswerable argument, drawn from history. How comes it, we asked, that, in the two hundred years at least of cattle-plague ravages, during which hundreds of thousands of cattle have been destroyed, have been *handled*, and handled, too, by non-vaccinated, non-inoculated persons, not one single case is recorded of the disease having been communicated to man? This telling fact, however, has been unheeded; and the historical records which hand down to us the wisdom of our forefathers have been so far written in vain.

Mr. Tollemache's calf and cows have also been a great excitor of hopes; but the calf is dead, and the cows are going the way of all beef.

We have now to tell our readers that past history is supported by present facts. Vaccination for cattle-plague is pronounced, by those who are able to speak with authority, a failure. Dr. Sanderson, who has quietly followed out the philosophical line of not pronouncing by hopeful anticipation what he could not support by fact, and who has steadily set his face against the authoritative impulse which has been given to the spread of the wildfire of vaccination, now tells us that the animals which he has vaccinated have taken cattle-plague just as readily and as fatally as non-vaccinated! There is, unfortunately, no mis-

take about it. The animals inoculated with cattle-plague matter by him had been previously certified as duly vaccinated by the Government authority, Mr. Badcock. Moreover, children had been successfully vaccinated with the matter taken from the animal when vaccinated. But yet the animal is at once fatally inoculated with cattle-plague matter. The inevitable conclusion is, *that vaccination is no protection or preventive against cattle-plague; that cattle-plague is not small-pox.*

Happily, no great mischief has been done by this general excitation of false hopes. Indeed, as it is a very ill wind which blows no one good, some parties have, no doubt, found this breeze serviceable. The sums of money expended on vaccination of oxen must have been very considerable. Vaccinators were ready, and cattle-owners very anxious, and vaccine matter not always abounding. It is said that £40,000 have been spent in this great national ox-vaccinating movement. Vaccinators, therefore, must here and there have had a not despicable harvest. The over-eager promoters of this vaccine movement will, of course, collapse with a sigh: *Hei mihi! quantâ de spe decidi!*

In justice to Professor Gamgee, we add the opinion which he gave some time ago, in reference to the value of vaccination. Professor Gamgee's merits, in all matters referring to the cattle-plague, have not been fairly acknowledged. We believe that all his long ago expressed opinions on the subject, have turned out to be strictly correct.

"Nothing but the most culpable ignorance could have led us to overlook the benefits of 'vaccination,' as a preventive against the cattle-plague, has any such benefits been observed and recorded in Russia. It is not vaccination but inoculation that is resorted to there, and this was first practised in England one-hundred-and-twenty years ago. No sooner had Dodson taken up the idea from the inoculation for human small-pox, than the Dutch, Danes, and Germans conducted numerous experiments, and often with the result of losing only one per cent. of the inoculated animals. Skilled inoculators came in vogue. Many were their failures, loud were the complaints of the farmers in this and other countries; but nevertheless early in the present century Walz and others suggested that all the calves in Russia should be inoculated, so as to render the entire horned stock of the country insusceptible to attacks of the plague. Professor Jessen of Dorfat, has very ably advocated the practice of inoculation in the Russian Steppes, and published a pamphlet on the complete extirpation of the rinderpest by this means, in 1852. At that time a commission had been appointed by the Czar to advise as to the best means to be adopted for the prevention of the cattle-plague, which led to an annual average loss of 10,000,000 roubles. The only recommendation made by this commission was in favour of experiments as to the value of inoculation. Prof. F. Unterberger was sent to Southern Russia, and he turned his attention to cultivating lymph by passing it through the systems of animals, so as to modify its character, and he specially chose lymph from animals which indicated an eruption on the mammæ and mouth, an eruption which the history of rinderpest taught him had been more common when the successful inoculations of the last century were practised than it had been of late. The experiments which thus began in 1853, have been continued up to the present time, and I have in my possession all the reports published in the German language, and copious extracts from those published in Russian, The results arrived at are differently estimated by different individuals. Some still believe in the development of a great system of inoculation similar to that adopted for the vaccination of an entire population for the prevention of human small-pox. I am one of those who have no faith in the practice, and the ablest *résumé* yet published, which has but recently left the printer's hands in Dorfat, affords evidence of the hopeless nature of the task imposed on the Russians by those who believe that no horned animal of the Steppes should leave the supposed native haunts of the rinderpest without having been successfully inoculated.

"Vaccination, as now practised far and wide in this country, is another of the blunders of the present day. Rinderpest is rinderpest, and not small-pox. It is different from every other known disease of man or animals, though as a contagious fever it presents characters which some have regarded as not unlike those of typhus, typhoid fever, scarlet fever, or small-pox. It is none of these, and I regret that hasty conclusions as to points of analogy between rinderpest and variola have led to many fruitless and expensive experiments which have done, and can do, no good, and have only served to direct people's minds from the one and only system by which such a malady can again be banished from our soil."

The first ordinary meeting of the Metropolitan Counties Branch, in pursuance of resolutions agreed to at the last annual meeting, took place on Friday, the 26th of last month; and is, we believe, to be followed by others at intervals of about two months. The proceedings of the meeting were of a character to lead to the expectation that these gatherings may be productive, if well supported by the members, of great benefit to the profession and the community. The subject for discussion was that of the "Amendment of Sanitary Laws"; and it was most ably introduced by Dr. Druitt—than whom no more capable man could be selected. The report of the proceedings which will be found at another page, shews that, while there was some variance of opinion as to his proposal for extending the power of the local authorities, there was a much more unanimous voice as to the necessity for consolidation of the numerous acts which regulate sanitary matters. A resolution was passed, by which points mentioned in Dr. Druitt's paper and in the discussion were referred to the Council of the Branch for consideration, with instruction to report to a general meeting. The question of amendment of our sanitary laws is one which might well occupy the attention of our Association and its Branches. The Irish Medical Association, we observe, at a general meeting held a short time ago, passed, among others, a resolution in favour of consolidation of the laws relating to public

health. We shall take an early opportunity of commenting at greater length on the proceedings of the Metropolitan Counties Branch.

A highly interesting ceremony took place on Thursday last in the Great Hall at St. Bartholomew's Hospital—the presentation of a testimonial, from his friends and former pupils, to Dr. Burrows, formerly one of the physicians of the institution. At two o'clock, the chair was taken by the Treasurer of the hospital, Mr. Foster White; there being also present a large assemblage, consisting of several ladies, members of the medical staff of the hospital and governors, and past and present pupils. The Chairman having opened the proceedings, Mr. Paget made an eloquent speech, in which he explained that the motives which had led to the presentation of the testimonial were—first, the desire to congratulate Dr. Burrows on the high position which he had reached in the profession, as being the President of the Medical Council; secondly, the wish on the part of his pupils to recognise their indebtedness to him as a teacher of professional knowledge, who, by example as much as by precept, had taught them how to learn, and who had moreover taught, by precept and example, the moralities and the mutual objects of the profession; and lastly, the desire to offer him a tangible and sincere expression of their friendship towards a most true friend. Mr. Paget then formally presented to Dr. Burrows the testimonial, which consisted of a large silver salver, a handsome time-piece with candelabra, and a portrait of Dr. Burrows. The salver and time-piece were each engraved with a simple inscription stating the occasion and date of their presentation. Dr. Burrows, in acknowledging the gift, expressed the gratification which he felt on finding that his retirement from the physicianship of the hospital, after thirty years' service, had not been attended with the destruction of the pleasing associations which he had formed. He felt deeply indebted to his friends for their kind expressions towards him; and if anything could have enhanced the value of these, it was the selection of Mr. Paget as their exponent. He (Dr. Burrows) trusted that when the present members of the staff retired, they might deserve and receive equal eulogy. The portrait, in the name of his wife and himself, he begged the Chairman to accept for the hospital; and would venture to express a wish that, as the portrait of one who had endeavoured to serve faithfully, it might be placed in the same room with those of Abernethy and Baillie. The other portions of the testimonial he would gratefully preserve, and hand down as heir-looms to his family. Mr. Foster White said that, on the part of the governors, he would accept Dr. Burrows' offer of his portrait, which should, as he wished, be placed in company with those of Pott, Abernethy, Lawrence, Vincent, and Baillie. A vote of thanks to the chairman ended the proceedings.

We readily admit that the position assumed by Mr. Napper, in reference to the gratuitous attendance of medical men at village hospitals, is fully warranted by unhappy custom; and we admit also that it is hardly to be expected gentlemen in the country should make a stand against a practice which is carried on by hospital physicians and surgeons throughout England. Glad, however, are we to find that Mr. Napper acknowledges the correctness of the principle for which we have so long striven. This is a great step in advance. The general admission by the profession of the principle involved will go far to bring about the desirable conclusion, the proper payment of medical men for services rendered. In other particulars, we most fully agree with the excellence of village hospitals. We have no doubt that they will not only be an immense blessing to the labouring population, and a great economy to the ratepayer; but we are satisfied they will tend greatly to raise in public estimation the skill of our brethren in the country districts. We trust, at all events, from Mr. Napper's letter, that gentlemen who become officers of these institutions will not consider their position satisfactory until they are duly rewarded for their labours. We are thoroughly convinced, as we have before said, that, if the public had the matter fairly and quietly laid before them, there would be plenty of persons found who would readily acquiesce in the reasonableness of medical men being paid for their work, as is every body else connected with medical charities.

The Egyptian Government has deputed Dr. Lautner Bey—an Austrian in the Egyptian service—as deputy to the Cholera Congress in Constantinople. Austria has not yet nominated a representative, says *Wiener Medizinische Wochenschrift*; and, from what we hear, no one of sufficient standing to bear part in such an inquiry is likely to be sent. It is said that some medical councillor has applied for the appointment, and probably may get it, as it will be of service to him to pass the winter in a milder climate.

Medical Baronets. The *London Gazette* of Tuesday contains a notice that the Queen has been pleased to direct letters patent to be passed under the Great Seal granting the dignity of a Baronet of the United Kingdom of Great Britain and Ireland, unto James Young Simpson, of Strathavon, in the county of Linlithgow, and of the city of Edinburgh, M.D., one of Her Majesty's physicians in Scotland, and the heirs male of his body lawfully begotten; also, unto Dominic John Corrigan, of Cappagh and Inniscorrig, in the county of Dublin, and of Merrion Square, in the city of Dublin, M.D., one of Her Majesty's Physicians in Ordinary in Ireland, and the heirs male of his body lawfully begotten.

Association Intelligence.

BRANCH MEETINGS TO BE HELD.

NAME OF BRANCH.	PLACE OF MEETING.	DATE.
NORTHERN. [Special.]	Library, Newcastle-upon-Tyne Infirmary.	Thurs., Feb. 8, 2 P.M.
BIRMINGHAM AND MIDLAND COUNTIES. [Ordinary.]	Medical Department, Old Library, Birmingham.	Friday, February 9.
NORTH WALES. [Intermediate.]	Dr. Turnour's Residence, Denbigh.	Friday, Feb. 23, 12 noon.

NORTHERN BRANCH.

A MEETING of the members will be held in the Library of the Newcastle Infirmary, on Thursday, February 8th, at 2 P.M., to consider the propriety of giving an invitation to the Association for the holding of the Annual Meeting in Newcastle in 1867.

G. H. PHILIPSON, M.D., *Hon. Sec.*

Newcastle-upon-Tyne, Jan. 24th, 1866.

METROPOLITAN COUNTIES BRANCH: ORDINARY MEETING.

THE first ordinary meeting of the Metropolitan Counties Branch, under the regulations agreed on last year, was held at 37, Soho Square, on Friday, January 26th, at 8 P.M.; E. H. SIEVEKING, M.D., President, in the Chair. There were also present twenty-one members, with Dr. Chowne and F. Ouvry, Esq., as visitors.

The minutes of the last annual meeting of the Branch were read and confirmed.

New Members. Dr. John Ford Anderson, of Buckland Crescent, Belsize Park, was proposed as a member of the Association by Dr. Stewart, Dr. Greenhow, and Mr. Heckstall Smith, and elected.

Dr. Druitt was elected a member of the Branch.

Paper. Dr. DRUITT then read a paper on Amendments in Sanitary Laws, which is published at page 133. A vote of thanks was unanimously given to Dr. Druitt for his paper.

Mr. JABEZ HOGG mentioned the instance of a locality, part of an estate belonging to the Foundling Hospital, in the parish in which he resided. Fever had there broken out; and the parish authorities had met with very great difficulty in obtaining sanitary improvements, in consequence of not being able to find the owner. He thought that the medical profession did not—perhaps because they could not—devote a sufficient amount of their time to public boards. In his parish there was a Sanitary Committee, which had the power of ordering improvements, unless when an expenditure of money was required, in which case the Board of Guardians must be consulted. He had found, as a member of the Board, that the greatest obstruction to sanitary improvements came from educated men—from lawyers. They had an excellent officer of health—Dr. Buchanan—who had drawn up some admirable regulations. It would much aid the sanitary committees of the parishes in their action, if the medical officers of health would agree as to the measures to be recommended. A combination of the sanitary laws, also, as advocated by Dr. Druitt, would also be very advantageous.

Mr. HECKSTALL SMITH (St. Mary Cray) thought the consolidation of the sanitary laws a matter of great importance and necessity. He would not like to be a lawyer, if he were required to understand them all in their present state. It was, however, a very different question whether local authorities in the rural districts should have more power than they possess at present. It was there often impossible to obtain men of sufficient weight and independence of motive to be entrusted with the powers mentioned by Dr. Druitt. A Board of Guardians can appoint sanitary committees from their own body, a part of such committee being *ex officio* guardians—magistrates. If the guardians fail to do this, a board in the first instance is constituted of the overseers and surveyors. But these are generally persons of no weight—men holding cottage property, in which the improvements are required, or tradesmen under the influence of the holders of such property. There must, if the suggestion of Dr. Druitt were carried out, be a distinction between the rural and the metropolitan districts. The disposition of the country magistrates towards sanitary matters was, in his experience, very different from that of the metropolitan as described by Dr. Druitt. They—the county magistrates—were always prepared to carry out the sanitary laws to their fullest extent. There was one important want—that of a central board, composed at least partly of medical men, independent of political party, and not necessarily going out of office with the Government, to which an appeal might be made from either side.

Dr. WEBSTER (Dulwich) said it was evident that there was too much dilatoriness and too little power on the part of sanitary authorities. He approved of Mr. Smith's suggestion of a central board, and would be glad to see a Minister of Health appointed. In the district in which he lived—Camberwell—there was an excellent officer of health (Dr. Bristowe) and an efficient sanitary committee; and no great difficulty was met with in carrying out such measures as were required. A simple notice was very commonly sufficient; and there were not the same impediments as were met with in the crowded courts and allies of London. There could be no question as to the importance of obtaining a consolidation of the laws, and greater power of prompt action.

Mr. LORD (Hampstead) said that for the last thirty or forty years the prevention of disease had occupied a chief place in his mind. It was not very easy to understand why so little benefit had resulted from sanitary measures; but the subjects brought forward for consideration by Dr. Druitt were highly important. In Hampstead—which would be supposed to be very healthy—much disease prevailed from time to time; but the attempts made to prevail on the Board of Guardians and the Vestry to carry out the necessary sanitary improvements were often in vain. He agreed with Mr. Smith, that it would be dangerous to give greater power to the vestries as at present constituted. Let the public be enlightened on sanitary matters, and let them elect enlightened men as members of their vestries; but do not give them more power. What was wanted, was a more coercive power over the local authorities.

Dr. CHOWNE concurred with Dr. Druitt, that condensation of the sanitary laws was advisable. But the subject was a difficult one, inasmuch as it was new, and therefore the machinery could scarcely be expected to work well at first. He had a high opinion of the medical officers of health. In some respects their position was enviable—being one in which they might gain for themselves high reputation. It could not be expected that the same laws would suit both metropolitan and rural districts.

Dr. SIBSON moved the following resolution—

"That it be referred to the Council of the Branch to consider whether any and what steps may be taken for the purpose of securing a recognition of a

Board of State Medicine as an integral part of the Legislature; and also what means may be adopted for obtaining a consolidation and amendment of the sanitary laws; and that the Council report at the earliest opportunity."

He had listened with much profit to the paper read by Dr. Druitt; than whom no one could better know the working of the acts relating to public health. Dr. Druitt's observations showed that a great deal had been done, and that the legislature had shown an enlarged spirit in regard to sanitary matters; but also that much still remained to be done. Much information had been brought out regarding the public health throughout the country; especially in places where labour is carried on with detriment to health, such as in the mining districts, and in the densely populated manufacturing towns. But the men who collected this information worked without a sufficient recognition, on the part of the public, of the value of their labours. To enable this work to produce its full result, it must come publicly under the notice of the legislature and of the country. Epidemics sometimes broke out, and could only be put down by sanitary measures; and he would like to see a central authority with power to carry out such measures in spite of the local authorities if these declined to act. He would not anticipate the decision which might be arrived at by the Council with regard to the consolidation of the sanitary laws; but he hoped that the Branch would act as quietly and determinedly as it had done with regard to the medical officers of the army and navy. In this way, he believed, the aid of the public and of the legislature would be obtained.

Dr. Stewart seconded the motion. It was a matter for congratulation that the subject had been so ably brought forward. He (Dr. Stewart) had provided himself with the sanitary acts of the present reign—the reign of sanitary legislation. Almost every subject had a special act of Parliament; how much better it would be to have one comprehensive and comprehensible act! In the autumn of last year he had been in a village in Hampshire, in which the drainage arrangements were in the highest degree defective—the only drain being a watercourse. He had obtained the acts with the view of aiding some of the inhabitants in an attempt to obtain improved drainage; but, after reading them, had been left in a state of utter confusion, and was only able to arrive at some meaning by erasing the repealed portions of the original Public Health Act. There were also several local government acts. And the provisions were so incomplete, that often the cooperation of two or more bodies was required to carry out a simple measure. For instance, one body in authority might make a drain; but it required the action of another to compel the inhabitants to use it. In the locality to which he referred, several of the inhabitants were willing to pay two-thirds or even three-fourths of the expense of the drainage, if the parish authorities would raise the remainder by a rate. Of this, however, there seemed no likelihood; and the principal obstructive was the surveyor. The Board of Guardians refused to act, and said that any householder might apply to the justices. He (Dr. Stewart) had consulted a high authority, and was told that a *mandamus* from the Court of Queen's Bench was the only mode of obtaining that which was denied. Rather than have recourse to this, those who were desirous of improving the sanitary condition of the place thought it might be better to carry out the drainage at their own expense. In London, there was the desire to act rightly; but want of power arose from the difficulties interposed by the prevailing action of the legal mind; and this showed the necessity of a body to which appeal could be made. If a separate board or ministry of health were appointed, it would necessarily take cognisance of a large number of subjects: such, for instance, as the pollution of running streams, sanitary measures in general, and the subject which was so ably brought forward by Dr. Symonds at the annual meeting of the Association, that of medical evidence in law courts. He believed that a ministry of public health was more likely to be constituted than one of education. He trusted that the consolidation of the sanitary laws would be carried out; and believed that, if the matter were urged by the medical body—if the Association and its Branches throughout the country would take it up with earnestness—the profession would have reason in a year to congratulate itself on the altered position of affairs. He made these remarks without reference to the possible advent of cholera; in which event, the extraordinary powers of the Privy Council would probably be renewed. The question of the removal of the dead and of the sick was a very important one; and he would refer especially to a paper lately published in the *Edinburgh Medical Journal* by Dr. Long Fox, in which that writer had shown that much of the mortality from fever in Bristol was preventable if proper measures of isolation could have been carried out. He would wish to see, in the case of epidemics, a regular system of house-to-house visitation, so as, if possible, to arrest the progress of disease.

Dr. Chowne considered that the subject under discussion could be most appropriately taken up by the Association, which was a British and not a merely local and metropolitan body.

Dr. Greenhow thought that the suggestion that greater power should be given to the local authorities was a very serious one, and that it would not meet with the sanction of the legislature. He agreed with previous speakers that the same amount of power could not be entrusted to the local authorities in the metropolitan and in the rurul districts. As to the consolidation of the laws, this was an important matter; but the difficulty was, to determine what laws should be consolidated. With regard to the establishment of a central authority, he reminded the meeting that the former Public Health Act had been repealed because of the objection of the people to centralisation. There would be certainly an advantage in having a central power; but the subject was attended with great difficulty.

Mr. Charles Hawkins would advise not to ask for more than was likely to be obtained. The Branch should take up subjects in regard to which they might bring their influence to bear on parishes—such as the provision of proper places for receiving cases of fever, cholera, etc. The general hospitals were not intended for the reception of such cases, as the public generally supposed. It was right enough to admit a few cases, such as those of domestic servants; but not to employ the general hospitals for the general reception of cases of infectious disease. The pressure on the Middlesex Hospital during the outbreak of cholera in Golden Square was well known. In one year, ending June 1865, there were admitted into St. George's Hospital, 167 cases of fever—42 from one parish, not being that in which the hospital was situated; 17 patients came from one street, and 13 from another. The result was, that 13 other persons in the hospital, including 6 nurses, had fever; and 2 died. He thought that the Council would do good by considering the subject of the erection of hospitals for the reception of cases of epidemic disease. A mere enlargement of the present Fever Hospital would not be sufficient; there should be at

least four large hospitals of the kind in different parts of London.

Dr. FitzPatrick would observe, with reference to the removal of patients, that in a service of twenty years in India he had always found the removal of persons suffering from cholera to be very dangerous to them. The healthy should be removed rather than the sick.

Dr. Druitt having briefly replied, the resolution was put to the vote and carried; and the meeting adjourned.

BATH AND BRISTOL BRANCH: ORDINARY MEETING.

The third meeting of the session was held at the York House, Bath, on Thursday, January 25th, 1866. R. W. Falconer, M.D., ex-President, in the Chair. There were also present thirty-three members and three visitors.

Papers. The following papers were read:

1. A Case of Renal Calculus. By Joseph Hinton, Esq. This paper is published at page 122.

2. Village Hospitals, and their Position with regard to County Infirmaries, Unions, and the Profession. By E. H. Swete, Esq. This paper led to an animated discussion, in which Messrs. E. Bush and Collins, and Drs. Tunstall, Davey, etc., took part.

3. The Cattle-Plague, with Observations made in this District. By Henry W. Freeman, Esq. This paper was much applauded; and Dr. W. Budd commenced a discussion, which was adjourned to the next meeting on account of the late hour.

Reports of Societies.

LIVERPOOL MEDICAL INSTITUTION.

Thursday, Jan. 11th, 1866.

A. B. Steele, Esq., Vice-President, in the Chair.

Broncho-Pneumonia in an Infant. Dr. Shearer read a Case of Broncho-Pneumonia in an Infant; death resulting instantaneously from occlusion of rima glottidis by plug of tenacious phlegm. T. M., aged 14 months, had been troubled with a bad cough for a fortnight, and more recently with what the mother called "heavy breathing", not croupy nor attended with the "kink" of chincough. He was relieved by emetics; so much so, that the day before and the day of his death he seemed comparatively well. At midday, on Wednesday, December 5th, 1866, he suddenly died without convulsion or croupy breathing; quietly, as if strangled from some internal cause.

Sectio Cadaveris. The posterior and dependent portions of the backs of both lungs, but especially of the left, were much engorged with blood, so as to be hardly crepitant; in the early stage, in fact, of pneumonic consolidation. Elsewhere the lungs were crepitant and healthy. The heart and abdominal viscera were healthy. Both primary bronchi, when cut across, exuded a quantity of viscid yellowish-gray purulent matter; a plug of which completely occluded the rima glottidis and extended for half an inch below it, as if the phlegm had travelled thus far in the act of expulsion by coughing, and there the strength failing, it acted as the bowstring or lasso from without or an impacted body from within the laryngeal tube. There was no foreign body impacted in the mouth or fauces, no false membrane in the trachea, nor any very evident thickening or congestion of the mucous membrane lining the windpipe. The epiglottis was perhaps slightly thickened; the vocal cords were covered with the viscid greyish-yellow mucopurulent matter before named, which completely stopped up the passage through them.

Mr. Barnes brought under the notice of the Society the operations that had been performed at the Liverpool Workhouse during three months.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, January 23rd, 1866.

James Alderson, M.D., F.R.S., President, in the Chair.

A CASE OF ACUTE UNCOMPLICATED MYOCARDITIS, IN WHICH THE DISEASE WAS DIAGNOSED DURING LIFE.

BY C. B. RADCLIFFE, M.D., F.R.C.P.

The case which formed the subject of this article was an example of acute uncomplicated myocarditis, or, in other words, acute inflammation of the muscular structure of the heart, without any inflammation of the endocardium or pericardium.

The patient was a fine, stout, strong, married man, middle-aged, a varnish-maker by occupation. For six weeks he had had occasional attacks of sharp pain at the pit of the stomach, and shooting thence into the left arm—attacks evidently of the nature of angina pectoris. In other respects, he thought himself well in health; and he was well enough to follow his daily work, and to get about with little or no discomfort up to the day before his death.

When seen for the first time (July 27th, 1865), the indications of the disorder evidently pointed to a very weak heart. The pulse was extremely feeble, and somewhat slow, but not irregular. The hands were cold and clammy—remarkably so. The first sound of the heart was absent. The cardiac impulse against the walls of the chest could not be felt. The second sound of the heart could be heard, but faintly only, and several times (in an examination extending over several minutes) it was distinctly reduplicated. There were no morbid sounds of any kind whatever. In the attempt to detect the cardiac impulse, the patient winced more than once, and complained of feeling sore and tender at the part. There was no arcus senilis; the arteries were to all appearance free from atheromatous deposits; and, in short, the only indications of physical disorder were those which have been mentioned. The first attack of pain happened at a time of sudden and severe mental trouble. Previously to this, the health had been in all respects excellent.

The patient was seen for the second time on the following day, and then he was dying. He was sitting awkwardly on the edge of a chair by the side of the bed, supported by his wife. On suggesting that his posture was a very uncomfortable one, he gasped out, "I must keep as I am—I dare not stir." He had been in this position for ten or twelve hours, literally without moving in the least. His face was pale and ghastly; large beads of sweat stood out on the forehead and went trickling down the face; his extremities, upper and lower, were clammy, and corpse-like as to paleness and coldness. The pulse at the wrist had failed altogether. His breathing was short, shallow, and gasping, and with it was a rattle of which the significance could not be mistaken. His mind was clear and collected. He complained of sickness, and said he knew that he was dying.

The history given of this sudden change was this:

that he got out of bed to pass urine in the middle of the night, after several hours' quiet sleep; and that, while up for this purpose, the pain at the pit of the stomach returned in an unusually severe form, with cold perspirations, and with a feeling of deadly faintness. For the next four hours, this pain continued without intermission, even without alleviation; and then it ceased suddenly, and the condition as suddenly changed to that which has been described.

The *post mortem* examination was made by Dr. Willis and Dr. Bazire twenty-four hours after death. In the cavity of the pericardium were nearly two ounces of serum, reddened by blood, but having no flakes of lymph in suspension. The pericardium itself presented no traces of inflammation, old or new; its visceral layer was intensely injected with ramifying capillaries filled with dark blood, but without ecchymoses, and elsewhere it was of the natural colour and character. The heart was dilated and flabby. The muscular structure of both ventricles, and in a lesser degree, of both auricles also, was soft and friable, of a mulberry-juice colour, almost black in fact, contrasting in this respect, in a very marked manner, with the natural redness of the muscles of the chest-walls. It broke down readily under the finger like hepatised lung. As seen with the naked eye, it did not appear to be fatty; but there were considerable deposits of fat about the exterior of the heart. The endocardium and all the valves were quite healthy, and so also was the aorta. The left ventricle contained some loose, very dark clots of semi-coagulated blood; and in the right ventricle were some fibrinous, but not decolorised, clots adherent to the walls. Upon lifting up the heart by a portion of the right ventricle, the muscular structure broke down, and tore like wet paper by the weight of the heart itself. Unfortunately, no microscopic examination was practicable.

The grounds upon which the diagnosis was made were in the main these. The history of the disease seemed to point to acute rather than to chronic disease; to begin suddenly in a way which suggested the idea of a "broken heart." There was no sufficient reason to suspect pericarditis or endocarditis, for there were none of the morbid sounds which mark the presence of these inflammations. So far seemed plain enough. It seemed, moreover, that the main symptoms were easily explainable on the supposition that the muscular structure of the heart had been attacked by inflammation. Inflammation of the muscular structure of the heart, as a matter of course, would weaken the muscular powers of the structure, and this weakening would account for that failure in the action of the heart which was the most prominent symptom. Moreover, the same weakening would carry along with it, if sufficient in degree, absence of the first cardiac sound, and absence likewise of the usual cardiac impulse. Nay, it seemed as if the symptoms present—sudden failure in the action of the heart, with loss of its first sound and of the impulse of the apex, with some tenderness on pressure in the intercostal spaces in the cardiac region, with some pain, but without the severe pain of pericarditis, without the morbid sounds of pericarditis or endocarditis, and without arcus senilis, atheromatous vessels, or other signs, good or bad, to point to common fatty heart—were all the symptoms and signs one had a right to expect in inflammation of the muscular structure of the heart. At any rate, it was on these grounds, be they sufficient or insufficient, that the diagnosis was made; and it was this diagnosis which led to the *post mortem* examination, for if it had not been so, the body—such was the opposition of the friends—would have gone to the grave unexamined.

The PRESIDENT objected to the coinage of new words for cases of disease, and thought that in the case just read, carditis would have been a sufficiently distinct term.

Dr. RADCLIFFE referred to Dr. Stokes as his authority for the word he had used, "myocarditis."

Correspondence.

MORTALITY AFTER OVARIOTOMY.

SIR,—Mr. Baker Brown has favoured us with his view of the *Standard's* puff of the *Surgical Home*. Perhaps he will also favour us with his view of his own statement about the results of ovariotomy in the Home, compared with the results obtained by Mr. Spencer Wells in the Samaritan Hospital. Mr. Brown says, in the last Report circulated among his subscribers, speaking of his success in ovariotomy: "No institution in the world can show a greater amount of success than we can." Now, according to his own statement at page 16 of the wonderful Report, and a recent Report of Mr. Wells's cases in the Samaritan Hospital, the success in the two institutions is as follows.

Home—Cases, 51; cures, 33; deaths, 18; mortality per cent., 35.

Hospital—Cases, 75; cures, 54; deaths, 21; mortality per cent., 28.

A "greater amount of success" by seven per cent. seems a pretty conclusive reply to the boast which is scattered broadcast over the country. Only nobody takes the trouble to reply to such things, and so they are believed. I am, etc., STATIST.

VILLAGE HOSPITALS.

LETTER FROM ALBERT NAPPER, ESQ.

SIR,—In your last issue, you again speak encouragingly of our little institutions, the village hospitals, and again ask the question, "Why is the doctor to do the work of them without pay?" and further, "Here is assuredly a very great opportunity which the profession might well avail itself of, and discuss with the public the unreasonableness of gratuitous medical services." Now, sir, I cannot concur with you that this is a propitious opportunity of discussing the subject with the public, however much I may and do concur with you in the correctness of the principle you are so strenuously advocating. Were we (and I have the gratification of stating that I am acting in concert with other gentlemen who take as deep an interest in the subject as myself) simply actuated on the mercenary principle of £ *s. d.*, we might have been induced to have risked our success upon the terms you advocate; but we are playing a much higher game. We are not only advocating the cause of the poor in this movement, but at the same time that of the great body of provincial practitioners, who have long felt that they did not occupy the position in the confidence of the public to which they were entitled. We hope, by means of these institutions scattered freely through the provinces, to have the opportunity of showing ourselves worthy of their confidence; and, when we reflect that *all* the *great* institutions of the kind throughout the kingdom are attended *gratuitously* by the leading members of the profession, it would have been an act of suicidal policy on our part to have followed advice which must have proved fatal to the whole undertaking. The system, however faulty it may be in principle, that has placed at the head of the profes-

sion such men as Cline, Cooper, Travers, Brodie, Fergusson, and others of equal eminence, is not to be lightly set aside by provincials, whose aspirations may be more humble, but not less earnest.

Do not, sir, suppose I have any fault to find with the general tenour of your remarks. I argue only that they are ill-judged as applied to a normal and universally admitted to be most desirable institution, which has had, without this, sufficient difficulties to contend with. I believe the time is coming when your views will be generally adopted; and that the practice established by these hospitals, of requiring payment by the patient, will open the way to the payment of the surgeons. On this subject I could say a good deal, but will not now trespass further on your space. I am, etc., ALBERT NAPPER.

Cranley, January 24th, 1866.

MEDICAL BARONETS.

LETTER FROM H. L. MAYSMOR, M.D.

SIR,—In your list of medical and surgical baronets, a few omissions seem to have been made. Will you, therefore, be kind enough to insert the following additional names at your earliest convenience?

Sir Alexander Bannerman, Bart., M.D., (d. 1770).

Sir Thomas Baynes, Bart., M.D. (d. 1681).

Sir William Duncan, Bart., M.D., Physician to George II or III (living in 1754).

Sir William Dundas, Bart., M.R.C.S., b. 1777 (dead).

Sir George Hampson, Bart., Physician (d. 1724).

Sir John Otto Helwig, Bart., (d. 1678). Created a baronet by Charles II. (Foreigner.)

Sir Richard Jebb, Bart., M.D., Physician in Ordinary to George III (b. 1729, d. 1787).

Sir Thomas Molyneux, Bart., Physician-General to the Army in Ireland (b. 1661, d. 1733).

Sir Henry Northcote, Bart., M.D. (b. 1655, d. 1729-30).

Sir George Leonard Staunton, Bart., M.D. (b. 1737, d. 1810).

Sir James Stonhouse, Bart., M.D. (b. 1716, d. 1795).

Sir Clifton Wintringham, Bart., M.D., Physician to George III (d. 1794).

Sir William Fergusson, Bart.

Sir James Young Simpson, Bart., M.D.

Probably other medical men have been created baronets; and it must be remembered, that several medical men have been *offered* a baronetcy, but have *declined* the honour.

With respect to the name "Greaves", I do not think it probable that two medical baronets of that name should have lived at about the same time; and therefore I cannot say whether the Christian name should be *Richard* or *Edward*. I find the following account of Sir Edward Greaves in the *Imperial Dictionary of Universal Biography*.

"Greaves, Sir Edward, a learned physician of the seventeenth century. He belonged to a learned family, being the son of the Rev. John Greaves, rector of Colmore, and the most eminent schoolmaster in Hampshire. Edward, the youngest of four brothers, all distinguished for learning, was born at Croydon, and was admitted probationer Fellow of All Souls College in Oxford in 1634. He took the degree of M.D. in 1641, and from that time practised with success in Oxford. In 1643 he was elected lecturer of physic on the Linacre foundation, and was appointed, together with Dr. Walter Charleton, to be travelling physician to Charles I. The king's misfortunes having obliged Greaves to leave Oxford, he practised in London, and sometimes in Bath. On October 1st, 1657, he was elected a Fellow of the College of Physicians. After the Restoration, he was appointed physician in ordinary to King Charles II, who made him a baronet. He died in London, November 11th, 1680. He was the author of *Morbus Epidemicus, Ann.* 1633, 4to, Oxford, 1643; and of a Harveian oration."

Apologising for taking up your valuable space,

I am, etc., H. L. MAYSMOR.

33, Mornington Road, N.W., January 17th, 1866.

[We are much obliged to our correspondent for his additions to our list, and must acknowledge that we have to add to those already given *Sir Thomas Molyneux*, 1730; *Sir William Duncan*, 1764; *Sir Clifton Wintringham*, 1776; and *Sir Richard Jebb*, 1778. It must be borne in mind, however, that we only intended to give those who had been created baronets whilst practising medicine. Sir Alexander Bannerman (if he were a physician), and Sir George Hampson, Sir Henry Northcote, Sir James Stonhouse (who eventually took orders), and Sir William Dundas, were not made baronets, but all succeeded to family baronetcies. Sir George Staunton, it is true, graduated as an M.D., but was afterwards called to the bar; and he was created a baronet for services in China unconnected with the profession of medicine. The same may be said of Sir Robert Wigram, who in early life was a surgeon in the Indian naval service, but made a colossal fortune in trade, and was founder of the great shipbuilding firm of the present day. He was made a baronet as a colonel of volunteers. So also Sir Hutton Cooper, who was made a baronet after he retired from practice as a surgeon, for services perfectly unconnected with his profession. Of Sir Thomas Baynes and Sir John Helwig we can find no account in the present baronetage, nor in Burke's history of extinct ones. Perhaps Dr. Munk may be able to give us information on this subject. EDITOR.]

SIR,—I have read with much interest your remarks on the disposal of honours among medical men. Your very just remarks relative to Dr. Watson and Mr. Lawrence lead me to consider those who really have advanced the science of medicine; and it is singular, in the list you give of medical men who have been made baronets, how small a number, comparatively speaking, can be placed among that class. How few of those names will you find in the catalogues of medical libraries, or in the transactions of learned societies! I think no one can doubt that other qualifications than purely scientific eminence have influenced, and I conclude always will influence, those who have the disposal of honourable distinctions. In thinking over this subject, a crowd of names occurred to me who have *not been made baronets.* I give a few *currente calamo:* Sydenham; Harvey; Mead; Radcliffe; Arbuthnot; the Hunters; the Monros; the Bells; Darwin; Fordyce; Cullen; Latham; Baillie; Jenner; Pemberton; Heberden; Warren; Young; Wollaston; Pitcairn; Marcet; Marshall Hall; Cheselden; Pott; Abernethy; Cline; Denman; Gooch; Prout; Bright; Travers; Green; Liston; Graves; Carmichael: *et id omne genus.* I think, on comparing the two lists, the friends of Mr. Lawrence and Dr. Watson would be content to let their memories dwell along with the list I have given.

I am, etc., SENEX.

POOR-LAW MEDICAL REFORM.

LETTER FROM RICHARD GRIFFIN, ESQ.

SIR,—I shall feel obliged by your giving insertion to the annexed list of names of gentlemen who have forwarded their subscriptions towards the funds of the Association. I would willingly at once apply to the Poor-law Board, and ask their consent to receive a deputation; but I fear that the reply might be: "There is no proof now that any great body of the present medical officers are dissatisfied with their position." If, however, 500 medical men should answer the appeal which Mr. Prowse has made to them, then I should feel justified in at once taking active measures, either by a deputation to the Poor-law Board or by a Bill in Parliament.

I am, etc., RICHARD GRIFFIN.

Weymouth, January 29th, 1866.

List of subscriptions sent to Mr. Prowse of Amersham: J. Blackshaw, Stockport, 5*s.*; W. A. Buée, Eton, 5*s.*; W. F. Brooks, Wye, 10*s.*; John Bowes, Blean, 10*s.* 6*d.*; W. Clark, Epsom, 10*s.* 6*d.*; J. Wilton, Ash, 10*s.* 6*d.*; R. O. Blythman, Rotherham, 10*s.*; W. C. Arnison, Hexham, 7*s.* 6*d.*; W. Montgomery, Haltwhistle, 5*s.*; Hewitson, Hexham, 7*s.* 6*d.*; J. Chapman, Brentford, 20*s.*; Brodie, Bellingham, etc., 5*s.*; B. E., 10*s.* To Mr. Griffin: E. C. Buckoll, Radford, 5*s.*; F. Turtle, St. George-in-the-East, 5*s.*; J. Taylor, Banbury, 5*s.*; G. M. Ashworth, Oakham, 5*s.*; P. Dicken, Ashby-de-la-Zouch, 5*s.*; T. O. Walker, Towcester, 5*s.*

OUR PORK. At Lancaster, last week, an inquiry was held before the Mayor concerning the sale of bad pork. Mr. Bromley, a veterinary surgeon of thirty years' practice, said: "I went to defendant's slaughter-house. I saw four pigs there which were suffering from epizootic disease. They were very lame, scarcely able to stand, frothing at the mouth, 'champing', and there was a separation of the soles from the hoofs. Small vesicles were visible on various parts of the body, discharging a watery serum. There were one or two purple patches on the back of one. They were decidedly not in a fit state to be slaughtered for the food of man." Mr. Read said he was a meat and cattle inspector of Liverpool; he had heard of the condition of the pigs, and should have passed them by. "I should have chopped the feet off, and no man living could have told them. The disease is chiefly amongst Irish pigs. I never seized a pig in this disease." William Taylor, an inspector of meat and cattle at Manchester, said: "I continually pass pigs in the foot and mouth disease as fit for food. This disease has been known more than twenty-five years. Take the feet and tongue away, and no man on earth can tell them. I never knew pigs in this disease seized at Manchester. I saw some at Manchester in this disease the last market-day, and they were passed by the inspector. I have seen a great quantity of this kind of meat, and it is considered satisfactory at Manchester." Jas. Stones, pork butcher, had "seen Irish pigs so bad in the foot and mouth diseases that they could not walk, and we have had to cart them. While in this condition I consider they are fit for food." Other witnesses gave evidence to the same effect. They all admitted that animals in the state mentioned by Mr. Bromley would be unfit for food; but all said they had never seen pigs so suffering. They were unanimous in the opinion that the foot and mouth disease does not injure the meat.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND. The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at a meeting of the Court of Examiners, on January 23rd.

Bousfield, Edward, Mansfield, Notts
Chambers, Frederic Evans, Camden Town
Chiappini, Antonio Lorenzo, M.D.Edin., Cape of Good Hope
Earle, Frederick, Edgeware
Edgelow, George, Kensington Square
Ennals, Charles Thomas, St. Neots
Ewen, Algernon, Long Sutton
Haslam, James, Reading
Horne, Edward, Isleworth
Legg, John Wickham, Alverstoke, Hants
Lloyd, Ridgway R. S. C. C., Bury St. Edmunds
Major, Napoleon Bisdee, Hungerford
Manby, Frederic Edward, East Rudham, Norfolk
Melson, John Waller, B.A.Lond., Birmingham
Molyneux, John Lea, Wigan
Muriel, George John, Ely
Plaister, William Henry, Bristol
Shaw, Henry Lissmore, South Mimms
Wood, Herbert, Ashton-under-Lyne

Admitted on January 24th—

Ackroyd, George, Leeds
Bradshawe, Paris, King's College
Eaton, John Chamberlin, Ancaster
Ellis, William Henry, Willingham, Cambridgeshire
Farr, Arthur John, Newport, Monmouthshire
Hewetson, Richard, Bayswater
Hunt, Frederick Everard, Shortlands, Kent
Jackson, Arthur, Sheffield
Lawrence, John, Clifton
McWilliams, Joseph McCarogher, Omagh
Mountain, William John, Leeds
Nolan, William, M.B. Trin. Coll. Dub., Athboy
Percival, Thomas, Leeds
Ransford, James Inglis, Sydenham
Ridley, Herbert, Newcastle
Royds, William Alexander Slater, Bedford
Simpson, John Henry, Fore Street
Smith, Henry Cecil, Bayswater
Tayler, George Christopher, Trowbridge
Wadd, Frederick John, M.B. Univ. Aber., Kilburn
Ward, John Bywater, Leeds
Wright, William Evatt, Brixton

Admitted on January 25th—

Budd, Herbert Goldingham, Worcester
Buhôt, William Ifill, M.D. Jeaff. Coll. Pennsylvania, Tobago, West Indies
Bushell, Stephen Wootton, Brixton
Diver, Thomas, M.D.
Gordon, Henry Pelham, Queensland
Hussey, John Fraser, Salisbury
La Mert, Israel John, Albemarle Street

Naval Surgeons. At a meeting of the Court of Examiners, on January 25th, the following assistant-surgeons in the Royal Navy passed their examinations for full surgeons in that department of the public service.

Colquhoun, Archibald Grant, L.S.A., Royal Marine Infirmary, Woolwich; diploma of membership dated July 30, 1861
Curtis, George, Haslar Hospital, a Licentiate of the Royal College of Surgeons, Ireland; May 20, 1861
McMorris, Robert James (half-pay); May 16, 1859
Yarde, William, M.D. St. And., Her Majesty's ship *Industry*, Woolwich Dock Yard; July 3, 1857

APOTHECARIES' HALL. On January 25th, 1866, the following Licentiate was admitted:—

Pearson, Henry, Manchester

At the same Court, the following passed the first examination:—

Hall, Richard Strange, Manchester
Thurston, William French, Guy's Hospital

APPOINTMENTS.

ARMY.

HOYSTED, Assistant-Surgeon Isaac, 8th Foot, to be Assistant-Surgeon 13th Foot, *vice* J. Stuart.

SMALL, Surgeon John, 13th Foot, to be Surgeon-Major, having completed twenty years' full-pay service.

STUART, Assistant-Surgeon John, 13th Foot, to be Assistant-Surgeon 8th Foot, *vice* I. Hoysted.

ROYAL NAVY.

BROSTER, Edward B., Esq., Assistant-Surgeon (additional), to the *Boscawen*, for service in the *Ferret*.
COLAHAN, Thomas M., Esq., Assistant-Surgeon, to the *Victory*.
GREENFIELD, Charles B., Esq., Acting Assistant-Surgeon, to the *Topaze*.
JAMESON, Thomas, M.D., Assistant-Surgeon, to the *Topaze*.
O'MALLEY, James N. J., Esq., Surgeon, to the *Star*.
PALMER, John L., Esq., Surgeon, to the *Topaze*.
RYALL, William F., Esq., Assistant-Surgeon, to the *Achilles*.
SHAW, Doyle M., Esq., Surgeon, to the *Octavia*.
THOMPSON, J., M.D., Staff-Surgeon, to the *Fisgard*, flagship at Woolwich Dockyard.

VOLUNTEERS, (A.V.=Artillery Volunteers; R.V.=Rifle Volunteers):—

ALFORD, H. J., M.B., to be Honorary Assistant-Surgeon 3rd Somersetshire R.V.
AXFORD, R., Esq., to be Honorary Assistant-Surgeon 5th Somersetshire R.V.
CHATER, S., Esq., to be Surgeon City of London Rifle Volunteer Brigade.
WALKER, H. J., Esq., to be Surgeon 1st Yorkshire Engineer Volunteers.

BIRTHS.

BATT. On January 27th, at Clapham, the wife of Edward Batt, M.D., of a son.
BIGGS. On January 25th, at Springfield, near Tooting, the wife of J. Strange Biggs, M.D., of a son.
DIVER. On January 23rd, at Penge, Surrey, the wife of Ebenezer Diver, M.D., of a daughter.
FULLER. On January 26th, at 13, Manchester Square, the wife of *Henry W. Fuller, M.D., of a daughter.
HACKETT. On December 17th, 1865, at Berbice, British Guiana, the wife of J. C. Hackett, M.D., of a son.
HARRIS. On January 24th, at Reigate, the wife of *Henry Harris, Esq., of a son.
HOUGHTON. On January 26th, at Mount Street, Grosvenor Square, the wife of Henry G. Houghton, M.D., of a daughter.
HOVELL. On January 27th, at Clapton, the wife of D. De Berdt Hovell, Esq., Surgeon, of a son.
MAY. On January 29th, at 41, Sloane Square, the wife of A. S. May, Esq., Surgeon, of a son.
NICHOLAS. On January 29th, at Wandsworth, the wife of George E. Nicholas, M.D., of a son.
TWYFORD. On January 24th, at St. Helen's, Lancashire, the wife of *Edward P. Twyford, M.D., of a daughter.

MARRIAGES.

HAMMOND, Charles, Esq., L.R.C.P., to Amelia, eldest daughter of Thomas HAWKINS, Esq., of Hampstead, on January 24.
*MAUDSLEY, Henry, M.D., of Queen Anne Street, to Anne Caroline, youngest daughter of *John CONOLLY, M.D., D.C.L., of Hanwell, on January 30.
PARK, George, M.D., Army Medical Staff, to Christian, youngest daughter of the late P. WILLIAMSON, Esq., of Craigbank, Aberdeenshire, at Aberdeen, on January 24.
WATSON, William Spencer, Esq., Surgeon, of Montague Street, Russell Square, to Georgina Mary Jane, eldest daughter of George J. J. MAIR, Esq., of Upper Bedford Place.

DEATHS.

EVANS, William Henry, Esq., Surgeon, at St. Alban's, aged 53, on January 28th.
GRIFFITH, Richard J., Esq., Surgeon, at 15, Adelaide Road South, Hampstead, aged 79, on January 25.
GRUGGEN. On January 23rd, at Woodcroft, near Liverpool, Emma Sarah, wife of William J. Gruggen, M.D.
HALL, Sir John, M.D., K.C.B., Inspector-General of Hospitals, at Pisa, aged 72, on January 17.
WALKER, William G., Esq., Surgeon, late of Brill, Bucks, at Oxford, aged 46, on January 24.
WRIGHT, George E., M.D., Assistant-Surgeon H.M.S. *Rattlesnake*, of fever, at Sierra Leone, aged 24, on December 24, 1865.

SMALL-POX is very prevalent at Paris.

THE HOMŒOPATHIC CATTLE-PLAGUE EXPERIMENTS at Newcastle-on-Tyne have been a complete failure.

DR. MURRAY, physician to the Fever Hospital at Newcastle, has contracted fever there, but is now happily recovered.

ROYAL COLLEGE OF SURGEONS. It is stated that, out of the fifty-six candidates who have been undergoing their examinations at the College during the past three days, only eight were referred back to their studies for six months.

DR. PROTHEROE SMITH. It has been hinted that Dr. Protheroe Smith is to receive the honour of knighthood.

PHARMACEUTICAL ETHICS. Mr. Ince is about to write a treatise on Pharmaceutical Ethics, at the instance of the Pharmaceutical Conference.

DR. OPPOLZER of Vienna has inflammation of the lungs; but Dr. Skoda does not consider him to be in any imminent danger.

DR. WILLIAM A. HAMMOND, late Surgeon-General, United States Army, has gone to Europe in charge of a grandson of the late John Jacob Astor of New York.

CATTLE-PLAGUE. Dr. Mapother, Dr. Tucker, Dr. Foot, and Dr. Hayes, have been appointed by the Lord Lieutenant of Ireland to proceed to London and inquire and report upon the cattle-plague.

THE PROFESSION IN PERU. The *Medical Times and Gazette* says that there are but two hundred legally qualified medical men in Peru; and that charlatans there reap a splendid harvest. Where do they not reap richly?

VOMIT OF YELLOW FEVER. In specimens of the vomit (says Mr. J. Hogg) from the yellow fever, sent to me from Bermuda, I found a large admixture of spores and torulæ, with altered blood-corpuscles and disintegrated epithelial scales.

MR. FAULL, the medical officer who was drowned in the *London*, had been once assistant medical officer at Colney Hatch Asylum. His age was only 37. He had several times been to Australia in Messrs. Wigram's ships.

THE ROYAL COLLEGE OF PHYSICIANS have been applied to by the Committee of Council on Education, and have agreed to contribute to the National Portrait Exhibition for 1866 a number of the very valuable portraits hanging on the walls of the College in Pall Mall.

CONVICTION FOR SELLING ADULTERATED WINE. A wine merchant in France was lately fined £20 and imprisoned for a year, for selling wine into which a quantity of litharge had been put. Three persons, it is said, had been killed, and several paralysed, who had drunk it.

THE HUNTERIAN MUSEUM. The Council of the Royal College of Surgeons of England has sent complete sets of the illustrated catalogue of the museum to the libraries of our metropolitan and provincial hospitals desirous of possessing the works of Owen, Quekett, Taylor, Flower, etc.

DEATHS IN THE AMERICAN ARMIES. The War Department computes the number of deaths in the Union armies since the commencement of the war at 250,000, and that of the Southern soldiers at least 225,000, making at least 475,000 lives that have been lost. At Gettysburg, 23,000 Union soldiers were killed, wounded, or taken prisoners. General Grant's losses, from the time he crossed the Rapidan until Lee's surrender, were about 90,000.

UNIVERSITY OF CAMBRIDGE. The Board of Medical Studies has issued a report recommending alterations in the regulations for degrees in medicine and surgery, of which the most important is a rearrangement of the examinations, so that the subjects of the first examination shall be—Chemistry, with Heat and Electricity, Botany, the Elements of Comparative Anatomy, Human Anatomy, and Physiology; and those of the second examination shall be—Pharmacology, Pathology, and the Practice of Physic, Clinical Medicine, and Medical Jurisprudence.

Mr. Syme and the Medical Baronetcies. There is a feeling of regret at Mr. Syme being passed over (if he has been) for surgery. No one has during this or any other century done more to make surgery one of the exact sciences, or had a greater influence over his professional brethren in all parts of the world. Earl Russell has nothing to do with professional squabbles; and these once lost sight of, who has earned a prouder place as a scientific and practical surgeon than the clinical professor of Edinburgh? (*Medical Press.*)

Death from using an Œsophageal Bougie. A young man, twenty-one years of age, who had suffered for eighteen years from constriction of the gullet, caused by swallowing a liquid called "black ash," lately became an inmate of the hospital at Geelong, and had found such considerable relief, that he was almost in a condition to leave the hospital. One morning, however, he passed a bougie down the gullet, one somewhat larger than he was in the habit of using, and the consequence was a puncture of the lung and other injuries, from which he met his death. The jury returned a verdict in accordance with the medical evidence. (*Australian Med. Jour.*)

Odontological Society. The annual general meeting of the Odontological Society was held on January 8th, at 32, Soho Square; the President (Mr. Thomas Rogers) in the chair. Notice had been given by the Council of proposed alterations in the laws and bye-laws of the Society; a long discussion took place, and the matter was referred back to the Council for reconsideration. The following gentlemen were elected as Council and officers of the Society for the ensuing year. *President*—W. A. N. Cattlin, Esq. *Vice Presidents—(Resident)* W. Imrie, Esq.; W. Perkins, Esq.; G. A. Ibbetson, Esq.; James Parkinson, Esq.; H. J. Barrett, Esq.; (*Non-resident*) S. Tibbs, Esq. (Cheltenham); Dr. Roberts (Edinburgh); R. H. Moore, Esq. (Dublin); C. Bromley, Esq. (Southampton). *Treasurer*—Arnold Rogers, Esq. *Librarian*—J. B. Fletcher, Esq. *Honorary Secretary—(Ordinary)* J. Drew, Esq.; (*for Foreign Correspondence*) Thomas Underwood, Esq. *Councillors—(Resident)* H. T. Kempton, Esq.; R. T. Hulme, Esq.; G. Owen, Esq.; A. Hill, Esq.; S. Cartwright, Esq.; E. J. Winterbottom, Esq.; J. Saunders, Esq.; F. Weiss, Esq.; R. Hepburn, Esq.; W. A. Harrison, Esq.; J. Tomes, Esq.; (*Non-resident*) S. L. Rymer, Esq. (Croydon); W. Hunt, Esq. (Yeovil); J. A. Baker, Esq. (Dublin); T. R. M. English, Esq. (Birmingham); J. King, Esq. (York); N. King, Esq. (Exeter).

United States War Hospitals. It appears that at the *maximum* there were 202 general hospitals, with 136,894 beds for patients. During the war over a million patients were treated in these, of whom but one in twelve died. Dr. Woodward says never before in the history of the world has the mortality in military hospitals been so small, and never have such establishments so completely escaped from diseases generated within their walls. Incomplete reports for the first year of the war from troops in the field and in garrison represent an average strength constantly present during the year, of 281,117 men; in hospital, constantly present, 9,759 men; total, 290,936, among whom were 14,183 deaths from disease. The number of deaths recorded is much less than the real number, and does not include prisoners of war and other absentees. For the second year, in field and garrisons, 598,821; in hospitals, 45,687: total, 644,508, of whom there were 42,010 deaths from disease. These mortality rates from disease are much smaller than is usual with armies in time of war, and are proportionately much less than those of the allied armies in the Crimea, or of our own army in the Mexican war. The proportion of deaths from disease for the third and fourth year was rather diminished. (*New York Times.*)

Poisoning by Essence of Bitter Almonds. Miss M'Kenzie, a young lady, 24 years of age, lost her life through incautiously drinking some essence of bitter almonds. Miss M'Kenzie had been a great sufferer from pains in her head at intervals for years, and when fearing the recurrence of such attacks had been in the habit of taking opiates for the purpose of producing sleep. On the evening of October 13th, having retired to rest, she felt the dreaded pains coming on, and being without her usual medicine, drank the essence referred to. Death ensued in about half-an-hour. (*Australian Medical Journal.*)

Scientific Baronets. We wonder whether those who select the recipients of these honours ever heard of the scientific researches of Mr. Thomas Graham, doubtless well known to them as Master of Her Majesty's Mint. It is long since a chemical baronet was created—a distinguished one has inherited the title—and Dr. Faraday, we believe, declined it; but certainly, if any scientific Englishman of the day merits the honour, Mr. Graham does. The discoveries which have made him famous in the scientific world were not skimmed from the surface of the ground in the course of more or less agreeable travels, and productive of little good when made. They represent years of patient labour and research, and are pregnant with most important consequences. (*Chem. News.*)

Mortality in Dublin in 1865. One hundred and sixty-five violent deaths were registered in the Dublin district during 1865, and 180 in 1864. Fever proved fatal in 526 instances, or 1 in every 15.5 of the total deaths from all causes. The number of deaths from this disease in 1864 was 395. Scarlatina was the cause of 100 deaths, 47, or nearly one-half, of which took place in the last quarter, and principally occurred in the Kingstown district. 71 deaths resulted from small-pox during 1865, of which 30 occurred in the first quarter, 33 in the second, 7 in the third, and only 1 in the last quarter. Measles carried off 164 children, and in 1864 only 12. Diarrhœa caused 314 deaths. The number of deaths from diarrhœa in 1864 was 205, from cholera 4, and from dysentery 45.

Charge of Manslaughter against a Surgeon. At an inquest held last week at Middlesborough, on the body of a man who after long suffering from confirmed urethral stricture, died of rupture of the urethra, and extravasation of urine into the perineum, the jury brought in a verdict equivalent to manslaughter: viz., "That the death of deceased has been caused by extravasation of urine through want of proper caution and competent skill on the part of Mr. Simpson, and it is to be regretted that Dr. Richardson did not take an opportunity of seeing the deceased earlier. Bail was accepted; two sureties of £50 and himself in £100. The case was evidently one of great difficulty to treat; and nothing could justify a verdict of this kind, in such a case, except the most overwhelming evidence against the medical attendant. The grand jury will, we have no doubt, do quick justice to the inquest verdict. At the subsequent meeting of the Stockton Guardians, the Chairman called attention to the case of manslaughter against the assistant of one of their medical officers. Mr. Fallows said it was the case of a man who was living at a public house in Middlesborough. Application was made to the relieving officer for medical attendance, and Mr. Richardson sent his assistant, Mr. Simpson. The man died, and a question arose

as to the treatment. He would suggest that the matter should be referred to the Middlesborough committee. Mr. Richardson said he would second the motion. He was present at the inquiry on behalf of his brother, and he was convinced there was nothing at all in the charge. The Chairman—Then why bring in such a verdict? Mr. Richardson—It shows the absurdity of appointing an attorney as a coroner. The case will get stopped by the grand jury, and will never go before another jury. He had no hesitation in saying Mr. Simpson had merely done his duty.

ST. MARY'S HOSPITAL MEDICAL SOCIETY. A meeting of the medical officers and students of St. Mary's Hospital was held on January 10th; Dr. Sibson in in the chair—relative to the formation of a medical society. A committee was formed to draw up a code of laws to submit to next general meeting, which was held at St. Mary's Hospital on January 20th; Dr. Sibson in the chair. The committee read their report, recommending that the society be called "St. Mary's Hospital Medical Society"; that it should have for its objects—the exhibition of pathological specimens; the reading of clinical cases; also, the reading and discussion of papers connected with medicine, surgery, and the collateral sciences; that the meetings should be held on the first and third Wednesdays in each month of the winter and summer sessions, at eight o'clock in the evening. The following gentlemen were elected as officers of the Society. *President*—Dr. Sibson. *Vice-Presidents*—Dr. H. Jones, Dr. Sieveking, Mr. Gascoyen, and Mr. Norton. *Treasurer*—The Dean. *Secretaries*—Mr. Ockenden and Mr. Wood. *Council*—Messrs. Austin, De la Ferté, Hill, Juler, Lewin, Mahon, Owen, Pratt, Parsons, Randall, Staveley, Sewell, and Wright. The first meeting of the Society was held on the 24th ultimo, when a paper on Empyema was read by Dr. Sibson.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....Metropolitan Free, 2 P.M.—St. Mark's for Fistula and other Diseases of the Rectum, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TUESDAY. ....Guy's, 1½ P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.

WEDNESDAY...St. Mary's, 1 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.

THURSDAY.....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Great Northern, 2 P.M.—London Surgical Home, 2 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.

FRIDAY.....Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

SATURDAY.....St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1·30 P.M.—Charing Cross, 2 P.M.—Lock, Clinical Demonstration and Operations, 1 P.M.—Royal Free, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY. Epidemiological Society, 8 P.M. Mr. J. N. Radcliffe, "On Recent Outbreaks of Bilious Remittent Fever in France"; and "On the Epidemic Remittent Fever of Bengal."—Medical Society of London, 8 P.M. Clinical Discussion; and a paper by Mr. W. F. Teevan, "On Lithotomy."—Odontological.

TUESDAY. Pathological Society of London, 8 P.M.—Anthropological Society, 8 P.M.

WEDNESDAY. Obstetrical Society of London, 8 P.M. Dr. Snow Beck, "On Enlargements of Uterus, etc."; Dr. Sansom, "On the Anæsthetic Properties of Bichloride of Carbon"; and other Papers.

TO CORRESPONDENTS.

*** *All letters and communications for the* JOURNAL, *to be addressed to the* EDITOR, 37, *Great Queen St., Lincoln's Inn Fields, W.C.*

COMMUNICATIONS.—To prevent a not uncommon misconception, we beg to inform our correspondents that, as a rule, all communications which are not returned to their authors, are retained for publication.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

MEDICAL PROVIDENT SOCIETY.—The following names were accidentally omitted last year from the list of donations from the North Wales Branch to the Auxiliary Fund, forwarded by T. Taylor Griffith, Esq., of Wrexham.

Dr. R. J. Hughes (Denbigh)	1	1	0
James Williams, Esq. (Holywell).....	1	1	0

EXCISION OF SPLEEN.—SIR: The following sentences, which occur in the first volume of an English translation of Pliny's *Natural History*, published in London in 1601, may have some interest at the present moment. Mr. Spencer Wells says that the idea of removing an enlarged spleen first occurred to him in 1862. Pliny lived one thousand eight hundred years ago.

"This member hath a proprietie by itself sometimes to hinder a man's running: whereupon professed runners in the race that bee troubled with the splene, have a devise to burne and wast it with an hot yron. And no marveile: for why? They say that the splene may be taken out of the bodie by way of incision, and yet the creature live neverthelesse: but if it be man or woman that is thus cut for the splene, hee or shee looseth their laughing by the meanes. For sure it is that intemperate laughers have alwaies great splenes."

I am, etc., A READER OF THE JOURNAL.

CURES FOR EPILEPSY.—SIR: The *Standard* newspaper, the medium through which "Dr." Hunter announces to the world his arcanum for the cure of consumption, has lately taken up the question of cure of epilepsy, by "a mild surgical means", as one of their correspondents blandly phrases it. The subject is one which cannot be fully discussed in a newspaper, even if the managers of the *Standard* were willing to publish opinions adverse to the claims of those who profess the "Perfect Cure". Articles and letters, with tempting medical headings, have a most mischievous effect on the public, as holding out to them promises which cannot be fulfilled. Surely, the profession are to blame for keeping silence; while not only women liable to true epilepsy, but even young girls affected with simple chorea, are subjected to manipulations, riveting their attention upon those very organs which, but for such treatment, might never have become the seat of morbid excitement.

If epilepsy in females necessitate excision of the clitoris, what is to be done with male epileptics? Are they to have the analogous organ cut off? I am, etc.,

January 27th, 1866. PATERFAMILIAS.

THE GRIFFIN TESTIMONIAL FUND.—SIR: The following subscription has been further received on behalf of the above Fund:—Dr. John O'Reilly (Ware), 10s.

Amount previously announced, £142: 8: 3.

I am, etc., ROBERT FOWLER, M.D.,
Treasurer and Hon. Sec.

145, Bishopsgate Street Without, January 31st, 1866.

COMMUNICATIONS have been received from:—Dr. ARTHUR RANSOME; Mr. R. S. FOWLER; Dr. FALCONER; THE SECRETARY OF THE ODONTOLOGICAL SOCIETY; THE HONORARY SECRETARY OF THE OBSTETRICAL SOCIETY; Mr. T. M. STONE; Mr. D. KENT JONES; Mr. F. COX; Dr. DRUITT; Dr. DOBELL; Dr. A. GAMGEE; Mr. NAPPER; Dr. STEPHENS; Mr. J. N. RADCLIFFE; Mr. JOHN H. JAMES; Dr. G. BODINGTON; Mr. W. STOKES; Mr. RICHARD GRIFFIN; Mr. JOSEPH HINTON; THE HONORARY SECRETARY OF THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY; Dr. ROBERT FOWLER; Dr. ASHFORTH; Mr. C. JOHNSON, JUN.; PATERFAMILIAS; Dr. F. W. GIBSON; Dr. I. MACKENZIE; Dr. DAVEY; Mr. HAMILTON; and Dr. E. CRISP.

BOOKS RECEIVED.

1. Dr. J. Moore Neligan's Practical Treatise on Diseases of the Skin. Second Edition. By T. W. Belcher, M.A., M.D. Dublin: 1866.
2. Clinical Notes on Uterine Surgery. By J. M. Sims, A.B., M.D. London: 1866.
3. Contributions to Practical Medicine and Surgery. By James Arnott, M.D. London: 1865.

Original Communications.

ON THE NATURE, CAUSE, AND TREATMENT OF TUBERCULOSIS.

By Horace Dobell, M.D., Physician to the Royal Infirmary for Diseases of the Chest, etc.

[*Concluded from page* 66.]

In the next place, I must point out that the order in which primary tuberculisation usually takes place in the principal organs, is consistent with my hypothesis and is explained by it.

The order is as follows. In adults and children, the lungs are by far the most frequent seat of tubercle. In adults, the small intestines and mesenteric glands are the most frequent seat of tubercle except the lungs. In children, the bronchial glands are affected with tubercle more frequently than any other part except the lungs, and they may be tuberculous without the lungs being so. After the bronchial glands, the small intestines and mesenteric glands are the most frequent seat, as in adults.

The lungs are the organs, in adult life, in which, *par excellence*, the required combination of conditions for precedence in tuberculisation exists. The small intestine and mesenteric system are the parts most nearly resembling the lungs in this respect.

It is hardly necessary to point out that there is no other part of the body traversed by fluids essentially the same as those which traverse the lacteals, mesenteric glands, thoracic duct, and pulmonary artery; and that there are no other parts of the body at which the relations between fats acted upon by the pancreas, albuminoid tissue, and oxygen, are so similar as in the small intestine and mesenteric system, and in the lungs.

In the lungs, the oxygen is in the air and in the nutrient capillaries; in the intestine and mesenteric system, it is in the blood of the capillaries.

The explanation of the phenomenon, that the lungs occasionally give place to the bronchial glands and to the small intestine and mesenteric system in the precedence of tuberculisation, and that this occurs especially in children, is not easy. But the difficulty is partly due to a want of precise knowledge of the facts of the case. For example:

1. It is not certain, in the case of glands, that the tubercle is formed in them, not carried to them.

2. It is not certain how the interchange of oxygen from the air in the air-cells, with the carbonic acid in the blood of the pulmonary artery, takes place.

3. It is not certain to what extent the lung-tissue is nourished by the blood in the pulmonary capillaries.

4. It is not certain how the changes which take place in the fat that has been acted upon by the pancreas are effected during its course from the intestine to the pulmonary capillaries.

5. It is not certain what is the limit and essential condition of absorption of fat by the portal system.

So far, however, as these and other difficulties permit, my hypothesis offers a fair explanation of the phenomena of precedence in tuberculisation. The temporary protection to the lungs is afforded by fluid fats absorbed by the portal system, and thus carried to the lungs independent of the pancreas and mesenteric system. That the blood of the portal vessels is susceptible of such a function cannot, I think, be doubted, when we reflect that, in a normal state, the portal blood is twice as rich in fat as other venous blood; that, most probably, it is fluid oleinous fat, which is especially susceptible of absorption by blood-vessels; that the diet of children is peculiarly rich in such fats; and that in milk and cream the fats are minutely divided, and so arranged that in gastric digestion they must be mixed intimately with other foods, and thus be placed in the most favourable position for absorption; and when we also remember the readiness with which correlated organs assume compensatory functions.

It is, then, probable that, under certain circumstances, and especially in children, the oleine carried to the pulmonary circulation by the portal system may protect the lungs for a sufficient time to give other organs not so protected the precedence in the order of tuberculisation.

It is easier to see why, by these means, the precedence should fall upon the small intestine and mesenteric system, than why it should fall upon the bronchial glands. But it is possible that the protection given to the lungs may, in some cases, be sufficient to prevent disintegration of the albuminoid tissue during the *direct* combustive process, and thus to prevent *a primary deposit at the point of origin*; but not sufficient to prevent tuberculisation during the interstitial nutrition of the lungs; and thus the bronchial glands may suffer either because of the activity of their life in childhood, or because the disintegrated albuminoid matter is carried to them by the lymphatics as it is disengaged in the neighbouring tissues, constituting *a primary deposit distant from the point of origin*.

Supposing this explanation to stand, it involves also an explanation of the curious and inconstant relationship between fatty liver and phthisis; for which I have not been able to find any other that is more satisfactory.

In the years 1851-1853, I very closely and carefully investigated the question of fatty liver in phthisis; examining and analysing a large number of cases and pathological reports, at St. Bartholomew's Hospital and elsewhere, in the hope of finding some explanation in the clinical histories of the cases. On referring to my notes of that date, I find the following summary. In cases of phthisis: 1. Fatty liver is not more frequent in those cases in which the normal structure of the lungs is extensively destroyed than in those in which such destruction is slight. It is not, therefore, due to diminished pulmonary function. 2. There is no constant relation between the condition of the appetite and the existence of fatty liver, nor between the degree of emaciation and fatty liver. 3. There is no constant relation between the state of the bowels or skin in fatty liver; they may both or one act in excess or not in excess and fatty liver exist or not exist. (Diarrhœa is, however, more frequent in phthisis with fatty liver than without it.) These conditions may, one or all, be combined with great destruction of lung-substance and great emaciation and fatty liver exist or not exist. 4. The intimate relation between the portal and hepatic capillaries may allow the liver to become the seat of deposits from the elements of portal blood. 5. Supposing the portal system, in some cases of phthisis, to take on a compensatory function, and to absorb an inordinate quantity of oil from the food, this might be deposited in the liver even though the rest of the body were emaciated.

To this summary, I may now add, that Dr. Ormerod's recent experiments on fatty degeneration (*Review of the Present State of Cardiac Pathology*. By E. L. Ormerod. 1864) showed that the fat of degeneration is oleine, not margarine; and this renders more probable the explanation I have offered of the occasional occurrence of fatty liver in phthisis from

the undue absorption of fluid fats by the portal system.

It is so obvious that all the phenomena in the following group are at once explained by my hypothesis that I need not do more than place them in juxtaposition.

a. The rapid and marked improvement which takes place in many cases of phthisis when substances rich in oleine are first supplied by the stomach.

b. The want of permanence in this effect (except under peculiar combinations of circumstances, which include the causes of restoration of pancreatic function.)

c. The beneficial effect of a renewed exhibition of oleine after it has been for some time withdrawn, although it had ceased to benefit while previously continued.

d. The repetition of these phenomena, with less and less marked benefit, and coetaneously with a steady decline of the patient.

e. In a large number of cases, ultimate intolerance of the oleine, which previously had been much desired.

The next group of phenomena explained by my hypothesis is very curious. While engaged, during the year 1853, in the investigation of fatty liver in phthisis, to which I have referred, I was struck with the fact that the following group of phenomena may be found at the same time in a case of tuberculosis, and I attempted to discover a satisfactory way of explaining their apparent incongruities.

a. A considerable proportion of the lungs deprived of decarbonising and oxidising function.

b. A fair appetite and the ingestion of a normal quantity of food.

c. A difficulty in maintaining equalised animal heat throughout the body.

d. A steadily progressing loss of carbon from the tissues.

e. Blood not surcharged with carbon.

f. No sickness, diarrhœa, or other flux.

g. Arrested menstruation in females.

The most satisfactory explanation appeared to be an assumption that the fat-elements of the food did not find their way into the blood of the right heart in normal proportions and conditions. With the hope of finding support for such an explanation in a coincidence of disease of the pancreas and tuberculosis, I searched and analysed the pathological reports at St. Bartholomew's and elsewhere, in which the condition of all the organs was to be found noted. But in every case of uncomplicated phthisis in which the pancreas was mentioned, it was reported "healthy".

In consequence of this disappointing result, I set down as subjects for future work, the questions:

1. What evidence can be found that the pancreatic secretion can be deprived of its normal properties without leaving traces of structural disease in the pancreas?

2. Are there not affections of the pancreas competent to deprave its secretion, but which have not hitherto been recognised as disease?

Both of these questions may now be answered in the affirmative, almost with certainty.

In answer to the first, I must refer to the careful and often repeated experiments of Professor Bernard. They show that when the nerves of the pancreas are acted upon, either by excitation of the cerebro-spinal or by section of the sympathetic fibres, the secretion grows abundant and uninterrupted, while a profuse diarrhœa is constantly established. Extirpation of the semilunar ganglion produces similar effects; and under these special conditions the pancreas pours forth a peculiar fluid which no longer exhibits the physiological properties of the secretion. When the secretion is thus rendered continuous, the characteristic active principles are no longer produced within the gland, and the watery vehicle alone escapes from the secreting apparatus. Bernard particularly insists upon the important fact that "the general perturbations of the economy" exert a powerful influence upon the functions of the pancreas, and the least degree of inflammation in its neighbourhood perverts the properties of the pancreatic juice. (Bernard's Lectures on Physiology, *Medical Times and Gazette*, 1860.)

I have been informed by a butcher who deals largely in calves' sweetbreads, and is a shrewd and observant man, that there is a great difference in the qualities of sweetbreads, dependent upon the previous state of the nervous system of the animal. If the calf have been brought to London comfortably in a cart, the sweetbread is generally in good condition; but, if it have been "worried about", he is often obliged to throw the sweetbread away, as not good enough for sale.

From the effect of nervous influences upon secretion generally, especially upon that of the salivary glands, the stomach, and the mammary gland (see Carpenter, 6th Edition, pp. 738 to 744), we might reasonably expect by analogy that the pancreas would suffer in the manner shown by Bernard.

It is evident, then, that the pancreatic secretion can be deprived of its normal properties by causes acting through the nervous system, both cerebro-spinal and sympathetic; and by affections of neighbouring organs. Such causes may be of a temporary or of a more permanent nature, and, unless of long duration, may not leave traces of structural disease in the pancreas.

I particularly desired that, before publishing my hypothesis, I might be able to bring forward absolute proofs of the nature and extent of the perverted or arrested function of the pancreas in tuberculosis, in the form of results of direct experiments upon the pancreatic juice of persons dying of phthisis. Through the kindness of Drs. Quain and Symes Thompson at Brompton Hospital, of Dr. Cayley at the Middlesex, and of Dr. Andrew at St. Bartholomew's, together with my own opportunities at the Royal Infirmary, I was able to obtain a supply of specimens; and, with the invaluable chemical assistance of Mr. Heathorn, I commenced a systematic examination of the properties of the pancreatic secretion in phthisis. These exceedingly troublesome experiments were carried on with great care from the beginning of November 1864 till the beginning of March 1855, and a detailed report kept of the results; but I regret to say that they were obliged to be finally abandoned, from a conviction that we were wasting our time. The results were utterly valueless, for the following reasons.

1. We had no standard of healthy pancreatic secretion for comparison.

2. Our attempts to form such a standard were frustrated by the impossibility of getting the human pancreas under circumstances which did not vary considerably in the following essential conditions:

a. Number of hours between death and the last meal.

b. Character of the last meal.

c. Cause and mode of death, and nature of coexistent diseases.

d. Number of hours between death and the *post mortem* examination.

e. Number of hours between death and commencement of experiments on the secretion.

These obstacles to the establishment of a healthy standard all equally existed in the case of diseased

specimens. In addition, it was proved by experiments upon the lower animals, that no reliance can be placed upon the characters of the pancreatic secretion when not examined till twelve hours after death; whereas the average number of hours between death and *post mortem* examination for all of our cases was 27.5 hours, the minimum being 9, the maximum 54. I give these details of failure, in the hope that some one working within the walls of a hospital may find it practicable to get over these difficulties, and to prosecute this important inquiry under conditions which justify confidence in the results. To any one undertaking such experiments, I shall gladly give any assistance in my power. I can at least point out some sources of fallacy to be avoided, and some of the means of success.

In answer to the second question—"Are there not affections of the pancreas competent to deprave its secretion, which have not hitherto been rocognised as disease?"—I am permitted by Dr. Fenwick to state in general terms, that the results of a large number of examinations made by him of the pancreas in man and the lower animals show a peculiar liability of this organ to different forms of degeneration. But, as it is probable that Dr. Fenwick will himself make public his observations, I forbear from giving them in more detail.

The fact, then, which in 1853 appeared to show that defective pancreatic action could not be essentially connected with tuberculosis—viz., that, in all the cases of uncomplicated phthisis that I could discover in which the pancreas had been examined, it was reported healthy—need no longer be considered of any value as an argument against my hypothesis; whereas, on the other hand, the observations of Professor Bernard must be considered as important evidence of its truth.

But the most remarkable evidence of the truth of my hypothesis is this, that it explains in the simplest manner a mass of apparently incongruous facts in the etiology of tuberculosis, which no explanation hitherto attempted has been at all competent to deal with in a group. I refer to such established and recognised causes of phthisis as are agreed upon by the general verdict of physicians and the public. I will abstain from adding any that I might myself be disposed to suggest, and select from reliable authors those which are apparently least in accord with each other.

The question is, How can a constant result—viz., the formation of nascent tubercle—be produced by the following causes?

1. Disappointment; home-sickness; longings after the objects of affection, either absent or lost; and other depressing influences.
2. Whatever depresses vital power—exhausting passions, poverty, and the vicissitudes of life.
3. Persistent defective expansion of the chest, and defective exercise of the respiratory powers.
4. Persistence of young persons in a diet deficient in milk.
5. Inattention to a due preservation of the cutaneous function.
6. Chronic alcoholism.
7. Neglect of exercise in the open air; deprivation of sunlight; congregation of numbers in a close or insufficiently ventilated place. "If disease of a given form be so associated with certain conditions that, in two-thirds of the instances which present themselves to our notice, these conditions be present, we cannot avoid referring the diseased result to the antecedent error. In other words, deficient ventilation and crowded apartments are eminently productive of tubercular disease.....The effects of posture are chiefly observable in bootmakers, tailors, hand-weavers, and others whose work necessitates the stooping posture. The results are mechanical hindrance to the free entrance of air to the chest, restricted expansion of the bony wall, and an imperfect respiration. In the case of bootmakers, there is the addition of pressure on the epigastrium, which gives rise to the well known neurosis. But, on the whole, all the errors of this class are to be referred to insufficient expansion of the chest." (Pollock, *Elements of Prognosis in Consumption*, p. 368.)
8. "Rebreathed air."
9. Cyanosis.
10. Diabetes.
11. Acute diseases, especially continued fever.
12. Childbirth.
13. Superlactation in mothers.
14. Weaning in children.
15. Hereditary taint.

These causes of phthisis may be assembled under four heads.

1. Causes which act directly upon the pancreas, either specially, or in common with other internal organs; *e. g.*, hereditary tendency to disease of the pancreas; occupations causing pressure upon the abdomen in the pancreatic region; acute diseases, especially continued fevers; inflammatory affections of neighbouring parts.

2. Causes which act indirectly upon the pancreas, by diminishing the elimination of carbon from the blood, and thereby reducing the normal call for the introduction of fat from the food into the blood. By these means, the pancreas is kept in a state of inactivity and low nutrition, until in time its secreting powers are depraved or destroyed, and the organ itself becomes degenerated, in accordance with the laws governing all other secreting organs.

It is evident that this heading will include a large number of the causes of phthisis which I have enumerated; *e. g.*, all those which diminish respiratory blood-changes for protracted periods, whether it be simply through deficient expansion of the chest, or through the hypercarbonetted condition of the air presented for respiration; and all causes of deficient excretion by the skin, especially if combined with defective respiratory action. It will also include cyanosis and chronic alcoholism.

Cyanosis is a condition which would, at first thought, appear to be antagonistic to my hypothesis; for, if tubercle is produced by the combustion of the fat-elements of the albuminoid tissues, it would seem that a disease in which the blood is persistently surcharged with carbon would, *par excellence*, be protective against tuberculosis. But the contrary is the fact; and it is easily explained. It is only protracted cyanosis that ends in tuberculosis. In these cases, the long continuance of hypercarbonetted blood paralyses the function of the pancreas. But, as it is not carbon only that is requisite to maintain nutrition and protect against tuberculosis, but fat properly prepared by the pancreas, after a time the albuminoid tissues are invaded to supply the fat-elements which the pancreas has lost the power to prepare, and tuberculisation results.

In chronic alcoholism, the mode of operation is somewhat similar to that in cyanosis. A form of hydrocarbon is thrown into the circulation through the portal system, which substitutes the normal supply of fats by the lacteal system. The affinity of oxygen for alcohol being greater than its affinity for fat, respiration is supplied from this artificial source with carbon for direct combustion; an artificial nutrition is kept up, in which the natural call for fat is stopped, and the function of the pancreas is reduced to supplying the minimum quantity necessary for

histogenetic purposes. To this inactivity of the organ is added the usual tendency to degeneration due to alcoholism. In course of time, the pancreas loses that minimum amount of function which it had been allowed to exert, and fails to supply even so much fat as was necessary to protect the albuminoid tissues, and tuberculosis results. Or, as frequently happens, the toper ceases to obtain his supply of alcohol, either from inability to get it, or from inability to absorb it or to retain it on the stomach. His artificial supply of carbon, upon which he has been depending, is thus cut off; a sudden call is made upon the pancreas for that which it has now lost the power to give; the tissues are disintegrated to supply the required fat-elements; and tubercle is produced.

3. Under a third head may be included causes which deprive the system of carbon to such an undue extent that the pancreas cannot keep pace with the demand made upon its function; the supply of fat to the blood becomes insufficient to keep up the waste; and the albuminoid tissues are invaded. This may be the case when those who inherit a tendency to disease of the pancreas, or who have acquired a feeble secreting power in the organ, are exposed to drains upon their fat-elements which in healthy persons might be met by increased function. It is thus that, in tuberculous families, childbirth and superlactation, especially when not protected by proper diet and regimen, precipitate the patient into tuberculosis; and, as the mother is deprived of fat-elements by lactation, so is the child deprived of them by persistence in a diet deficient in milk. In the case of the child thus deprived of fat, a double injury is done—first, by cutting off the supply of fat-elements necessary for the protection of the tissues; and secondly, by paralysing the function of the pancreas by prolonged inactivity.

Under this heading also must be placed diabetes. Tuberculosis occurs in diabetes when the excessive drain upon the carbon by the excretion of the carbohydrates, as sugar, is not duly supplemented by a corresponding supply of fat in the food, or when the demand for pancreatic action has become so excessive that the pancreas is no longer able to keep up to it. Then the albuminoid tissues are attacked, and tuberculisation occurs.

4. A fourth head will include all causes which act powerfully in depressing the nervous system, either suddenly or gradually, and by this means pervert or paralyse the secreting function of the pancreas. It is in this way that "the vicissitudes of life" bring on tuberculosis, especially in those who by hereditary transmission have a tendency to depraved pancreatic function, or in whom the causes of nervous depression are conjoined with some of the other causes of disease of the pancreas which have been enumerated. Under this fourth heading, therefore, we must place all forms of shock to the cerebro-spinal or ganglionic nervous systems, and all such causes of mental and nervous depression as disappointed love or ambition, excessive grief, unrequited longings, hope deferred, and the like.

Having given a fair example of the way in which my hypothesis coordinates and explains apparently incongruous and irreconcilable phenomena connected with tuberculosis, let me point out that it also affords a satisfactory explanation of the variable course of tuberculosis in different cases.

1. A sudden, almost complete, or total suspension of normal pancreatic secretion, accounts for acute tuberculosis.

2. A less complete suspension or perversion of the function of the pancreas accounts for chronic tuberculosis.

3. Either of the above changes of pancreatic secretion, occurring intermittently, accounts for recurrent tuberculosis.

I have next to speak of that portion of the hypothesis which assumes a change in the absorbing power of the small intestine, by which the passage of fats into the blood may be prevented after the function of the pancreas has been restored.

That the continual passage, through the delicate absorbent apparatus of the intestinal mucous membrane, of a depraved pancreatic secretion, and of food that has not undergone those changes which fit it to be brought into contact with the absorbing surface, must damage the apparatus, is a conclusion which analogy justifies us in assuming to be correct. That such damage does occur in the alimentary canal of the tuberculous, is amply proved by a pathological research; and the extreme difficulty of identifying, after death, delicate changes in the condition of mucous membranes, renders it certain that such changes may continually occur without being recognised in a *post mortem* examination.

Bernard found that, in dogs who had been deprived of their pancreas, the fæces commonly became streaked with blood, as from ulceration of the intestines. (*Mémoire sur le Pancreas*, 1850.)

Bidder and Schmidt observed, in their experiments on the lower animals, that inflammation of the mucous membrane of the intestine at once prevented the absorption of fatty chyle by the lacteals.

To say the least, it is in the highest degree probable that perverted pancreatic secretion, and food improperly prepared for absorption, passing over the mucous membrane of the intestine from day to day, do, sooner or later, so damage its absorbing function as to add an additional obstruction to nutrition by the lacteal system; and, as Bernard has shown that the general perturbations of the economy, and the slightest inflammation in the neighbourhood of the pancreas, especially in the intestine, pervert the properties of the pancreatic juice, any damage done to the mucous membrane of the neighbouring intestine by imperfect pancreatic action must react upon its cause, and throw a double difficulty in the way of restoring either the pancreas or the mucous membrane to a healthy condition.*

Treatment.

Assuming my hypothesis to be correct in its chief parts, the following are the principles of treatment which it indicates.

1. If the case be so far advanced that it is considered hopeless to aim at restoring the function of the pancreas and the absorbing power of the intestine, two principles must guide our treatment.

A. To supply the greatest amount of fat to the blood that is possible by other means than through the action of the pancreas.

a. By giving pancreatic emulsions of solid fat, or, if these be rejected, pancreatic emulsions of oil, in the hope that some absorbing power for such matters may yet remain in the digestive tract.

b. Chiefly, by giving olein, with a view to its absorption by the portal system of vessels; and by rubbing it into the surface of the body and limbs with a view to its absorption by the skin.

c. By giving highly albuminous food in conditions

* From my own observations, I am disposed to think that laryngeal phthisis will be found to occur more frequently in persons who have slept, night after night, with patients suffering from the last stage of consumption, than in other persons; and that molecules of tubercle may, in this way, be occasionally transplanted by the breath from the lungs of one person to the respiratory passages of another, then being carried by the lymphatics into the circulation, producing tuberculæmia and secondary deposits. I am not prepared to say that this is the case; but to suggest it as an important subject for further clinical and pathological observation.

in which it may be most easily utilised, so as to supply an excess of material as a source of carbon by disintegration.

B. To save the albuminoid tissues from disintegration to the greatest possible extent.

a. By supplying a surplus of carbohydrates, so as to economise as much as possible the consumption of hydrocarbons.

b. By diminishing the proportion of oxygen in the air presented to the lungs.

c. By diminishing the demand for the generation of animal heat, by supplying it artificially.

d. By reducing respiratory and cutaneous action to the lowest point consistent with maintaining what remains of appetite and digestive power.

It is obvious that the persistence in these means must be considered utterly at variance with curative intentions, and simply as the expedients best fitted to prolong the process of gradual death.

2. If the symptoms be only what is commonly called "premonitory"—that is, if they be those of commencing tuberculosis, and no reason or sign be discoverable which justifies the suspicion that tuberculisation has commenced; if a sufficiency of fat-elements remain, without calling upon the albuminoid tissues—the principles of treatment are quite opposite to those last detailed. They are now entirely curative in their intention.

A. To restore the function of the pancreas as quickly as possible, by placing the patient under those conditions which call for pancreatic action.

a. An atmosphere rich in oxygen.

b. A climate at once cold and dry.

c. Exercise of the respiratory and cutaneous functions.

d. Cheerfulness of the mind and quiet to the emotions; exhilaration of the animal spirits.

e. A good mixed diet, easily digested, and free from substances irritating to the mucous tract.

f. Pancreatic emulsions of solid fat and pancreatic juice in quantities sufficient to ensure protection to the albuminoid tissues while the process of restoration is going on in the pancreas, but not in such quantity as to entirely supplant the natural pancreatic function and thus to counteract the measures adopted for calling it into action.

These two classes of cases represent the two extremes in the history of tuberculosis—the greatest and the least hope of cure.

3. A third class of cases, intermediate between these extreme points, represent the bulk of all those brought under the care of the physician. They require a combination of the two principles of treatment already stated. The nice adjustment of these two plans of treatment—the hopeful and the hopeless, the palliative and the curative—calls for all the intelligence and judgment that a medical man can possess.

If tuberculisation, even in the smallest degree, be going on, the first and most urgent need is to supply fats. Olein should be given for absorption by the portal system, and thus to afford, so far as it is able, materials for combustion. But, above all, fats acted upon by pancreatic juice are called for, and must be supplied until the deficiency is removed, the just balance restored, the process of tuberculisation stopped. Until this point is arrived at—until the balance is turned in favour of the albuminoid tissues—everything which favours the reception of oxygen into the blood, everything which increases the wear and tear of the body, everything which calls for the generation of animal heat, directly favours tuberculisation, and precipitates the patient into the very catastrophe we wish to avert.

On the other hand, so soon as the balance has been turned in favour of the albuminoid tissues, and tuberculisation has been artificially arrested, everything which postpones the restoration of the function of the pancreas directly favours the conversion of a temporary into a permanent disease. But moderation is essential to success. Too great and too sudden a demand upon a weak and defective pancreas may only paralyse the organism in its attempts at restoration of function. It is, however, impossible to magnify the importance of periods of arrested tuberculisation, whether artificially or naturally produced. They are the bright opportunities for the permanent restoration of pancreatic function. Too often these opportunities are wasted. The patient and his friends, pleased with the marked improvement that has taken place under some plan of treatment, either continue this treatment long after its proper time and place have passed by, or give up treatment altogether, content to wait till signs of active disease return. In either case, an opportunity for establishing a permanent recovery is thrown away, and perhaps it may never return.

It must not be forgotten that, when tuberculisation and tuberculosis have been stopped, when the function of the pancreas has been restored and the intestinal mucous membrane brought back to a normal condition, there may yet remain tuberculæmia. From time to time, fresh blood-poisoning may occur from the absorption of deposited tubercle; and, if there be any considerable quantity deposited, this chronic blood-poisoning may become a tedious and dangerous disease. The absorbed tubercle may be again deposited and again absorbed, and thus keep up a ceaseless repetition of morbid changes somewhat analogous to those witnessed in pyæmia. Treatment directed to the blood-poisoning will, therefore, be imperatively called for in most cases of tuberculosis which have advanced to the stage of tuberculisation.

I have long been aiming at testing my views regarding the action of the pancreas in tuberculosis by a crucial experiment; but the difficulties in the way of artificially supplying pancreatic juice to a number of patients were so numerous that they were not finally overcome till the summer of 1863. With the valuable assistance of my friend Mr. Heathorn, who had long been working with me at the subject, I succeeded in obtaining a pancreatic emulsion of fat sufficiently palatable and in sufficient quantity to permit of my beginning my crucial experiments by administering it to patients suffering from tuberculosis at the Royal Infirmary for Diseases of the Chest. For some time our supply was too fluctuating to allow of the experiments being carried out in a manner that I thought justified me in making the results public; but in the summer of 1864 I was able to draw up the first of the three reports which have since appeared in the *Lancet*. This was published September 10th, 1864; the emulsion used in the reported cases being made of beef-fat and the pancreatic juice of the pig. The next report was published June 10th, 1865; the emulsion used in those cases being made of lard-oil, and the pancreatic juice of the pig. The last report was published November 11th and 18th, 1865; some of the cases having been treated with the lard-oil emulsion, and some with the emulsion of suet and pancreatic juice of the pig. The number of cases in the three reports is eighty-nine; but, out of these, only twenty were in the first stage, and in these the deposit of tubercle was considerable, and the general symptoms very marked; in fact, they were, as a rule, just passing into the second stage, before applying for treatment at the hospital. It is obvious, therefore, that, although the results were remarkably satisfactory,

there was not in one of the cases the opportunity of trying the treatment in the most hopeful stage. In addition to this, I must remark, that for a long time, until I was satisfied of the good effects of the emulsion, I did not feel justified in giving it unless for some reason the patient refused to take cod-liver oil; so that this added another unfavourable feature to the cases selected for experiment. And, again, it is important to bear in mind that the emulsion, as we first prepared it, was necessarily in a much less satisfactory condition than the emulsions used in later experiments. From time to time, Mr. Heathorn introduced great improvements in the mode of manufacture, and these have been still further carried out by Mr. Schweitzer; so that the emulsions, as now sold by Messrs. Savory and Moore, are far more satisfactory in every respect than those which we employed for the hospital cases included in my reports.

Those accustomed to hospital practice will know well that the chances of treating tuberculosis in its simple and early stage, before the occurrence of tuberculisation, are very rare. Patients do not apply at hospitals for relief until they have some marked symptoms of disease, such as hæmoptysis or purulent expectoration. When by chance they are seen in an earlier stage, they discontinue treatment directly the first feeling of debility is allayed. It is in private practice that the opportunity arises for detecting commencing tuberculosis; and it is especially within the province of the family doctor, frequenting the houses of his patients for other maladies, to keep a watch, especially in consumptive families, for the earliest dawn of impending tuberculosis.

In conclusion, I wish particularly to impress that, if the views here brought forward are correct, the importance of pancreatic emulsions of solid fat over cod-liver oil, in the treatment of tuberculosis, must be as great as that of supplying a plant with good soil instead of putting it into water. In the one case, a provision is made for the maintenance of normal life; in the other, death is only postponed by a temporary expedient.

Harley Street, January 1866.

NOTES ON SOME OF THE CAUSES WHICH OCCASIONALLY TEND TO ENDANGER FŒTAL LIFE DURING LABOUR:

WITH REMARKS ON SOME OF THE MEDICO-LEGAL BEARINGS.

By G. K. H. Paterson, L.R.C.P.Ed., L.R.C.S., Balbeggie, Perthshire.

[*Read before the Perthshire Medical Association.*]

In general domiciliary midwifery, it will not, I trust, be disputed for a moment that occasionally is witnessed the occurrence of, or, if not, the tendency to, "hazardous states" in certain kinds of labour, calculated more or less to endanger fœtal life. Doubtless, not a few labour-cases—oftener in some years than in others—at the first visit by the summoned medical practitioner, are found in their early stage, and, to the best of his judgment, favourable; in which, however, it is far from being uncommon to find, when an examination *per vaginam* is later made, that they have become either difficult or complicated labours.

Accordingly, it will be allowed, from the occasional uncertainty of the result in these cases, that it is an important and valuable attainment in midwifery practice to be able to make a right discrimination between the nature of the presentation in each individual case from others known to happen, as well as timely to determine as to the mode of management most fitting, and when to proceed in aiding the parturient woman; whether it be by administering needful nourishment or other means internally, or by the mouth, or by having timely recourse to artificial interference with the same end in view, to promote and procure as speedy delivery as possible, with safety to the mother and to the child.

Having thus premised, I now proceed to state my views in detail, though briefly, as follows.

How far the tendency oftentimes, in difficult and complicated labours, to endanger fœtal life, may be obviated, must undoubtedly depend much on the nature of the presentations and severity or tediousness of the cases, and on their management. Putting off proper medical assistance too long, or not sending for it in time, often endangers the life of the fœtus.

The management of cases of lingering or difficult labour (although often there is no occasion for over-anxiety from fear of danger), when timely and properly attended to, often ends well for both lives.

Cases of difficult labour have hitherto come often under my observation with cephalic presentation chiefly, not a few of which, as might be expected, were accompanied in primiparæ with rigidity of parts; and the labour in some of these went on with considerable difficulty, owing to the os uteri and other parts taking a much longer time than ordinary to dilate and relax before the fœtal head was sufficiently advanced for delivery, notwithstanding the previous use of internal means. Where, on the other hand, there were present (rendering the labour, for the time they lasted, more than usually slow and difficult) signs in the maternal passages of coiling of the fœtal cord round the neck, and where, in such labour, ergot of rye had been early made use of, and before the head was well advanced, I have seldom seen the expected benefits accruing from the ergot favourable to the fœtus.

In my own practice, coiling of the cord round the neck or body of the fœtus has been found only in the child-births of multiparous women; and I have observed such an occurrence to endanger fœtal life in no small number of those. Misplacement or unnatural shortness alone of the cord, when the fœtal head is in the pelvis, and there is found plenty of room for the head to pass through, may be suspected to exist, if, during the time of the continuance of pretty strong and regular pains, the head slowly advance in a given time, and it be ascertained that the latter retreats after each pain, while previously the os uteri has become well dilated.

Nevertheless, and at the same time relying a good deal on the above signs of the existence of coiling or twisting of the fœtal cord, I have used ergot and the forceps less than formerly; preferring non-interference to pushing cases of this kind, when there was no urgent symptom calling for active aid; and I have never had to regret doing so. But, should the cord be supposed to be around the neck of the fœtus, and notwithstanding it may be the chief cause of retarding the progress of the labour, when not continuing beyond a reasonable time, it is even safer to omit than to have recourse to ergot; and there is less danger to fœtal life, except the labour be near its termination; then it may be found very serviceable at times.

Still there are cases, doubtless, in which it is often necessary to give ergot, and with excellent results; as when the labour is hindered by inefficient uterine action, the os uteri being well dilated at the same time, the membranes broken or artificially ruptured, and the pelvic room being ample, with no discordance between the bony parts and the fœtal head, the latter having advanced to the pelvic outlet or hollow of the sacrum.

On the contrary, it is rare to find the child alive when ergot is given too early, or some time before

delivery can be safely effected, or after the liquor amnii has flowed away spontaneously of itself and prematurely, or has been too soon artificially let off, and when the os uteri is not much dilated, and is not very soon dilatable, the head not advancing in proportion to the length of time the parturient woman has been in labour; and more especially if, after the administration of ergot, the labour be not terminated within a reasonable time afterwards, or if it be allowed to linger on too long, instead of artificial assistance being employed as soon as the case is favourable for or demands this.

When the aforementioned signs are found in the maternal passages of the hindrance of the fœtal head during labour from coiling or twisting of the umbilical cord round the neck or other parts of the body of the fœtus, the labour is generally longer in its duration, as well as being accompanied oftentimes with sharp pains of unusual severity; and to my mind it has seemed to be both safer and better practice to omit ergot and the forceps in such cases until towards the close of the labour, if needed, on account of the occasional subsiding of the maternal pains. At this stage, its administration in the usual form and doses will tend less to endanger fœtal life, and also shorten or expedite the labour. In reference to the latter cases alluded to, my usual practice for years past has been and still is, to let Nature for a reasonable time do her own work, and to render extra aid only if necessary for the safety of both mother and child.

I shall merely at present add a few of the causes in the maternal passages, etc., that have conduced more or less to put into hazard, from "dangerous pressure", the life of the fœtus in cases to which I was called to render aid.

The fœtal head may be found resting too long on an unyielding perinæum, or combined with rigidity of parts, especially early and late in life (first pregnancies at full term).

In presentation of the head, it only may be expelled, and delay in expulsion may arise from want of sufficient uterine pains to expel the shoulders when large.

In footling and breech cases, the head may be large, and not cautiously and speedily delivered.

Unusual projection of the promontory of the sacrum may prevent the head from descending, in consequence of too little space.

The fœtal head may be too long delayed in the pelvis or outlet of it during labour, from inefficient uterine action or unusual rigidity of parts.

There may be prolapse of the cord, internal and external; or it may be coiled round the neck and other parts of the body of the fœtus, producing liability to pressure of a dangerous kind.

The fœtal head (male) may be firmly ossified, and rather larger than ordinary, and may be much and long pressed into the pelvis during labour, before its expulsion or delivery.

The child may be born in its membranes.

Maternal mental impressions may have an influence on the labour by retarding it.

The fœtal head may be delayed too long in the outlet of the pelvis, from exhaustion occurring during protracted labour.

A large fœtal umbilical hernia may produce delay.

Accidental hæmorrhage may occur.

With such causes and conditions, certainly we have a wide field for highly important and valuable investigations, as well as for interesting questions, obstetrical and physiological, and more especially in a medico-legal point of view, and which may not be deemed unworthy of being recorded.

[*To be continued.*]

CASE OF HERMAPHRODISM.

By John H. Webster, M.D., Northampton.

The following case of hermaphrodism, which has recently come under my observation, is worthy of being placed on record.

C. D., aged 19, in service as kitchen-maid, 5 feet 6 inches in height, weighing 8 stone 11 lbs., fairly nourished, up to the age of 16 possessed of remarkable muscular power and activity. At that period, carrying heavy weights brought on uneasiness in the right iliac region, amounting at times to pain. A swelling shortly appeared, which slowly increased in size, occasioning more and more suffering upon exertion, and ultimately incapacitating her for work and holding her situation. In consequence of this and disturbance of her general health, her mother sought my opinion; stating that there was "something wrong" with her, and "matters were not with her as usual in females". The mother also mentioned that she had given birth to another child not properly formed; that, though baptised as a female, the late Mr. Charles Dodd, of this town, gave his opinion that it should have been christened as a male. This infant died at the age of three months; it was apparently a case of extroversion of the bladder.

C. D., has a hoarse gruff voice, which changed to its present tone at the age of 13 years. There is downy hair on the upper lip. The thyroid body is more prominent and developed than is usual in the female. The sternum is somewhat projecting, and the chest rounded. The breast and nipples are quite flat and small, as in the male. There is more than usual axillary hair. The surface of the body and extremities is of feminine whiteness, and free from hair.

In the right inguinal region is a hernia as large as an orange, which, in the recumbent position, is easily reducible; but, when down, occasions a desire of frequent micturition and inability to pass motions. Within this swelling, the fingers readily detect a small flattened ellipsoidal body, well defined in its margins, somewhat larger than an almond. Pressure upon this body, or the act of coughing driving it upon the fingers, produces a sharp short pain in the left mamma. The left inguinal ring is also patulous; but there is no present hernia. A similar body is felt striking the fingers upon coughing forcibly, somewhat tender on pressure; but no complaint is made of pain radiating to either mamma. Whether these bodies are ovaria or testes, it is not an easy question to decide.

The mons veneris is flat, sparsely covered with hair; the labia externa are softer, longer, and thinner than usual; the labia interna are merely rudimentary.

In the interval between the labial commissures, and consequently in normal position, appears the clitoris; when unexcited, sessile in aspect from a front view; when drawn forward, or in an excited condition, it is of two and a half to three inches in length, with a circumference of nearly two inches. At the latter times, it is more sensitive, firmer to the touch, more rigid in flexing, dependent between the labia, with no automatic power of, and resisting, erection. At such times, the temperature is increased, though there is no rubescence; and to the question whether frication produced sensual gratification, a feeble negative was returned; but it was thought that it was followed by an escape of fluid or some increase of moisture in the subjacent parts. This clitoris has a well defined circular prepuce, frænum, and corona glandis. Upon the lower half of the extremity of the

glans is a linear depression, marking the usual situation of the urethral opening; but there is no aperture. Extending along the under aspect is a sulcus, marking the outline of the course which the urethra takes (showing the early fœtal division into halves), and probably invested by a corpus spongiosum. There is no indication of any channel in this clitoris.

On separating the labia externa, about three lines from the base of the clitoris in the direction of its under sulcus or furrow, there appears a triangular slit of about two lines in width at its upper border, and of about three lines in length to its apex pointing downwards and backwards. Through this an elastic catheter passed readily to the bladder. The patient states that the urine flows uniformly and easily through this channel. There is no circular meatus urinarius, nor sphincter, and no discoverable channel to the groove on the under surface of the clitoris.

From this *quasi* meatus urinarius a septum of about three lines leads to another break in the continuity of membrane, of about seven-eighths of an inch in linear length. Through this break the index-finger passes with difficulty to its extreme length of three and a half inches, discovering an antrum of apparently uniform calibre throughout its course, and terminating as a mere *cul-de-sac*. The finger discovers no os, cervix, or corpus uteri; and, on directing it to the iliac aspects, no ovarian bodies are felt. A subsequent examination with a trivalve parallel bladed screw speculum confirms the digital examination.

The catheter being still in the bladder, the integrity of the urinary channel was ascertained; and pronating the finger, the index of the left hand being passed into the rectum, shewed there was no communication with that canal.

The separation of the labia externa displayed surfaces very different in appearance from the normal condition of those parts.

There is no pale-coloured mucous membrane continuous with the outer integument of the labia, no rugæ or elastic tissue, no circular sphincter of the meatus urinarius, no vestibule, and, when distended, no nymphæ or labia interna, no hymen or carunculæ myrtiformes; the surfaces being lined by a red highly vascular epithelial membrane, with well defined margins to the external labial skin.

Beneath this antrum is a normal perinæum, with a firm and natural spincter ani.

The catamenia have never appeared, nor has there been any vicarious shew. For several months previously to her giving up work, the mistress and fellow-servant noticed the absence of the usual menstrual periods; and had observed that she was periodically more ailing and more unfit for active exertion. At such times, the patient admits to have much more distress and pain in the right inguinal tumour.

Upon close and repeated inquiries by myself and another professional friend, we find that the sexual and sensual indications of this individual are for a female, and not for a male; that a longing for connexion with a girl has been experienced, though never indulged. These animal feelings are apparently much less intense, much milder than is usual, in an ephebus of undoubted sex.

The mental capacity, the language used in answering questions and expressing feelings, is evidently much superior to what is ordinarily met with in the class from which this epicene has sprung, and in the social position in which she has been placed. The modesty and propriety of demeanour displayed in replying to the many painfully delicate questions I have had to put, and in the examinations I have made, have been in the highest degree commendable; and it has required more than ordinary persuasion on my part to induce a submission to the inspection of a few professional gentlemen.

Those who have perused the elaborate article on Hermaphrodism by Professor Simpson, in the *Cyclopædia of Anatomy and Physioloy*, will appreciate the difficulty of assigning during lifetime to which class of *true* hermaphrodites this case belongs; and, without entering on the discussion of the *pros* and *cons* for the preponderance of this or that sexual organisation, I must leave those interested in this subject to draw their own inferences from the description I have given.

Progress of Medical Science.

MIDWIFERY AND DISEASES OF WOMEN.

Mortality of Childbirth as affected by the Age of the Mother. The following are the chief conclusions on the subject, arrived at by Dr. Matthews Duncan. 1. Youthfulness has less influence in producing mortality from parturition than elderliness. 2. From the earliest age of child-bearing there is a climax of diminishing puerperal mortality, succeeded by an anticlimax of puerperal mortality increasing till the end of child-bearing life. 3. The age of least mortality is near 25 years, and on each side of this age mortality gradually increases with the diminution or increase of age. 4. Above 25 years puerperal mortality increases at a much higher rate than it increases at corresponding periods below 25 years. 5. Though it is not deducible from anything in this paper, it is too interesting to omit noticing that the age of greatest safety in parturition coincides with the age of greatest fecundity, and that during the whole of child-bearing life, safety in parturition appears to be directly as fecundity, and *vice versâ*. (*Edinburgh Medical Journal*, October, 1865.)

Double Uterus. At a meeting of the Medical Society in Vienna, Dr. Späth related the following case which had recently come under his notice. A girl aged 18, primipara, was admitted into hospital. On examination, there was found to be a double os uteri, and the existence of a bilocular uterus was therefore suspected. After the first labour-pains had set in, the patient was seized with convulsions, which recurred, and ended fatally, in spite of the hypodermic injection of acetate of morphia. During life, it was found that both orifices were dilated, and gave the sensation of an os uteri divided by a band: this was divided by scissors, and the child was discovered presenting transversely. After death, the uterus was found to consist of two cavities, of which the right was somewhat larger than the left. In the septum was an opening, which, Drs. Rokitansky and Späth believed, had been formed during pregnancy. A corpus luteum was found in the left ovary. (*Wiener Medizin. Wochenschr.*, December 9, 1865.)

Traumatic Rupture of the Uterus: Gastrotomy. Dr. John Moir relates a case of rupture of the uterus, in which gastrotomy was performed thirty hours after the accident. The patient being placed under the influence of chloroform, he proceeded to open the parietes of the abdomen in the mesial line, commencing some inches above the umbilicus. So soon as the opening was made, as much fluid escaped as more than filled a very large-sized tin basin, consisting partly of clots and bloody serum, and also, most probably, the liquor amnii.

The body of the fœtus, with its back towards the parietes, was lying across the epigastric region; it was seized by the thighs and removed, as also the cord and placenta. The abdomen was carefully sponged out to remove all fluid, especially clots, and was then closed with wire sutures. The woman eventually died about eight hours after the rupture of the womb, and thirty after the operation.

As to the propriety, says Dr. Moir, of this operation in the present case, and thus removing the dead infant, secundines, and a quantity of coagulated blood from the cavity of the abdomen, he supposes there can be scarce any difference of opinion, as if left there they must have become decomposed, and caused a fearful death without the least hope of recovery; whereas their removal gave the poor patient a chance, however slight, of surviving this untoward accident. (*Edin. Med. Journal*, Oct., 1865.)

Cases of Ovariotomy. Within the last three years, Dr. Keith says, he has performed ovariotomy thirty-five times, with the result of twenty-six recoveries and nine deaths. After the first sixteen operations he lost six of his patients; of the last nineteen, three only have died. Hitherto no mistake in diagnosis has happened to him. He has not yet found it necessary to make any exploratory incisions, and he has not commenced an operation without finishing it. Of those whose lives were saved by ovariotomy, it is now satisfactory to tell, that from the youngest, aged sixteen, to the oldest, aged seventy, all enjoy the best of health. Of the nine whose lives were shortened by the attempt to save them from a miserable death, he operated on four against his own judgment, and at the earnest entreaty of the sufferers, even when told that the chances were as ten to one against them. In six of the fatal cases, the weight of the tumours removed was upwards of fifty pounds. In these the disease was far advanced, and the powers of life were very feeble, and death was but a relief from the utter misery that precedes the natural termination of ovarian disease. Three only of the cases that terminated fatally were looked upon as fair average cases. (*Edinburgh Medical Journal*, December 1865.)

MEDICINE.

Tumour of the Brain: Intermittent Emprosthotonos. Dr. Gemma relates the case of B. C., aged 25, the offspring of parents affected with pellagra. She had always enjoyed good health, when her catamenia were arrested without apparent cause. One day she was suddenly seized with violent pain in the forehead, and uttered a cry; her jaws then became closed, and her head bent forward. She indicated by gestures that she understood all that was said, but could not open her mouth. The attack lasted about three hours, at the end of which time the symptoms ceased, leaving only slight confusion of intellect, which disappeared the next day. These attacks recurred every fifth or sixth day; her health in the interval being apparently perfect. Four months passed in this way without any change, during which time she was bled, and took purgatives and iodide of potassium. At last, an attack took place which was attended with loss of intelligence, sensation remaining. The pulse was hard and slow. At the end of an hour, the patient made some movements with her arm; then sank and died. At the *post mortem* examination, the arachnoid was found to be much congested. The left cerebral hemisphere was very soft; and there was a similar lesion, but less marked, in the corresponding hemisphere of the cerebellum. In the middle of the left hemisphere was found a tumour of the size of a hen's egg, formed of a gelatinous matter with a nucleus as hard as fibro-cartilage in its centre. The right hemispheres of the cerebrum and cerebellum, the corpus callosum, and the medulla oblongata, presented no change. The intestines were slightly injected; the other viscera presented no signs worthy of note. (*Gaz. Med. Ital. Prov. Venet.*; and *Gazette Méd. de Paris*, December 2, 1865.)

Treatment of Peritonitis. M. Smoler of Prague says that the average duration of peritonitis is twenty-five days—thirty in males, and twenty in females. The lower average in females arises from slight cases of perimetritis, periovaritis, etc., being included in the calculation. The mortality has been observed by M. Smoler, in a large number of cases, to be 26 per cent. in males and 12 in females. Peritonitis occurred most frequently between the ages of 10 and 30. The treatment employed has consisted of perfect rest in bed, low diet, a little broth once or twice daily, and as little drink as possible. Cold compresses, often renewed, are laid over the abdomen; their application is desisted from as soon as the patient sleeps, and he is never allowed to change them with his own hands. Internally, from one twenty-fourth to one thirty-second part of a grain of morphia is given every hour or hour and a half, in as small a powder as possible. When the acute stage has passed, and there is effusion in the abdomen, warm baths are given, at first every two or three days, then every day. Frictions with iodine or mercury, and blisters, M. Smoler does not approve. If absorption do not take place, tonics, as iron, quinine, etc., must be given. Frictions with warm oil or oil of henbane may be also employed. In cases attended with vomiting, small pieces of ice and effervescing draughts in small quantities, frequently repeated, are given. In very obstinate cases, a sinapism may be applied to the epigastric region. No attempt must be made to treat constipation until the end of six or eight days, or even later. If it continue, the most simple remedy is an injection of cold water; if the patient object to this, a grain or two of calomel may be administered. Meteorism, which is often very troublesome, will be best retarded by the cold compresses—better than by turpentine, which, indeed, M. Smoler holds to be useless. (*Betz's Memorabilien*; and *Gaz. Méd. de Lyon*, November 16, 1865.)

Iodide of Potassium in Lead and Mercurial Poisoning. M. Melsens, to whom is due the merit of having several years ago pointed out the efficacy of iodide of potassium in cases of lead-poisoning, has recently published a memoir in which he reviews several points treated of in his former work. In addition to being a remedy in poisoning by lead or mercury, iodide of potassium appears, from several cases and experiments, to have proved useful when poisonous symptoms have followed the use of food or drink kept in zinc vessels. As an adjunct to the iodide of potassium, M. Melsens causes his patients to take a slight excess of common salt with their food, for two reasons: first, because, as he believes, the chloride of sodium aids the action of the iodide of potassium; and secondly, because, by rendering the patients thirsty, it increases diuresis, and thereby favours elimination. The iodide of potassium should contain a little free iodine; and it is prudent to take with it some sulphurous water, in order to neutralise any iodates which may be be present. The iodates, M. Melsens finds, are poisonous, but in the economy soon become transformed into iodides. In general, the treatment by iodide of potassium must be conti-

nued several months; and, although this medicine may be given in large doses for a long time without injury, M. Melsens finds it useful to interrupt the course occasionally for a few days. After each interruption, the medicine is to be recommenced in moderate doses, gradually increased; and no other medicinal agent should be given at the same time. In the treatment of syphilis, says M. Melsens, the mercurial course should always be followed up by one of iodide of potassium. He advises that a soluble iodide of mercury be first given, and after this the iodide of potassium. (*Gaz. Méd. de Paris;* and *Bull. Génér. de Thérap.*, November 30, 1865.)

ANATOMY, PHYSIOLOGY, & PATHOLOGY.

Congenital Syphilis affecting the Bones. At a meeting of the Medical Society of Vienna, Dr. Fürth stated that he had examined the body of an infant, which at the age of eight days had been admitted into the foundling institution with a maculo-pustular syphilitic eruption on the feet and hands and on other parts of the body. The mother was healthy. The arms hung loose; but, as paralysis of the extremities frequently accompanies congenital syphilis, this condition excited no surprise. On closer examination, however, there was found an abnormal mobility of the shoulder-joint, and crepitation was distinctly heard: sometimes, however, it disappeared. The child died at the end of five days. On *post mortem* examination, the humerus was found necrosed, and its epiphysis separated. The end of the epiphysis next the humerus was also eroded and rough: and hence arose the crepitation, the occasional disappearance of which was due to the intervention of ichorous fluid between the epiphysis and the shaft of the bone. (*Wiener Med. Wochenschr.*, November 8, 1865.)

Fatty Liver in Children. In the *post mortem* examinations of 222 children affected with adipose infiltration or with fatty degeneration of the liver, Drs. Steiner and Neureutter found that in 131 the age was from one to four years. Among the pathological conditions in the course of which fatty liver appears, the most frequent is tuberculosis; and the fact that this state in children is most frequently manifested as disease of the lymphatic glands and not of the lungs, negatives the supposition that the excessive deposit of fatty matter in the liver in connection with tuberculosis is due to deficient oxidation of hydrocarbons. Drs. Steiner and Neureutter consider rather—and in this they agree to some extent with Frerichs—that the origin of fatty liver is to be sought rather in the change in the constitution of the blood induced by the tuberculous disease, and that the liver may be fatty from the commencement of the tuberculous process. Next in order to tuberculosis in connection with fatty liver, is enteritis; which is not, however, to be regarded always as a cause. It may be preceded by the fatty disease; or, in many cases, the two diseases are very probably due to a common cause. The exanthemata may also be followed by fatty liver; and the connection between these is only to be found in the changes of the blood. Fatty liver is also observed in connection with diseases of the bones in children, such as tuberculous caries and rickets. It is an error to ascribe the condition of the liver to the use of cod-liver oil in such cases; inasmuch as it is met with in children who have never taken oil, in as advanced a state as in those who have used oil for a year. Cases also of bronchitis, pneumonia, pleuropneumonia, and heart-disease, sometimes occur in which fatty deposit in the liver is met with. Of the causes indirectly affecting the liver, diet holds a principal place; inasmuch as the children have either a diet very rich in fat, or (especially among the poor) one deficient in fat but rich in hydrocarbons; and the mischievous influence of this diet is increased by the deficient metamorphoses resulting from want of exercise and from impure air. The authors draw a distinction between adipose infiltration and true fatty degeneration; and observes that the former condition appears to be more frequent in children than the latter, inasmuch as it was met with in 188 cases out of the 222 examined. They hence conclude, that in by far the greater number of cases, fatty liver is not to be regarded as a result of malnutrition of the hepatic cells, but as the result of causes acting from without. (*Jahrbuch für Kinderkrankheiten;* and *Wiener Medizin. Wochenschr.*, December 6, 1865.)

SURGERY.

Retropharyngeal Abscess in an Infant. Dr. Schuller related the following case at a meeting of the Medical Faculty in Vienna. An infant four months old suffered from difficulty of breathing and of sucking. At the left inferior region of the neck was a smooth elastic swelling of about the size of a pigeon's egg, which caused the child to hold its head stiff. On examining the interior of the mouth with the finger (which was very difficult), a similar swelling, of the size of a walnut, apparently connected with the other, was found in the posterior wall of the pharynx. Pressure on the external swelling produced asphyxial symptoms. The voice was hoarse, and the extremities cold. Dr. Lewinsky opened the internal abscess; and, after the discharge of a large quantity of healthy pus, the symptoms affecting the breathing were removed. The improvement, however, did not continue; and it was not until the external abscess in the neck had been opened that recovery followed. (*Wiener Med. Wochenschr.*, Nov. 4, 1865.)

Painful Talipes Valgus. At a meeting of the Academy of Medicine, M. Gosselin presented a specimen of what he considered to be painful talipes valgus (*valgus douloureux*). The disease, he observed, is generally found in youths who have grown rapidly, and are exposed to frequent running. M. Gosselin's patient was eighteen years of age; he had been treated by means of a starched apparatus. He died of cholera; and an examination of the foot gave the following results. There was no lesion of the muscles, beyond a slight shortening of the tibialis anticus. The cartilages of the articulations between the astragalus and scaphoid, between the calcaneum and the cuboid, and between the calcaneum and the astragalus, were ulcerated; the remaining articulations of the foot were healthy, except a great dryness of the synovial membrane. These lesions, M. Gosselin observed, were referable to rheumatic arthritis. The right foot had presented no functional disturbance during life; but in it there was incipient lesion of the cartilage of the astragalo-scaphoid articulation. In summing up his remarks on this case, M. Gosselin made the following remarks. 1. The disease known under the name of painful valgus is a variety of dry arthritis, characterised especially by slight inflammation of the bones and ulceration of the articular cartilages of the astragalus and os calcis. The muscular contraction is consecutive to the arthritis, and appears to have the object of rendering the painful articulations immoveable. 2. The proper treatment is that of most cases

of painful arthritis—immobility of the limb in a favourable position. 3. Tarsal arthritis would be a better denomination for the affection than valgus; but, for the present, M. Gosselin prefers to designate it as tarsalgia of adolescents.—M. Jules Guérin, on the other hand, regards the painful valgus as the immediate result of abnormal contraction of the anterior peroneal muscles and of the flexors of the toes—the difference from ordinary cases consisting in the circumstance that in the condition here described the action is reflex, while in the ordinary cases of deformity the action of the cerebro-spinal system is direct. The pathological lesions are, according to him, the results of subluxation. As to the treatment, he does not think rest sufficient, but says that the disease must be treated according to its stage. In the first stage, rest may be sufficient; in the second, tenotomy must be employed; and in the third, tenotomy must be aided by the application of apparatus to remove and cure the deformity. (*Gaz. Médicale de Paris*, November 4 and 11, 1865.)

Syphilitic Affections of the Eye. MM. Quaglino and Scarenzio arrive at the following conclusions from a number of observations.

1. Though there are no characteristic signs of syphilitic retinitis, it may be affirmed that the disease in the majority of cases affects the entire field of the optic papilla, the surrounding portion of the retina, and the yellow spot. The contour of the papilla frequently presents masses of black pigment, giving it an irregular appearance, and apparently due to proliferation of the pigment-cells of the choroid. Syphilitic retinitis frequently terminates in pigmentary degeneration and atrophy of the retina to a greater or smaller extent, in atrophy of the retinal vessels and of the nervous substance of the papilla, and in lesion of the posterior aspect of the retina, characterised by a reflection of a greyish or ashy colour, most apparent in the course of the vessels. In severe cases, the choroid may be attacked, giving rise to the formation of yellowish serous and lymphatic exudation, loss of pigment, and compression of the retina, with atrophy of the columnar layer. In such cases, the pigment-cells of the choroid are infiltrated into the meshes of the atrophied retinal tissue, and constitute the peculiar alteration termed pigmentary retinitis; the pigment may in this way be spread over the whole surface of the retina, and even over the optic papilla. When the amaurosis produced by syphilitic retinitis is secondary to the extension of a morbid process from the iris to the choroid and retina, it is impossible, although the papilla be still free, to examine the fundus of the eye, in consequence of the presence of greyish false membranes, and of the dulness of the superficial layers of the crystalline lens. Syphilitic retinitis and choroiditis, as well as iritis, are developed most frequently in an advanced stage of the constitutional affection, and belong to the secondary as well as to the tertiary phenomena.

2. In most cases, the functional symptoms of syphilitic retino-choroiditis are the following. *a*. There are asthenopia, trembling and uncertain vision, photophobia, visions of globes of fire or black spots, chromatopsy or pseudo-chromatopsy, and muscæ volitantes. *b*. There is a gradually increasing weakness of the power of vision. *c*. The field of vision becomes progressively limited from the circumference until it is limited to a narrow space. Frequently also obscurity commences in the centre of the field of vision. In either case, sight may remain limited, or may extend little by little. *d*. The hemeralopia which is often observed in cases of degeneration or pigmentary infiltration of the retina in syphilitic subjects, is a phenomenon which appears very late, and appears to be the effect of loss of sensibility in the retina and progressive atrophy of the papilla. *e*. If constitutional syphilis have produced periostitis of the orbit or a swelling implicating the filaments of the fifth pair of nerves, the patient experiences, independently of impaired vision, violent supraorbital neuralgia, with nocturnal exacerbations; exophthalmia may even be produced: there is then a severe almost constant pain in the temporal and frontal regions. The motor nerves alone may be attacked.

3. These affections have generally a very slow, often irregular course.

4. In the early period of syphilitic retinitis, antiphlogistics and resolvents are employed with advantage, especially if symptoms of inflammation be present. When these are absent, the simple fact of impairment of vision in a syphilitic subject indicates the use of a specific treatment—mechanical friction, iodide of potassium, etc. Tonics should be added, if there are threatenings of atrophy of the retina. Under such treatment, patients have almost entirely recovered sight.

5. Cure is no longer possible when atrophy of the retina actually exists. Other nerves than the optic may, when affected, return more readily to their normal state, by reason of their structure being less complicated. If the retina be slightly obscured, but the columnar layer remain intact, there will be only impairment of vision for distant objects. (*Gaz. Méd. de Paris*, November 11, 1865.)

Diffuse Traumatic Aneurism of the Femoral Artery: Ligature of the External Iliac. This case is chiefly interesting as giving an example of the difficulties with which the surgeon may meet. A young man received a pistol-shot in the lower third of the left thigh. Hæmorrhage followed; compression was applied; and, some hours afterwards, a pulsating tumour appeared in the groin, which presented the characteristic stethoscopic signs of aneurism. At the same time, the entire thigh swelled as far as the knee; and the patient complained of violent pain. Compression was continued, and astringent solutions were applied; but without result. Digital compression of the crural artery was then attempted, but could not be borne by the patient. Seeing no other resource, M. Stroppa determined to tie the femoral. On making the first incision, a gush of blood took place. The surgeon then cut open the aneurismal sac, removed the coagula, and tied the artery immediately above—but without producing any effect on the hæmorrhage. M. Stroppa extended the incision upwards, and applied another ligature, but still without success. The patient was becoming rapidly prostrated by the hæmorrhage, when M. Stroppa filled the wound with charpie dipped in a hæmostatic fluid, and cut down on and tied the external iliac. The hæmorrhage was immediately arrested. The limb was at first benumbed and cold, but warmth returned at the end of some hours. A month after the operation, the patient had perfectly recovered. (*Il Morgagni*; and *Gazette Médicale de Paris*, November 25, 1865.)

Erratic Course of a Bullet. At a meeting of the New York Pathological Society, Dr. Sands showed a bullet, which had been removed from a soldier who had been wounded in June 1862, in the region of the upper right eyelid. The wound was perfectly healed, when some time ago he presented himself at the Eye Dispensary. He had been examined by surgeons in the army, but no bullet had been detected. On close examination, a swelling was discovered be-

hind the ear, near the insertion of the sterno-cleido-mastoid muscle, which, presenting the features of a hard foreign substance, was cut down upon, and proved to be an ordinary conical rifle projectile. It was imbedded below the above-named muscle, in the fibres of the splenius capitis. The case showed how extensively these projectiles may travel through, or in the neighbourhood of, important parts, without inflicting serious injury, or giving rise to much trouble. (*Philad. Med. Reporter.*)

We are requested to remind members of the Association that the Annual Subscriptions became due on the 1st of January. They can be paid either to the Secretaries of the Branches; or to the General Secretary, T. Watkin Williams, Esq., 13, *Newhall Street, Birmingham.*

British Medical Journal.

SATURDAY, FEBRUARY 10TH, 1866.

VACCINIA AND VARIOLA.

SINCE the time when Jenner observed the interesting fact that the secretion of *grease* was able to induce cow-pox, writers have very much inclined to the opinion that cow-pox was originally developed by transmission from the horse to the cow. That the facts of the case do not, however, necessarily lead to this conclusion is obvious; for the proof is wanting that the grease of the horse was not originally dependent upon inoculation of vaccinia from the cow. To obtain direct proof on a matter of this kind is difficult in the extreme; although a study of some points in the history of the *vaccino-genetic* affections of the horse and cow may lead us to form conjectures which are probably near the truth.

If the horse were, *par excellence*, the animal in which vaccinia originated, we should expect that cow-pox could be transmitted from horse to horse with at least as great facility as we have seen to be the case with the cow. We should anticipate, moreover, that, if cow-pox were transmitted from the cow to the horse, and were afterwards brought back to the cow or to man, the disease would have undergone no perceptible attenuation. If the interposition of the system of the horse brought about such a modification, and diminished the capability of reproducing itself which cow-pox possesses to so high a degree, should we not have some reason to doubt the truth of the hypothesis, that the system of the horse is *par excellence* the native soil of vaccinia?

Such are the considerations which have been suggested to the minds of the Reporters of the Lyons Commission on Vaccinia and Variola, by the results of the experiments on the transmission of cow-pox to the horse and ass, to which we now purpose referring.

What are the characters of the eruption (horse-pox) induced in the horse and ass by inoculation with the matter of cow-pox?

"During the five or six days which follow inoculation, there is no appearance of any specific action. From the fifth to the eighth day, the punctured parts become distinctly papular. Until about the tenth day, the papules enlarge, and become more and more prominent, assuming the form of a cone with a very wide base, and having a width of from ten to twenty *millimètres*. During this period, these large conical papules are painful when touched; their surface does not present any elevations; nor is there any modification of the epidermis, which merely has a red appearance in animals whose skin is but slightly pigmented. The affection now passes into a different phase, which might be called the period of secretion. This period commences about the ninth or tenth day. The epidermis, which is slightly raised over nearly the whole extent of the papule, allows innumerable droplets of a limpid, slightly lemon-coloured, serous fluid to exude. These drops soon concrete into yellow transparent crusts, which cover the whole surface with a characteristic crystalline-looking coat, differing very greatly from the crusts which follow the formation of vaccinal pustules in man and in animals of the ox-tribe. The secretion, which lasts for several days, ceases from the thirteenth to the seventeenth day after the inoculation. If the crust be then removed, a damp, granular, pink surface, which does not project above the surface of the surrounding skin, is exposed. This surface is considerably hollowed in the centre, presenting a cavity into which a projection from the deep surface of the crust fits, after the fashion of a nail."

Such is the description given by Professor Chauveau and his colleagues, of horse-pox induced by transmitting cow-pox to the horse and the ass. The remarkable points of difference existing between the eruption in the cow and horse are of interest, as showing how apparently different may be the effects of the same virus transmitted to animals of different species.

Having determined that the matter of cow-pox very readily induces, in the horse and ass, the affection which has been described, the members of the French Commission undertook the following experiments. They collected the secretion from a beautiful eruption of horse-pox, which had been induced by inoculation with the matter of cow-pox, and with it they inoculated two children. There resulted in each case merely one small pustule, presenting in every particular the character of vaccinia. Several subsequent attempts to vaccinate these children proved abortive, thus testifying to the first having been a legitimate vaccination. With the matter obtained from the vaccine vesicle of one of these cases, there were inoculated a horse, an ass, and a heifer. The latter animal had a magnificent eruption of cow-pox; whilst the former two had an eruption of horse-pox, which was very much slighter than that which had furnished the matter with which the first subject—viz., the child—had been inoculated. The matter of this modified horse-pox was, however, collected, and with it a second child was inoculated; but the oper-

ation remained without a result, although a subsequent vaccination with ordinary matter succeeded. The matter from the cow-pox eruption developed upon the heifer was used for vaccinating children and other cows, and was found to be extremely active, inducing in every case typical eruptions of vaccinia. Two heifers and a horse were inoculated with vaccine matter obtained at the Charité Hospital. Beautiful eruptions of cow-pox were induced on the heifers, and a characteristic eruption of horse-pox in the case of the horse. Whilst the matter obtained from the former gave rise to admirable eruptions of vaccinia when transferred to man and to other cows, the matter of the latter failed to induce horse-pox in another horse. Other experiments showed that cows inoculated with the matter of horse-pox, which had been originally induced by inoculation with cow-pox matter, became affected with cow-pox eruptions of such slightness that they seemed to indicate a very decided weakening or attenuation of the virus by its passage through the system of the horse.

Does not this series of facts, so closely connected together, and agreeing so admirably with one another, appear to indicate that vaccinia finds in the system of the cow a soil more congenial to its development than is that of the horse, and almost lead one to think that, if originating in either of these animals, it probably was first developed in the cow?

The Commission next studied the transmission of cow-pox to other domestic animals, and arrived at the conclusion that, whilst vaccinia may be induced in the goat, neither the sheep, dog, nor pig are susceptible to its influence.

Leaving, for the present, the subject of vaccinia, we have to examine the novel and complete experiments on the transmission of variola to the lower animals. Eight different series of experiments were undertaken, with the object of ascertaining the effects—1. Of inoculations practised on animals of the ox tribe with the matter of human variola; 2. Of vaccinating animals which had previously been subjected to variolous inoculation; 3. Of inoculating variolous matter on vaccinated animals; 4. Of practising simultaneously vaccinal and variolous inoculations; 5. Of transmitting from ox to ox the matter of variola; 6. Of bringing back to man the virus of variola, which had been transmitted through the system of the ox; 7. Of transmitting this variolous virus from man to man; 8. Of again transmitting it (a second time) from man to the ox.

Seventeen cows, heifers, and young bulls were inoculated with the matter of human variola. Not one of these animals took cow-pox; but in every case the inoculation gave rise to the formation of very minute reddish papules. This eruption was so slight that it might easily have escaped observation. In order to determine whether this eruption was merely the result of inflammatory action, or whether it was of a specific nature, fifteen of these seventeen animals were now vaccinated; ten were vaccinated with cow-pox matter, and five with the matter of human vaccinia. One of these animals alone contracted a well marked eruption of cow-pox; three presented rudimentary vaccinal pustules; and in eleven vaccination failed completely.

When we consider that the animals thus experimented upon were taken from the same herd which furnished those used in the vaccination experiments, we cannot help allowing that the fact of vaccination having failed completely in eleven out of fifteen animals inoculated with variola, whilst it succeeded completely in one single case, almost amounts to positive proof that variola had exerted its specific action—a conjecture which is proved in the most complete manner by other experiments. By excising the papules induced in the ox by inoculation with variolous matter, and scraping them, a small quantity of serous fluid can be obtained. With this serous fluid, inoculations were practised on a second series of animals. It gave rise to an eruption which resembled the first, but which was even less distinct.

In order to ascertain whether in reality the eruption induced in the ox was one of variola, the Commission took some of the serous fluid obtained from the papules, and with it inoculated a non-vaccinated child three months old. On the eighth day, one single pustule was found to have resulted from the inoculation. Although at first this pustule exactly resembled a pustule of vaccinia, it soon became surrounded by other smaller pustules. The child became feverish, and vomited. On the ninth day, a vesicular eruption appeared on the face and trunk. On the tenth day, the eruption was distinctly pustular. The pustules were umbilicated, and identical in every respect with small-pox pustules. On the seventeenth day, the pustules had dried up, the fever had ceased, and the child was fully convalescent.

A second child was now inoculated in three places on each arm, with the virus furnished by the primitive pustule which had formed on the first child. On the sixth day after the operation, a pustule had formed on each punctured point; these pustules were identical with pustules of vaccinia. On the seventh day, two small vesicles formed around one of these pustules. On the tenth, fifteen pustules of variola appeared on the face or on other parts of the body. The child's general health was not affected. This generalised eruption soon disappeared, without leaving behind it any traces.

Thus, as the Commission remarked, a second transmission through the human subject of variolous poison, which had once passed through the system of the ox, seemed to produce a milder varioloid than did the first. Possibly, by continuing to transmit from child to child variola which had been engrafted

on the system of the cow, a form of the disease would be obtained in which general symptoms and general eruption would be at a minimum; but in which the local effects of inoculation would be at least as perfect as in the cases observed by the French Commission.

Some might, however, object that the generalised eruption observed in Lyons was merely a generalised vaccinia, and that further proof would be required before we could admit its variolous nature. The proof is not wanting, for a young bull and a heifer were inoculated with the matter obtained from the primitive pustules of the second child; the inoculation was followed by the appearance, not of cow-pox, but of the papular eruption characteristic of variola in animals of the ox-tribe.

In a third and concluding article, we shall draw attention to the experiments which have been made on the transmission of variola to the horse, and make some remarks which have been suggested by the conclusions to which the French experimenters have arrived.

THE NATURAL COURSE OF DISEASES.

In the last volume of *Guy's Hospital Reports*, amongst other valuable contributions, is one which deserves much greater attention than it has hitherto received. It is a paper entitled "Cases of Rheumatic Fever treated for the most part by Mint-Water." The cases were under the care of Dr. William Gull and of Dr. Owen Rees, and have been collected by Dr. H. G. Sutton. Unfortunately, the cases and remarks made upon them are put together in a somewhat confused way; so that, in truth, the especial point which they are meant to illustrate does not come so clearly out as could be wished. Nevertheless, the valuable mine of material is here.

If we are not mistaken, there is no such series of cases on record—in this country, at least. We have laid before us a long list of cases of acute rheumatism, taken indiscriminately as they entered the hospital, and treated, it may be said, without drugs—excepting only that occasionally small doses of opium were given to relieve pain, and in some instances two or three ounces of brandy. At all events, there was no drug-remedy administered with the express idea of arresting or killing the disease. The rheumatic entity, if we may use such an expression, was virtually left to its own devices; in other words, the cases were left to Nature, so far, at least, as the mere giving of drugs was concerned. We say especially so far as regards drugs; because most persons will admit that good nursing, rest in bed, keeping up the sweating, etc., are very great elements (if not the most important elements) in the treatment of this acute disease.

Dr. Gull's object was to get at what is usually called the natural history of the disease; *i.e.*, to know what the issue of it would be in a large number of cases in which the usual treatment *minus* drugs was adopted; and, of course, therefore, to ascertain the influence of drugs over acute rheumatism. How (he seems to argue) can we really know anything sure about the effects of remedies over acute diseases, unless we first of all ascertain what course the diseases will take when left to themselves. The results here given, are the conclusions drawn from some forty-one cases treated as indicated.

The conclusions drawn from them are, that the ordinary treatment of acute rheumatism *minus* drugs is as efficacious as the ordinary treatment *plus* drugs. In other words, that the alkaline treatment, for example, which the profession has regarded for some years past as in some sense specific, is an useless treatment.

We sincerely trust that Dr. Gull himself will tell us something on this all important subject, and freely give us his own inferences. No doubt Dr. Sutton has expressed the general views of Dr. Gull; but this is hardly enough in so vital a matter. We cannot conceal from ourselves that these reported cases, however little they may be regarded at this moment, threaten to open up a new era in the treatment of acute diseases. Coming as they do from a physician of the repute and experience of Dr. Gull, they cannot be passed over in silence. A few years ago, a medical man would scarcely have dared to treat acute diseases without drugs.

Dr. Gull's undoubted conclusions, drawn from these cases, are: that the drug-treatment of acute rheumatism, *cæteris paribus*, is no better than no treatment at all; that cases treated without drugs do as well in all respects as cases treated with drugs; and that, therefore, too much importance is attached to the use of drugs in those cases of acute disease which have a natural tendency to recovery. In a future number of *Guy's Hospital Reports*, we are promised further evidence on this vital question of treatment; and are glad to find that Dr. Owen Rees has also resolved to join more fully in the inquiry, and to give the results of a certain number of cases treated with mint-water, and an equal number with alkalies, lemon-juice, etc.

Dr. Owen Rees also gives four cases of rheumatic fever treated with mint-water. He remarks upon them:

"In point of duration, these cases may be considered to bear comparison with the general run of those which have been submitted to approved plans of treatment.

"It has been my practice for many years past, to exhibit lemon-juice in acute rheumatism; and, from long experience, I am of opinion that two of the patients might have been earlier relieved had I exhibited that remedy—upon which I continue to rely, as assisting to diminish general excitement and to lower

the pulse. The great point here illustrated is, that when treating acute rheumatism we are dealing with a disease which seems to go on to cure quite unassisted, and that this happens even when it appears in the acutest form. As these cases were *absolutely* treated with nothing but mint-water, they will serve as a fair standard when testing the value of proposed remedies. For my own part, the results have firmly impressed me with the belief that the old plan of treatment, consisting in the exhibition of calomel, opium, and antimony, and the free use of colchicum, did great harm, not only by retarding recovery, but by leaving the patient greatly debilitated. The duration of cases of acute rheumatism when I first became a student at Guy's Hospital was most certainly far longer than at present; when, whatever may be the treatment adopted, it partakes less of the heroic character than that which was practised by our predecessors."

Every effort made to lessen the terrible results which have of late so frequently occurred through the administration of chloroform will be hailed with satisfaction by the profession. The new and ready method of producing local anæsthesia, suggested by Dr. B. W. Richardson, is in this sense deserving of especial attention. We have seen his apparatus, and can bear witness to its simple and rapid and painless way of inducing local anæsthesia. In the extraction of teeth, and in all those minor operations in which incisions of the skin, removal of the nails, etc., are concerned, there seems every reason to believe that this method may be successfully employed. Most assuredly, if further experience confirm its practicability, the induction of general anæsthesia by inhalation will, in the cases suggested, cease to be justifiable. Dr. Richardson believes that his means may be so extended as to enable even deep incisions to be made without pain. Dr. Richardson uses Siegle's spray-producer, with the hand-ball spray-producer invented by Dr. Andrew Clark. He found that with this apparatus, somewhat modified, and by the use of rectified sulphuric ether, he could produce a degree of cold approaching to, or even below, the zero of Fahrenheit. Dr. Richardson further tells us that, as soon as the the skin rendered painless by the cold is cut, the ether-spray acts upon the nerves in the parts below; so that narcotism can be extended to any depth, following the knife, and continuing with the ether-spray to play upon the cut surface. The apparatus appears to have been used with perfect success in the painless extraction of teeth. Our surgeons will, no doubt, soon decide as to the extent to which this valuable instrument can be practically rendered serviceable.

We believe that the main feature in the Report of the Venereal Diseases Committee is what we stated many months ago it would be—viz., the recommendation of some more appropriate method of examining prostitutes in garrison towns than the present one. We stated that it was impossible, from the very nature of the case, that the Committee could do more than make some recommendation of this nature. It was out of reason to suppose that they could do anything towards settling the nature of syphilis, or in offering advice as to its cure. These are things clearly beyond the power of any Committee to settle. As our readers may remember, we last year more than once protested against the iniquitous Bill which was, in the last session, smuggled through Parliament—the Contagious Diseases Bill—a Bill which actually throws the diagnosis of the diseased prostitute on the policeman. Under this Act, any policeman who suspects a prostitute of being diseased (in certain garrison towns) must take her into custody on the suspicion and bring her before a magistrate, who thereupon commits her for examination to a hospital, where, if found guilty of disease, she is detained until cured. This iniquitous Bill has now been in force for a year or so. If the Venereal Commission do no more than remove such a shameless violation of propriety from our Statute-book, they will have done enough. If prostitutes are to be subjected to police regulations, let it at all events be done with decency and common sense.

We beg to call attention to the fact, that, in commencing the second series of his *Photographs of Diseases of the Skin*, Mr. Balmanno Squire has chosen as the subject of the first fasciculus "the Skin-Eruption of the Cattle-Plague."

"The photograph," he says, "represents one of the teats with part of the udder of a cow on the seventh day of the disease. The udder of this animal exhibited near the roots of the teats several well marked crusts of about the size and thickness of a split pea, distinct from one another, of a brown colour, of a cheesy consistence, and of a greasy character—in fact, possessing all the qualities of the berry-like crusts produced by small-pox on the human subject..... Portions of the erythematous skin in the neighbourhood of some of the crusts were the seat of a flaky desquamation."

A cotemporary has hinted that the army and navy medical officers are not likely to obtain much benefit from the labours of the Army and Navy Medical Committee which has been sitting at the Admiralty. We have ground to believe, on the contrary, that the recommendations of the Committee are such as will give satisfaction to all reasonable persons. The Committee, we understand, brought its labours to a conclusion on the 8th instant.

Dr. Bence Jones, in the *Medical Times and Gazette* of January 6th, 1866, states in the most unequivocal manner that alcohol undergoes oxidation in the human body.

"It is," he says, "to a small extent oxidised in the stomach. In a few minutes, a part passes, still be-

ing oxidised, into every secretion, as into the lungs, kidneys, liver; another part passes into every other texture; and on each substance, in each texture, the alcohol produces its chemical action, still continually undergoing oxidation, so that in a few hours one part has entirely escaped, and another part has been entirely oxidised in the blood and textures. . . . Alcohol, whether weak or strong, combines with oxygen —increased oxidation, increased circulation, increased secretion, increased effusion of lymph, altered nutrition, result. The second action depends on the strength of alcohol. Strong alcohol acts chemically on albumen, fibrine, etc.; has a powerful attraction for water, and shrivels up cellular tissue, hardens fibrine, and precipitates albumen."

This is a very surprising statement, when made by a physiologist and chemist of Dr. Bence Jones's celebrity. He speaks of the oxidation of alcohol within the body as if it were a fact proved beyond question. But surely to this moment no proof of such oxidation has ever been given. The subject is one of the highest interest to all of us; and we trust, therefore, that, for the benefit of science, Dr. Jones will tell us the grounds upon which he founds a statement which, we believe, is flatly contradicted by the latest and best scientific investigators. Before making such a broad and unhesitating assumption, Dr. B. Jones (in the present position of the question) is, at all events, bound to give his reasons for adopting the conclusion that alcohol undergoes oxidation in the body.

A HOMŒOPATHIC practitioner has issued a report on the progress of his art. From it we cull a few specimens, that our readers may hear what its cultivators themselves have to say on the subject.

"First, as an answer to the cry that homœopathy is dying out, the annual reports of many of the homœopathic hospitals and dispensaries, in almost every case, show a large increase in the number of patients.

"New dispensaries have also been established both at home and abroad. The increase in the number of dispensaries would, doubtless, have been much greater, but for the short supply of homœopathic medical men. In many even populous places, difficulty is found in obtaining a homœopathic professional man to reside. This difficulty will probably, in time, be overcome by the influx of young men fresh from the schools, as well as by the conversion of allopathic practitioners.

"At Edinburgh, during the past winter, a professor of medicine, after impressing on his students the necessity of a better study of medicines, asked them each to take a different medicine, and prove it on himself. Thus, after an interval of more than half a century, they are following in the very footsteps of Hahnemann.

"In May 1855, Lord Ebury, then Lord R. Grosvenor, moved for the production of some correspondence between the London Homœopathic Hospital and the Board of Health, *and for the returns suppressed by the Medical Council.* These returns disclosed the astounding fact that, whilst the mortality from cholera under allopathy was 59.2 per cent., under homœopathy it was 16.4 per cent.

"Not only is cholera curable by homœopathy, but there are medicines which have been proved by experience to possess preventive properties.

"The report of the Homœopathic Hospital shows that during 1864, 482 in-patients were received, of whom 18 died, being rather under $3\frac{3}{4}$ per cent.; the mortality of the general hospitals of London is $7\frac{1}{2}$ per cent., exactly double.

"As statistical proof of the value of homœopathy in acute disease, one doctor treated eighty cases of small-pox, with only four deaths; and another sixty cases of scarlatina, with only two deaths. Moreover, the General Provident Assurance Society has passed a resolution 'that a special section be opened for persons treated by the homœopathic system at a lower rate of premium than that charged on other lives.'

"In Spain, a homœopathic academy, with a professorship and clinic attached, has been established by the government, and its worthy principal, Dr. Nune, has received the title of Marquis.

"Dr. Berigny, at Calcutta, who has been appointed Medical Officer of Health to that city, in a letter, mentions the fact, that his Excellency the Viceroy and several members of the Council are in favour of homœopathy.

"The experience of Mr. Davis, Her Majesty's huntsman, has been quoted in favour of homœopathic treatment in the diseases of the lower animals. Mr. Lord, an army veterinary surgeon, is now a convert; his very successful treatment of the horses at the Cavalry Depôt at Canterbury, according to homœopathic principles, having forced from him the confession, 'I can no longer doubt the truth of the law, *similia similibus curantur*; and he is now, by Government approval and wish, treating all diseases homœopathically.

"Mr. Moore, the veterinary surgeon, has published an exhaustive pamphlet on the cattle-plague, giving full instructions for the homœopathic treatment of the disease, and citing cases cured by that system, in which he has been so successful as to cure 84 per cent."

THE convalescence of Professor Oppolzer, who has been dangerously ill of fever, is announced, to the great joy of the Vienna students, who are already preparing an ovation for him.

The *Gazette Médicale* says that application has been made from England to the French authorities for a supply of vaccine to carry on the cattle-plague vaccination experiment. The demand for this article, since the application, has no doubt considerably given way, under the discovery of the inutility of the proceeding.

Another case of death from chloroform is announced in London, says the *Gazette Médicale.* "Once in England people mourned over such deaths; next they simply related the manner of the death; now they merely tell the fact without details. It is a progress not very pleasant to talk about."

The reception of M. Wurtz, as Dean of the Paris Faculty of Medicine, by the students, is said to have been rather cold. His colleagues, however, are becoming more expansive. He will not take up his residence, report goes, in the official dwelling of the Dean, "a prudent precaution which, in case of accident, will save him the expenses of *déménagement.*" M. Tardieu's dismissal is not yet forgotten.

EXCISION OF THE TONGUE BY MR. SYME.

About a year ago (Journal, February 11, 1865, p. 148) we gave an account of a case of excision of the tongue, performed by Mr. Syme. Mr. Syme now gives (*Lancet*) further and remarkable particulars of the patient's state twelve months after the operation.

After his return to Manchester, says Mr. Syme, the patient sent me favourable reports of his progress, but certainly not such as to convey an adequate idea of the improvement that had taken place since he came under my care. He was then emaciated and bent down by long-continued suffering, unable to articulate, so as to require a slate and pencil for expressing his wishes, and swallowing even fluids with such extreme difficulty as to feel on the point of starvation. My surprise may, therefore, be imagined when on the 10th of September last he unexpectedly made his appearance, erect and vigorous, and, seeing that I did not recognise him, announcing his name in a loud, clear voice. The feeling thus excited was not lessened by learning that while travelling in the Highlands he had dined at *table d'hôtes*, and entered into conversation without betraying the deficiency under which he laboured. Very much astonished by a result so much better than could have been anticipated, I requested a number of my medical friends to join me in examining the state of matters. Prof. Goodsir and Mr. Nasmyth having satisfied themselves that no vestige of the tongue remained, various observations were made with regard to articulation and other functions of the absent organ; and Mr. Annandale afterwards instituted a more particular inquiry, of which he has given me the following report:—

"The lips and jaw-bone, where divided, were soundly united without any deformity. The opening between the mouth and pharynx was much diminished in size and irregular in shape from contraction of the fauces and soft palate, which were drawn downwards and forwards more to the right than to the left side, from the mucous membrane at that part having participated in the disease and been removed along with the tongue. Mr. W. says that he can swallow as well as ever, provided that the food is either finely divided or fluid. He is also able to masticate solid substances, although difficulty is sometimes experienced from their getting into awkward parts of the mouth. In ordinary speech his words are wonderfully clear and distinct, and he can sing without any difficulty. All the vowels and words composed of them are articulated perfectly, and also the following consonants: B, C, F, H, K, L, M, N, P, Q, R, V, W. D is pronounced 'dthe,' J 'the,' G like 'sjee,' 'S' is a lisp. His taste is impaired, but still enables him to distinguish different articles and their respective qualities, as grouse from partridge, bitters from sweets, good beer from bad beer, etc. He has remarked that the seat of sensation lies somewhere in the throat, since there is no recognition of taste previous to the act of swallowing; and, in order to ascertain the truth on this point more precisely, the following experiments were made:—

"1. A strong solution of salt was applied by means of a camel-hair brush to the fauces, palate, floor of the mouth, lips, and inner surface of the cheek, with the result of something being felt in his mouth, but no idea formed as to its nature.

"2. About a quarter of a tea-spoonful of finely powdered sugar was placed on the floor of the mouth, and, having been allowed to remain there a few seconds, was then brought thoroughly into contact with every part of the cavity without any recognition of its nature; but when a little water was added and swallowed, the taste was immediately perceived.

"3. The same experiment was repeated with another substance (salt), and with the same result."

It has long been known that large portions of the tongue may be removed without destroying or materially impairing the power of articulation, but I am not aware of any case on record in which it has remained so perfect after complete removal of the organ. Of the facts above mentioned, the one that seems most curious is the connexion between taste and deglutition; from which it appears that the latter is essential for the full perception of the former. If the pleasure of taste could be perfectly gratified by mastication without deglutition, there would be no limit to the consumption of food; but the instinctive desire to swallow an agreeable morsel affords a check to any such abuse.

ITALIAN LUNATIC ASYLUMS.

Dr. T. Howden, in 1864, visited four of the Lunatic Asylums in Italy; and in the *Edinburgh Monthly Journal* of December 1865, gives a short account of their management. We extract the following:

The first asylum that I visited was the one at Turin, a large establishment within the city containing both male and female patients.

In going through the house, I was much surprised at the large number of patients in the infirmary, many of whom wore the strait-jacket, now so generally discarded in this country. The beds, which were wooden and extremely cumbrous, were all filled with straw, which could be changed daily; and to each bed was attached a wooden dish or tray, which acted as a receptacle for all fluid that might find its way through the straw, there being a hole in the bottom of the bed to allow of its escape.

One of the most unpleasant things in the house was the state of the "latrines", the filth of which was abominable; the patients were evidently allowed to make whatever use they liked of these conveniences, no check being exercised over their filthy habits.

The next asylum which I visited was one for females, attached to the general hospital at Venice. The number of patients was 350; their condition seemed to me wretched in the extreme. Here were to be seen poor women lying in bed, not only handcuffed, but also with a manacle round one ankle, and firmly fastened to the foot of the bed; chairs also, in which the patients could be confined,—but of this species of restraint I shall have more to say hereafter; strait-jackets too, the construction of which seemed the same in all asylums, viz., a strong canvass jacket, with very long sleeves, so long that after the arms of patient were folded across the chest, the sleeves could be tied behind. There was little or no provision made for open-air exercise, the asylum being simply a portion of the general hospital devoted to this specialty.

The male asylum was a most pleasing contrast to the female one. It occupies the whole of the island of San Servulo, and is conducted by a body of monks. The monkish doctor, in his long gown, seemed delighted to show me everything of interest. Everything appeared perfectly clean and orderly. The number of patients at the time of my visit was 436, rather more than the establishment could well ac-

commodate; that, however, they seemed doing their best to remedy, several new rooms being in process of building. The baths bore no evidence of being constructed with an eye to fastening in the patient, as is too often to be found in foreign asylums: in such cases nothing but the patient's head being visible above-board. I saw nothing in the shape of restraint, and the doctor said it was but rarely had recourse to.

The doctor showed me, with considerable pride, a copy of a notice of the asylum by Dr. Robertson, extracted from the *Journal of Mental Science*. He handed me his prescription-book, in which I found ordered many of our own most recent and favourite drugs. To conclude, I left the asylum delighted with what I had seen, and much pleased by the courtesy extended to me. I brought away with me two reports printed at the Armenian convent.

The next town I sojourned at after Venice was Padua, where, though there is no special lunatic asylum, two wards of the large general hospital are set aside for lunatic patients. In these wards there were about twenty males and as many females. Out of these forty there were, I think, ten lying in bed with handcuffs or manacles round the ankles, or both; the handcuffs were attached to a broad belt round the waist, the manacle again being fastened to the foot of the bed. Besides these there were others wearing straitjackets, and with their feet fastened to the foot of the bed by a strong towel: this latter seemed rather a favourite method of restraining patients. I remember well the effect of the towel on one poor patient suffering from pellagra, the skin of the ancle having been chafed and irritated till it had broken out into a large unhealthy sore. Talking of pellagra, I may mention that the number of patients, both here and at Venice, suffering from that disease was very large. Venice is the head-quarters of all Padua lunatics, of whom there is a very large number in the asylum suffering from pellagra—more than is sent from any other place, except Treviso and, in some years, Udine. Pellagra seems a disease peculiar to Northern Italy; in fact, it appears to be almost entirely confined to the famous "Quadrilateral."

The Roman asylum is a large institution, containing between 400 and 500 patients, the numbers being pretty equally divided between the male and female. The building is situated on the banks of the Tiber, on the same side as, and very near to, the church of St. Peter. The outside walls were painfully white. This extreme cleanliness, however, was quite borne out by the condition of the interior, which was clean and well-kept. The baths were by far the most complete and varied I have seen in any similar institution.

The doctor in the Roman asylum seemed to look upon the notion of keeping several hundred patients in one house without ever having recourse to restraint as the most preposterous thing he had ever heard of; in fact, regarded it seemingly as an utter impossibility.

With Rome concludes my short and very imperfect notice of a few Italian asylums. Let us hope that, in the great advance Italy is now making in liberty and social reform, the condition and well-being of that unfortunate class of the community will not be forgotten. Nothing in all my visits struck me more forcibly than the condition of the two asylums in Venice, seeing them, as I did, on the same day: the female one, under the direction of Government, wretched and neglected; the one for males, conducted as a labour of love by a body of monks, who did everything in their power to ameliorate and cheer the condition of their less fortunate fellow-creatures.

THE ARMY AND NAVY MEDICAL SERVICE.

Dr. T. L. Mackesy has forwarded us the subjoined copy of a letter addressed by him to the Right Honourable the Secretary of State for War, enclosing a resolution unanimously passed at a large meeting of the Irish Medical Association, and of the Medical Profession in Ireland, held at the Limerick Junction on December 28th, 1865. A copy of the reply from the War Office is also appended.

To the Right Honourable the Secretary of State for War.

Medical Association,
Royal College of Surgeons in Ireland,
January 26th, 1866.

My Lord,—I have the honour to enclose a copy of a resolution passed unanimously at a numerous meeting of the Medical Association and of the medical profession of Ireland, held at the Limerick Junction, on the 28th December last.

I trust your lordship will not deem it out of place for me, as President of the Irish Medical Association, to suggest the advantage likely to result from the full restoration of the Warrant of 1858, in again imparting to the medical profession that confidence in the Military Medical Department, so shaken by the manner in which some of the provisions of that Warrant were evaded and subsequently withdrawn. I would further, with much respect, suggest to your lordship, that, from the increased duration of service in a tropical climate, caused by the large force of Queen's regiments now stationed in India, the optional retirement of the medical officer be reduced from twenty-five to twenty years' full pay service. The duties of medical officers in a tropical climate being severe, and likely to break down health and energy at an early period of life, granting optional retirement to the medical officer on the permanent half-pay of the rank he may have attained, after nine or ten years' service, would be a great inducement for highly educated physicians and surgeons to enter the service.

The Committee recently appointed to report on the Military and Naval Medical Department will, I trust, be enabled to define, in a practical and satisfactory manner, the distinction between rank and military command; and propose regulations that will secure to the medical officers of the army the perfect equality, social position, rank, pay, and allowances, likely to induce competent medical men to enter the service.

I have the honour to be,
Your lordship's most obedient and
very humble servant,
Thos. L. Mackesy, M.D.,
President Irish Medical Association.

"*Resolved*—'That, while professing our sympathy with the medical officers of the army and navy in the grievances under which they have so long suffered, we venture to express our strong hope that the Royal Commission now sitting will see that, in not disappointing the just expectations of our brethren who are engaged in these branches of the public service, they will best promote the interest of the service and the country.'"

War-Office, 31st January, 1866.

Sir,—I am directed by the Secretary of State for War to acknowledge the receipt of your letter of the 26th inst., forwarding a copy of a resolution passed at a meeting of the Irish Medical Association, held at Limerick on the 28th ultimo. In reply, I am to ac-

quaint you that Earl de Grey has caused these papers to be forwarded for the consideration of a committee now sitting on army and navy medical officers.

I have the honour to be, sir,
Your obedient servant,
EDWARD LUGARD.

T. Mackesy, Esq., M.D.

Association Intelligence.

BRANCH MEETING TO BE HELD.

NAME OF BRANCH.	PLACE OF MEETING.	DATE.
NORTH WALES. [Intermediate.]	Dr. Turnour's Residence, Denbigh.	Friday, Feb. 23, 12 noon.

Reports of Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, JANUARY 23RD, 1866.

JAMES ALDERSON, M.D., F.R.S., President, in the Chair.

AN ACCOUNT OF AN ARTERIO-VENOUS CYST IN THE THE POPLITEAL NERVE: AMPUTATION: RECOVERY. BY C. H. MOORE, F.R.C.S.

A WOMAN, aged 31, received a blow with an iron pump-handle in the middle of the ham. In a fortnight a painless, movable swelling, of the size of a hazel-nut, was found in the situation of the injury, and but for its distance from each hamstring would have been pronounced to be an enlarged bursa. In sixteen months' time the tumour had increased, and seemed partly solid, and she first felt pain, which was referred to the foot. Three months afterwards, and twice subsequently in the following three months, the swelling was punctured, and on each occasion a yellow fluid, tinged red, first escaped, and as it flowed gradually deepened in colour, and continued to issue freely as blood from an open vein. The tension of the swelling was but temporarily reduced by these operations, and it increased in size so as completely to fill the ham, and protrude backwards in two prominent lesser swellings. The pain in them and along the leg and foot, the exquisite tenderness of the tumour, and a peculiar sudden pang shooting to the foot, while the cannula was held motionless in the tumour, showed the nerve to be in some way mixed up with the swelling. After putting on a tourniquet, Mr. MOORE made an incision into the tumour. Serum, black clot, loose fibrine, and some small clusters of white corpuscles were dislodged, partly with the finger and partly with a copious rush of blood from a vein at some deep part of the large cavity which had been opened. This proved to be a thin cyst, with a shining interior membrane, expanded into alternate ridges and sacculi, and traversed, like an auricle or right ventricle, by many firm cords. It being impossible to dissect it out, and improper on account of the state of the woman's health to leave the sac to suppurate, Mr. Moore at once amputated the limb. The patient recovered. Upon examining the limb the disease was found to be a vast cyst within the popliteal nerve, shaped like a double cone, one continuous with the higher, and the other with the lower end of the nerve. The expanded and hypertrophied textures of the nerve constituted the cyst, and the cords passing through it and along its walls were disparted nerve-bundles. A large vein, having no valves between it and the popliteal vein, opened obliquely like the ureter, on the front of the cyst; and in the upper cone, where alone firm lymph was collected, an artery equal in size to the superficialis volæ opened into the cyst. The disease thus proved to be an arterio-venous aneurism, but unlike those which are more commonly observed in the small size of its artery, in the possible fact of venous blood having sometimes regurgitated into it, and in the unruffled quiescence of its contents, which had even separated into their natural constituents, almost as when blood coagulates after its withdrawal from the living body.

Mr. GASCOYEN eulogised Mr. Moore's treatment of his case, and thought it preferable to tying the femoral artery. He related a case in which a patient suffered from bronchitis, and a tumour in the popliteal space, which was of an aneurismal character. He tied the femoral artery. The patient lived a year, and then died of heart-disease. The tumour in the popliteal space was found to be coated with the posterior tibial nerve, which completely encased it. The tumour was filled with coagula.

Mr. HOLMES COOTE was inclined to think, looking at all the circumstances of the case, that the tumour was of a malignant character. He had seen and heard of several cases in which a tumour, supposed to be a blood-cyst, turned out to be malignant.

MULTIPLE NEUROMATA AFFECTING THE NERVES BOTH WITHIN AND EXTERNAL TO THE SPINAL CANAL, SOME OF THE TUMOURS BEING OF A CYSTIC NATURE. BY SEPTIMUS W. SIBLEY, F.R.C.S.E.

This case was a remarkable example of the cystic form of nerve-tumour, and an illustration of the extraordinary multiplicity which is sometimes observed in this form of disease. The subject of the disease was a coach-painter, who died at the age of 45 in the Middlesex Hospital, under the care of Mr. Henry. The patient had enjoyed good health till seven years before his death, when he became less strong, but had no definite symptoms till four years ago, when the use of his lower extremities became impaired, and by degrees he lost all power of movement. He had also suffered from sloughing of the back. When admitted into the hospital, he had no power over the voluntary muscles of the lower half of the body, the legs being contracted and drawn up. He retained some power of motion over his upper extremities, being able to feed himself if his food were first cut up for him. Cutaneous sensibility was quite absent in the lower extremities; but he was able to feel to a certain extent with his hands. The urine and the fæces were passed involuntarily. A large tumour was observed below the elbow, and another below Poupart's ligament on the left side. He died after he had been in the hospital a month.

At the *post mortem* examination, there was no disease of the viscera of the chest or abdomen. The brain and the cranial nerves were healthy. On opening the spinal canal, a number of tumours were observed connected with the nerves within the membranes of the cord. In the cervical region there were several tumours, and the largest of these (about the size of a large nut) had pressed upon the spinal cord, which at this point was extremely constricted and softened. There were also many neuromata in connexion with the nerves in the lower part of the cord. In some places, these were so numerous as to present the appearance of beads strung on a thread. The large tumour which was observed during life below Poupart's ligament was found to be connected with the anterior crural nerve. It was enclosed in a fibrous capsule, and on section presented the appearance of a fibro-cellular tumour interspersed with cysts. These

cysts were of various sizes; the largest being about the size of an egg, and partly filled with imperfectly organised blood-clots. A second smaller cyst was filled with gelatinous material. The remaining small cysts were filled with clear serous fluid.

Correspondence.

CHOLERA TREATMENT.

LETTER FROM G. BODINGTON, L.R.C.P.Ed.

SIR,—Although very much averse to medical controversy, and feeling sensible of my own incompetency to engage therein, still as the writer of a pamphlet on the astringent treatment of cholera in 1832, I can scarcely allow to pass the condemnatory observations in your leading article of last week on that principle, without offering a few remarks in reply to them. You say that "*If Dr. G. Johnson be right, the astringent and alcoholic treatment of collapse of cholera is founded on a false theory, and is a deadly and destructive treatment!*" These last words appear to indicate that those who may have been instrumental in introducing or carrying out the aforesaid treatment have a heavy responsibility upon them, and have much to answer for. This is a serious charge, indeed; and those to whom it applies ought, perhaps, either to be able to refute it or cry *peccavi*.

I scarcely know how to steer safely between the Scylla and Charybdis of the editorial remarks, the "*fallax experientia*" on the one hand, and Mr. Buckle's condemnation of theory on the other. Anyhow, according to this, one must apparently be lost. At any rate, I will endeavour to steer clear of theory, if possible. Hence I will say at once I do not comprehend the theory of spasm of the capillaries of the pulmonary artery, nor in what way it is connected with the treatment by emetics and purgatives. And why the pulmonary artery?—is not the radial artery in the same predicament? Can it be felt at the wrist in collapse; and if not, is that owing to spasm of its capillaries? And so of every artery, are they not all in like case? And the heart itself in unison with the rest, does it not cease to beat, or thereabouts, until death closes the scene or recovery takes place? This spasm of the capillaries may exist possibly, but is it discernible by the senses? No; therefore this capillary spasm is a sheer theory totally devoid of proof by any evidence of the senses. It would appear to be a remnant of the old Cullenian orthodox theory of capillary spasm explanatory of febrile phenomena, and which at a time gone by we were taught in the schools, and expected to be "well up in" at the examinations.

As to Dr. Johnson's challenge of defiance as to the intestinal discharges, nobody, I presume, advocating the astringent treatment, does so on the supposition that there are to be no more intestinal discharges. The object of the treatment is not to stop intestinal discharges, but to stop the discharge of the serum of the blood out of the bloodvessels into the intestinal cavity. Mr. Newton's practice aimed at this effect. He did not hesitate at the outset to give a gentle aperient for the purpose of clearing away acrid accumulations from the bowels, at the same time he conjoined therewith an astringent, calculated to constrict and close the capillaries of the intestines against the escape of the serum from the bloodvessels. This serum is the vehicle of the circulation, and obviously without the vehicle the circulation must cease, and with it all the functions of life. This is no theory, but the actual facts of the case presentable to us and discernible by our senses.

What need we then, or of what advantage is, a fine spun theory respecting capillary spasm? Or if such exist, how does it indicate the practice of "*similia similibus*," that is, there being present violent vomiting and purging, therefore administer emetics and cathartics? If it be held that the rice-water evacuations are not the serum of the blood, let it be explained how they are engendered, and whence they come. Can they in any way be produced except from the blood? Again, nobody surely would dispute that the cruor, the more vitalised portion of the blood, must cease to circulate exactly in the ratio that the circulating vehicle is withdrawn. If a muddy flowing brook were deprived of its water by any means, the mud would settle at the bottom and cease to flow. So in the bloodvessels, the vital powers are not equal to the task of carrying on the circulation, the chief vehicle of which is lost and discharged. How the cholera poison induces that disintegration, precipitation, and loss of the serous portion of the blood, is a mystery unfathomable. But as far as we can discern, that constitutes the disease, and is the cause of its destructiveness. The concomitant symptoms are understood and to be accounted for through that one. If there have been cases where vomiting and purging have been absent, that would not prove that the blood disease and the secretion of serum into the cavity of the intestines had not taken place.

With these views, I cannot at present assent to the doctrine that "the astringent and alcoholic treatment is deadly and destructive." As to the statistics which may have been quoted, I must say at once, I have no faith in them. We all know how erroneous may be the bases on which they are pretended to be founded, and how easily they may be made to show the "worse to be the better part."

A word or two as to what the astringent treatment is or ought to be, or ought not to be. I have read the details of many cases, and sometimes "groaned in the spirit" at the terrible chemical hodge-podge concocted in the stomachs of some of them. First, perhaps, calomel pretty freely; too soon, probably, to be followed by mineral acid having the tendency to convert the mercurial into a hyperchloride, a more virulent poison than the cholera itself; then ammonia and other alkalies, ostensibly with the view of setting the acid to effervesce and kick up a rumpus within the interior of the patient. Now this skipping and jumping about backwards and forwards from one thing to another, apparently without an aim or any clear object in view, is the very worst and most dangerous course that can possibly be pursued. There is so much of this that no statistical accuracy can be attained. There is calomel to begin with, mineral acid to follow; chalk, ammonia, and opium at the finish. What chance has nature against these odds? "They do these things better in France," it has been said. There they are content with what they term a mineral acid lemonade, a moderate amount of wine or other alcoholic drinks, tisans, etc. Mr. Newton's treatment, as recorded in your JOURNAL a few weeks back, was exceedingly sound and judicious. There were no "cross purposes," no antagonistic jumbling of contrary elements, to help on the catastrophe. Before the acid, astringent and stimulating treatment is condemned, let it have a hearing and a fair trial.

I am, etc., GEO. BODINGTON.

Sutton Coldfield, January 30th, 1866.

[Dr. Bodington has clearly not read Dr. Johnson's book, or he would have seen that what he calls a "fine spun theory" about the interruption to the pulmonary circulation is a *positive pathological fact*. Dr. Bodington is also wrong in saying that Mr. Buckle condemns theory. On the contrary, Mr. Buckle states

that change in theory always precedes change in practice. We are thoroughly satisfied of Dr. Bodington's desire to get at the truth in this all-important matter; and we, therefore, put it to him, that before he finally decides, he should make himself master of the whole case as laid down by Dr. Johnson. EDITOR.]

LETTER FROM JAMES G. DAVEY, M.D.

SIR,—As a member of the British Medical Association, may I be allowed to offer a few words on a leading article in the JOURNAL of last week? With the commendatory remarks on Dr. Johnson's *Notes on Cholera*, I agree; but these "remarks" are, as it appears to me, calculated to leave an impression on the mind that the theory and treatment so very ably advocated by Dr. Johnson, and commented on by yourself at pages 100 *et seq.* of the JOURNAL, are mainly, if not altogether, his own. As such an impression would involve the acceptance of much that is incorrect, in so far as the facts and literature of cholera are concerned, will you permit me, as one interested in the matter, to add that so long ago as 1836 (thirty years since) I wrote a paper entitled *The Pathology of Cholera*, to be found in the *Lancet*, in which this "new theory of cholera" is largely anticipated; and in which "the morbid matter in the blood," to quote your own words, is traced to a first cause.

The "Treatment of Cholera by Purgatives" is the title of a paper, from my pen, in the *Lancet* for October 1842 (nearly a quarter of a century since); and the practical facts therein contained are repeated in another article of the same medical journal, written by myself, called "The Pathology and Treatment of Cholera," and dated May 1854, nearly twelve years ago. THE BRITISH MEDICAL JOURNAL for October 24, 1857, records a very instructive and successful case of "Cholera Asphyxia" occurring in my own practice, which was cured by purgatives, including castor oil.

I am, etc., JAMES GEO. DAVEY, M.R.C.P.Lond.

Northwoods, near Bristol, January 31st, 1866.

LETTER FROM A. BEAUFORT BRABAZON, M.D.

SIR,—The JOURNAL of January 27th contains a comprehensive though brief critique on a work which I think will be read with satisfaction and instruction by every member of our profession who is not too bigoted in his own ideas to "advance with the age."

Within a very short period we have been reviled, in a leading article in the *Times*, and informed that "the *time had then arrived* at which we should prove our right to the title of a *scientific* profession, or relinquish it altogether." It appears to me that, in this particular instance of cholera, Dr. Johnson's work appears most opportunely to repel such an attack; inasmuch as he openly advances a theory of treatment, based on the results of close practical observation, on which he brings to bear the bright light of chemical, physiological, and pathological science. Surely, under such circumstances, the treatment of disease cannot be called *empirical*, and is certainly not *unscientific*.

I am certain that Dr. Johnson's assertions will be fully corroborated by those who, like myself, have seen Asiatic cholera in that part of the world from which it has derived its designation.

During the period of my employment at the Barrack Hospital at Scutari, at the time of the Crimean war, there occurred an outbreak of cholera, in its most virulent form. Fortunately, it did not last longer than about a fortnight; but was fatal as the sweep of the sword of a destroying angel.

During the first week, the character of the symptoms was remarkable by the absence of diarrhœa and vomiting, and by the deadly and hopeless nature of the collapse, from which it was impossible to rouse the sufferers. In most of such cases, there had been no premonitory diarrhœa, and the collapse occurred almost instantaneously.

I had for some days the treatment of the patients contained in three separate wards; and being myself sceptical as to the success of any particular line of treatment, I determined to test the three modes at that time most highly spoken of; viz., 1, calomel in small doses frequently repeated; 2, the saline treatment; 3, the treatment with sulphuric acid.

The average of recoveries, under the calomel and saline treatment respectively, was as nearly as possible the same; the sulphuric acid plan I found perfectly useless.

It will be seen that the first and second plans of treatment are *eliminative*, the third *astringent*.

I did not employ opium, being prejudiced against it; and certainly the result of my observations on cases in which it was used did not tend to remove that prejudice, as I remarked that in many such cases, although the choleraic symptoms ceased, suppression urine occurred, and death from uræmic poisoning was the final result.

The remark made to me by a Greek physician proved to be mainly correct. He said, "At first all will die, no matter what you do; then some will recover; at last, all will recover."

The decrease in the virulence and fatality of this fearful epidemic was coincident with the appearance of vomiting and diarrhœa, and with a corresponding decrease in the intensity of the collapse.

Taking a retrospective view of the train of symptoms and effect of treatment in these cases, and regarding them by the light of Dr. Johnson's theory, they are easily explicable, and are corroborative proofs of his assertions.

Hereafter, sir, as far as regards this fell disease, I think we can afford to pity the ignorance and narrow-mindedness of those who would denounce us as empirics or quacks, unworthy to be dignified with the title of professional men, and who would deny us the honourable position to which we have attained by scientific researches; even though they may be carried out in the very face of "the pestilence that walketh in darkness or in the midst of the destruction that wasteth at noonday." I am, etc.,

A. BEAUFORT BRABAZON,
Formerly Civil Surgeon, 1st Class, at the Military Hospital, Scutari.

12, Darlington Street, Bath, Feb. 1st, 1866.

CATTLE-PLAGUE AND VACCINATION.

LETTER FROM HORACE SWETE, ESQ.

SIR,—In your article, "Vaccination *versus* Cattle-Plague," I see you have stated that £40,000 has been expended in vaccinating cattle. I trust that, excepting for the mere payment of expenses, no part of this sum has entered into the pockets of members of our profession. Those of us who are members of the British Medical Association are pledged to do all we can in the study of animal diseases, if haply we may benefit our own species; and those who have done so have gained their reward in advanced views of pathology, in addition to the gratification of pursuing a most interesting branch of study. But, whilst it is no way derogatory to do this—and we have the example of Dr. Murchison, Dr. Wm. Budd, and a host of others who have come forward to help the farmers in vaccinating, in the hope of doing something to ward off the terrible scourge that is now so appalling in its effects—it surely would be

lowering our status to do this for fee or reward. Whilst we protest against gratuitous advice in our profession, let us not take away the just saving of the veterinary surgeon. They belong to an useful, hard-worked, and frequently underpaid body of men; and I sincerely hope they have reaped a fair share of the £40,000. Dr. Bellyse of Nantwich, who vaccinated largely the cattle of that district, in answering some inquiries I made, says, "I vaccinated, of course, gratuitously;" and this is the opinion as to what we ought to do amongst the medical men whom I have consulted on the subject. In my own neighbourhood, as there was no veterinary surgeon near, I called the farmers together, and instructed four of their number to go round and vaccinate their herds. These were to receive a shilling a head for the trouble and expenses; whilst I was willing to lend any aid in further instructing them, or giving an opinion in doubtful cases. It was indeed disheartening to think that, after all, vaccination has proved of so little use; but the discomfort to us would have been much greater, if we had to reproach ourselves with taking £40,000 from the pockets of the poor plague-stricken farmers.

I am, etc., HORACE SWETE.

Wrington, near Bristol, February 1866.

POOR-LAW MEDICAL REFORM.

LETTER FROM RICHARD GRIFFIN, ESQ.

SIR,—I shall feel obliged by your giving insertion to the annexed letter, that the Poor-law medical officers may be made acquainted with the steps taken towards an improvement in the medical relief of the poor. I am, etc., RICHARD GRIFFIN.

12, Royal Terrace, Weymouth, Feb. 5th, 1866.

"12, Royal Terrace, Weymouth, Feb. 3rd, 1866.

"SIR,—Since the commencement of this year, a large number of Poor-law medical officers have sent their subscriptions to enable me to defray the necessary expenses consequent upon an application to be made to Parliament, and the printing of a pamphlet, to be sent to each member of the House of Commons, demonstrating the necessity of a thorough revision of the present wretched system of medical relief to the poor; but prior to this procedure, I feel I should best consult the interests of all parties concerned by laying before you, as the head of this great department, which has annually under its management over a million and a quarter of sick poor, the draft of a Bill which, it appears to me, would, if passed, be of national advantage; and if you would take charge of it, or of one of similar import, and introduce it into the House of Commons, or make it a part of your new Poor-Law Continuance Bill, I feel sure you will immensely benefit the public. That you may have knowledge of the sentiments of the Poor-law medical officers on this subject, I request you will permit such of them as can spare the time to wait upon you as a deputation; and if you will fix a time, giving me a clear fourteen days' notice, I will call them together for the purpose; and should you, in the interval, desire a private interview with me relative to any arrangements, I will gladly wait upon you any day you may fix.

"I have the honour to be, sir,

"Your obedient servant,

"RICHARD GRIFFIN.

"The Right Hon. C. P. Villiers, M.P., President of the Poor-law Board."

Since the last list of subscriptions was published, Mr. Griffin has received the following. Dr. S. B. Bucknill, Rugby, 10s. 6d.; L. O. Fox, Stockbridge, 10s.; W. B. Turner, Sutton, etc., 5s.; R. Roe, Barton-on-Irwell, 20s.; D. Downing, Barton-on-Irwell, 20s.; I. O'Reilly, Ware, 10s.; C. Sedgwick, Hollingbourne, 10s.; W. F. Giles, New Forest, 21s.; H. Bencraft, Southampton, 10s. 6d.; G. Cheeseman, Southampton, 10s. 6d.; R. W. W. Griffin, Southampton, 10s. 6d.; L. A. Lawrence, Southampton, 10s. 6d.; T. Wiblin, Southampton (not union), 10s. 6d.; J. Tweddle, Cockermouth, 10s. 6d.; T. J. Mason, Stratford-on-Avon, 10s. 6d.; J. B. Nevins, Liverpool (not union), 10s. 6d.; J. W. F., 10s.; H. Taylor, Guildford, 10s.; O. Foster, Hitchin, 10s.; W. H. Colborne, Chippenham, 27s.; J. Crisp, Chippenham, 5s.; A. Ludlow, Castle Coombe, 10s.

Mr. Prowse of Amersham has received the following. Mr. Barker, Aldershot, 10s.; F. E. G. Bywater, Pontefract, 10s. 6d.; H. Meymott, Ludlow, 5s.; G. Pink, Petersfield, 5s.; S. Knaggs, Huddersfield, 5s.; F. Davies, Pershore, 21s.; J. Reddrop, Tiverton, 5s.; H. E. Norris, Bridport, etc., 5s.; R. P. Weston, Wellington, 10s.; J. L. Thomas, Carmarthen, 5s.; C. Holton, Stoke-on-Trent, 5s.; J. Pearson, Cockermouth, 5s.; W. W. Morgan, Newport, 10s. 6d.; O. C. Jennings, Newport, 5s.; G. Harday, Rugby, 10s.; L. R. Raymond, Bromsgrove, 5s.; G. W. Rhodes, Huddersfield, 10s. 6d.; R. McLachlan, Halifax, 10s.; J. T. Savory, Wycombe, 5s.; C. Spurgeon, Samford, 5s.; W. Few, St. Ives, 5s.; J. S. Muriel, Cosford, 5s.; H. P. Leech, Slow, 5s.; E. P. King, Chepstow, 5s.; P. T. Dean, Upper Norwood, 5s.; A. Hingdon, Bideford, 5s.; J. M. Kendall, King's Lynn, 5s.; J. W. Newington, Cranbrook, 10s. 6d.; O. N. Royle, Kendal, 10s. 6d.; J. R. Elliott, South Molton, 10s.; W. Whitehead, Mansfield, 10s. 6d.; R. M. Lipscomb, Berkhampstead, 5s.; W. Pilkington, Blackburn, 21s.; H. Marley, Columb St. Major, 6s.; C. S. Hall, Carlisle, 5s.; W. Pritchard, East Retford, 10s. 6d.; R. Organ, Barwick, 5s.; R. S. Davison, Castle Ward, 21s.; J. Breach, Bradfield, 10s.; H. Reynes, East Retford, 10s.; M. Cook, Barnstaple, 10s.

PATHOLOGY AND TREATMENT OF LATERAL CURVATURE OF THE SPINE.

LETTER FROM HENRY DICK, M.D.

SIR,—A report of a paper which was read by Mr. Barwell at the meeting of the Royal Medical and Chirurgical Society, January 9th, appeared in your publication of the 20th ult.

Circumstances prevented me from having the pleasure of being present at the meeting, which had been my intention, as the subject is one of great interest to me, the rotation of the spine having for many years occupied my study.

With your permission, I am desirous of stating the points which are not clear to me, or rather on which I dissent from Mr. Barwell's conclusions.

That gentleman states that "the spine is incapable of assuming a lateral bend, without at the same time undergoing rotation, etc." Now if this premise be true, the extent of rotation should be in proportion to the extent of the lateral bend, or the greater or less the bend, the greater or less, also, should be the rotation.

It happens that, many years ago, precisely the same statement of Mr. Barwell was made by Mr. Pravaz of Lyons, who called it *torsion*.

All my observations and researches convince me, that there is a lateral bend of the spine *without* rotation; for instance, the curvature which sometimes occurs after pleurisy with exudation, and after abscesses or long suppurations in the costal region; in such cases we find severe spinal curvatura, resulting from the consequent inflammatory retraction

or position, *and in such curvature there is no rotation.* The truth of my foregoing statement can be proved by any practitioner desirous of making an examination for his own satisfaction. When such a patient as I have above described leaves his bed, it will be found that the lateral curvature consists of only one curve, with no compensating curve and *no rotation.* When the patient has left his bed six weeks or two months, real rotation commences.

Some time ago I had a consultation with my friend and colleague Mr. Carr Jackson, on a case which presented itself at the hospital; and I believe he is quite convinced of the correctness of my views, as stated above.

Of course I admit that in walking there is a rotatory movement of the spine in a healthy subject. Such rotatory movement is not confined to *one part* of the spine, (as in spinal curvature with rotation) but the whole spine, including the pelvis, rotates, the rotation being provided for by the articulations of the head and pelvis.

Nature has, anatomically speaking, made excellent adaptation for bending the spine, to a certain extent, backwards, forwards and sideways; but no such anatomical arrangements have been made for rotatory movements in single parts of the spine.

Mr. Barwell states that the column is constantly bending laterally and rotating. I should really be very glad if he will exactly inform us of the details of his experiments, and how he came to his conclusions: until he has convinced me of the truth of his theory, I must doubt the efficacy of his treatment.

Mr. Barwell further says that "the machine commonly called a spinal support is false in principle, aiming at superseding muscular action, thereby weakening the muscles; moreover it is clumsy, heavy and barbarous." Mr. Barwell does not specify any particular machine, and I dare say there are machines wrong in principle and very empirical; but with all respect for Mr. Barwell's opinion and authority, I know that there are excellent machines, properly constructed, which from the support they render to the spine, and the relief they give to the patient, meet with my highest approval.

Indeed, I wish we could act on the spine as we do with bones in other deformities; but the anatomy of the spine is peculiar, and unfortunately we are only capable of partial direct action on it.

To illustrate the necessity of using supporting machines, let us take two instances; spinal curvature after paralysis, and curvature following inflammatory retraction. In such cases, I very much doubt the efficacy of Mr. Barwell's India-rubber springs.

The spine as a single bone supports great weight, and, when it is pathologically thrown out of its balance, the physical law of gravity must be taken into consideration.

I generally find that patients have not that aversion to spinal supports evinced so fervently by Mr. Barwell, but, on the contrary, that they are most grateful for them.

I know patients in whom for months the upright position was almost impossible, and in whom the pain produced by that position was so great, that life was a burden; and who, on their wearing a proper spinal support, were able to conduct the ordinary business of life.

I also know cases which were the best illustrations of the efficacy of spinal supports, on whom treatment on Mr. Barwell's principle had been *in toto* or partially carried out, namely, gymnastics, electricity, rubbing the spine, sea-bathing, elastic bands, the recumbent position with administration of internal tonics, without the least benefit, and they only got well after having proper spinal supports, and I can assure Mr. Barwell they were much pleased with those "barbarous" contrivances, and would not leave them off for any consideration.

In conclusion, I would take the liberty of drawing the attention of the profession to the old adage, which was mooted at the same meeting, that, if girls were brought up similarly to boys, there would be fewer cases of spinal curvature. There may be a small grain of truth in the trite remark; but it is no less true that we find females later in life (after twenty years of age) more frequently affected with curvature than men. When we take the records of the Orthopædic Hospitals, we find few males affected after twenty years of age, but a good number of girls and women after that age. We do not find chlorotic tailors and cobblers seeking relief for spinal curvature, but a number of cooks, housemaids, nurserymaids, needlewomen, and even some peasant girls suffering from chlorosis, combined with fluor albus, come asking our advice for spinal complaints. And everyone will admit that domestic servants have plenty of exercise, are better fed, and have better sleeping accommodation than our poor tailors and cobblers in their crowded courts and blind alleys.

Thus we have the fact that there are more females affected under favourable circumstances than men, labouring as they do under the greatest disadvantages, and we are driven to the conclusion that the sex has something to do with the development of the complaint, and that gymnastic education is not the great panacea against spinal curvature.

Lest I may be misunderstood, I consider gymnastics and bodily training good adjuvants in the treatment of spinal curvature, when indicated.

I am, etc., HENRY DICK.

February, 1866.

HOSPITAL ABUSES.

SIR,—I send you herewith a report of the annual meeting of the Brighton and Hove Dispensary, in order to direct your attention to the statements made by the medical officers of that institution, regarding the abuses to which the charity is subject.

The Brighton and Hove Dispensary is in many respects an admirable and most valuable establishment, and the abuses of its charity are, I presume, not peculiar to its organisation, or mode of management, but are, with a few exceptions, such as those referred to in the report by Dr. Withers Moore, common to the Hospital and Dispensary system, as at present established amongst us.

Mr. Branwell, one of the surgeons of the dispensary, states that the dispensary *alone* gives medical aid annually to a larger number of persons than the whole town of Brighton would produce of *indigent* sick; he states that, in addition to the dispensary, Brighton has an hospital, a lying-in institution, and a maternity charity, and he might have added an eye infirmary, St. Mary's Hospital, and notably the usual poor-law establishment for affording medical relief to the sick poor. If the dispensary attend fourteen thousand persons yearly, I presume all the other institutions together may be credited with at least an equal number, making a total of twenty-eight thousand persons who receive annually gratuitous medical aid in the town of Brighton.

If we allow a margin for the recurrence of the same cases within each annual period, we shall perhaps bring this number down to twenty-five thousand or thereabouts; but Mr. Branwell says that Brighton should not produce more than ten thousand per annum of indigent sick, so we have here an excess of fifteen thousand, who receive eleemosynary medical treatment, who can and ought to pay for it.

It is very difficult to calculate what amount of money is in this way kept out of the pockets of the resident medical practitioners, but I imagine fifteen thousand private patients per annum, even of the lowest paying class, would be sure to bring in £15,000 a year, and I think it is well known to the local practitioners that the patients of these charities are not confined even to the lowest class of persons who may be presumed capable of paying for medical attendance. The medical men who animadverted on the abuses of the charity of the Brighton Dispensary, at the annual meeting, laid particular stress on the fact that masters of establishments subsidise the local charities with a guinea or so per annum, in order to avoid responsibility and expense, when their servants are sick; and Dr. Withers Moore says that, at the hospital, one-fifth of the persons treated are servants; but to my knowledge the evil does not by any means stop here, and to prove this I will give you some cases which have recently fallen under my own cognisance.

Not long ago I was attending the child of a respectable shopkeeper, suffering from a chronic disease, and the parents expressed themselves as highly pleased with the results of the treatment adopted. One day the mother of the child came to me and said she had decided on taking the child to one of the charitable institutions. She said the traveller of the wholesale house which supplied their shop, had offered to get an order from his principal, who subscribed to the charity, and she thought she had better avail herself of the opportunity "as the child would have good attendance, and there would be nothing to pay for it." I told the mother that I thought the charity in question would refuse to admit her child to its benefits; but she assured me there would be no difficulty, and I found shortly afterwards that there had been none, and that I had lost my patient. The wife of a shopkeeper, who had found his shop too small and just taken an adjoining house to add to it, sent for me, and told me that she had been for some time a patient at one of the charitable institutions, but that as she got no better she had sent for me. I attended this patient and when my bill was sent in, although it amounted to several pounds, it was paid at once. A third case and I have done. A young man belonging to a family of wealthy tradesmen, was brought to me one day by a relative, who stated that the family had discovered he was under treatment at one of the charitable institutions, and they wished me as the family attendant to undertake the treatment of the case. The young man had avoided consulting me as he suffered from syphilis. I treated this case and received ready money for each attendance.

Now far be it from me, sir, to insinuate that the medical officers of the medical charities, were cognisant in either of these cases of the pecuniary position of the recipient of their bounty; but I do say, that when such cases of imposition are of daily occurrence, there must be some flaw or rottenness in the system which interposes no obstacle to their perpetration.

I am, etc., A RESIDENT PRACTITIONER.

Brighton, January 24th, 1866.

STATISTICS OF THE INSANE. The report of the Central Ohio Lunatic Asylum gives the occupations of all persons admitted in twenty-six years. The proportions to the number of insane are shown to be the following:—Speculators, 1 to 24; artists, 1 to 58; clergymen, 1 to 84; students, 1 to 97; tailors, 1 to 188; merchants, 1 to 154; lawyers, 1 to 169; physicians, 1 to 184; farmers, 1 to 195; butchers, 1 to 215; blacksmiths, 1 to 315; labourers, 1 to 431.

Medical News.

APOTHECARIES' HALL. On February 1st, 1866, the following Licentiates were admitted:—

Adams, Josiah Oake, Plymouth
Bury, Henry Charles, Whetstone, Middlesex
Grace, Edward Mills, Downend, Bristol
Rundle, Henry, Plymouth

APPOINTMENTS.

ANDERSON, T. M'Call, M.D., elected Lecturer on the Practice of Medicine in Anderson's University, Glasgow.
*SANKEY, W. H. O., M.D., appointed Lecturer on Mental Diseases in University College, London.

ROYAL NAVY.

ARNOT, Henry, M.D., Surgeon, to the *Doris*.
CONEY, Thomas, Esq., Acting Assistant-Surgeon, to the *Doris*.
FENNELL, Charles J., Esq., Assistant-Surgeon, to the *Doris*.
LAWRANCE, Walter, Esq., Staff-Surgeon, to the *Frederick William*.
M'CLEMET, Renard C., Esq., Assistant-Surgeon (additional), to the *Wellesley*.
MOSS, E. L., M.D., Assistant-Surgeon, to the *Simoom*.
SPROULL, Charles, Esq., Surgeon, to the *Simoom*.

BIRTHS.

BROWNING. On January 30th, at Stoke Damarel, Devonport, the wife of B. Browning, Esq., Surgeon R.N., of a daughter.
GROSVENOR. On February 2nd, at Buckingham Terrace, Ladbroke Grove Road, the wife of G. Fox Grosvenor, M.D., prematurely, of a son.
HARMER. On February 5th, at Hawkhurst, the wife of W. M. Harmer, M.R.C.P.E., of a daughter.
LANGSTON. On February 6th, at Broadway, Westminster, the wife of *Thomas Langston, Esq., of a daughter.
HASTINGS. On February 3rd, at Curzon Street, May Fair, the wife of Cecil W. Hastings, M.B., of a daughter.
MAY. On February 5th, at Reading, the wife of *George May, jun., Esq., of a son.
MORTON. On January 27th, at Clifton, the wife of Assistant-Surgeon J. S. Morton, M.D., Madras Army, of a son.
MURCHISON. On February 5th, at Wimpole Street, the wife of *Charles Murchison, M.D., of a daughter.
PICARD. On January 30th, at Addiscombe House, St. John's Wood, the wife of P. Kirkpatrick Picard, M.D., of a son.
SAVAGE. On February 2nd, at Bordesley, Birmingham, the wife of *Thomas Savage, M.D., of a daughter.
TAYLOR. On February 6th, at Ebury Street, the wife of Theophilus Taylor, Esq., of a daughter, stillborn.
THOMPSON. On February 3rd, at Westerham, the wife of *Charles R. Thompson, Esq., of a son.
TRAQUAIR. On February 3rd, at Pau, France, the wife of T. G. Traquair, M.D., of Eccleston Square, of a son, stillborn.
WATKINS. On January 31st, at 85, Guilford Street, the wife of Edwin T. Watkins, M.D., of a son.

MARRIAGES.

CHEADLE, Walter B., M.D., of Hyde Park Place, to Anne, youngest daughter of the late William MURGATROYD, Esq., of Bingley, Yorkshire, on January 31.
ELLIOT, George Stokoe, M.D., of Southwell, Notts, to Elizabeth Dorothy, widow of William O. BRADLEY, Esq., of Bishopwearmouth, at St. Stephen's, Coleman Street, on January 20.
FRODSHAM, John M., M.D., of Upper Streatham, to Therese, elder daughter of the late Thomas D'IFFANGER, Esq., of St. John's Wood, on January 30.
HENRY, James, M.D., Surgeon R.N., to Nannie, eldest daughter of John DELANY, Esq., Duncan Terrace, Islington, on February 1.
KERSWILL, William S., Esq., eldest son of *R. W. P. Kerswill, Esq., of St. Germans, to Henrietta Maria, only daughter of the Rev. George Thomas SHARLAND, vicar of Spaldwick, Huntingdonshire, on February 1.
LEGAT, Robert, Esq., W.S., Esk Park, Musselburgh, to Emily, youngest daughter of the late James EDDOWES, Esq., Surgeon, South Shields, at St. Gabriel's, Pimlico, on February 3.
MAURICE, James B., M.D., of Marlborough, Wilts, to Mary Agnes, only daughter of the late N. W. KINDERSLEY, Esq., of Northbrook House, Hants, at St. Paul's, Knightsbridge, on February 1.
PEET, John, M.D., Surgeon-Major Bombay Army, to Kina Laura, daughter of Herbert GIRAUD, M.D., Surgeon-Major Bombay Army, at Dover, on February 6.
WATSON, George Henry, Esq., Surgeon., of Abersychan, Monmouthshire, to Caroline Amelia, eldest surviving daughter of the late Robert WATSON, Esq., Solicitor, of Moorgate Street, at St. Bartholomew's, Sydenham, on February 3.

DEATHS.

ALLAN. On February 3rd, at Neath, Glamorganshire, aged 8, Robert James Goad, only child of Surgeon-Major James Allan, Retired List H.M. Indian Army.

BIRKETT, George, M.D., at Northumberland House, Stoke Newington, aged 47, on February 1.

COLMAN, Thomas E. T., Esq., Surgeon, at Wymondham, Norfolk, aged 57, on January 24.

GILL. On February 2nd, at Campbell Terrace, Bow Road, aged 41, Annie Elizabeth, wife of S. Lawrence Gill, L.R.C.P.Ed.

GRAY. On February 5th, at Northampton Park, Canonbury, aged 60, Elizabeth, widow of John Robert Gray, M.D., of Hawley Place, Maida Hill.

M'SORLEY, Edward, Esq., Surgeon H.M.S. *Rattler*, at Nagasaki, Japan, by drowning, aged 36, on November 26, 1865.

MORTON, John, Esq., late Superintending Surgeon Madras Medical Service, at Clifton, on January 28.

THE EMPRESS EUGÉNIE is asked by the Emperor Maximilian to accept a medal in memory of her visit to the cholera patients in the Paris hospitals.

DEATH FROM FEVER. We regret to learn that Mr. Hume, a physician's assistant of the Manchester Infirmary, has fallen a victim to typhus, which has been of late prevalent in that town.

TESTIMONIAL. Mr. Stokes, surgeon, of Nailsworth, has received from the inhabitants a testimonial of their high esteem. It is of the value of upwards of £200.

CHARGES OF FORGERY AGAINST A SURGEON. The charges against Mr. Permewan, surgeon, of Redruth, of forging transfers of mining shares, are completed. The prisoner, who reserved his defence, has been committed on several charges of forgery.

A NEW STOMATOSCOPE. Professor Bruns of Breslau has exhibited to the Surgical Society of Paris a new stomatoscope—an instrument whereby a brilliant electrical light can be thrown into the mouth, so as to light up in a remarkable manner every part of that cavity. Even the blood-vessels of the teeth are shown, and the smallest spot on a tooth rendered distinctly visible.

NATIONAL OLYMPIAN ASSOCIATION. At a meeting held November 6th, 1865, at the Liverpool Gymnasium, it was resolved that a National Olympian Association should be established for the encouragement and reward of skill and strength in manly exercises, by the award of medals or other prizes, money excepted, at general meetings of the Association, to be held annually and in rotation in or near one of the principal cities or towns of Great Britain; and that professional athletes should be excluded from competition.

AMENDMENT OF SANITARY LAWS. A deputation from the Metropolitan Association of Medical Officers of Health transacted business with the Right Hon. H. A. Bruce, the President of the Council, at the Privy Council Office, Whitehall, on the 7th instant, on the subject of amendments in the sanitary laws of the metropolis. The deputation was introduced by Mr. Locke, M.P., and consisted of Dr. Druitt, Dr. J. Northcote Vinen, Dr. Lankester, Dr. Aldis, Dr. Ballard, Mr. Liddle, Dr. Sanderson, Mr. Lord, Mr. Rendle, and Dr. Barnes.

ANOTHER FELLOWSHIP FOR THE UNIVERSITY OF EDINBURGH has been founded by Mr. James Guthrie of London, and is of the annual value of £100, tenable for a period not exceeding four years. It is appropriated to the department of Classical Literature. The competition is open to all who have taken the degree of Master of Arts within the period of four years preceding the date of competition, or who may have passed their examination for the degree, but who, for the sake of honours, may have deferred their graduation. (*Scotsman.*)

ANDERSON'S UNIVERSITY, GLASGOW. A meeting of the trustees of Anderson's University was held on Jan. 31st, to appoint a professor of the practice of medicine, in the room of Dr. J. B. Cowan, now professor in the Glasgow University. The candidates for the chair were Dr. Thos. M'Call Anderson, a grand-nephew of the founder of the University, and Dr. P. A. Simpson. Mr. William Euing, president of the managers of the University, on taking the chair, announced the object of the meeting, and read a letter from Dr. Simpson, who, in deference to the high professional talent of the other candidate, and the fact of his being a relative of the founder, requested that his name should be withdrawn from the list of candidates. The announcement was received with applause. Mr. Smith, of Jordan Hall, then proposed the appointment of Dr. Anderson, which was seconded by the Rev. Dr. Craik in a highly eulogistic speech. On a ballot being taken, Dr. Anderson was unanimously elected. (*Daily Mail.*)

ROYAL COLLEGE OF SURGEONS. The annual course of lectures on Comparative Anatomy was commenced on the 2nd instant, by Professor Huxley, who will deliver twenty-four discourses, in continuation of those of last year, on the Structure and Classification of the Mammalia. The following is an abstract of his syllabus:—General Remarks upon those Mammalia which are wholly or largely Inhabitants of the Sea; the *Sirenia*, or Dugongs, Manatees, and Sea-Cows; the *Cetacea Balænoidea*, or Whalebone Whales; the *Cetacea Delphinoidea*, or Toothed Whales; the pinnipede *Carnivora*, or Seals and Walruses; the Anatomy and Physiology of these Mammals; the Structure and Affinities of the extinct genera *Zeuglodon* and *Toxodon*; the Structure of the ordinary, or cursorial, *Carnivora*; the Anatomy of the *Proboscidea*; the Anatomy and Affinities of the genus *Hyrax*; Remarks upon the Relations of those Mammals which are provided with Zonary, Deciduate Placentæ, to the rest; the Anatomy of the *Mammalia Didelphia*, as exemplified by the order *Marsupialia*; the Anatomy of the *Mammalia Ornithodelphia*, represented by the order *Monotremata*; a Summary of the Results arrived at in the three Courses of Lectures on the *Mammalia*.

REGISTRATION OF DISEASE.

RETURN of new cases of disease coming under treatment in public practice. (A.) Manchester and Salford (Sanitary Association). (B.) Preston (R. C. Brown, Esq.). (C.) St. Marylebone, London (Dr. Whitmore). (D.) Birmingham (Dr. Alfred Hill).

In the 4 weeks ending Nov. 25th, 1865.

Diseases.	A.	B.	C.	D.
Small-Pox	22	48	9	2
Chicken-Pox	4	3	7	3
Measles	79	3	78	60
Scarlatina	31	14	42	44
Diphtheria	—	3	—	3
Hooping-Cough	131	7	41	114
Croup	5	1	—	10
Diarrhœa	147	21	279	190
Dysentery	21	10	—	19
Cholera	—	—	—	—
Erysipelas	40	4	22	17
Insanity	33	2	10	—
Bronchitis and Catarrh	943	173	942	392
Pleurisy and Pneumonia	65	27	26	23
All other diseases and accidents	4637	512	3499	2580
Totals	6158	828	4955	3457

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....Metropolitan Free, 2 P.M.—St. Mark's for Fistula and other Diseases of the Rectum. 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TUESDAY. .... Guy's, 1½ P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.

WEDNESDAY... St. Mary's, 1 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.

THURSDAY.....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Great Northern, 2 P.M.—London Surgical Home, 2 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.

FRIDAY..... Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

SATURDAY.....St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1·30 P.M.—Charing Cross, 2 P.M.—Lock, Clinical Demonstration and Operations, 1 P.M.—Royal Free, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY. Royal College of Surgeons of England, 4 P.M. Professor Huxley, "On the Classification and Structure of the Mammalia."

TUESDAY. Royal Medical and Chirurgical Society. 8 P.M., Ballot. 8·30 P.M., Mr. Henry Thompson. "Case of Phosphatic Calculus, with Nucleus of Bone"; Mr. Joseph Allen, "Case of Lithotomy: Mulberry Calculus."

WEDNESDAY. Royal College of Surgeons of England, 4 P.M. Professor Huxley, "On the Classification and Structure of the Mammalia."

THURSDAY. Harveian Society of London, 8 P.M. Dr. Camps, "On Railway and other Accidents attended with Violence: their Effects on the Nervous System."

FRIDAY. Royal College of Physicians, 5 P.M. Dr. William Roberts. Gulstonian Lectures. "On the Use of Solvents in the Treatment of Urinary Calculi and Gravel."—Royal College of Surgeons of England, 4 P.M. Professor Huxley, "On the Classification and Structure of the Mammalia."

TO CORRESPONDENTS.

*** *All letters and communications for the* JOURNAL, *to be addressed to the* EDITOR, *37, Great Queen St., Lincoln's Inn Fields, W.C.*

COMMUNICATIONS.—To prevent a not uncommon misconception, we beg to inform our correspondents that, as a rule, all communications which are not returned to their authors, are retained for publication.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

TEMPERATURE IN DISEASE.—We have received from Dr. Falconer of Bath a specimen-sheet for registering the temperature, etc., in fever. The sheet will be found of great service to those engaged in such inquiries.

THE GRIFFIN TESTIMONIAL FUND.—SIR: The following subscription has been further received on behalf of the above Fund:—Dr. J. Birkbeck Nevins (Liverpool). 10s. 6d.

Amount previously announced, £142: 18: 9.

I am, etc., ROBERT FOWLER, M.D., Treasurer and Hon. Sec.

145, Bishopsgate Street Without, February 6th, 1866.

COMMUNICATIONS have been received from:—Dr. ARTHUR RANSOME; Mr. F. GEYER; Mr. W. H. LYDALL; THE HONORARY SECRETARIES OF THE HARVEIAN SOCIETY OF LONDON; Mr. T. JACKSON; Mr. H. SWETE; Dr. T. L. MACKESY; Mr. JONATHAN HUTCHINSON; Mr. T. M. STONE; Dr. GAMGEE; Dr. ANDERSON; Dr. A. B. BRABAZON; Mr. R. JEFFERSON; Dr. DICK; Mr. RICHARD GRIFFIN; Mr. H. TOMSON; Dr. DOBELL; Dr. STEWART; Dr. JOHN H. WEBSTER: Mr. SQUIRE; Mr. JAS. ROBERTSON; Dr. ROBERT FOWLER; and Mr. WATKINS.

BOOKS RECEIVED.

1. Parallèle entre le Choléra-Morbus et le Typhus Contagieux des Bêtes à Cornes. Par M. Decroix. Paris: 1865.
2. Twenty-eighth Annual Report of the Suffolk Lunatic Asylum. 1866.
3. Clinical Surgery on Diseases of the Testicle, Vesico- and Recto Vesical Fistula, and Ruptured Perinæum. Part VI. By Thos Bryant. London: 1866.

ADVERTISEMENTS.

THE NEW SYDENHAM SOCIETY.

The Fifth Fasciculus of the ATLAS OF PORTRAITS OF SKIN DISEASES, comprising original Plates, illustrating—

PEMPHIGUS,
PITYRIASIS VERSICOLOR,
PSORIASIS INVETERATA,

is now ready and in course of issue. This work concludes the issue for 1865.

The following Works are in Preparation.

GRIESINGER'S MANUAL of MENTAL DISEASES.

BERNUTZ AND GOUPIL ON SOME OF THE DISEASES OF WOMEN.

HEBRA ON EXANTHEMS AND DISEASES OF THE SKIN.

VOGEL ON DISEASES OF THE KIDNEY.

A BIENNIAL RETROSPECT OF MEDICINE AND SURGERY, FOR 1865–66.

A SIXTH FASCICULUS OF THE ATLAS OF PORTRAITS OF SKIN DISEASES.

All the published Works are now in stock, and can be obtained by New Subscribers. Subscriptions for full sets, Seven Guineas.

Copies of the last Report may be obtained on application to Mr. H. K. LEWIS, 136, Gower Street, W.C. Subscriptions for the current year are now due.

JONATHAN HUTCHINSON, Secretary.

ESTABLISHED 1848.

Mr. J. Baxter Langley, M.R.C.S. Eng., F.L.S., (late of King's College, London), PROFESSIONAL AGENCY, 50, Lincoln's Inn Fields, W.C.

Death Vacancy. — In a good manufacturing town, with ample scope for a first rate Surgeon, the representatives of a medical practitioner just deceased are anxious to negociate for an immediate succession. Average receipts £900 a year. Valuable appointments, honorary and paid. Commodious house, in excellent repair, with stabling and other conveniences. Peculiar circumstances enable the executors to secure a more complete introduction than is usual in such cases. Liberal terms would be conceded to a prompt purchaser.—Address "T., 811," Mr. Langley, as above.

Death Vacancy.—In a market Town in an agricultural district, the death of the leading practitioner affords an excellent opportunity for a married gentleman of good acquirements to succeed to an old established Family Practice to which he could be introduced by the representatives of the deceased. Population 5000. Opposition unimportant. Receipts have averaged between £400 and £500, but the practice has not been actively conducted as the late practitioner had good private means. Appointments £130 a year. To an immediate purchaser very liberal terms would be conceded.—Address "T., 793," Mr. Langley, as above.

Death Vacancy (Notts.)—The death of an old-established Practitioner in a delightful district affords an opening for an energetic doubly qualified gentleman to succeed to his connexion. The house is exceedingly desirable, with gardens, conservatory, and two acres of land. The practice is unopposed. Average receipts, including valuable appointments, £500 a year. Terms easy, to secure a speedy settlement.—Address "T., 814," Mr. Langley, as above.

Lancashire. — An unopposed transferable Practice for sale. Average income £500 a year. Appointments yield about £100. House rent small and expenses low. The opening is well adapted for an energetic man, who could scarcely fail to double the income.—Address "T., 817," Mr. Langley, as above.

Yorks.—Unopposed Practice for transfer. Nearest medical opponent six miles. Receipts about £450 a year. Transferable Appointments £75. House and gardens large and good. Rent £39. Fifteen acres of land attached.—Address, "T. 820," Mr. Langley, as above.

ON THE

Physiological Correlation

OF

THE LUNGS, LIVER, AND KIDNEYS, AS ILLUSTRATED BY THE PHENOMENA OF CHOLERAIC COLLAPSE.

BY

GEORGE JOHNSON, M.D., F.R.C.P.,

PHYSICIAN TO KING'S COLLEGE HOSPITAL; PROFESSOR OF MEDICINE IN KING'S COLLEGE; ETC.

One of the most interesting results of a careful study of the symptoms and pathology of cholera is the new light which is thereby thrown upon the intimate relationship which exists between those three great excretory organs, the lungs, the liver, and the kidney. We find that the great central fact in the history of choleraic collapse is an arrest of blood in the minute branches of the pulmonary artery. This is a demonstrated anatomical fact. The explanation of this fact must be to some extent theoretical. Several writers, who have recognised the fact, endeavour to explain it by the assumption that the blood has been so thickened, through loss of its water, that it is incapable of transmission through the pulmonary vessels. There are some indisputable facts which are quite inconsistent with this explanation: such as—1. The sudden onset of extreme collapse when there has been no time for blood-thickening by loss of water; 2. The rapid passing away of collapse before the blood can have become diluted by absorption of liquid, and, indeed, while loss of liquid by vomiting and purging is still going on; 3. If blood-thickening were the cause of the arrest, it is manifest that the stoppage would commence in the smallest vessels. There would be engorgement of the pulmonary capillaries in all cases of death occurring during the stage of collapse; whereas the reverse of this is the fact. The most careful observations have shown that, while there is a large accumulation of blood in the right cavities of the heart and in the pulmonary arteries, the minute tissues of the lung—the pulmonary capillaries—are remarkably anæmic. The greater part of the blood has been arrested *before* it has reached the minute vessels, in which it would necessarily have begun to accumulate, if thickening through loss of its water were the cause of the impeded circulation.

What, then, is the cause of this arrest of blood? We have a real and sufficient cause in the contraction of the muscular walls of the minute pulmonary arteries; the immediate exciting cause of the arterial spasm being the irritant action of the morbid blood, which also excites painful cramps of the muscles. An analogous arrest of blood in the lungs occurs when various foreign ingredients are accidentally or intentionally mixed with it; *e. g.*, atmospheric air through a wounded vein; or solutions of various salts, as of soda, silver, etc. We cannot demonstrate the spasm of the arteries during collapse; neither can we actually demonstrate the spasm of the bronchial tubes which we believe to exist during a fit of spasmodic asthma. A sceptic, whose creed is only coextensive with his vision, may doubt and deny the existence of both arterial and bronchial spasm; and, in doing so, he will probably substitute some hypothesis which is palpably absurd and untenable. Arterial spasm is, however, an acknowledged—indeed, a demonstrable—physiological fact. We see that the minute arteries have muscular walls. We see them contract under the influence of cold, as well as of mechanical and electrical stimuli. We also see that foreign matters introduced into the blood-vessels, whether during life or immediately after death, while vital contractility remains, are retarded and arrested in a manner which arterial spasm can alone explain. In short, it is manifest that the minute arteries, through the agency of their contractile walls, are the regulators of the blood-stream; as the stopcock of a waterpipe is the regulator of the stream of water.

The theory of arterial spasm, as the cause of the arrest of blood during the collapse of cholera, is entirely accordant with the sudden onset, as well as with the quick passing away, of the symptoms of collapse. It is also consistent with recovery from collapse being, as a rule, associated with the continuance of the vomiting and purging by which the blood is freed from the morbid poison which is the immediate exciting cause of the arrest in the lung.

Another fact, which is in entire agreement with the theory of arterial spasm, is the surprising temporary relief afforded by the injection of a hot liquid into the veins of a patient who is in the stage of collapse. The hot liquid, mixing with the blood in the pulmonary artery, relaxes the spasm; the blood then passes freely on into the left side of the heart and the arteries; and for a brief period the symptoms of collapse entirely disappear. The misinterpretation of these phenomena—the supposition that the saline injections into the veins act merely by rendering the blood more fluid throug the addition of water—has probably contributed more than any other circumstance to confirm and perpetuate the erroneous theory that the symptoms of collapse are mainly the result of a drain of liquid from the blood. Of this theory it may with truth be said, that, by suggesting a mischievous plan of treatment, it has in its day been the direct source of greater harm to the human race than any other erroneous pathological theory that ever held sway over medical practice.*

The partial arrest of blood in the minute branches of the pulmonary artery is in perfect agreement with all the other phenomena of collapse; it serves to explain them all. And, indeed, so complete is the explanation which they receive from this fact, that they in their turn may be said to afford the strongest confirmation of the reality of the anatomical fact. I can conceive it possible that a profound physiologist, who had never witnessed or had described to him the appearances which are found in the bodies of those who have died in collapse, but who had carefully observed the phenomena during life, might, by

* One effect of the theory, that collapse is a result of the drain of liquid from the blood, has been to change—nay, almost to reverse—the treatment of cholera in India; and the consequence of this change of treatment has been a great increase in the per-centage mortality from the disease. Thus it appears from a Report on the Public Health of Bengal, referred to in a leading article in the *Times* of February 12th, that whereas in 1818 "not one-third of the cases of cholera proved fatal, we now find three-fourths beyond remedy." This increase of mortality is attributed to the increasing virulence of the disease; but surely change of treatment has had great influence. In 1818, and for many years after, purgatives were very generally given by the Indian practitioners, and the practice of venesection was common; while of late years, under the influence of pathological theory, purgatives and bleeding have been almost entirely discontinued, and brandy and opium have been largely substituted.

a process of induction, have arrived at the conclusion that an arrest of blood in the minute branches of the pulmonary artery is alone sufficient to explain the symptoms. The argument might have been of this kind. That the arteries receive little blood from the left side of the heart, is evident from the feebleness or even absence of the pulse, the small quantity of blood which escapes from a wounded artery, the peculiar shrinking of the tissues, and the sinking of the eyeballs. That this small supply of blood in the systemic arteries is not the result of mere want of power in the heart, is evident from the fact that these pulseless patients retain a considerable degree of muscular power, as shown by the fact that they can stand up and walk about without fainting. Then it is found that alcoholic stimulants, which excite the heart and improve the pulse of an exhausted patient, aggravate the symptoms of collapse, so that the pulse becomes still more feeble. On the other hand, venesection, which would tend to weaken a feeble heart, often has a remarkable effect in increasing the power and volume of the pulse, and relieving the other symptoms of collapse. It would be probable, therefore, from the known effects of venesection in cases of asphyxia, that its beneficial effects during choleraic collapse are due to its lessening distension of the right cavities of the heart, and thus increasing the contractile power of their walls.

The inference from all these facts would be, that during collapse there is an impediment to the passage of the blood from the right to the left side of the heart; in other words, an impediment in some part of the lungs. Then would arise the question, In what particular set of vessels does this impediment exist? Is it in the pulmonary arteries, or in the pulmonary capillaries? A careful observation and induction would show that the arrest is certainly *not* in the capillaries of the lungs. We know that capillary engorgement of the lungs is invariably associated with an accumulation of carbonic acid in the blood, and a consequent soporific effect on the brain. During collapse, although we have evidence that the amount of carbonic acid exhaled is greatly reduced in amount (see British Medical Journal, p. 87), there is no physiological or chemical evidence of any excess of this gas in the blood. It is evident, therefore, that there is diminished *formation* of carbonic acid during choleraic collapse. Then other facts are noted and compared. There is almost complete suppression of bile and urine; yet there is little, if any, accumulation of these excreta in the blood. It is evident, then, that the formation of biliary and urinary constituents is much lessened, simultaneously with that of carbonic acid. The next step in the argument would be this. Since bile, urine, and carbonic acid are correlative and complementary products of oxidation of blood and tissues, it is manifest that during collapse there is defective oxidation; and hence the coldness, and the diminished formation and excretion of carbonic acid, bile, and urine. What, then, is the cause of this diminished oxidation during collapse? We suppose the physiologist to argue thus. There is evidence of a partial arrest of blood in the lungs, and a consequent small supply to the left side of the heart and the arteries. It is evident that this arrest of blood does not occur in the capillaries of the lungs: if so, the systemic arteries would be *distended* with black blood, and the patient would be narcotised by accumulated carbonic acid. The arrest, then, must be in the arteries before the blood reaches the capillaries; and such an arrest would completely explain all the phenomena. For, as the stream of blood through the pulmonary capillaries is the channel by which oxygen is introduced, and since, other conditions remaining the same, the absorption of oxygen by the lungs will bear a direct relation to the volume and rapidity of the blood-stream, it is manifest that, with a reduction of the current of blood through the lungs, there must be a corresponding diminution of the amount of oxygen, and, consequent on this defective oxygenation, reduction of temperature and diminished formation of carbonic acid, bile, and urine. Here, then, by a process of careful induction, the physiologist argues up to the anatomical fact of an arrest of blood in the pulmonary artery. Suppose any physiologist to have argued out this question thus—and it is quite conceivable that it might have been done—how great would be his delight when he afterwards found the anatomical condition of the lungs and heart in cases of death during collapse to be exactly that which, by a process of reasoning from ascertained facts, he had concluded that it must be.

A very interesting and instructive illustration of the physiological correlation between the lungs, the liver, and the kidneys, is afforded by a comparison of the almost complete inactivity of these great excretory organs in the fœtus, with the energetic discharge of their functions which commences simultaneously in all of them the moment after birth. During intrauterine life, the lungs are entirely inactive; no air is admitted into their cells; and the greater part of the blood from the pulmonary artery passes directly through the *ductus arteriosus* into the aorta. The kidneys and the liver are nearly as inactive as the lungs. The bladder, it is true, contains some urine; and the *meconium* which is contained in the intestines is chiefly composed of bile. A certain small amount of these excreta is formed during fœtal life; but the quantity excreted is infinitely small, in comparison with the rapid excretion which begins immediately after birth, when, with the establishment of the function of respiration, there is an evolution of carbonic acid, and a continuous formation of the two correlative secretions—the two joint products of oxygenation—bile and urine. One curious and interesting result of the abundant bile-formation which commences immediately after birth, is, that its products, sometimes not being eliminated as rapidly as they are formed, accumulate in the system, and the child becomes jaundiced. *Icterus neonatorum* is especially apt to occur in immature and feeble children, whose excretory organs probably are but imperfectly prepared for the active discharge of their functions, which is imposed upon them by that complex series of chemical changes which starts from the first act of inspiration—the first taking in of "the breath of life".

During the collapse of cholera, there is a near approach to that inactive state of the lungs, the liver, and the kidneys, which is the natural condition of these organs during intrauterine life; and as the primary cause, the starting-point, of their joint activity at the moment of birth, is the establishment of the process of respiration, so the primary and essential cause of their conjointly diminished activity during choleraic collapse is the partial arrest of blood in the lungs, and the consequent impairment of the function of respiration. Again, during the period of reaction from collapse, when a free current of blood through the lungs brings with it a full supply of oxygen, the combustion of accumulated materials proceeds with great energy; carbonic acid, bile, and urine, are abundantly generated; there is a great strain and pressure of work on the lungs, liver, and kidneys; and, if one or more of these organs fail in the work of elimination, the blood becomes contaminated by retained excreta, there is "consecutive

fever", and too often a fatal oppression of the brain and whole nervous system.

In these days of specialism, when not only is it customary for practitioners to devote themselves almost exclusively to the study of one particular organ, but even to establish separate hospitals and dispensaries for the reception and treatment of special diseases, it is well that we should have brought before our minds, from time to time, facts and considertions which tend to prove that Nature refuses to have the body subjected to this process of vivisection. We need to be reminded that there is a complex and admirable correlation between the various organs and functions of the body, so that derangement of one organ involves often, as a necessary consequence, disorder and even structural change in one or more distant but closely associated organs. It is manifest that the recognition of this interdependence of the various parts and functions of the body is the only sure basis for the successful treatment of disease. The history of cholera and its treatment affords a good illustration of this general principle. Suppression of bile is one of the most constant and striking phenomena of collapse. Since the excretion of bile is the function of the liver, that organ has been supposed to be directly responsible for its suspended secretion during choleraic collapse; and, in conformity with this view, calomel has been largely given, for the purpose of acting on the liver and restoring the secretion of bile. Now, we see that suppression of bile and urine in cholera is one of the necessary and obvious consequences of a greatly impeded circulation through the lungs. We see, too, that the only way in which calomel is likely to be beneficial in the treatment of cholera, is by acting as a purgative, and thus assisting the intestines to expel their morbid contents. The knowledge of these facts is surely of some considerable value, not only on account of its intrinsic interest, but also on account of the important practical applications of which it is susceptible. For instance, when, in the course of time, we have established special hospitals for each organ in the body, we shall know that suppression of bile during collapse should take a patient to the hospital for the lungs, and not to that for the liver!

Liebig Coffee. The berries of coffee, once roasted, lose every hour somewhat of their aroma, in consequence of the influence of the oxygen of the air, which, owing to the porosity of the roasted berries, can easily penetrate. This pernicious change may best be avoided by strewing over the berries, when the roasting is completed, and while the vessel in which it has been done is still hot, some powdered white or brown sugar (half-an-ounce to one pound of coffee is sufficient.) The sugar melts immediately, and by well shaking or turning the roaster quickly, it spreads over all the berries, and gives each one a fine glaze, impervious to the atmosphere. They have then a shining appearance, as though covered with a varnish, and they in consequence lose their smell entirely, which, however, returns in a high degree as soon as they are ground. After this operation, they are to be shaken out rapidly from the roaster and spread on a cold plate of iron, so that they may cool as soon as possible. If the hot berries are allowed to remain heaped together, they begin to sweat, and when the quantity is large the heating process, by the influence of air, increases to such a degree that at last they take fire spontaneously. The roasted and glazed berries should be kept in a dry place, because the covering of sugar attracts moisture. (*Popular Science Review.*)

Illustrations
OF
HOSPITAL PRACTICE:
METROPOLITAN AND PROVINCIAL.

MIDDLESEX HOSPITAL.

THREE CASES OF DIPHTHERIA, IN ALL OF WHICH TRACHEOTOMY WAS PERFORMED; AND, IN ONE CASE, CÆSAREAN SECTION.

Under the care of A. P. Stewart, M.D.

[*From the notes of* Mr. Bailey, *Resident Medical Assistant.*]

Case I. Harriett C., aged 26, married, in the eighth month of pregnancy, was admitted at 9 A.M. on Dec. 14th, 1865. One of her children, who had suffered from a throat-affection for some weeks, had died the same morning. The patient had been taken ill ten days previously, while nursing her child, with sore-throat and a hard dry cough, which she neglected till December 8th, when she first experienced difficulty of breathing and of swallowing, and on the following day lost her voice.

On admission, her face was turgid and slightly livid; she had complete aphonia; and her respiration was 22, and accompanied with much action of the cervical muscles, and crowing inspiration. There was very slight expansion of the chest with inspiration; and air, which entered the upper lobes pretty freely, passed sparingly to the portions below the third rib. The fauces showed no trace of exudation; but were everywhere red and granular.

As the patient had great difficulty in swallowing liquids, brandy and strong beef-tea were ordered by injection. During the day, she became drowsy, and the dyspnœa and lividity of countenance increased; and at 11.30 P.M., the upper part of the trachea was opened by Mr. Hulke, and a double cannula inserted. This was followed by copious hæmorrhage, and the discharge by coughing of a large quantity of bloody mucus and portions of false membrane. After the operation, the breathing became more tranquil, and air entered the lungs freely. About 4 A.M., the breathing became again oppressed; but was quickly relieved by removing from the inner tube a plug of false membrane. At 8 A.M., another paroxysm of apnœa occurred, caused by a portion of membrane in the trachea, and which was expelled by a forced expiratory effort. She sank afterwards, and died at 8.45 A.M.

Immediately after death, Mr. Hulke opened the abdomen by a longitudinal incision and removed the child, which, although it showed signs of life when first exposed, could not be resuscitated after it was taken out.

Autopsy. A diphtheritic membrane coated the posterior part of the pharynx and the larynx, where there was also considerable œdema, nearly closing the rima glottidis. The trachea and bronchi were congested, but free from false membrane.

Case II. James R., a child, aged 2 years, was admitted in the forenoon of January 1st. He had great oppression of breathing, having to sit up in bed and struggle for breath. His expression was extremely anxious, and the alæ nasi were expanded. The respiration was very variable and stridulous. Percussion was fairly resonant over the chest; but no air was heard entering the right lung, while it permeated the left pretty freely. The pulse was imperceptible.

The soft palate, uvula, and fauces, were found covered with a thick greyish exudation, and the glands under the jaw were somewhat swollen. He had been seized with feverish symptoms about ten days previously; and these had been followed by dyspnœa, which had increased till he was brought to the hospital.

Soon after admission, he was put under chloroform, and the house-surgeon, Mr. Worthington, opened the trachea and inserted a double cannula, through which some bloody mucus but no membrane was expelled. The respiration immediately became tranquil, and air was heard passing freely to every part of the right lung anteriorly. A trace of pulse could be felt at the wrist five minutes after the operation, but it did not increase in strength afterwards. He was ordered injections of beef-tea and wine, as he could only swallow with great difficulty. At midnight the pulse had again become imperceptible. During the night, the dyspnœa, which recurred at intervals, was each time relieved by clearing out the tube; and the breathing continued pretty tranquil till 10 A.M., when he became rapidly worse, and died at 11 A.M.

Autopsy. Ragged patches of yellow false membrane were scattered over the tonsils, soft palate, and uvula, and the mucous membrane under these was ulcerated. The epiglottis was thickened, and its surface studded with small patches of diphtheritic membrane. The larynx, as far as the true vocal cords, was partially covered by a similar false membrane, and its ventricles were ulcerated. The whole surface of the trachea was reddened and granular, and, in its lower part, was covered by a viscid yellowish layer of false membrane resembling purulent mucus, which extended into the bronchial tubes on both sides. The right lung was of much smaller bulk than the left and congested; and patches of nodular pneumonia, frequently alternating with depressions caused by collapsed portions, studded the surface and sections of the upper and lower lobes. There was some nodular pneumonia, but no collapse, of the left lung. Large air-bubbles were found in the connective tissue of the anterior mediastinum, covering the heart and extending into the neck.

Case III. Matilda M. C., aged 4½, was admitted, about 9 A.M. on January 4th, with hoarseness, amounting almost to aphonia, an incessant croupy cough, and great dyspnœa. Her respiration was 50, short, and very superficial, and very little air entered the lungs, especially the right. Her face was livid, and the skin perspiring very freely. Pulse 156, small. There was a glandular swelling on each side below the jaw. Only a little viscid mucus was observed adhering to the fauces. As she had been away from home till the previous day, no history of her illness could be obtained, except that she had suffered from cough and hoarseness for ten days. At noon, the dyspnœa was so great that tracheotomy was decided on; and an incision of half an inch in length was made in the trachea by Mr. Worthington, the house-surgeon, and a double cannula inserted. The patient was much relieved by the operation, and at 2 P.M. was lying tranquilly on her back; the respiration was 50, and thoracic; and vesicular breathing was heard all over the chest. The pulse was 136, full, soft, and compressible. She was ordered beef-tea and brandy, partly by the mouth and partly by injection, and ice to suck. She slept at intervals during the night and took drinks freely.

Till noon on the following day (January 5th), her breathing, though interrupted by frequent cough accompanied by expulsion of mucus through the tube, was moderately calm. Soon, however, the dyspnœa returned; and at 4 P.M. very little air entered the lungs except the left upper lobe. The percussion note was deficient in resonance on both sides, especially the right. She was ordered the following draught every hour: Vin. ipecac. ℥xx; acid. hydrocyan. dil. ℥ij; syrupi tolutani ad ʒj. An hour later she had an almost fatal attack of apnœa, from which she was temporarily relieved by a violent expiratory effort; but she soon became worse, and died at 7 P.M. She took drinks freely up to the last.

Autopsy. The tonsils were enlarged, and pus exuded on cutting into the follicles. The soft palate was of normal colour and free from exudation. Adhering to the under surface of the epiglottis was a tough greyish yellow false membrane, which was continuous with a similar layer extending along the larynx, where it filled up the space between the vocal cords, trachea, and bronchi, as far as the third or fourth division. Its thickness was greatest near the incision in the trachea, and greater in the right bronchus than in the left. The mucous membrane beneath the false membrane was red and granular. The lungs were somewhat œdematous, and pus exuded from the smaller bronchial tubes. The right cavities of the heart were distended with loose black clots, while the left were nearly empty. The solitary glands and Peyer's patches in the ileum were enlarged, and some of the mesenteric glands were infiltrated with cheesy matter. The kidneys appeared normal; but the urine in the bladder, which could not be got for examination during life, was found to be loaded with albumen.

Remarks. In these three cases, death occurred from the development of the local lesion, as is generally the case when the disease proves fatal during the second week. Although, in each of them, tracheotomy was performed soon after admission to the hospital, it was late in the disease, and only prolonged life for a few hours. In Cases I and II, the existence of partial obstructions was clearly made out before the operation; but, in the case of Matilda M. C., there were simply struggling for breath and a croupy cough; and the diagnosis had to be made between croup, croup complicated with scarlet fever, and diphtheria. Dr. Stewart remarked that croup with albumen in the urine was rare in his experience, and no history of rash or fever could be obtained. He, therefore, concluded that it was diphtheria commencing low down.

Harriett C. had been seen at her own home in consultation by Dr. Stewart, who advised that she should be sent to the hospital, where tracheotomy and (if necessary) Cæsarean section might be more conveniently performed. In her case blisters had been applied over the windpipe, and produced such swelling of the parts and turgescence of the vessels as to increase the difficulty and risk of the operation; and, with reference to this, Dr. Stewart remarked that, in the treatment of diphtheria, tracheotomy should be kept in view as a last resource, and that all local treatment likely to impede it or add to the danger of hæmorrhage ought to be avoided.

Dr. James Jones, Professor in the University of Louisiana, in an introductory lecture delivered at the opening of the School in New Orleans, has shown himself to be unfit to represent the profession of medicine as a teacher. He appeals to the sectional feelings of the Southern men whom he addresses; he speaks of the commercial intercourse of Northern men with the population of New Orleans as the "*incursions of restless Northern barbarians;*" speaks of the "*negrophilous clergymen and laymen of our discriminating Northern and Western States;*" and of fearful maladies which sweep over nations, "*dissevering the ties of country and kindred, thirsting for blood, and led on by the war-whoops of demons in the garb of saints.*" (*Philad. Med. Rep.*)

Original Communications.

ON THE SANITARY STATE OF ENGLAND DURING THE MIDDLE AGES;

AS DEDUCED FROM THE DOMESTIC HABITS OF THE PEOPLE.

By James Russell, M.D., Birmingham.

[*Read to the University Graduates' Club, Birmingham.**]

I propose to present to the Club this evening a few statements respecting the habits of our forefathers in the Middle Ages, deduced more especially from the construction of their dwellings, by which we may be able to draw a fair inference respecting the sanitary state of the time. The laws of sanitary science are now so well understood, that we can form a safe estimate respecting the health of a community from knowing the habits of its members.

The great factors of our life are properly stated by Dr. Lankester to be air, water, food, and heat. Adopting these as the heads of my paper, I will first take air. Now it is absolutely necessary that the air should be pure in order for it to perform its appropriate office as a supporter of life. It is one of the triumphs of modern preventive medicine to have succeeded in eliminating the several elements which have been in operation in causing most of the serious outbreaks of disease of which we possess records. Among these elements, none holds a higher place than the overcrowding of human beings in ill constructed and badly ventilated apartments; the disappearance of the plague from London was coincident with the improved condition of the dwellings which followed the great fire; and the same disease now ravages the East under the operation of precisely the same cause.

What inference can be drawn on this subject from the information which we possess respecting the dwellings of our forefathers?

The *material* employed in construction forms, of course, an important consideration in relation to our present inquiry. Although the Roman style of building in this country appears to have been of the most substantial character, and although many of the best quarries known at the present day were worked during the Roman occupation, yet, on the departure of the Romans from our island, wood became the material chiefly employed in domestic architecture; and, although stone came again by degrees into use under the Normans (witness, *e.g.*, their well known keeps), yet, with the exception of mansions belonging to the nobility and more wealthy gentry, wood continued to be the material principally in use; the interstices of the wooden framework being filled with a composition of plaster composed of lime and mud mixed with straw, and laid upon laths.

Passing from the materials to the *plan* on which the house was built, the general plan of domestic edifices outside the walls of towns, during the period under review—the ordinary manor-houses, and even erections of still greater pretensions, as royal palaces—much resembled that observed in Roman houses, both Saxons and Normans deriving every improvement in their style from imitation of the details of Roman architecture. The house included a hall, often of considerable dimensions, to which indeed, from its occupying the principal position in importance, the inclusive term of "domus" or "house" was sometimes applied. To this was added a chamber or chambers adjoining, together with offices, as kitchen, larder, sewery, and buttery, occupying various positions in the establishment. The edifices of later construction were distinguished by possessing a larger number of private chambers, and a more regular arrangement of the offices. This change is chiefly apparent in the fourteenth century, when the plan of the houses was extended, and various evidences of greater refinement in manners present themselves, coinciding with a rapid advance in agriculture and commerce.

Even in the castles, when, in the thirteenth century, they assumed a more domestic character, and the ancient donjon or keep was abandoned, precisely similar buildings were erected in the inner enclosure, often of very perishable materials. The remains of the Edwardean castles, as of Conway, also testify to these later constructions being arranged on precisely the same system; the only respect probably in which the houses of the monarch differed from ordinary manor-houses being in their greater scale, and in always having a chapel annexed.

The hall—"the great house-place"—was situated either on the ground floor, or frequently over a lower vaulted story, which was sometimes half sunk in the ground, and was variously used as a store-room, brewery, or even, when purposes of defence rendered it necessary, as a stable; in farm-houses it was appropriated to the use of the cattle. The hall, as already stated, was the chief feature in the edifice throughout the Middle Ages, and indeed after their close; hence the term became vernacularly extended, in Saxon and Norman times, to the entire of the mansion, a custom perpetuated to our own day.

The dimensions of the hall were often considerable, even attaining a length of one hundred feet or more, as evidenced by existing remains, *e.g.*, of Westminster Hall; in many cases, it possessed high architectural merit. This apartment was essentially feudal in its origin and objects, and served the various purposes of feudal administration; but its chief use was to accommodate the owner and his numerous followers and servants. In it they took their meals, the lord seated on the dais at the end. It was also the sleeping apartment of the retinue and guests, no regard being paid to the admixture of sexes. Even the stables were sometimes pressed into the service as dormitories for servants and guests. So late as the reign of Edward IV, many officers of the royal household had no better sleeping accommodation than the hall of the royal mansion.

Of the same character with the domestic halls were those connected with the different guilds, for the purpose of a common refectory, and for other objects connected with such associations. These buildings are familiar to us under the name of guild-halls; and with them we may closely associate the halls of the inns of court, the college halls, and the halls of our public schools. In the fourteenth century, the hall began to appear as an element in the houses

* I am indebted for the architectural data which constitute the substance of the following paper, entirely to the late Mr. Hudson Turner's classical work on the *Domestic Architecture of the Middle Ages*, continued, after his death, by the editor of the *Glossary of Architecture*. I have also to acknowledge information derived from a paper by Dr. W. D. Cookson, in the *Transactions of the Lincolnshire Topographical Society*. It will be seen that Dr. Murchison's valuable work on *Continued Fevers* has guided me in the application I have made of the facts gained from other sources.

built within towns, the property of wealthy merchants.

The private chamber attached to the hall was designed as the withdrawing room for the lord and his guests at the end of the meal. In it was placed the bed, separated, when the apartment was of good size, by a partition of plaster or of hanging. This chamber, called the solar, often built of wood, was erected over a vaulted room of stone, with which it had no communication, termed the cellar, and used as such.

Strange as it may appear, even in the twelfth century, and not excepting royal mansions, there was but one such chamber in the house; though, in the thirteenth, and especially in the fourteenth, the number increased; and in the latter century we sometimes find mention both of parlours and of chambers distinct from each other. Kings and nobles received their courtiers, held councils, and granted audiences in their sleeping apartments. The chapel also, in royal residences, was at times appropriated to some or other of these secular purposes.

Such is a general description of the habits of our Norman forefathers; but in the Saxon time the habits were still more rude. The hall of the Saxon theyne is described as being little more than a capacious apartment, which in the daytime was adapted to the patriarchal hospitality of the owner, and formed at night a sort of stable for his servants, to whose rude accommodation their master's was not much superior in a small adjoining chamber. The fire was kindled in the centre of the hall; the smoke made its way out through an opening in the roof, or by the door, windows, or eaves of the thatch. The lord and his hearthmen sat by the same fire at which their repast was cooked, and at night retired to share the same dormitory, which served also as a council chamber. So late as the fourteenth century, states Mr. Turner, it was the custom of a King of France to distinguish those courtiers and counsellors whom he particularly favoured, by inviting one or more of them to share his bed or to sleep in the same room.

It is hardly necessary for me to pause here in order to comment on the obvious insalubrity of a mode of life such as I have been describing. We may confidently predict the presence of all those evils now known to result from the practice of crowding a large number of individuals in a single apartment, breathing the same air by night and by day; the very sleeping apartment being also contaminated by its being constantly employed in transacting the business of the day.

But the statement already made does not express the whole extent of the evil. The tendency to overcrowding in the houses, and the dangers it entailed, were augmented by the necessity, then universally existing, for fortifying all houses situated outside the defences of a town. The extensive forests and woodlands, which extended so widely over the country, afforded shelter to outlaws of the most desperate character. Nor were the offenders solely of this description. There were knightly robbers also, even retainers of the court, who banded themselves against travellers and traders; and nobles, ecclesiastics of high degree, and even kings themselves, were sometimes waylaid and plundered with impunity. Hence the necessity for armed retinues; hence also the formation of trading companies for mutual protection. The siege of the Castle of Torquilstone in *Ivanhoe*, will at once present itself in illustration to the minds of my hearers.

A striking proof of the lawless character of the times is afforded by the circumstance that, in the reign of Edward I, the Dean and Chapter of St. Paul's obtained a licence to surround their church and precincts with a stone wall, in order to protect themselves from malefactors; and the Canons of St. Martin's-le-Grand did not dare to cross the road to their collegiate church, but obtained permission to build a wooden gallery or bridge to connect their lodgings with the church tower. Occasionally the churches themselves were so constructed as to be available as a fortress for temporary use, in case of an incursion by the lord and his vassals, or by robbers.

In consequence of this state of things, even farm-houses were protected by hedges and dykes or moats. The larger houses, fortified by royal licence, were built with thick walls and fortified gateways, and sometimes presented so close a resemblance to castles as to create difficulty in discriminating between the two. They were further enclosed by outer walls, and often by a moat; indeed, the custom of protecting manor-houses by a moat continued down to the time of Elizabeth, or even later. Towers were sometimes added, as well to indicate the rank of the owner as with a more directly practical purpose. In the case of the Pele towers in the northern counties, these towers constituted the entire habitation. Within these narrow limits stood the various buildings connected with the house, together with the out-offices—the stables, the sties, the ox-stalls—of considerable extent, from the necessity then universal of keeping the entire stock of food upon the premises. To these sources of contamination thus crowded in a confined space must be added the large number of servants then retained, together with the extensive company, not only of guests, but also of minstrels, buffoons, and jesters, who attended the owner's hospitality.

To answer the large demands occasionally made by the profuse hospitality of the time, it was the practice to throw up temporary erections in the courts, as chambers, kitchens, etc. Mr. Turner refers to the coronation of Edward III, when all the vacant ground within the enclosure of the Palace of Westminster was entirely covered with "houses and offices. In 1265, when Simon de Montfort visited his countess at Wallingford Castle, three hundred and thirty-four horses were accommodated in the stables, as it would not have been safe to picket them without the walls.

Of the houses *within towns*, few remains exist. During the Saxon period, they appear to have been low huts closely packed together; rows of wooden and mud hovels adapted only for affording protection from the weather. In later times, they continued to be built of wood, with roofs of straw, reeds, or similar materials; nor were more durable materials generally employed in London until the period of the great fire. In the thirteenth and fourteenth centuries, stone buildings were objects of mark in London, and were frequently named as boundaries, without any more special description than the material of which they were built.

The frequency of disastrous fires consequent upon this mode of construction at last rendered some provision necessary to meet the evil; and Mr. Turner has translated the record of an assize held by the citizens of London in 1189, for encouraging the use of stone in their edifices. It regulates with singular minuteness the provisions and privileges of stone party-walls between the houses, which constitute the extent of the remedy proposed. A curious direction issued by a later assize in 1212, assembled for the same purpose, that every alderman should be provided with a hook and cord, to pull down the houses in an emergency, gives no very exalted idea of the stability of intraurban erections. The inns of our universities, and the inns of court, were original

mean lodgings for scholars clustered round a common hall and a common kitchen.

It should also be remembered that, as population increased, the defences of the cities (their walls and dykes) would often give rise to inconvenient crowding, it being unsafe to build outside the protection of the fortifications.

One other consideration presents itself in connexion with the present aspect of our subject. Dirt and squalor, the want of cleanliness in the person and in the dwellings, have constituted a very important element in causing disease, when in unison with overcrowding, not only adding on its own account a large contribution to the emanations which infect the atmosphere, but probably taking an active part in producing from within the body the exhalation of peculiarly malignant gaseous products.

The floor of the hall—the apartment which, as already stated, constituted the living-room by day and by night of so many persons—when on the ground-level, was formed, below the dais, of the natural earth rammed down; over it, as also over the floors of the chambers, dried rushes or green fodder, sometimes mixed with sweet herbs, were plentifully scattered. The space below the dais was sometimes termed the "marsh of the hall"—a name strikingly descriptive of its damp and dirty condition. It was the receptacle of all kinds of filth and refuse; even the guests, during meals, cast the refuse of their plates on the floor, for the dogs who were present, expectant of their contribution.

An idea of the condition of the apartment may be formed from an order of Henry the Third to widen the doorway of Winchester Hall, for the purpose of admitting carts. In another precept, he directs payment for a certain conduit through which the refuse of the king's kitchen at Westminster flows into the Thames; which conduit the king ordered to be made on account of the stink of the dirty water which was carried through his halls, which was wont to poison the people frequenting the same halls. It must be noted, that in the kitchen the butchers flayed and dressed the carcases of the animals slaughtered on the premises for food.

It was on account of the filthy state of the mansion, as well as from the necessity of collecting and consuming the provisions on the spot, that noblemen and gentlemen were obliged to divide their time between their different residences. In the Liberate Rolls examined by Mr. Turner, directions are given by Henry the Third for repairs and alterations of no less than thirty-eight different mansions and palaces belonging to himself. As late as the time of Edward the Sixth, Lord Paget complains of the hardship of being confined at his seat at Beaudesert, which had become withal, by some months' residence, horribly unsavoury, and could not be sweetened without the removal of his family. Erasmus speaks of the litter on the floor remaining for twenty years, fresh layers being superimposed; the dejections of dogs and men, remains of food, and other filth not to be named, festering beneath.

It must, however, be added, on the other side, that careful provision was made, at least in large houses, for privy accommodation. The "privy chambers" received a large share of attention, and their arrangement was regarded as being of much consequence. This fact has the closer connexion with our present subject, that there is much reason to attribute one class of our endemic fevers solely to the decomposition of animal excrement. In large houses, privies were numerous; and, in the fourteenth century especially, there was one attached to each room. Much ingenuity was displayed in their construction. In some cases, one of the principal towers was used almost entirely for this purpose, or a small turret was introduced. Shafts were carried down from the chambers through the substance of the walls; and, whenever there was a running stream in the moat, a portion of it was diverted through the dirt-pit. In the assize of London already alluded to, the position of the pit is very strictly regulated. Indeed, the drainage of towns was not neglected during the Middle Ages. It was chiefly cared for by the Government, though, as demonstrated by many proofs, with very imperfect success, owing to circumstances which no Government could control.

Nor should it be forgotten that, at the close of the thirteenth century, baths were introduced; and that a lavatory was often connected with the hall—the more needful, as the guests usually took up the food in their fingers; forks, even in the fourteenth century, being regarded as indications of foppery and fastidious refinement, though spoons were generally in use.

A conduit of water was first established in London in the thirteenth century, by the monks at Westminster. Water was hawked about the streets. Wells were much in use. Henry the Third condescends to giving directions for the repair of the wells at his various seats.

The common idea of a town of the Middle Ages—more often called a Gothic town—is an accumulation of houses crowded together without any order, separated by narrow lanes, over which the upper stories of the houses project so much that the inmates might shake hands from the upper stories across the street. This idea Mr. Turner quotes as correct of many of our old towns The streets of London, though provided with some sort of footway, were frequently left to chance; and those leading to the river, which afforded means of natural drainage, had usually open sewers flowing through them, and were kept in a continual state of mud. Dr. Heberden describes them in 1666 as narrow and crooked, many of them unpaved, and nearly shut in by the overhanging houses. The burgesses of Northampton valued the privilege of going along the wall of the city, to avoid the noisome and muddy way beneath. The public roads were precarious and full of ruts and bogs, and were often rendered impassable by floods.

It may add force to what I have been stating, as well as suggest some feeling of humility, if we pass for a single moment from the Middle Ages to the year of grace 1865, and note what was said of this same London in the *Medical Times and Gazette* for last November. Describing one of the present nests of fever and cholera in the parish of St. George the Martyr, the reporter says: "Many of the general features of the place resemble those which your commissioner described last week in Bethnal Green. We have the same condition of roads, converted by the late rain into swamps of greasy mud, interspersed with pools of black water. A good, hard, firm, macadamised road is scarcely to be found in the parish. The pavement of the larger streets in many places is dilapidated and out of repair, whilst the courts and alleys can only be called paved by a charitable figure of speech. A central gutter, leading to a drain.....with mud on each side, interspersed with round stones, constitutes the general footway of the Southwark courts. Many of the houses in the parish are built of wood, and have probably stood for a couple of centuries."

To return from this digression: an immense portion of the kingdom was covered with wood. In 1250, there were seventy forests and woods in England, directly or indirectly under the control of the Crown alone. Wide districts, too, were fen and morass, and were chiefly valuable for the supplies of eels

and water-fowl which they yielded. Hence arose the prevalence of ague and other malarious diseases, which, even two hundred years ago, were among the most common diseases of the country. James the First and Oliver Cromwell both died of ague in London. In Cromwell's time, the country surrounding London was as marshy as the fens of Lincolnshire now are; so that he was nicknamed the king of the marshes. The description given by Sydenham of the regular epidemics of intermittents in London forms one of the most important parts of his writings. In no respect has sanitary science formed a more useful alliance with engineering operations, than in the various works by which our land has been freed from this terrible pest, deteriorating the health, even when not visiting the patient in the still more serious form of ague.

Now let me pause for a moment, to observe that the domestic habits of a people are reflected in those of a more public character. Hence, from the preceding details, we may well infer the condition of public establishments. How fearfully the evils of overcrowding and of squalor combined have shown themselves in our jails! How awfully, too, the paramount authority of those laws which our Creator has imposed upon his creatures has been asserted, in the contagious poison which has spread from those centres of living corruption, let the records of the various Black Assizes, at a period later than that under review, testify. A century ago, says Dr. Murchison, there were no greater hotbeds of typhus than the jails of England; but, thanks to the philanthropy of Howard, the nation has been freed from such an imputation.

I must occupy only a short time in glancing at another of the great factors of life—viz., *warmth*. "Look," says Dr. Lankester, "at the thermometer on your garden-wall at this season of the year. Night after night it falls lower; and as it falls degree after degree, the rates of mortality rise. A cold day in winter is the death-knell of thousands."

The interior provisions for comfort in the houses of the Middle Ages were of a very rude and meagre description. Plastering and whitewash, indeed, were in use from very early times; wainscoting also was partially employed; and, in the fourteenth century, the looms of Arras began to furnish their contribution to the comfort and decoration of domestic interiors.

As is well known, the manufacture of glass was a very late introduction into this country. It cannot be said to have been established until the reign of William and Mary: the glass previously in use was imported from the Low Countries, Lorraine, and Venice. It was not until the thirteenth century that glass was at all employed for the purpose of filling in the windows of other than ecclesiastical edifices; and then it was a luxury barely known even to royalty. Even when it become more generally employed for this purpose, the windows were moveable, and were packed up when the family was absent; they did not become fixtures until the reign of Henry the Eighth. Shutters and canvas were employed as substitutes. Even glazing was often employed for one portion only of a window. Such constructions, it is obvious, could have afforded but an imperfect defence from the weather, especially in our severe climate; though, on the other hand, some imperfect provisions were thus inadvertently made for ventilation. A charge for making windows shut better than usual was not uncommon. A precept of Henry the Third directs glass to be substituted for wood in a wardrobe of the Tower, "so that that chamber might not be so windy." The windows were sometimes placed at a considerable elevation in the apartment, to lessen the evil; and occasionally a kind of penthouse was erected over them on the outside.

Let us note, however, one comfortable feature in the scene. These windows, large and deeply recessed in the later periods, with their stone benches, were "the favourite nooks and corners of domestic life, and the votaries of chess haunted these pleasant old-fashioned retreats. It was here, too, that my lady and her fair damsels brought their spinning and their broidery, and wrought those marvellous and beautiful fabrics for which, in mediæval times, their needles acquired a European fame."

Although the fireplaces form a very interesting portion of existing remains of mediæval houses, up to the beginning of the fourteenth century the lord's solar was the only apartment excepting the kitchen provided with this necessary accommodation; after that date, fireplaces increased in number. In the halls, as in the more humble dwellings, the fire was kindled on a hearth in the middle of the room, the smoke finding a vent through the louvre in the roof. Chimneys were unknown in cottages until the reign of Elizabeth. Although wood and charcoal were the materials chiefly employed in burning, it must be obvious to how great an extent the atmosphere of the apartment suffered by the admixture of smoke and of other products of combustion—an evil which would be augmented by the large flambeaus used for purposes of illumination. It must also be noted, that defective means for procuring warmth, such as the arrangements just described imply, is an additional cause of overcrowding.

I regret that I can give only a passing notice to the last factor; viz., food. I need not comment on its importance to everyday life; its deficiency or defective quality also demands consideration in another connection. Want of proper food among large portions of the community, as from bad harvests, commercial depression, strikes, etc., has united with the other influences to which I have referred, or in other cases has operated alone, in constituting the effective cause of many of our most serious epidemics.

It is enough for me to refer to the depressed condition, both of agriculture and of internal trade during a large part of the Middle Ages, to infer the poverty of the people in general, and the imperfect means of sustenance they possessed. Whilst large tracts of the country were forest or bog, foreign wars and domestic feuds carried away the husbandman, and ruined the fruits of his toil. Forest laws and the excessive passion for the chase operated, as well pointed out by Mr. Hallam, to prevent agricultural improvement; whilst the devastation committed by wild animals, and the protection afforded them for selfish purposes, formed matter for serious and frequent complaint. The passion for the chase produced, in the words of the author I have just quoted, a strenuous idleness, which disdained all useful occupations, and an oppressive spirit towards the peasantry. Thus, the peasant is stated by another author to have been a half-clad serf; his lord, a debauched, cruel, exacting tyrant. Day-labourers on farms were fed at their lord's expense, their chief diet being a sort of porridge.

At the same time, various causes, especially the insecurity of property, maintained internal trade at a very low level; for several centuries there is not a vestige to be discovered of any considerable manufacture. It is well known to how great an extent the monasteries and guilds—particularly the guilds of a religious character—operated in alleviating the general poverty.

These remarks, however, are far less applicable to the concluding period of the Middle Ages, when, under the Plantagenet line, particularly under the

first and third Edward, both agriculture and commerce received a powerful impulse. Mr. Hallam calculates that the labouring classes, especially those employed in agriculture, were better provided with the means of subsistence in the reigns of Edward III and Henry VI than they are at present. (*Middle Ages*, 1846, ii, p. 433.)

From the impossibility of preserving the summer stock, the winter's provision depended upon salted or larded meats, whence our word "larder." Although animal food was consumed in abundance, especially pork, fish was also eaten in large quantities, together with choice morsels from the whale, the porpoise, the grampus, and the sea-wolf. The fish was frequently dried, constituting stock-fish, which required to be beaten by a mallet upon a block or stock before it was fit for consumption.* Wheaten bread was the luxury of the great. Among the poorer classes, missilen-meal or monk-corn was baked and stored in large quantity, and, when very dry, was damped and a second time warmed in the oven.

It is interesting to note, from the great importance of vegetables as articles of diet, that a large number of green herbs were known and used, including the cabbage tribe, peas, beans, beet-root (which was the chief esculent), pot and sweet herbs, lettuce, water-cress, onions, and garlic.

In concluding this brief sketch of a very important subject, I would beg you to observe that my time has admitted of nothing beyond a bare outline; I have been obliged to content myself with doing little beyond laying before you certain particulars which have been collected by others, respecting the habits of our forefathers, merely suggesting, as I proceeded, the conclusions to which they point in relation to the subject of sanitary science. I think that they indicate much ignorance of the very principles of health, and almost entire neglect of its laws.

With one observation, I will end. My remarks have direct relation mainly to domestic habits, but indirectly they must be accepted as bearing upon the condition of society in its public as well as in its private capacity. As I have already remarked, the habits of domestic life are reflected in those of a more public character; and where the economy of the house is ignorantly administered, we can hardly look for better regulation in municipal or public concerns.

Various circumstances will, of course, modify the result; an imperfectly developed condition of internal trade and manufacture may not have presented one of the chief inducements now offered to overcrowding in our towns; a country life may have produced a more hardy state of constitution than is met with in our manufacturing districts; but still, after allowing for these disturbing influences, we may safely return to the position just laid down.

An important branch of the subject relates to the history of disease, in so far as its outbreak may be referred to defective sanitary arrangements. Upon this subject, of course, I cannot enter; it has, however, been treated in a masterly manner by Dr. Murchison, for the period subsequent to the revival of letters; anterior to that period, but scanty materials can be obtained. I may venture to assert that, so far as our knowledge upon this subject extends, it entirely accords with the *à priori* conclusions to which I have been led in the course of my present paper.

* The first great encreasing of the towne (Kingston-upon-Hull) was by passing for fisch into Ireland, from whens they had the hole trade of stoke fisch into England, and partly other fisch. (Quoted by Mr. Turner from Leland's *Itinerary*.)

ON THE TREATMENT OF STRABISMUS WITHOUT OPERATION.

By C. Holthouse, Esq., Surgeon to the Westminster Hospital, and to the Surrey Ophthalmic Hospital, etc.

In my treatise on Strabismus, published in 1858, I commenced the chapter on the treatment of this affection in these words: "If the view I have taken of the pathology of strabismus be correct, it must be obvious that no treatment can be of any avail in confirmed strabismus, except division of the shortened muscle;" but I followed up this statement by the following: "There must, however, be a stage of contraction antecedent to that of structural shortening, in which medical (that is non-operative) treatment is called for, and is, moreover, sometimes successful in removing the deformity." Into the consideration of this, I now propose to enter.

An essential preliminary to every rational mode of treatment, is a knowledge of the pathology of the affection with which we have to deal, and the more nearly we approach exactitude in this respect, the more likely is our treatment to be rational in its scope and certain in its results; I shall, therefore, premise the discussion of treatment by a few preliminary remarks on the pathology of strabismus, and the class of cases which are best adapted for tentative efforts at a cure without operation.

For practical purposes nearly every case of strabismus may be grouped under one or other of the two following divisions: 1. The nervous or paralytic. 2. The muscular, or non-paralytic; the loss of association in the movements of the eyes depending, in the first group, on a loss of innervation or paralysis of one of the ocular muscles; whilst in the second, the innervation is perfect, or may be in excess, but one or other of the muscles has undergone some functional derangement, or structural change. Of the nervous or paralytic strabismus, we are too little acquainted with the changes which take place in the nervous elements as a consequence of disease, to be able to say, in all cases, how the suspension of their functions is brought about; but reasoning from analogy, and from what we know of the causes which give rise to more general paralyses, as hemiplegia, we may assume that pressure plays a not unimportant part; and this may arise either from over distension or congestion of the bloodvessels, from extravasation of blood or serum, from inflammatory effusions, or from tumours, whether osseous, neuromatous, vascular, or of any other nature; and the action of these may be either on the brain, or on the nerves issuing from it in any part of their course. We have, therefore, to consider in the first place, whether the paralysis has a cerebral or a nervous origin; and, in the latter case, whether it is within the cranium proper or within the orbit; thus we may not unfrequently arrive at a correct estimate both of the locality and the nature of the mischief.

The larger proportion of cases of paralytic strabismus which fall under the notice of the ophthalmic surgeon, are not of cerebral origin, or at least there are no symptoms to indicate any such lesion, while of the nervous cases, rheumatism and syphilis furnish the most abundant examples. The following case, though narrated in a former work (*On Squinting, Paralytic Affections of the Eye, and Certain Forms of Impaired Vision*) is worth republication from the bearing which it has on the foregoing remarks.

Case I. *Paralytic Convergent Strabismus, of Intracranial and Nervous Origin, from Syphilitic Periostitis of the Basis Cranii.* James P., aged 30, a compositor, applied to me at the Public Dispensary, Lincoln's Inn, March 6, 1847, with the following symptoms.

He had a convergent squint of the left eye, and was unable to abduct it, or even to bring the cornea into a central position, he could, however, rotate it further inwards, as well as upwards and downwards. The size and movements of the pupil were normal, and the vision of each eye, when examined separately, was good, though when both were open the patient experienced much confusion of vision. When told to put out his tongue, it was observed that the point deviated to the left, and that the two sides of the organ presented a remarkable contrast, the left half being atrophied, broad, flat, thin and flabby, whilst the right was firm, plump and roundish. The paralysis of half the tongue was attended with considerable inconvenience in mastication; but produced no appreciable effect on the patient's articulation. Sensation and taste on the paralysed side were perfect. The patient complained of constant pain in his head and at the back of his neck. The above symptoms first made their appearance in July of the preceding year, and had hitherto resisted the treatment adopted. When he applied to me, I recognised him as a patient who had been under my care some months previously to the present attack, for syphilitic periostitis of both tibiæ, and coupling this fact with his present symptons, I concluded that they arose from a similar disease affecting a portion of the basilar process of the occipital bone or its periosteum, and implicating the sixth and ninth nerves at their origin.

Under the influence of an antisyphilitic treatment, this patient was quickly relieved of the pain in his head and neck, and slowly recovered power over the external rectus. The paralysis of the left half of the tongue was more slow in disappearing, so that on the July 12th, 1847, when he again consulted me for a slight return of the head symptoms, the tongue had undergone no alteration, but the strabismus was less marked; he was able to move the eye slightly beyond the central position, and to maintain it in the centre of the orbit, though of course the sound eye then became inverted. Six years afterwards, when I again saw this patient, all traces of the strabismus had disappeared, and a scarcely appreciable difference could be discerned between the two sides of the tongue.

This case is a good example of complete recovery of the external rectus of one eye from a paralysis of many months' duration, and which led to no shortening of its antagonist, or to any implication of the adductor muscle of the opposite side. Both of these results may follow a paralysis; so that when the latter is cured, either of them, as pointed out by Von Gräfe, may lead to an ordinary concomitant squint.

University College Hospital. A contribution of £50 has been received from Mrs. Bishop, the widow of the late Mr. George Bishop, founder of the Bishop Observatory, formerly chairman of the Hospital Committee.

Cholera Rewards. The town of Ancorre has presented silver medals to the military officers who rendered their services to the inhabitants during the late cholera epidemic. The French government has decided that seven medical students who particularly distinguished themselves by their services during the prevalence of the cholera at Toulon, Sollies-Pont, Var, and Raon-l'Etape, Vosges, shall be exempt from all further charges in the completion of their studies. The Minister of Public Instruction has also awarded to one of the seven, M. Gensollen, student at Montpelier, a valuable scientific work, with an inscription stating the cause for which it was given.

Reviews and Notices.

An Introduction to the Study of Medicine; to which is appended a Report on the Homœopathic Treatment of Acute Diseases in Dr. Fleischmann's Hospital, Vienna, during the months of May, June, and July, 1846. By George William Balfour, M.D.St. And., F.R.C.P.Ed., Lecturer upon Practice of Physic, etc. Pp. 307. Edinburgh: 1865.

It must not be inferred, from the title of this book, that it is an elementary class-book intended to introduce students to the rudiments of their profession. Its scope is widely different. Dr. G. W. Balfour is a physician who has evidently read and reflected much, and who is impressed with the conviction that, when we have acquired all the knowledge which is ordinarily demanded of us, we have not at most done more than begin the proper study—the intellectual examination—of medicine. To point out some of the directions in which this study may be carried out, and to give the results of his own work therein, is the object which Dr. Balfour has in view. How he has carried out that object, let us now examine.

In the first or Introductory chapter, the author refers to the fact of his having been the first to lay before the profession in Edinburgh the results of the treatment of pneumonia followed by Skoda of Vienna—a treatment which consisted in withholding from the patients all active medication, and which Dr. Balfour calls "one of the most remarkable experiments in medicine ever undertaken." He lays claim to the merit of having first indicated a line of practice which, though at the time (1847) condemned by Dr. John Gairdner, Dr. Hughes Bennett, and other speakers in the discussion which followed the reading of a paper by him before the Edinburgh Medico-Chirurgical Society, has since become accepted even by those who were opposed to it, and regarding which now the great question is, not whether it is right, but why it is right. "There is no longer," says Dr. Balfour, "any doubt as to whether it is right to bleed in inflammation; the only point in question is, *why* this is no longer the case." This would seem to denote that blood-letting is altogether wrong; yet, as we shall presently see, Dr. Balfour in another chapter endeavours to explain in what way blood-letting does good in inflammation. The reasons alleged for the change in the therapeutics of inflammation are, as is well known, the theory maintained by Dr. Hughes Bennett and his supporters, that the modern improvements in diagnosis and pathology have led to a better understanding of disease, and therefore to a better treatment; and the theory of change of type. In examining these reasons, Dr. Balfour goes back into the past ages of medical history; and shows that in the blood-letting controversy, as in other matters, there is "nothing new under the sun."

First, as to the relations between pathology and therapeutics, he argues, very correctly, so far as regards the discovery of remedial agents in past ages, that

"Speculative ideas of the nature of disease have exerted little real influence upon medicine as a science of therapeutics, and still less upon it as a practical

art; for in these respects medicine has been almost entirely based upon the empirical observation of the action of remedies."

Medicines have been given, and have done good, throughout ages during which no ideas, or ideas the most varying, have prevailed as to the structures and functions on which they might be supposed to act. Dr. Balfour shows that a theory very similar in terms to that of Dr. Bennett was propounded more than two thousand years ago by Erasistratus, the grandson of Aristotle. The parallelism between the ideas of the ancient and of the modern is remarkable.

"Erasistratus," says Dr. Balfour, "regarded the arteries as the reservoir of the vital spirits, and the veins as containing the blood; and, whenever any disturbance of the system caused a coagulation of the blood in and around the extremities of the veins and arteries, thereby disturbing the movements of the pneuma or vital spirit, he looked upon this as inflammation; and he objected to venesection because the abstraction of fluid blood from the veins only lessened the strength of the patient, the removal of which he therefore thought ought to be trusted to the powers of nature, aided by a regulated diet."

Such was the doctrine of Erasistratus; and similar —as to the impossibility of removing the coagulum by venesection and as to the injury that might be inflicted on the patient by depriving him of blood—was the teaching of Van Helmont. Very close, indeed, do these opinions come to that of Dr. Bennett, that

"Pneumonia consists of an exudation into the vesicles and tissues of the lung.....It is very doubtful whether a large bleeding from the arm can operate upon the stagnant blood in the pulmonary capillaries—that it can directly affect the coagulated exudation is impossible. But lowering the strength and vital power of the individual is directly opposed to the necessary vital changes which the exudation must undergo in order to be removed by cell-growths and disintegration."

What does history teach us concerning change of type? Statistics are, as Dr. Balfour shews, altogether unavailable in the investigation. Can we then solve the question by ascertaining whether there have been alternating periods of universal blood-letting and of universal non-blood-letting? No; for, as Dr. Balfour shews, the supporters and the opponents of blood-letting have carried on their controversy with varying vigour, but uninterruptedly, except during the dark ages, through the history of medicine.

"The followers of Pythagoras, the Cnidian Chrysippus, and of Erasistratus, objected to bleeding as useless and injurious; while those of Praxagoras, Herophilus, and Galen, regarded it as the most useful of remedies."

At Rome, in the second century, the followers of Erasistratus were so numerous and so distinguished that Galen wrote two celebrated theses on venesection—one against Erasistratus himself (*adversus Erasistratum*), and another against his followers (*adversus Erasistrateos*). And the two forms of practice found defenders down to the dark ages, and have found them again after the re-birth of science, down to the present day.

There is then, Dr. Balfour shews, nothing either in the statistics of disease or in the history of its treatment which countenances the supposition that there has been a regular series of variations in treatment concurrent with a series of variations in type; and he next proceeds to examine on what grounds the theory of change of type has been based. Asclepiades is the first author who puts forth a theory which at first view has some resemblance to that of change of type. Writing in the first century before Christ, he says that, though pleurisy in the region of the Hellespont was benefited by blood-letting, yet patients in Athens and Rome suffering from the same disease would not bear it—although he was in the habit, in Rome, of bleeding in other inflammatory attacks. This theory of Asclepiades has, after all, but little bearing on the question; for, as Dr. Balfour remarks, he must have either fallen on an epidemic of typhus complicated with pneumonia; or, still more probably, his idea of local change of type was mere hypothesis, unsupported by facts, and negatived strongly by the antiphlogistic treatment followed by him in other inflammatory diseases than that just now mentioned.

Nothing more is heard of change of type till we come to later times. Sydenham is quoted as an authority on the subject; but Dr. Balfour points out that, in asserting that "true and essential pleurisy will tolerate a repetition of venesections in all constitutions of all years", notwithstanding the variations to which diseases were subject from unknown and inscrutable atmospheric influences, he asserted that which the advocates of change of a type in inflammation deny.

The first positive expression of a belief in a change of type in inflammation is stated by Dr. Balfour to be found in the writings of Sallaba, a disciple of Stoll, towards the end of the last century. As far as Dr. Balfour can ascertain, "the statement of Sallaba is nothing more than a mere unsupported opinion." Autenrieth is the next great supporter of the theory; but for him, and his arguments on this and on other matters, Dr. Balfour has no great respect—and rightly too, if the specimens he has brought forward of Autenrieth's mode of argumentation be fair.

Dr. Balfour comes now to the blood-letting and change-of-type controversy of the present day. He endeavours, by a reference to the volumes of clinical lectures by Cullen and Gregory, in the library of the Edinburgh College of Physicians, to ascertain whether there was a real difference between the pneumonia of Cullen and that of the present day. In these volumes he finds no cases of typical pneumonia, with "quick, hard, and firm pulse"; but several cases of pneumonia with soft and small pulse—in which nevertheless the usual blood-letting was practised. He shows also, that we must arrive at some very absurd conclusions if we give the change-of-type theory an universal application.

"All kinds of cases in the days of Cullen and Gregory brought forth the inevitable lancet; not only those more or less belonging to the inflammatory diathesis—but even puerperal cases, cases of accident, such as by fall, drowning, etc., were all likewise treated by bleeding, which we never think of employing in such cases nowadays; so that, if it be absolutely necessary to suppose a change of type in inflammations to explain the success of a non-bleeding system of treatment in them, we ought, by a parity of reasoning, to hold that there is a change of type in childbirth, in falls, and in drowning, etc.

The idea is as reasonable in the one case as in the other."

After criticising at some length the opinions of Dr. Alison and Dr. Christison on the change-of-type theory, he says, as a summary of his belief:

"From all that I have just related, it seems to me unquestionable, that there is no reasonable foundation for the medical opinion of there being such a thing as a change in the type or constitutional character of inflammations. Now and then we catch glimpses of facts which seem to justify the idea; but the more these facts are sifted, the more delusive and visionary the idea is found to be."

In the second chapter, the author treats of Medicine as an Art. His remarks on the first chapter might lead to the supposition that he was a thorough sceptic—or something very near it—in medicine; that his opinion of the function of the physician was much in accordance with the *far niente* system of Skoda, with the value of which he appears to have been so forcibly impressed. But such a supposition would be altogether wrong; for, in succeeding remarks, he shews the necessity for the employment of art in the treatment of disease by a skilled hand, and not by the patient himself or his friends, nor by charlatans. It is not, he says, that a properly trained professional man is to be regarded as infallible; but he is less likely to make errors than one who is ignorant, and more likely to fulfil that which Dr. Balfour points out to be the duty of the physician.

"Nature, like a skilful workman, does the best she can with the means at hand; but it is no less our duty to supply her with the best attainable, whether we be patients or physicians."

The third chapter is on Life and Death. Dr. Balfour points out that in English the word *life* has been made to perform double duty; to represent "the influence which modifies all ordinary mechanical and chemical phenomena and transmutes them into vital phenomena"—Ψυχὴ of the Greeks and *Anima* of the Romans; and "to express those living actions by which we recognise the persistence of the influence just referred to, and which were anciently termed collectively Ζωὴ and *Vita*—the one being the efficient cause and the other the visible effect."

Our author is opposed to the doctrine that there are two distinct kinds of life in plants and in animals. With him, all beings which manifest vitality —ζωὴ—are under the influence of life the *psyche;* and he brings several instances in support of this view. He goes even so far as to believe that consciousness and will exist in the lowest organisms, and even in plants; that the *psyche* exists, in fact, in all organised beings, although not necessarily identical in all. If it be otherwise, he says, and if consciousness and will are the highest development of life, we must either regard them as "the result of the elaboration of the nervous system", or we must look on at least a part of the nervous system as developed to give effect to their manifestations.

On the relations of the nervous system to the *psyche*, he observes that it is not to be regarded as developed for the purpose of supplying a new force, but as a separate development "for the purpose of co-ordinating all the functions of organic life, and for permitting the development of consciousness in relation to the external world, free from the danger and embarrassment that would be caused by this consciousness being extended to all the functions of the body."

Life the *psyche* is, Dr. Balfour believes, a never-dying organic force acting at all times consciously and voluntarily, and regulating and controlling, either through an apparently diffused force or through the action of a more or less concentrated nervous system, the actions which make up the sum of vital life or *zoë*. It is, he holds, "the guest and guide of the body—that material form which is only the outward and visible but ever-changing *imago* of the individual"; and it must continue to live, and think, and feel, even when separated from the material form. If we understand him rightly, he believes it identical with the immortal soul; which, according to his hypothesis, cannot be confined to man.

"The granting of the existence of an animated *psyche* in animals and plants by no means elevates them to be sharers of men's hopes and aspirations, but at the most amounts to an acknowledgment that in the next world there shall be a similar gradation of created beings as in this—a proposition which may be denied but cannot be disproved, and which is not inconsistent either with the tenor or the words of revelation." (P. 93.)

Of death, Dr. Balfour rightly observes, that "every act evincing life is a source of molecular death." What is ordinarily called death, occurs only "when the *unity of the organism* is destroyed, and the phenomena dependent upon the preservation of that unity are interrupted." As long as this organic unity exists, even though there be no outward manifestation of vital action, but the *psyche* still has the power of causing such manifestation, death—*i. e.*, somatic death—has not taken place.

The arguments in this chapter are very ably put forward; but, of all that has been written, we can agree best with the confession of the author that

"During all the years that have elapsed since Marcus Aurelius wrote, we have not attained any more precise knowledge as to the origin or cessation of life. Birth and death are mysteries still, all the more mysterious for having been so long puzzled over."

In the fourth chapter, Dr. Balfour treats of Health and Disease. He defines health as the result of the normal action, within certain unavoidable limits of variation, of the natural stimuli (in which term he includes temperature, air, and aliment); and believes that an equilibrium of this action is produced by some compensating vital agency. Further, he adds, as a pathological corollary, that there is every reason to believe that

"Where the variations in the action of the same or similar stimuli are greater or more violent, the compensating agency is in both instances the same, and that what we call disease is but the visible expression of a more prolonged and extensive series of those compensating organic changes which are daily and hourly taking place within our frames." (Page 120.)

These remarks denote that there is no such antagonism between health and disease as is generally supposed; the difference is one of degree and not of kind. Hence, Dr. Balfour infers, the only way in which we can influence the vital powers in the treat-

ment of disease is by influencing the compensating agency. What is this "compensating agency"? In answering this question, Dr. Balfour adopts with modification the doctrine of Brown, according to whom the susceptibility of the organs to stimuli was derived from *excitability*. This "susceptibility," Dr. Balfour believes, is derived solely from the connection of life—the *psyche*—with the body; it is probably identical with the *vis nervosa;* and "by means of the co-ordinating powers of the nervous system, it not only maintains health, but restores it when from any cause it has been lost, and is thus also identical with the compensating vital agency." He enters at some length on the action of the stimuli, and brings instances to shew how they severally act through the medium of the nervous system in man in the production of disease. It must be remembered that he does not regard the nervous system as the originator of that force which has been called the *vis nervosa*; but rather that this *vis nervosa* or compensating power is a property universally diffused through the organic world, and concentrated into a special organ as animals rise in the scale of being.

Dr. Balfour has treated a most difficult subject with considerable ability. That, as a general rule, a man is in health when he feels well, as the author says, is true; and it is also right to say, that health is a condition which admits of certain variations within which it still retains its character. But as to disease, we think that Dr. Balfour has too exclusively drawn the character of disease from symptoms—the external manifestations of disease obvious to the patient or to those about him. In any case, admitting that the various manifestly abnormal conditions which he describes as the result of the abnormal action of stimuli are to be regarded as disease, we think that he has lost sight of the fact that conditions, indubitably of disease, may for a time at least exist without apparently disturbing the healthy equilibrium. Are not incipient tumours, degeneration of the heart, atheroma of the arteries, etc., states of disease? And yet these may exist without an apparent disturbance of that state called health.

In the fifth chapter, the author treats of Inflammation; for the purpose of shewing "that of all the chief methods of treating inflammation which have prevailed in times past there is not one which could have had any beneficial influence upon the disease except by acting upon the vitality of the system through the agency of the nervous system."

The remedial agents whose action Dr. Balfour thus discusses are, blood-letting, opium, quinine, antimony, ipecacuanha, and chloroform. Local blood-letting, the author says, only modifies the local circulation, and influences the progress of inflammation only by favouring the maintenance of the normal nutrition and vital relations of the tissues concerned. It can have no effect on the general system. General blood-letting, he says, must act either by diminishing the general amount of blood; by diminishing the amount of morbific elements; or by producing some general effect upon the nervous system. Of these three modes of action, he accepts the last alone as giving a satisfactory explanation of the action of blood-letting where such action is beneficial. It does not, even in this way, except rarely, cut short inflammation; and this is in accordance with pathological teaching. It would, he says, be most mischievous to check the process of renovation—in which he believed inflammation to essentially consist—after the necessity for it had occurred.

"We may, therefore, be thankful that the natural organic relations place this beyond our power, but that, while blood enough remains in the body to maintain the vital functions, a portion of it will always be expanded in completing the necessary repairs. In this consists the safety of blood-letting, while its dangers arise from the fact that its immediate action is depressing to the vitality of the system, that this depressing effect is, where the powers of the system are adequate to recovery, of necessity attended by a more or less violent reaction." (Page 196.)

Dr. Balfour gives some very interesting remarks on the treatment of pneumonia by chloroform—a practice followed some years ago by several German physicians. From the writings of Baumgärtner and others, Dr. Balfour finds that 303 cases are recorded as having been treated in this way, of which 10, or 3.3 per cent., died. This practice, however, soon fell into disuse—probably, the author suggests, from the trouble and expense of the process, and from the uncertainty as to the amount inhaled and the consequent danger. Dr. Balfour obviates these difficulties by giving chloroform internally, in doses of one drachm, every two or four hours, of a mixture of a drachm of chloroform with an ounce of olive-oil. He has, he says, found it an admirable sedative in inflammation; but the number of cases in which he has used it are too small to allow deductions to be made from them.

The sixth chapter is on Fever; and the seventh on Chronic Disease.

In an Appendix, Dr. Balfour reprints a letter sent by him in 1846 to Sir John Forbes, then the editor of the *British and Foreign Medical Review*, containing a "Report on the Homœopathic Treatment of Acute Diseases in Dr. Fleischmann's Hospital, Vienna, during the months of May, June, and July, 1846." In that report, he shewed how little reliance is to be placed on the statements as to the cures effected by homœopathy.

Dr. Balfour has, in the interesting book of which we must now conclude our notice, displayed a great amount of reading and investigation and of deep thought. He has, we think, rendered very efficient aid in giving a *coup de grace* to the change-of-type theory; and, in dealing with such abstruse questions as those of life and death, health and disease, he has brought forward some very ingenious arguments—to several of which we are not at present in a position to give an entire assent. We hope, however, to again study the book; and we recommend it to the consideration of our brethren in the profession.

On Intrathoracic Cancer: Part II; Contributions to the Pathology of the Disease. By John Cockle, M.D., Physician to the Royal Free Hospital. Pp. 159. London: 1865.

In this second part, Dr. Cockle continues his investigations into the still somewhat obscure subject of Intrathoracic Cancer. Dr. Cockle has given a full—we might say, an exhaustive—account of the facts, as they are at present known to us, both as regards the history, pathology, and diagnosis, of the disease.

We are requested to remind members of the Association that the Annual Subscriptions became due on the 1st of January. They can be paid either to the Secretaries of the Branches; or to the General Secretary, T. Watkin Williams, Esq., 13, Newhall Street, Birmingham.

British Medical Journal.

SATURDAY, FEBRUARY 17TH, 1866.

PUBLIC HEALTH.

THIS side of "the condition of England question", which has for many years been attracting the attention of a gradually widening circle, is at length beginning to rivet the public gaze. "Better late than never." So deep and so lasting had been the apathy of the general public, that sanitary reformers could not help feeling an occasional misgiving that possibly it might last for ever. Yet the calls to be up and doing were loud and many. Epiphytics and epizootics from time to time laid a heavy hand on our crops and herds; and epidemics, both indigenous and foreign, were continually sweeping away their myriads of human victims; yet the voice of warning, so often repeated, fell on listless ears; and, while the few heard and bestirred themselves, the many called them croakers, and were content to slumber on. It was the old story of the burning house and the firemen thundering at the door, while the stupefied inmates slept heavily and made no sign. The present indications of life and intelligence, and of active interest in sanitary matters, give promise, let us hope, of a brighter future.

Let it be clearly understood that these remarks apply to the general public, and to them alone. Few in comparison to the great mass of the nation, but still in themselves a host, there are scattered over the face of the counties, and congregated in considerable numbers in our large cities, men of broad and enlightened views, who thoroughly comprehend the close and reciprocal relations that subsist between dirt, disease, drunkenness, pauperism, and crime, and who have long done their utmost to promote the adoption, in their respective neighbourhoods, of right sanitary opinions and of effective sanitary measures. Of these, many, as was remarked by Mr. Heckstall Smith at the Branch meeting held on the 26th ult., are seated on the magistrates' bench; and it would be interesting, as well as instructive, to know how very often the foremost advocates of the prevention of disease are those very doctors who are supposed by many to have a vested interest in its unchecked prevalence and unlimited spread.

Such having been for many years the views and feelings of an influential and growing class of the community, it is not to be wondered at that sanitary matters have received much of the attention of the legislature, which has, greatly to its honour, embodied as much of sanitary truth and sound principle as local prejudice and selfishness would endure in the statutes of the realm. This should always be borne in mind in considering the provisions of the voluminous Acts which Parliament has passed during the last eighteen years with reference to public health. The hands of the legislature have been fettered, and their movements sadly hampered by the passive resistance—the *vis inertiæ*—or the bitter opposition, with which their sanitary projects have been met. The Imperial Parliament, which multitudes look upon as omnipotent, can pass great and comprehensive measures only when its wishes are backed by a strong, or rather an overwhelming, support out of doors. Failing this, it must rest content with doing piecemeal, and even in a confused and disjointed way, that which many, both in and out of Parliament, have both the capacity and the will to do in a consistent, comprehensive, and statesmanlike fashion.

The mass of legislation which has been produced since 1847 on matters affecting the public health has reference*, besides the regulation of factories and of mines and collieries, to the improvement of towns, the removal of nuisances, infectious diseases of cattle, the licensing of slaughter-houses, the construction of sewers, the better regulation of common lodging-houses, water-supply, vaccination, the smoke-nuisance, the management of the metropolis, the prevention of epidemic diseases, the construction of buildings in the metropolis, the purification of the Thames, local government and the formation of local boards of health, the regulation of alkali works, the pollution of streams, and the utilisation of sewage. On *seven* of these subjects there have been from two to five Acts passed in different sessions, each amended Act giving expression to the advanced and still advancing views of the country, and so giving to those who have the patience to read, mark, digest, and analyse them, the most authentic and instructive of all histories of the progress of British opinion on sanitary matters. We have not even mentioned, for it relates so entirely to the past, that great forward stride—the prohibition of intramural interments—which marks an epoch in our sanitary legislation. Now, we ask any candid reader who merely glances over the list of subjects embraced in these various Acts, and thinks for a moment of the multitude of interests with which they deal, to imagine, if he can, what chance any ministry that has existed

* See the admirable *brochure*, published under the authority of the Society of Arts, and entitled *A Handy Book of Sanitary Law.* By Martin Ware, jun., Esq. Bell and Daldy, 186, Fleet Street. Price 6*d.*

for the last twenty years would have had of carrying through Parliament, in one or two sessions, a comprehensive code, consisting, let us say, of half a dozen Acts, including most of the provisions now in force, supposing such ministry to have withstood for a single week the shock of the combined assault of indignant bumbledom. To have attempted such a task would have been to renew the onslaught of Hercules on the Lernæan Hydra, but, unlike him, to fall before the monster. Parliament has followed another and a wiser course. It has enacted, as the opportunity presented itself, measure after measure of unquestionable value, and has availed itself as much as possible of existing machinery, by throwing upon the local authorities throughout the kingdom the duty and the responsibility of enforcing the provisions of the various statutes, which contain, though in a somewhat confused and fragmentary form, the materials of a nearly complete code of sanitary law.

In short, it is to the laws enacted during the last eighteen years that we owe the first public and legislative recognition of the following principles:—That such things as nuisances exist, and should be abated; that the local authorities ought to take cognisance of and remove such nuisances; that inspectors of nuisances are needed, not to wink at their continuance, but, with noses as keen and teeth as sharp as Dandie Dinmont's terriers, to ferret them out and drag them to the daylight; that the public health is worth looking after and protecting; that efficient drainage should everywhere be promoted; that a sufficient supply of pure air and water is essential to health, and, therefore, that the overcrowding of dwellings, as a fruitful source of disease, should be prevented, and that the establishment of public baths and washhouses should be encouraged; that the conversion of streams and rivers into common sewers is a monstrous perversion of the gifts of Providence, and a great public wrong; that the practice of conveying persons labouring under contagious or infectious diseases in hackney carriages is highly reprehensible; that a large amount of disease, both physical and moral, is preventible by the adoption of simple precautionary measures; that, with a view to the discovery and the removal of such evils as affect directly or indirectly the health of the community, medical officers of health are required, whose duty it shall be to report from time to time the result of their inquiries to the proper authorities, whose part it is to remedy the evils and carry out the improvements suggested by them; and finally, that, in the event of the local authority declining to act, any inhabitant of any parish or place may complain to a magistrate, who shall proceed as if he were the local authority, with a view to the abatement of the nuisance complained of.

We conclude these remarks, purposely general, on a subject of vast importance, to the details of which we shall soon have occasion to revert, by indicating, for the consideration of our readers, the *desiderata* of our sanitary system. They arise out of, and are suggested by, the circumstances under which our sanitary laws have been framed. We have seen that these were drawn up, not with reference to any general plan, but rather on special impulses; and with a view, not so much to what was, abstractly considered, best, but to what at the time was practicable. Hence the fragmentary character of our sanitary legislation. It is essentially a piece of patchwork, and cannot properly be called a *system*, in the sense of being clear, orderly, and symmetrical. While, therefore, there may be some difference of opinion as to what should be included in the consolidated enactments, it seems to be agreed on all hands that our sanitary statutes require *consolidation*. Another and more delicate question concerns the propriety of having a Central Department of Health, clothed with more extensive and summary powers than are possessed in ordinary times by the Privy Council. We have seen that all our past legislation has gone on the principle of entrusting the execution of the laws affecting the public health to the existing local authorities, and of seeking to induce populous communities, which have grown up without effective governing bodies, to adopt the provisions of the Public Health and Local Government Acts. We are far from finding fault with the principle involved in this procedure; for our true policy lies in developing to the utmost the feeling of local responsibility, and in so leavening the whole population with sound sanitary views, that neglect of sanitary measures shall be reckoned a reproach and disgrace to any community. This is the consummation which we devoutly wish, and for which we must earnestly strive. But, meanwhile, is it not the fact that, in many places, the local authorities are the systematic and bitter opponents of sanitary reform? We are happy to know from Dr. Druitt's very able paper, which we published in the JOURNAL of February 3rd, that there are already local bodies whose zeal would fain outrun the limits imposed by legal difficulties over which they have no control; and we shall be glad to learn that there are many such throughout the country. But we are also anxious to ascertain in how many instances the wise and beneficent intentions of the legislature are defeated by the passive resistance or dogged opposition of the local authorities, who will not avail themselves of the ample *permissive* powers which the law gives them; and whether the time has not come when, in the interest of the public, the discharge of duties which is now *optional* should not be made *compulsory*—whether, in short, there should not be some court of last resort, to which the enlightened few may appeal for speedy justice from the ignorance, prejudice, or parsimony of the local authorities. There must be

many of our associates who can furnish us with important facts and valuable suggestions bearing on the solution of the questions we have proposed for their early and attentive consideration.

Our thanks are due to the Metropolitan Counties Branch for drawing the attention of the Association at this time to a subject of even greater and more immediate interest to the public, than that in reference to which they led the movement two years ago. We wish them as complete success in this new effort, as that which seems likely at length to crown the exertions made in behalf of the medical officers of the United Service.

HOSPITAL ABUSES AT BRIGHTON.

A LETTER from a correspondent at Brighton, published in last week's JOURNAL, calls attention to an abuse which has again and again fallen under the notice of those connected with hospitals; viz., the misapplication of the benefits of those institutions to persons other than those for whom they are intended.

The account of the meeting of the Governors of the Brighton and Hove Dispensary, to which our correspondent refers in his letter, tells us that, in the official Report read to the meeting, it was stated that during the year 13,248 persons had received medical advice and medicines—as usual, we suppose, gratuitously. On this point Mr. Branwell, one of the surgeons, took occasion to offer some comments; and shewed that, after allowing a margin for the re-entering of the same patients in several instances, there would still, on a moderate computation, remain 10,000 persons who during the year had received medical aid from the Dispensary alone—not to mention the patients of the Sussex County Hospital, the Maternity Charity, the Lying-in Institution, and, as our correspondent shews, the Eye Infirmary, St. Mary's Hospital, and the Union Infirmary. And all this aid to those just above the ranks of pauperism, which may be reasonably set down at 25,000 cases *per annum*, is given in a flourishing town of which the population is about 90,000; that is, the hospital sick alone amount to more than a fourth part of the population. Mr. Branwell stated boldly—and we have no doubt correctly—that in his belief many of the cases treated were those of persons able to pay for advice and attendance. Dr. Withers Moore corroborated this statement, and shewed that other institutions possessed and used means of avoiding the abuses.

"He had no hesitation in saying that he would tear up from two hundred to three hundred per year of the orders received here, if they had been brought to him at York or Doncaster. He should there have had no hesitation in tearing up the orders in the patients' faces and sending them away. The number of servants who came here from wealthy families was monstrous in the extreme. In all the northern charitable institutions, it was a standing rule that no servant, no apprentice, no pauper, was a fit subject for the operation of the charity. Such a charity as this was only intended for the relief of the industrious and indigent poor, who had no means of providing themselves with medical attendance. It was never meant to be an insurance-office for wealthy people to pay their two or three guineas a year for the purpose of ensuring certainty of medical attendance for their servants. At Hull, he knew of a case where a gentleman's man-servant had the misfortune to fall down and break his leg. He was taken to the Infirmary, and the master sent them twenty-five guineas at once. Both here and at the county hospital, the number of servants treated was a great abuse; he had no hesitation in saying that at the hospital one-fifth of the patients treated were servants. He believed the law of master and servant was, that the master was bound to provide medical attendance for the servant, unless there was an express agreement to the contrary; and, that being so, it was very wrong for well-to-do persons to send their servants to purely charitable institutions."

Dr. Withers Moore urged that there should be a rule of the institution giving the medical officers the power of dealing summarily with the admission-letters of persons who were not proper objects of charity. Mr. Tatham, another of the surgeons, admitting the misapplication of the purposes of the hospital as described, and corroborating Dr. Moore's statement as to the manner in which it was remedied at other places, was yet afraid of taking measures for its suppression. He wanted, he said, "to know how they were to be got rid of without injuring the general effect of the charity"; and Dr. Hall, speaking in the same strain of caution and apparently with a greater perception of difficulties, "believed that, if any attempt of the kind suggested were made, it would have the effect of greatly restricting the number of subscribers to the institution." In our opinion, such arguments only countenance the infliction of injustice on medical men; and lead to the inference that it were better to allow the continuance of a practice which takes thousands of pounds annually out of the pockets of the profession, than have recourse to a summary method of remedying it which might diminish hospital lists of subscribers and columns of receipts. Again, as Mr. Branwell urged, the application of the dispensary funds to undeserving objects prevents necessary improvements from being carried out; and, still further, even though the number of subscribers might be diminished, a judicious elimination of improper cases would be also attended with a corresponding diminution in the expenditure.

We hope that Dr. Moore and those who think with him will strenuously urge the adoption of some stringent regulation. It was all very right for some of the speakers to say that "perhaps the conversation might have the effect of rendering subscribers more careful in the disposal of their letters." We hope that the discussion, as reported in the Brighton papers, will have this effect; but we should very much like to hear that the medical officers were en-

trusted with the summary power which Dr. Moore desires. There need be no fear that they would err in the direction of harshness towards the poor.

As the matter at present stands, there can scarcely be a town in the kingdom in which greater injustice is done to the medical profession through the abuse of hospital charity, than in Brighton. As our correspondent, "A Resident Practitioner," shews, thousands of pounds must be annually kept out of their pockets, which ought, in the ordinary course of things, to find its way thither. There is another matter, too, which the people of Brighton should well consider. As we have shewn, the "indigent" sick of Brighton amount to more than a fourth of the population. If, for the moment, we assume this number to really represent the indigent, and then add to it a fair proportion of patients paying their medical advisers, the total annual amount of sickness in the locality must reach a figure which should alarm the Brighton people as to the reputation of their town for salubrity. Persons seeing the figures given in the Report of the Dispensary might arrive at such a conclusion. Thus, through the injudicious application of the benefits of the Brighton medical charitable institutions, a possible injustice is done to the town itself, and a certain injury to its resident practitioners.

LOCAL ANÆSTHESIA.

We have witnessed the remarkable power of local anæsthesia produced by Dr. Richardson's method in the extraction of teeth; and we therefore recur to his proposal, on account of what we deem to be its very high importance. From what we have seen and felt of its effects, we have no hesitation in saying that a grave responsibility will rest on any surgeon who may hereafter have the misfortune to administer chloroform fatally for the purpose of performing any superficial surgical operation. There are few, if any, of the operations wherein the chief pain resides in the incision of the skin, which may not easily and rapidly be rendered as perfectly painless as if the patient were placed under the general influence of chloroform. Not only have we every reason to hope that this method will supersede chloroform in such cases, but, if its success be what we predict, it will be a most excellent addition to the surgeon's weapons, giving him the means of rendering painless those comparatively trivial and yet very painful operations for which he at present does not deem it advisable to run the risk of giving chloroform. It seems to us demonstrated that, in operations of the following sort, this local anæsthetic will entirely supersede the use of chloroform, and will, in truth, render the use of chloroform quite without excuse: in, for example, all incisions of the skin; in opening of abscesses; removal of superficial tumours; phimosis; paraphimosis; hernia; in removal of hæmorrhoids and of warts; in the application of the actual cautery; in the removal of the testicle and of fingers; in the extraction of teeth, etc. Dr. Richardson's ambition leads him to the conviction that he can render painless even the greater operations; that he can successfully follow the amputating-knife through an arm or a leg, provided only the surgeon will consent not to operate against time. We add a few practical hints, with which we have been favoured by Dr. Richardson, for the perfect carrying out of his new plan of local anæsthesia.

"He insists on the necessity of having pure ether. The ether should have a specific gravity not exceeding 0.723. It should boil in the palm of the hand. Taken on the tongue, it should evaporate at once, leaving no sensation whatever except that of slight coldness. It should evaporate from blotting-paper, leaving no moisture, and yielding no odour. Directed as a spray on the bulb of a thermometer, it should bring the mercury down six degrees below zero Fahr., and should cause a deposit of snow on the bulb by condensation of water in the air. Directed in the form of spray on the back of the hand, it should cause there also a slight deposit of hoar-frost, followed by a sudden and diffuse blanching of the skin and complete insensibility. The reaction should be perfectly neutral.

"These are the ready and necessary tests for ether before using it for local anæsthesia. If the ether have a specific gravity above 0.723; if it fail to boil at the natural temperature of the body; if it be of acid reaction; if it produce smarting on its application to the mouth; if it yield, on evaporation from blotting-paper, an odour of eau-de-Cologne, or a pungent persistent odour; if, in the spray-producer, it fail to bring the thermometer below zero; or if it fail, when directed either upon the bulb of the thermometer or upon the skin, to cause a deposit of hoar-frost—it is not a proper ether to be used for operation with the anæsthetic spray-producer. When the above tests do not answer, it is certain that the ether contains alcohol, and, it may be, other impurities. Alcohol is specially injurious. It prevents rapid anæsthetic action, and it produces much irritation. In operations especially in the mouth, it also causes accumulation of fluid.

"Perfectly pure ether is scarcely ever sold to the profession; but, as the impurity is due to imperfect rectification, it can easily be remedied. Already Messrs. Garden and Robbins of Oxford Street have produced a perfectly pure specimen; and, although the prime cost of it is higher than for ordinary ether, the ultimate cost is less, because the quantity of the pure fluid required for anæsthesia is proportionately reduced, while the effect is incomparably better."

Dr. Richardson adds, as a point worthy of special remark, that his process produces no peculiar hardness or brawny condition of skin; and that the narcotic spray relieves the pain of neuralgia. The reaction is rapid and painless. Dr. Richardson has now used the anæsthetic in upwards of forty cases of minor operations: in thirty-five with perfect success, and in all with considerable success. In the cases where the success has not been absolutely perfect, the result has been due to impurity of ether, or to deficient experience in the mode of application.

SECOND REPORT OF THE CATTLE-PLAGUE COMMISSIONERS.

The Cattle-Plague Commissioners have published a second report. They tell of the progress of the disease, the experiments in cure, and the failure of one and all of them; and repeat their decided opinion that the only chance of stopping the disease is in the slaughter of infected cattle, the isolation of those in contact with the disease, the stoppage of transit except under very stringent regulations, and the slaughter of foreign fat cattle at the port of debarkation, putting those not intended for the market under a certain quarantine.

They have found no satisfactory clue as to the modes of introduction of the Cattle-Plague into this country; but on one point they are quite decided—viz., that it did not originate in London cowsheds, as the muddle-brained *Times* quack director would have it.

They then speak of its spread in Holland; and also refer to the wisdom of the French Government which, guided by the tellings of science, prevented the spread of the disease in France at an original sacrifice of a slaughter of forty-three head of cattle.

The inquiries into the history, etc., of the disease were committed to the following gentlemen. 1. Nature, Propagation, Progress, and Symptoms of the Disease; J. B. Sanderson, M.D. 2. General Pathology of the Disease, and its Relation to Human Diseases; C. Murchison, M.D. 3. Chemical Pathology of the Disease; W. Marcet, M.D. 4. Morbid Anatomy of the Disease; J. S. Bristowe, M.D. 5. Microscopical Researches on the Disease; Lionel S. Beale, M.D. 6. Treatment of the Disease; George Varnell, M.R.C.V.S., and William Pritchard, M.R.C.V.S. 7. Disinfection and Ventilation; R. Angus Smith, Ph.D. The reports of these gentlemen will very soon be completed, and laid before Her Majesty; together with a brief general account of the results reached by the different lines of investigation. This will form the third and last report.

The very *Times* which gives in large type the success of its moonshine therapeutics, the garlic and assafœtida specific of Mr. Worms, contains this very Report of the Commissioners, who thus speak of medicinal agencies:

"All endeavours to discover a method of treatment on which some reliance could be placed have entirely failed. The experience of the Dutch physicians and veterinary surgeons during the present outbreak appears unhappily to coincide on this point with our own. Vaccination is not a protection against cattle-plague. We have no evidence that vaccination fortifies the system against it in any degree.

"The possibility of mitigating the virulence of the disease by inoculation with the matter of the disease is a subject of much interest, and has engaged our attention. Such inoculation has been tried repeatedly, and on a considerable scale, by the Russian government, and the effect of a long series of transmissions has been carefully noted and recorded; but the experiment has not been very successful, and it has for the present been abandoned. Whether modes of inoculation may not yet be found which will effect the desired object is a question which can only be solved by various and repeated trials. Further information on the subject will be given in our third report.

"The only means of combating the disease which remain consist in the stoppage of the movement of stock and of things likely to be vehicles of infection, in the isolation and slaughter of infected cattle, and in the use of disinfectants."

Can any one solve what surely may be considered a mystery—viz., the reason why such a "practical" country as England, which lives and fattens on the teachings of science, of whose nostrils, in truth, science is the very breath: can any one tell us why Englishmen should, of all civilised nations, be apparently the very last to take the advice of medical men of science in matters belonging to medical science? why they should bow down and worship the most degrading forms of quackery, and at the same time actually laugh at and ridicule the wisdom of our scientific art? The question is a very serious one; and we fear its answer might show that perhaps it is not altogether the fault of the public that we are thus held in so low esteem. There is a great fault somewhere.

GARLIC *v.* LEGISLATION.

In the same journal in which the *Times* informs us that the Government is setting to work in earnest to stamp out the Cattle-Plague, it tells us, in extraordinary type, of the last new thing in the shape of a sure and certain remedy for the disease. Long ago, that same authority assured us that a string of onions round the neck of the Cattle-Plague-struck ox was a first-rate cure. And now, thanks to Lord Leigh and a Mr. Worms, it pompously announces equal parts of garlic and shalots, served up with ginger and a dash of assafœtida, as the right thing in the stomach of the diseased ox. But the oracle shall speak itself.

"The treatment practised by Mr. Worms, and which proved so successful with Lord Leigh's herd, has since been tried upon infected animals of Baron Rothschild. When Mr. Worms arrived, the animal first attacked had already exhibited all the symptoms of the disease for upwards of forty-eight hours, and Mr. Worms pronounced the case to be hopeless. He, however, administered his specific; and, though there is some fear that the animal may still die from exhaustion, the disease itself appears to have been conquered. In the other two cases the treatment was so successful that both animals were last night believed to be out of danger."

The specific cures the animal—(of what?)—which afterwards dies of exhaustion.

The Death of William Thomas Brande, D.C.L., F.R.S., of Her Majesty's Mint, at the age of 80, is announced.

Association Intelligence.

BRANCH MEETINGS TO BE HELD.

NAME OF BRANCH.	PLACE OF MEETING.	DATE.
North Wales. [Intermediate.]	Dr. Turnour's Residence, Denbigh.	Friday, Feb. 23, 12 noon.
Bath and Bristol. [Ordinary.]	Victoria Rooms, Clifton.	Thurs., March 1st, 7.15 P.M.

NORTHERN BRANCH: SPECIAL MEETING.

A special meeting of this Branch was held in the Newcastle-upon-Tyne Infirmary, on Thursday, February 8th, 1866; D. B. White, M.D., President, in the Chair.

Letters were read from Dr. Atkinson (West Hartlepool), Dr. Candlish (Alnwick), James Mackie, Esq. (Heighington), John Jobson, Esq. (Bishop Auckland), and Charles Trotter, Esq., expressing regret at their unavoidable absence, but cordially approving of the object of the meeting.

New Members. The following gentlemen, having been previously elected members of the Association, were unanimously elected members of the Branch;—J. L. Gilchrist, Esq., J. Houseman, M.D., C. Gibson, M.D., and A. Bolton, M.D. (Newcastle); B. Barkus, M.D. (Gateshead); G. Shaw, Esq., and E. C. Jepson, Esq. (Durham); G. Canney, M.D. (Bishop Auckland); D. Clark, Esq. (Whitworth); J. Makens, Esq. (Middleton-in-Teesdale); J. Munro, M.D. (Barnard Castle); F. G. Clarkson, M.D. (Darlington); G. E. Cockcroft, Esq. (Hurworth); and L. Armstrong, Esq. (South Shields).

The Treasurer's Report for 1865 was read by Dr. Philipson. The statement showed the receipts from subscriptions to have amounted to £6, and the payments to £5 : 16.

Special Business. The special business of the meeting was then considered; viz., "the propriety of giving an invitation to the General Council for the holding of the Annual Meeting of the Association in Newcastle in 1867." Considerable discussion took place; the various speakers in forcible terms pointing out the advantages that would arise from a meeting in some town of the northern counties, and expressing a hope that such would be accomplished. It was considered, however, more judicious to postpone the invitation for the present.

Specimen. An Enchondromatous Tumour was then exhibited, which weighed fifty-two pounds, and which had been removed after death, by Dr. Heath, from the right side of the chest of a woman aged 30.

Vote of Thanks to the President. On the motion of Mr. H. G. Hardy (Byer's Green), seconded by Dr. Jones of Washington, a vote of thanks was heartily accorded to the President, who, in returning thanks, congratulated the members on the large accession of members—stating that, since the 1st of December, 1864, when the Branch was formed, their numbers had increased threefold.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH: ORDINARY MEETING.

The fifth General Meeting of the present session was held at the Old Library, on February 8th: Watkin Williams, Esq., in the chair. There were also present fifteen members, and Dr. Johnstone, 10th Hussars, as a visitor.

At a Council meeting, held on the same day, M. H. Clayton, Esq., in the chair, the following gentlemen were unanimously elected members of the Association: Arthur Bracey, Esq.; J. Mickenbotham, Esq.; William Griffin, Esq., of Birmingham; and Mr. Alfred Baker and Mr. Clayton were elected auditors of the Branch.

New Members. Mr. Arthur Bracey, of Birmingham, and Mr. Nason, of Stratford-upon-Avon, were elected members of the Branch.

Communications. 1. Mr. Swain brought before the Branch a specimen of a Tumour attached to the Uterus, taken from a female who had died of epilepsy. A small calcareous tumour was also found pressing upon the brain.

2. Dr. Steele exhibited a Dissection of a recent Dislocation of the Shoulder, in which the margin of the glenoid cavity was fractured, and a part of the greater tuberosity of the humerus chipped off.

3. Dr. Steele also brought before the Branch a Heart, removed from a patient who had died of Endocarditis after two or three days' illness. The patient was admitted for a surgical operation, and seven days before death, his heart had been carefully auscultated previously to the inhalation of chloroform, and was then perfectly healthy. After death, there were found a peculiar ulceration of the mitral and aortic valves, and two patches of lobular pneumonia in the lung.

4. Mr. G. E. Hyde, of Worcester, read a paper on Traction Operation for Cataract, which was illustrated by successful cases.

5. Mr. Wilders read a paper on the Treatment of Secondary Syphilis without Mercury.

Each paper was followed by a discussion.

Reports of Societies.

HARVEIAN SOCIETY OF LONDON.

Thursday, January 18th, 1866.

W. Tyler Smith, M.D., President, in the Chair.

Cattle-Plague Eruption. Mr. Balmanno Squire exhibited specimens of the skin-eruption of the cattle-plague, taken from a cow which died on the seventh day of the disease. The udder of the cow shewed, near the roots of the teats, several well marked crusts of about the size and thickness of a split pea, distinct from one another, of a brown colour and cheesy consistence, and greasy; in fact, exhibiting all the characters of the berry-like crusts produced by small-pox on the human subject. Portions of the erythematous skin in the neighbourhood of these were the seat of a flaky desquamation. A portion of the skin off the belly of the same cow was slightly reddened, and was the seat of a diffused mealy desquamation, and exhibited several more deeply reddened patches of the area of a split pea on which the desquamation was much scantier than elsewhere. The red spots were scattered over the surface at intervals of from half an inch to two inches. Mr. Squire stated that, in several plague-stricken animals he had examined, the eruption presented similar characters; and that no human skin-disease that he had yet seen resembled the skin-eruption of the cattle-plague on the udder so closely as the eruption of small-pox. He pointed out the great similarity in consistence and suppleness of the human skin to the skin of the cow's udder; and remarked that it was in this situation that it would be most fair to compare the bovine with the human eruption.

THE MEDICAL ASPECTS OF PROSTITUTION.

BY CHARLES DRYSDALE, M.D.

Dr. DRYSDALE defined a prostitute to be a woman who habitually, and with scarcely any distinction of persons, save for their power of paying her, gives for hire those bodily functions which other women only give from affection or desire. He did not, as Wardlaw and others had done, call the first act of connection of an unmarried woman prostitution. There were said to be about 4000 of such prostitutes in Paris, and 12,000 in London.

The *Causes of prostitution*, Dr. Drysdale said, were partly physiological and partly social. The appetite of sex was of course the prime mover; but was not sufficient without concomitant circumstances. Among such circumstances are usually enumerated vanity and the desire of wearing fine clothes, idleness, domestic sorrows, and the unkind treatment of parents or step-parents; want of education, and poverty; stringent marriage-laws; and drinking. *Vanity*, or the desire of living in splendour, was doubtless with some girls the chief cause of prostitution; mostly among the more refined. It was said to be a very common cause in Paris, and in large towns, where very wealthy persons were plentiful. *Puritanism* sometimes forced women into prostitution, from the harsh measures dealt out to the first yielding of young girls. The habit of *drinking* was, of course, a cause of prostitution, as of many other misfortunes. *Want of education* had been found to be a most frequent antecedent of prostitution. Of 4470 girls of the town, natives of Paris, 2332 could not sign their names—a circumstance which in Paris, where education was gratuitous, showed how careless the parents had been. It had been observed of the poorer girls of London, that they rose in social position in most cases by becoming prostitutes, so poor and uninstructed were many of them. *Idleness*, or the desire of living without industry, was the parent of many cases of prostitution; but the idleness of many women resembled, it must be remembered, that of the Irish cotter, who was idle in Ireland where his labour was worthless, but industrious in America where it was well remunerated. As to *poverty*, according to Duchatelet, of all the causes of prostitution, particularly at Paris, there is none more active than the want of work and poverty, unavoidable consequence of insufficient wages. In London and all our large towns, the wages of many women were miserable. In a report to the Privy Council, Dr. Edward Smith had stated that the needlewomen were the lowest paid class included in his inquiries. "Their average income is only 3*s*. 11¼*d*. per adult per week. This low remuneration of labour is a well known result of excessive over-population, and the small number of occupations which it is the present fashion of civilised countries to admit women to participate in." *Decrease of marriages.*—The proportion of marriages to the population had of late been falling off, partly from the fear of over-population, and partly from the stringent laws with regard to divorce, which only permitted escape from ill-assorted unions on account of disgraceful conduct. From the year 1796 to the year 1805, there were 1716 marriages to 10,000 women; and from 1836 to 1845, there were 1533 to 10,000. Paris was said to have about one illegitimate birth to three legitimate. Sir W. Wilde stated that Munich in 1838 had 270 more illegitimate than legitimate births. Probably, Dr. Drysdale said, if divorce were rendered more facile, marriages would be more common and happier.

Diseases of Prostitutes. The evidence of Duchatelet, Acton, Lippert, Baré of Nantes, and others, showed the health of prostitutes to be generally above that of the average of women. The only two diseases which infected them particularly were syphilis and scabies. According to Mr. Acton, the girls in London are "picked lives"; they live a dissipated life for two, three, or four years, and then marry, or take up some other occupation; about one-fourth of the number abandoning this trade yearly. *Hoarseness* was frequently met with; it arose from exposure to the cold, from spirit-drinking, and in a few cases from syphilitic affection of the vocal cords. *Obesity* was met with in the majority of cases. *Diseases of the anus* were sometimes found; rarely in England, but not unfrequently in France and Italy. *Tumours of the labia majora* and *abscesses of the labia* were frequent. *Recto-vaginal fistula* was found, especially in members of phthisical families. The genitalia of prostitutes would not usually reveal their business; and cases were on record where women had pretended to be virgins after a life of prostitution, and had deceived the skilful. *Sterility* was a marked feature in the phenomenon of prostitution. Were it not for this, there could be no such trade; since, if they frequently became pregnant, the poor-houses would become crowded with abandoned infants. It appeared, according to Duchatelet, that not much more than one in a thousand each year of the prostitutes in Paris had children. It would appear that excessive sexual intercourse produced on the female, as in the male, imperfect elaboration of the secretions necessary for impregnation. In addition to this, in some cases, there was probably inflammation of the ovaries and uterus. The mortality of the children produced was generally excessive, and the labours were tedious. *Cancer of the womb* was rare in prostitutes. Lippert of Hamburgh had not seen a case in eleven years among them; but, as this disease was fortunately rare in women, and ordinarily came on at the cessation of the catamenia, this was not so remarkable. *Uterine prolapse* was also an uncommon disease among prostitutes. *Hysteria* was extremely rare among prostitutes; according to Lippert they had scarcely a trace of it. Duchatelet asserted the same of them. This absence from nervous disorder was probably explicable by the fact that restrained emotions of sex were doubtless a very frequent cause of female nervous diseases. Dr. Drysdale agreed with what Mr. Holmes Coote was reported to have said in the Royal Medical and Chirurgical Society on February 14th, 1859; viz., "No doubt incontinence was a great sin; but the evils connected with abstinence were productive of far greater misery to society—any person could bear witness to this who had experience in the wards of lunatic asylums." Sir B. Brodie was reported to have said, at the Birmingham Social Science meeting, that "the evils of celibacy were so great that he would not mention them; but that they quite equalled those of prostitution." He (Dr. Drysdale) thought that Dr. Carpenter's views, that the "development of the individual is opposed to the reproduction of the species," was a law which did not seem to hold with the larger animals, many of which became rabid if deprived of sexual congress. Of course, sexual excesses were most injurious; but these were not so common as abstinence. *Venereal diseases* were connected with prostitution as lead-colic with the painter's trade. It had been calculated that there were a million and a half of venereal cases annually in Great Britain (Holland), and fifty thousand cases seen in London hospitals yearly; also that one in five of the troops were affected annually, and one in three of the merchant service (Acton). The same was said of New York. As to the fatality of these diseases, there were in 1854 thirty-four deaths in the Midi Hospital for men in Paris; only two of them caused by stric-

ture of the urethra—a disease which was very frequently the fatal sequela of gleet. Prostitutes, however, very rarely died of venereal diseases. Thus, in 1854, in the Lourcine venereal hospital in Paris, with 276 beds, not a single death among the women was caused by these diseases. The French plan of regulating prostitution very greatly lessened the spread and gravity of these diseases in some towns; *e. g.*, in Nantes, according to Dr. Baré, syphilis was extremely mild; tertiary symptoms were not seen, and secondary very rarely. In Belgium, out of thirty thousand troops, there were in 1855 less than two hundred venereal cases. In Hamburgh, the disease was extremely mild. All this was attributed to weekly medical inspection of the prostitutes, and to their not being in the habit of spirit-drinking. In Paris, ten physicians and two assistants were appointed to examine the women; and, in 1854, 155,807 examinations were made. Great care was taken that girls under sixteen should be removed from the streets. The latter regulation should be adopted in this country. In Hamburgh, with 180,000 inhabitants, three medical men examined all the prostitutes.

Various arguments had been used as to the toleration of prostitution and the examination of the women. Many continental writers denied the right of any woman to spread contagious venereal diseases, or to walk openly in the streets for prostitution. Writers on this subject in England and America saw the other side of the question more clearly. They observed that the liberty of the female sex was already too restrained, and that men were not interfered with in like circumstances. They therefore denied the right of the state or corporation to do anything more than prevent violation of decency or order. Dr. Drysdale inclined to the latter opinion, as the less of two evils. He thought, however, that a great effort should be made to lessen the severity and frequency of venereal diseases. To do this, it might be possible to appoint a certain number of medical officers in each large town to examine all women who *voluntarily* presented themselves at certain offices; to send the diseased to hospitals, where they must stay until cured; and to give a certificate of health to others. These officers should be appointed by the different town-corporations. About thirty would be required for London. Mr. Acton had done much to facilitate the adoption of such measures; and Mr. Holmes Coote had justly observed, that the manner in which venereal diseases spread in London was disgraceful to the legislature. On the other hand, Mr. Solly was reported to have said, in the same debate, that, "far from regarding syphilis as an evil, he regarded it, on the contrary, as a blessing, and believed that it was inflicted by the Almighty to act as a restraint upon the indulgence of evil passions." Such was doubtless the opinion of a large number of individuals in this country and in America. Venereal diseases were looked on by such persons as a means of driving young persons into matrimony. In Ireland, the effect of such habits of early marriage had been to pauperise the whole land and render that country a vast abyss of human misery. The agricultural districts of England were little better, as was well known. There was no doubt that, as Sir Benjamin Brodie remarked, the remedy for prostitution lay chiefly in early marriages. But it was only in France that the poorer classes married young and had small families: here they had as many as they could. Probably, however, if divorce were obtainable as in Prussia and in Indiana (in which latter place six months' notice is all that is required), persons would hesitate in bringing so many unfortunate children into existence, to struggle as they do now for a life without happiness.

Women ought to be encouraged, as well as permitted, to attempt any trade to which they had a mind. If they failed, it would be time enough to say that women were fit for nothing but to be wives and mothers. Both of these, it was to be hoped, they all might be at some period of their lives; but life was long, and they had plenty of time for industrial pursuits before and after they had given birth to the small number of children required in so overpeopled a continent as Europe. Besides, some had no children; and many could carry on trades or professions with great advantage to themselves and to society.

Dr. Tilbury Fox observed, that in some of the daily journals it had been said that Dr. Lankester at a public meeting had stated that, of every thirty women met with in the street, one had committed infanticide. Dr. Lankester had told him that this was a misconstruction of what he had said; which was, that a French abbé had made the statement referred to. He (Dr. Lankester) had quoted the opinions of the Frenchman, and had lamented that any foreigner could have any cause for giving such an exaggerated statement.

Mr. R. W. Dunn thought that the author had omitted one important cause of prostitution, viz., seduction. This was certainly in a great many cases the first step towards prostitution; for in this, as well as every other large city, a certain class of men made a boast of how many girls they had seduced. For such men no kind of punishment could be too great; the law ought to compel them either to marry, or to allow the unfortunate girl enough money to live in a respectable manner; and if they refused to do this, some other severe punishment should be inflicted. Society might even refuse to admit within its circle a man who could be proved to be a seducer. Mr. Dunn agreed with the author that scarcity of employment for women, and the low rate of their wages, was another cause of prostitution. The large excess, again, of the female population, was a cause. All trades and professions should be thrown open to women; emigration to those countries where there is an excess of male population should be encouraged. Another cause of prostitution was, he thought, nymphomania. Again, many women took to prostitution as a matter of business, from the mere fact of seeing others walk the streets dressed splendidly, whilst they as respectable women could scarcely obtain food with the miserable pittance they earned. As to the amount of hospital accommodation available in London for prostitutes, Mr. Dunn believed he overstated the amount when he said there were in all the hospitals in London (the Lock Hospital included) only two hundred beds. If one of the unfortunate twelve thousand women became diseased, she might be able to get into the hospital; but if the beds were full, she must either go into the workhouse or become an out-door patient. Perhaps, she might be able to afford to go to some private medical man; but this class of women, as a rule, were very improvident. Thus, while diseased, they were still obliged to follow their old calling, and, by so doing, propagated disease to a most fearful extent. If they did not do this, their only alternative was to starve, beg, or steal. Anyone who had visited the out-patient department of any large hospital or dispensary, must be struck with the large number of venereal cases. Mr. Dunn recommended that all prostitutes should be placed under police control for some years to come, at least until the present numerous venereal cases were greatly diminished in this country. He agreed with Dr. Drysdale that medical men should be appointed

in any large city to examine women, but he thought that, instead of such an examination being voluntary, every woman should be compelled by law to present herself for examination at least once in ten days; and if at any time she should find that there was anything the matter with her, she ought immediately to go to the medical officer in her district to be examined; and if, upon examination, there were found any venereal or contagious disease, she should be sent immediately to the Lock Hospital. Each district should have its own Lock hospital; and the medical man who examined the women in the district should be the medical officer of the hospital. The woman ought to be compelled to remain in the hospital until she was quite well, and during her residence there would be the time to try to reform her. Everything should be tried to wean the women from their former mode of life. A trade should be taught them, and those that could not read nor write should be taught to do so. When they were well enough to leave the hospital, some employment that would prevent them from having the necessity of falling back upon their old mode of obtaining a livelihood, should be sought for them.

Mr. Holmes Coote still entertained the opinion that there were worse evils appertaining to human weakness than prostitution. He had opportunities of witnessing the fact, that among the young there was no cause of insanity more common than indulging in habits which he would not further particularise, but which were known to result in the most complete bodily and mental prostration. Idleness and vanity might rank among the causes of prostitution; but occupation alone would not avail to prevent it. There was a peculiar condition of the mind when the passions became excited, and women thus affected sought the opportunity of going astray. After a period of restraint in a proper asylum, the mind recovered its equilibrium, and the patient returned to society. This condition he had seen both among the married and the unmarried. With regard to the question of trying to check the spread of venereal disease, he repeated what he said before the Venereal Commission, viz., that legislative enactments were required; women should not be permitted to quit the hospital partly cured. With reference to men, it was impossible to institute any system of inspection. Even in the public services such an order would be sure to lead to discontent, breaches of discipline, and concealment; moreover, what classes were to be included in such inspections? Was it to comprise the officers? He quite approved of the inspection of all houses where prostitutes dwelt, and of the examination and registration of such women.

Mr. Acton said that the reading of a paper on prostitution marked a great progress in this question, since, a few years ago, it would not have been possible to bring this question before a society. He had advised the Venereal Diseases Commission that they should not attempt to go too fast. They should commence by attempting to render the army and navy less overrun by venereal diseases, before attempting any measures to restrain the disease in civil life. This suggestion, if carried out well, could not fail greatly to lessen the amount of venereal diseases in the service. With regard to examinations in civil life, he was not an advocate for indiscriminate examinations, such as were made in Paris. For example, were such a case to happen in London as he was about to relate, there could be no doubt that those most opposed to any such prevention of venereal diseases, would raise an outcry, so that, in all probability, the practice would have to be given up. When he was in Paris some years ago, he visited the Dispensary, and was admitted to the examination of the prostitutes. One of the patients was examined and pronounced sound by the examiner. Mr. Acton asked him, "Do you not think that that girl is a virgin?" He replied, "It is possible; but that is not our business." It turned out that this girl had quarrelled with her mother, and had come to be enrolled as a prostitute and examined. It almost seemed as if government were by this sanctioning the girl in taking up prostitution for a livelihood. He could not think that want of education alone, or poverty, could be such a frequent cause of it as had been supposed. It was not low wages that caused prostitution so much as the desire of getting money easily; a failing which, he thought, was common to men as well as to women. When a half-starved or ill regulated woman saw that by prostitution she could make twenty guineas a day and wear fine clothes, there was not much wonder that she often preferred it to working. It appears that in the streets of Melbourne, where every woman that wished it could earn a good living, prostitution was more rampant than even in London. And, with regard to emigration, many of the women sent to Australia did not like working. It was a well ascertained fact, too, that at Paris the students did not so much take to mistresses who were idle; they preferred those earning good wages, in order not to have so much trouble with them. Mr. Coote truly observed that, in some cases also, the sexual passion was very strong in women. Whatever the virtuous portion of society might wish, prostitution would go on. Mr. Dunn had spoken of seduction being a great crime, and no doubt this was true; but how was the man to be punished? He (Mr. Acton) remembered having, when young in his medical career, accompanied a deputation to Lord Brougham, composed for most part of clergymen, on the subject of prostitution. On some of the party proposing to the noble lord that a still more stringent law should be passed, punishing the seducer, he asked, "But are you sure, gentlemen, that it is always the man who seduces the woman?" He agreed that no sin could be greater than that which men about town were known to boast of, viz., their endeavours to seduce as many girls as they could. Would Mr. Dunn, or any other, say they should marry all the girls seduced? He was afraid punishment for such persons did not come in this life. The old parish law ought to be remodelled. A far greater sum should be exacted from the father of an illegitimate child, and the parish should be empowered to recover the sum from the father.

The President said that the rationale of the sterility of prostitutes was, he believed, as follows: prostitutes were subject to amenorrhœa and dysmenorrhœa, in the same way that women who practise masturbation frequently are affected. There had been remarked in *post mortem* examinations of prostitutes a thickening of the indusium of the ovaries, also a spasmodic closure of the os and cervix uteri. Such was the explanation, he believed, of their very frequent sterility. On one occasion he had seen the hymen unbroken in a woman of the town. She was a well known person and lived in great splendour. In this case the hymen was so elastic that, although the girl had been a prostitute for some time, the aspect of the genitalia was that of a virgin. The subject of prostitution could not be too often discussed. He believed that, although this was not one of the large societies, much good would result from the evening's debate.

Royal College of Surgeons. It is stated that the money value of the catalogues of the museum of the College of Surgeons, recently presented by the Council of that institution to all recognised provincial hospitals having libraries, is represented by £690.

Correspondence.

THE NATURE AND TREATMENT OF CHOLERA.

LETTER FROM GEORGE JOHNSON, M.D.

SIR,—Your correspondent, Dr. Davey, informs you that in the account which I have given of the nature and treatment of cholera, I have been "largely anticipated" by him. When reading Dr. Davey's letter, I felt that, if I had done him an injustice in not acknowledging his priority with regard to any point either of pathology or of practice in which it may appear that I make a claim to originality, I had done so unintentionally and unconsciously.

Now after carefully reading, in the pages of the *Lancet*, the various papers on the pathology and treatment of cholera, to which Dr. Davey refers, the only point even of agreement between him and me that I have been able to discover is that we both recommend purgatives in the treatment of cholera. But as I lay no claim to originality in regard to this mode of practice, neither, I presume, can Dr. Davey. In fact, he admits that he learnt the practice from the late Mr. Twining; and if Dr. Davey should ever do me the honour to read my small book, he will find that at page 95 I refer to no fewer than ten authors who, practising in India many years ago, habitually employed purgatives in the treatment of cholera.

With respect to the pathology of cholera, if Dr. Davey had carefully read my book, or even your able analysis of it, I am at a loss to understand how he could imagine any, even the remotest, resemblance between his own doctrine and mine.

Dr. Davey says (*Lancet*, 1854, vol. i, p. 512) "that the *proximate* cause of choleraic disorder is located in the ganglia of the great sympathetic nerve, is, to my mind, the only fair and legitimate conclusion from all the facts and circumstances of the disease." He also says that "cholera, so called, holds the same relation to the *solar plexus* that dementia does to the brain." Those who are acquainted with what I have written on the pathology of cholera will see that between pathological theories so diverse as Dr. Davey's and mine, there can be no collision; and that nothing which I have written can deprive him of whatever credit is due to him for this ganglionic theory. I, of course, admit, in common with all modern physiologists, that the ganglionic nerves exert great influence on the blood-vessels, and through them, on many important functions; but I maintain that no light is thrown upon the peculiar and distinctive symptoms of cholera by the statement that the proximate cause of the disease is "in the ganglia of the great sympathetic nerve."

One of your correspondents, after confessing his own "incompetency" to engage in the controversy, enters into a long disquisition on the nature and treatment of cholera, in which, if he proves nothing else, he succeeds in showing that he had some reason to mistrust his power to deal successfully with the subject under discussion.

The question as to the nature and the treatment of cholera has now assumed so definite a form, that those who would discuss it with credit to themselves or advantage to others, must first take the trouble to learn what has been actually done in this matter. We have had enough of baseless assumption and indefinite speculation on this subject. Henceforth those who enter upon the discussion must descend from the cloudy regions of fancy to the precise logic of facts and legitimate inferences. It would be well if all writers on this, and indeed on a few other questions of pathology and of practice, were to take to heart and to act upon the lesson conveyed in the following extract from Bishop Butler (*Preface to Sermons*). He says: "Confusion and perplexity in writing is indeed without excuse, because any one may, if he pleases, know whether he understands and sees through what he is about: and it is unpardonable for a man to lay his thoughts before others, when he is conscious that he himself does not know whereabouts he is, or how the matter before him stands. It is coming abroad in disorder, which he ought to be dissatisfied to find himself in at home."

I am, etc., GEORGE JOHNSON.

11, Savile Row, Feb. 12th, 1866.

TREATMENT OF RHEUMATIC FEVER.

LETTER FROM THOMAS K. CHAMBERS, M.D.

SIR,—You have called attention, in your last number, to a most important subject, namely, observations on the course of disease when no curative remedies are internally administered. As the instance you have quoted is rheumatic fever, as recorded in *Guy's Hospital Reports*, it may interest your readers to collate with them a similar series of observations made at another metropolitan hospital, St. Mary's.

Between June 1851 and Christmas 1863, there were in the wards under my care at St. Mary's, 257 cases of rheumatic fever. Of these (cases still remaining under treatment on Christmas Day not being included)—

26 were treated with one drachm of nitre three times a day;

174 were treated with bicarbonate of potash—viz.,

141 with one scruple, or more, every two hours;—

33 with a less quantity;—

32 were treated, during the first year, in various other ways;—

25 (that is to say, all from May to Christmas 1863) had none of these supposed curative drugs; only a little opium when the pain was very severe, and a purgative when the bowels were more than usually costive.

No selection of cases was made, but each method was adopted in every case continuously.

Of the 26 treated with nitre, the mean stay in hospital was 40·0 days.

Of the 141 treated with the one scruple bihoral doses of bicarbonate of potash, the mean stay in hospital was 34·3 days.

Of the 33 treated with less quantities of the potash, the mean stay in hospital was 40·0 days.

Of the 25 treated *without curative drugs* the mean stay in hospital was 27·7 days.

I may remark here, that any other measure of the duration of the disease is untrustworthy for the purpose of accurate statistics. Suppose you say you will measure its length by the continuation of pain, or by the presence of the visible external phenomena of tumefaction, etc., you will find yourself baulked in actual practice. The different degrees of susceptibility to pain exhibited by different patients, the desire of some to extenuate, of others to exaggerate their sufferings, makes it impossible to register truly even the exact day when the pain ceases. Whereas, in such a short period as it lasts after the commencement of treatment (namely, two or three days usually), the exact hour would require to be noted. It is equally impossible to measure when, or even whether, the swelling or redness is all gone; for what to one student's eye is morbid colour, to another's is the normal hue; and a limb which to the patient's

sensations is swollen, judging by the weight it feels to him, is often seen to be of its natural size. Those who have most to do with clinical clerks rely least on the case-books concerning these points.

After the above statistics had been collected, circumstances obliged me to break the continuity of the observations, and they have not since been resumed. It is of no use doing these things except on a large scale. But still I think they have their value, especially in relation to the subject to which you have drawn your readers' attention.

What is the moral that we are to derive from the fact that the twenty-five treated without internal drugs got into working health quicker than those who had drugs? Is it that no medical interference is of use in rheumatic fever? No, no. Are we in view of pathological changes to sit down, like a farmer who, on seeing the flood breaking his dykes, says it is sure to stop some time or another, and makes no effort to save his property? I am sure we need not do so; I am sure that a careful study of the conditions under which disease gets well "of its own accord" (as it is somewhat incorrectly phrased) may enable us to imitate those conditions, and to induce them when absent. A specimen of such-like physiological induction is given in the already printed clinical lecture from whence I quote the above statistics, namely, the induction concerning the effects of "blanketing;" but this letter is already too long, so I will only refer to it.

I am, etc.,

THOS. K. CHAMBERS.

Brook Street, February 12th, 1866.

POOR-LAW MEDICAL REFORM.

LETTER FROM RICHARD GRIFFIN, ESQ.

SIR,—I shall feel obliged by your giving insertion to the following letter from the Poor-law Board. I strongly advise the Poor-law medical officers to forward their subscriptions, as it is quite possible we may yet have to fight the battle in the House of Commons, and therefore shall have need of funds. I am preparing a pamphlet, explanatory of the various clauses in the Bill; otherwise the members of the House of Commons may be deceived, as the Select Committee were on a recent occasion.

I am, etc., RICHARD GRIFFIN.

12, Royal Terrace, Weymouth, Feb. 10th, 1866.

List of Subscriptions received by Mr. Prowse. H. Hemsted, Whitchurch, 10s.; B. Jeffery, Worcester, 10s.; R. W. Day, Epping, 5s.; W. Robertson, Alnwick, 2s. 6d.; W. F. Foster, Isle of Wight, 10s.; A. J. Moore, Henley, 5s.; W. Cooper, Bristol, 5s.; T. Frankland, Ripon, 20s.; F. Fitch, Kidderminster, 5s.; A. F. W. Jeston, Malmesbury, 10s.; G. Salter, Malmesbury, 10s.; D. Wheeler, Chelmsford, 21s.; W. Francis, Yeovil, 10s. 6d.; W. A. Hubert, Hemel Hempstead, 10s.; J. W. Fothergill, West Ward, 2s.; R. E. Cooke, Southwell, 10s.; T. Taylor, Cricklade and Wootton Bassett, 10s.; La Fargue, Meriden, 5s.; G. Handcock, Hunslet, 5s.; H. Hodges, Hertford, 5s.; T. L. Pridham, Bideford, 10s.; Hugh Lloyd, Machynlleth, 10s.; John Pugh, Machynlleth, 10s.; F. Deynes, Newport Pagnell, 5s.; A. Flemming, Sandford, 20s.; W. A. Elliston, Ipswich, 5s.; G. E. Edwards, Ipswich, 10s.; F. Manning, Samford, 10s.; R. Reynolds, Saffron Walden, 5s.; U. J. Wright, Caxton and Arrington, 5s.; T. G. Brooks, Caxton and Arrington, 5s.; Stamford and Felce, Launceston, 10s. 6d.; G. O. Rogers, Newport Pagnell, 5s.; F. Taylor, Woodstock, 10s. 6d.; J. G. White, Woodstock, 10s. 6d.; J. Collinwood, Bourne, 5s.; W. Gaye, Williton, 10s.; N. Crisp, Wokingham, 10s.; T. Underhill, Dudley, 10s.; J. Clapham, Peterborough, 10s. 6d.; C. H. Perry, Aylsham, 5s.; T. Alderton, Aylsham, 5s.; R. T. Scarr, Bishop Stortford, 10s. 6d.; E. Meade, Tunstead and Happing, 5s.; P. Francis, Felstead, 10s.; H. C. Wildash, Elham, 5s.; W. Rhys, Neath, 21s.; W. Mercer, Ticehurst, 10s.; W. Stawman, Barnsley, 5s.; F. P. Davies, Dolgelly, 5s.; J. Glover, Atcham, 5s.; C. Heaton, Leek, 7s.; R. Turncock, Leek, 7s.; R. Cooper, Leek, 7s.; W. B. Smith, Ticehurst, 5s.; C. Willcock, Wareham, 5s.; W. Daniel, Wareham, 5s.; W. Williams, Wareham, 5s.; W. Prowse, Amersham, 5s.

Mr. Griffin has received the following:—J. Mackie, Darlington, 5s.; H. Clark, Sedgefield, 5s.; D. Clark, Durham, 5s.; H. Tizard, Weymouth, 10s.; F. J. Brown, M.D. (not union), Rochester, 21s.; R. R. Shillitoe, Hitchin, 20s.; J. F. Wilking, Cranbrook, 5s.; R. Heman, Tavistock, 5s.; T. Pearce, Tavistock, 5s.; W. C. Northey, Tavistock, 5s.; W. Reeves, Carlisle, 21s; J. G. Doidge, Tavistock, 6s.

Letter from the President of the Poor-law Board.

"Poor-law Board, Whitehall, February 5th, 1866.

"SIR,—I am directed by Mr. Villiers to acknowledge the receipt of your letter of the 3rd inst., together with the draft of a proposed Bill 'for the better Regulation of Medical Relief to the Poorer Classes in England and Wales'; and I am to inform you that the provisions contained in the Bill shall receive the consideration of this Board.

"I am, sir, your very obedient servant,

"Richard Griffin, Esq." "JOHN THORNELY.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND. The following members of the College, having been elected Fellows at previous meetings of the Council, were admitted as such on February 8.

Guy, Thomas, Doncaster; diploma of membership dated July 2, 1841
Harris, Clement Mears, Wootton-under-Edge; Dec. 21, 1838
Rowe, Charles Reynolds, Wimborne Minster; June 1, 1835

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS, EDINBURGH. (Double Qualification.) The following gentlemen passed their first professional examinations during the recent sittings of the examiners.

Bath, Henry, Glastonbury
Davidson, John Kerr, Wick
Purcell, Edward E., Limerick
Riddell, John, Ballybay
Young, Richard, New Lanark

And the following gentlemen passed their final examinations, and were admitted L.R.C.P.Edinburgh, and L.R.C.S.Edinburgh.

Anderson, Colles Litchford, Madras
Grier, William John, county Longford
Hackett, Arthur Luke, Cork
Holmes, William Hugh, Cork
Johnstone, Howison James, county Longford
Jones, David Joshua, Carmarthenshire
Loos, James, Ceylon
M'Kenna, Cornelius John, Tipperary
Miller, Lewis, Dublin
Parke, Samuel, Gilford
Pattie, Robert, Dumfriesshire
Ritchie, Alexander Ramsay, Edinburgh
Thompson, Thomas Alexander, Carrickfergus
Wylie, William, Poyntzpass

ROYAL COLLEGE OF SURGEONS, EDINBURGH. The following gentleman passed his first professional examinations during the recent sittings of the examiners.

Smith, Rolt Ayre, Monkwearmouth

And the following gentlemen passed their final ex-

aminations, and were admitted Licentiates of the College.

Douglas, John Charles, Wigtownshire
Greene, William Thomas, Dublin
Turnbull, George Wardlaw, Linlithgowshire
Walsh, John Aloysius, Carrick-on-Suir
Wright, John, Derbyshire

Apothecaries' Hall. On February 8th, 1866, the following Licentiates were admitted:—

Hankins, George Thomas, Guy's Hospital
Hodder, Frederick William Lloyd, Toronto, Canada West

At the same Court, the following passed the first examination:—

Kemp, William George, St. Bartholomew's Hospital
Todd, William James, King's College Hospital

APPOINTMENTS.

Royal Navy.

Anderson, James R., Esq., Surgeon, to the *Favourite*.
Campbell, John M., Esq , Acting Assistant-Surgeon (additional), to the *Victory*, for Haslar Hospital.
Cann, Thomas, M.D., Assistant-Surgeon, to the *Impregnable*, for the *Squirrel*.
Comerford, John T., Esq., Assistant-Surgeon, to the *Cumberland*, for the *Reserve*.
Leet, Edward W., Esq., Acting Assistant-Surgeon (additional), to the *Royal Adelaide*, for Plymouth Hospital.
Macdonnell, Henry, Esq., Assistant-Surgeon, to the *Bristol*.
Rankin, William John, M.D., Acting Assistant-Surgeon (additional), to the *Victory*, for Haslar Hospital.
Roche, William, Esq. (*a*), Assistant-Surgeon, to the *Bristol*.
Scott, Alexander, Esq., Assistant-Surgeon, to the *Favourite*.
Thomas, D. B., Esq., Assistant-Surgeon, to Greenwich Hospital.

Volunteers, (A.V. = Artillery Volunteers; R.V. = Rifle Volunteers):—

Bell, W., Esq., to be Hon. Assistant-Surgeon 4th Cheshire A.V.
Busby, R. A., Esq., to be Assist.-Surgeon 10th Warwickshire R.V.
Moxon, T. H., Esq., to be Surgeon 1st Norfolk A.V.

BIRTHS.

Ashforth. On February 11th, at Market Overton, Rutland, the wife of *G. M. Ashforth, M.D., of a daughter.
Davis. On February 8th, at Clevedon, the wife of Theodore Davis, jun., M.D., of a daughter.
Liveing. On February 9th, at 52, Queen Anne Street, the wife of Edward Liveing, M.B., of a son.

MARRIAGES.

Brown, Alfred Gardiner, Esq., Surgeon, of Trinity Square, Southwark, to Emma Hodgson, only daughter of Charles Gates, Esq., of Plumstead, Kent, on February 7.
Davidson, Robert H., M.D., Deputy Inspector-General of Hospitals Indian Army, to Burella Elizabeth, second daughter of Arthur Campbell, Esq., of Catrine, at Edinburgh, on February 6.
Giles, Edwin J., M.D., of Gillingham, Dorset, to Frances Anne, youngest daughter of John Beddoe, Esq., of Bewdley, at Hereford Cathedral, on February 7.
Hawkins, Thomas Henry, Esq., Surgeon, of Newbury, Berks, to Mary, daughter of the late Benjamin Hick, Esq., of Liverpool and Bolton, at Harpurhey, Manchester, on February 8.

DEATHS.

Blakeley. On February 4th, Harriett Elizabeth, wife of T. Blakeley, Esq., Surgeon, Bermondsey.
Brown, Frederick, M.D., late 4th Dragoon Guards, at Benham Lodge, near Newbury, aged 79, on February 2.
*Giraud, Frederick Francis, Esq., at Faversham, aged 62, on February 11.
Henderson, Alexander, Esq., H.M.'s Bombay Medical Service, in Edinburgh, on February 6.
Jones, William, M.D., formerly of the Strand, at Torquay, aged 58, on February 6.
Riddell, Robert Flower, Esq., late Superintending Surgeon Hyderabad Contingent, at the Grove, Clapham Common, aged 67, on February 7.
Skrimshire. On February 6th, at Peterborough, aged 80, Charlotte, widow of Fenwick Skrimshire, M.D.
Ward, Nathaniel, Esq., Surgeon, son of N. B. Ward, Esq., of the Ferns, Clapham Road, on February 10.

The Cattle-Plague. Accounts from Belgium state that the cattle-plague is causing great destruction in Holland. It has, moreover, entered Northern Brabant, and several cases are reported at Antwerp.

The Prince of Wales has consented to become Patron of the Dorsetshire Hospital.

New City of London Asylum. At a meeting of the Court of Common Council yesterday, the lunatic asylum, built by the City at Dartford, was reported ready for occupation.

A Testimonial has been presented to Mr. Byers, Surgeon, by the inhabitants of Milford, as a recognition of their esteem for him. Mr. Byers has been fifty years in practice there.

Staff Surgeon Thomas Frazer, of Devonport dockyard, who has retired from active service, has been awarded a civil pension of £85:10:10 per annum, in addition to the half-pay of his rank and seniority of service.

University of Cambridge. The election of a Professor of Anatomy at Cambridge is announced to take place on the 1st March; and on the same day there will be elected a Professor of Zoology and Comparative Anatomy.

Edinburgh News. Last week Dr. Matthew Druitt read a paper on "Fertility of woman," at the Edinburgh Royal Society, and a very good discussion on chloroform was held at the Medico-Chirurgical Society, besides an admirable paper on "Aphonia connected with disease of the third posterior left frontal convolution," read by Dr. Sanders.

University College Hospital. A grand performance of works by the celebrated French composer, M. Gounod, which, as the programmes state, had not hitherto been heard in any country, was given on the 13th instant, at St. James's Hall, in aid of the funds of the University College Hospital, "under the immediate patronage and sanction of Her Most Gracious Majesty the Queen and all the Royal Family," with a long list of lady patronesses.

The Poor in the Metropolis. Mr. Villiers has expressed his intention to introduce a measure for more effectually securing the execution of the laws relating to the poor in the metropolis. This measure will be substantially based on the recommendations of the Select Committee appointed by the last Parliament to inquire into this matter.

Children employed in Factories. Mr. Fawcett asked the Secretary of State for the Home Department whether, viewing the deplorable condition of the children employed in many of the trades of Sheffield and other towns, it was the intention of Her Majesty's Government to introduce a measure for regulating the employment and securing the education of these children. Sir G. Grey replied, that it was intended to give notice at an early day of a Bill to carry out some further recommendations of the Commission in reference to women and children employed in factories, beyond those which were already the subject of legislation.

The Sick Poor of London. The maladministration of the Poor Law in London, as evidenced by the cases from time to time reported in the press, has induced a number of noblemen and gentlemen to form themselves into a committee for the purpose of concerting measures to improve the condition of perhaps the most dependent, helpless, and ill-used of those under the management of the London guardians, namely, the sick poor. Among those on this committee are Earl Fortescue, the Earl of Airlie, Lord Burghley, Lord Charles Bruce, Mr. Neate, M.P., Mr. H. D. Seymour, M.P., Mr. L. Oliphant, M.P., Mr. Thomas Hughes, M.P., Mr. Charles Dickens, Rev. F. D. Maurice, Dr. Anstie, Dr. Carr, Dr. C. B. Radcliffe, Dr. J. Rogers, Dr. J. Stallard, Mr. Ernest Hart, and Dr. Lankester, etc.

Odontological Society. At the ordinary monthly meeting, on Monday evening, Feb. 5, the newly elected President, W. A. Cattlin, Esq., gave an address on taking the chair. The set of false teeth, found with the body in excavating for the Thames embankment, were submitted to examination, and the subject was discussed. Dr. Richardson read a description of his new process for producing local anæsthesia by narcotic spray, which elicited considerable interest.

The Smoke Nuisance. Sir R. Peel wished to know whether it was the intention of Government during the present session of Parliament to introduce any measure to abate the nuisance arising from the smoke of chimneys in country districts in the vicinity of towns, similar to those which were introduced in 1853 for the metropolis. Sir G. Grey observed, that the existing law had a very beneficial operation in the metropolis, and he thought that it was very desirable that it should be extended; but there was no Bill at present in preparation.

St. Pancras Workhouse. On the 13th inst. Mr. Butt, the resident surgeon of St. Pancras workhouse, reported to the Board of Guardians that a fresh outbreak of fever had occurred in the workhouse, and that four patients had been sent to the Fever Hospital. A letter was received by the Board from Mr. Finn, the secretary to the Fever Hospital, stating that a new wing capable of accommodating forty patients had been opened, so that an increased number of patients could be received, and also that the foundation of another wing, capable of accommodating sixty patients, had been laid.

Death of W. T. Brande, Esq., D.C.L., F.R.S. This eminent chemist died on the 11th inst., at Tunbridge Wells, at the advanced age of 81. Early in life he devoted himself to chemical studies; and in 1813, having previously been for some time the assistant, was appointed successor, to the celebrated Sir Humphry Davy, as professor of chemistry to the Royal Institution of Great Britain, which appointment he held for nearly forty years. The deceased was also for many years professor of chemistry and materia medica to the Society of Apothecaries. He was a voluminous writer. His *Dictionary of Sciences, Literature, and the Arts* is a work of standard authority and acknowledged merit. Mr. Brande was formerly Secretary to the Royal Society, and up to the time of his decease held the office of Superintendent of the Coining Department in the Royal Mint.

The Discovery of Trichinæ. The Curator of Guy's Museum says, in answer to what Dr. Cobbold had stated: "Dr. Cobbold is altogether wrong in his attempt to take from our countrymen the merit of the discovery of the trichinous disease. I stated advisedly that the oldest specimen in existence was in my custody, that the first observations were made by Hilton, and subsequently by Owen. This I now firmly maintain; for on referring to the monograph of Leuckart (the highest authority on the subject), he commences his treatise with these words: 'Im Jahre 1832 fand der Demonstrator der Der Anatomie an dem Guy-Hospital zu London, J. Hilton, in den Brustmuskeln eines Mannes, eine menge kleiner weisser körpeschen,' etc. He further states that it has been asserted that Tiedmann had already made the discovery, because he had once found some white concretions in different tissues of the body; but these, Leuckart says, had no resemblance whatever to the trichina, and that therefore the assertion is altogether incorrect. On such a flimsy foundation as this the credit of prior discovery might be taken from our countrymen by fifty German writers."

Royal Victoria Hospital. The widow of Sir Charles Bell has just presented to the country, through the Minister of War, a most valuable collection of his large class drawings illustrating the injuries received in warfare, taken by Sir Charles, when in attendance on the wounded at Brussels, shortly after the battle of Waterloo. This interesting collection will be sent to the Victoria Hospital after remaining on view, by permission of the Council, in the Museum of the Royal College of Surgeons for a fortnight. By a singular coincidence, Mr. Wormald, the President of the College, has just discovered another series of original anatomical drawings by Sir Charles Bell, which he presented to the library of the College at the last meeting of the Council; and, at the same time, Sir William Fergusson handed in another original drawing, by John Bell, showing the nature of the wound which proved so fatal to the Dutch admiral at the battle of Camperdown.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

Monday. Royal College of Surgeons of England, 4 P.M. Professor Huxley, "On the Classification and Structure of the Mammalia."—Medical Society of London, 8 P.M. Clinical Discussion; Mr. De Méric, "On the Use of Mercury in Syphilis"; Mr. R. Wm. Dunn, "On the Mercurial and non-Mercurial Treatment of Syphilis."

Tuesday. Pathological Society of London, 8 P.M.—Anthropological Society, 8 P.M.

Wednesday. Royal College of Physicians, 5 P.M. Dr. William Roberts. Gulstonian Lectures. "On the Use of Solvents in the Treatment of Urinary Calculi and Gravel."—Royal College of Surgeons of England, 4 P.M. Professor Huxley, "On the Classification and Structure of the Mammalia."

Friday. Royal College of Physicians, 5 P.M. Dr. William Roberts. Gulstonian Lectures. "On the Use of Solvents in the Treatment of Urinary Calculi and Gravel."—Royal College of Surgeons of England, 4 P.M. Professor Huxley, "On the Classification and Structure of the Mammalia."

REGISTRATION OF DISEASE.

Return of new cases of disease coming under treatment in public practice. (A.) Manchester and Salford (Sanitary Association). (B.) Preston (R. C. Brown, Esq.). (C.) St. Marylebone, London (Dr. Whitmore). (D.) Birmingham (Dr. Alfred Hill).

In the 5 weeks ending Dec. 30th, 1865.

Diseases.	A.	B.	C.	D.
Small-Pox	19	70	10	2
Chicken-Pox	2	3	11	13
Measles	65	1	94	120
Scarlatina	27	12	40	9
Diphtheria	—	1	1	3
Hooping-Cough	179	7	39	141
Croup	1	1	4	12
Diarrhœa	140	19	265	181
Dysentery	8	5	3	14
Cholera	—	—	—	—
Erysipelas	39	3	17	12
Insanity	25	1	19	—
Bronchitis and Catarrh	1131	160	1022	617
Pleurisy and Pneumonia	60	25	35	40
All other diseases and accidents	5258	527	3888	2659
Totals	6954	835	5448	3823

COMMUNICATIONS have been received from:—Dr. George Johnson; Mr. C. Steele; Dr. Gamgee; Dr. T. K. Chambers; Dr. Earle; Dr. F. W. Gibson; Mr. H. Greenway; Dr. James Russell; Mr. E. G. Nootт; Mr. J. W. Bartleet; Mr. Stone; Dr. Philipson; Mr. Holthouse; Mr. C. Hunter; Mr. Richard Griffin; Mr. H. Greenway; Mr. R. Harrison; Mr. Henry Smith; Dr. Frederick Page; Dr. Stewart; Mr. Jonathan Hutchinson; and Mr. Hamilton.

BOOKS RECEIVED.

1. Thoughts on the Value and Significance of Statistics. By Daniel Noble, M.A., M.D. Manchester: 1866.
2. The Science and Practice of Medicine. By William Aitken, M.D. In Two Volumes. Fourth Edition. London: 1866.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....Metropolitan Free, 2 P.M.—St. Mark's for Fistula and other Diseases of the Rectum, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TUESDAY. .... Guy's, 1½ P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.

WEDNESDAY... St. Mary's, 1 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.

THURSDAY.....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Great Northern, 2 P.M.—London Surgical Home, 2 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.

FRIDAY..... Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

SATURDAY..... St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1·30 P.M.—Charing Cross, 2 P.M.—Lock, Clinical Demonstration and Operations, 1 P.M.—Royal Free, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TO CORRESPONDENTS.

*** *All letters and communications for the* JOURNAL, *to be addressed to the* EDITOR, 37, *Great Queen St., Lincoln's Inn Fields, W.C.*

COMMUNICATIONS.—To prevent a not uncommon misconception, we beg to inform our correspondents that, as a rule, all communications which are not returned to their authors, are retained for publication.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

MR. JABEZ HOGG has reprinted from the *Intellectual Observer* an interesting article written by him, on "Life and Death in Our Mines."

MR. TEEVAN has reprinted from the *British and Foreign Medico-Chirurgical Review* his paper on "Fracture of the Internal Table of the Skull."

IN THE JANUARY NUMBER OF THE JOURNAL OF MENTAL SCIENCE, Dr. H. C. Bastian, of the Broadmoor Lunatic Asylum, gives an elaborate paper on the Specific Gravity of the Different Parts of the Human Brain. Dr. W. C. McIntosh, of the Perth Asylum, has a paper on Some of the Varieties of Morbid Impulse and Perverted Instinct. Dr. Maudsley criticises recent works of Metaphysics, and especially the writings of Mill and Comte, and Sir William Hamilton. Dr. Williams, late of the Northampton Lunatic Asylum, gives cases to shew the Use of Digitalis in the Treatment of Acute Mania.

IN THE LAST NUMBER OF THE ROYAL LONDON OPHTHALMIC HOSPITAL REPORTS, Mr. Bowman contributes some Ophthalmic Miscellanies; Mr. Hulke, Cases of Neuro-Retinitis, associated with Kidney Disease; Mr. Hart, a Note on Intermittent Glaucoma; Mr. Hutchinson continues his papers on the Effects of Injuries to the Fifth Nerve, on the Nutrition of the Eye-ball, etc., and on Inflammation of the Optic Nerve. He also gives Cases of Cancer of the Eye producing Glaucoma. Mr. Lawson gives Cases of Sympathetic Ophthalmia; and of Treatment of Pterygium by Transplantation. Dr. Hughlings Jackson continues his Observations on Defects of Sight in Diseases of the Nervous System. Next follows a Lecture by Mr. Streatfeild, on Posterior Staphyloma.

THE ARMY AND NAVY COMMITTEE.—SIR: It is satisfactory to learn that you do not put faith in the rumour, that no advantage will result from the labours of the Committee; but it may not be out of place to mention, that anxiety is felt lest a plentiful supply of candidates should be obtained at the approaching examination in *anticipation* of improvements, and that, in that case, the recommendations of the Committee may be set aside.

We have, on previous occasions, seen how the Irish schools have supplied candidates freely when there have been less grounds for hope of improvement in the condition of the Medical Departments; and we are, I fancy, justified in doubting the probability of any change for the better, if the urgent requirements of the service can be supplied without.

I am, etc., NIL TEMERE CREDIDERIS.

LOCAL ANÆSTHESIA BY CHLOROFORM.—SIR: In your notice last week on Dr. Richardson's new method of producing local anæsthesia, there is a slight error which we would like to correct, if you give us permission. You say Dr. Richardson uses a Siegle's apparatus, somewhat modified. This is an error. The mechanical principle applied by Dr. Richardnon is new in the form of the apparatus employed, and is entirely his own.

As some confusion exists in regard to the spray-apparatus, we would like to take this opportunity of putting the subject clearly forward. The instrument called Siegle's inhalation-apparatus is, in fact, Bergson's tube worked by a steam-jet. Siegle did not invent the tube, but simply shewed that the spray can be continuously produced by steam evolved from a small boiler. Next, there is Bergson's tube, worked by the handball-bellows, first suggested to us by Dr. Andrew Clark. Lastly, there is Dr. Richson's instrument, which differs from the above named instruments.

When Dr. Richardson asked us, in June last year, to carry out the design he had in view of producing local anæsthesia, he began with Bergson's tube, thinking it was Siegle's; and hence the reason why he calls it Siegle's tube in his paper. In a little time he found that the tube did did not answer his purpose; it did not produce a sufficient degree of coldness without using ice and salt to chill the ether; and it did not allow the spray to be carried more than a few inches from the ether-bottle, so that it was very inconvenient. He spent several months meeting this difficulty, and we made for him four instruments of various forms without success. He then changed this principle altogether, by using *pressure* instead of *suction*—constituting, in fact, a new instrument.

The advantages of the new instrument are many. In the first place, it produces a degree of cold which may be carried even to ten degrees below zero, if pure ether be employed; and, again, it allows the spray-tube to be carried any distance, so that the instrument can be adapted to any surgical operation in which it is admissible.

We have thought it due to Dr. Richardson to make this explanation. We are, etc., KROHNE AND SESEMANN.

241, Whitechapel Road, London, E., February 14th, 1866.

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14th February, 1866. EDWARD TRIMMER, Secretary.

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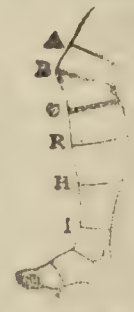
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Clinical Lecture

ON

OPACITIES IN THE VITREOUS BODY, IN CONNECTION WITH MYOPIA, SYPHILIS, AND OTHER CAUSES.

Delivered at Moorfields Ophthalmic Hospital.

BY

JONATHAN HUTCHINSON, F.R.C.S.,

ASSISTANT-SURGEON TO THE HOSPITAL, AND SURGEON TO THE LONDON HOSPITAL.

GENTLEMEN,—The vitreous body consists of a jelly-like fluid enclosed in the meshes of a very thin and delicate framework. This framework is perfectly transparent, and in the adult eye receives no blood-vessels. That it is, however, susceptible of inflammation, is abundantly proved by clinical experience; and we may do well to recollect that, in the fœtal state in man, and in the adult state in some of the lower animals, arteries pass through it. We now and then meet with, as a congenital defect, a fibrous cord in the centre of the vitreous humour, representing the branch of the arteria centralis, which, in the fœtus, passes forwards through it to the back of the lens. In one or two cases of congenital cataract recently under our observation, it appeared probable that some opaque bands extended from the posterior part of the lens for a little distance into the vitreous humour. We have to deal to-night however, not with these rare abnormalities—interesting chiefly on account of the laws of development which they illustrate—but with certain diseased conditions of the vitreous humour which are tolerably common in practice and of which the correct diagnosis and treatment are important. We have had before us two patients, in whose eyes floating films in the vitreous humour were very easily seen; and last week we had a third case of the same kind. These three cases illustrate severally the three principal conditions under which opaque films in the vitreous humour are met with. One was a case of extreme myopia, one of constitutional syphilis, and in the third, in connection perhaps with albuminuria, hæmorrhage into the vitreous humour had taken place.

Respecting opacities of the vitreous humour in connection with advancing myopia, I need not this evening say much, as we considered this subject at a former lecture, and illustrated it by cases. It will be sufficient now to remark that, in the late stages of staphyloma posticum, when all the structures of the eye are becoming involved, when detachments of the retina, opacities of the lens, etc., are frequent, we meet also with floating films in the vitreous humour. They are the results of degenerative changes which involve the eyeball as a whole. The patients generally complain much of the muscæ which are occasioned by them. These cases may be diagnosed with the greatest ease from those of which syphilis is the cause. In the first place, we have the history of myopia and the ophthalmoscopic demonstration of an elongated globe; and, secondly, the opacities are usually few in number, very rarely so abundant as they often are in syphilis. We come, then, to the third class of cases; those in which opacities result from extravasation of blood. Blood may find its way into the vitreous body, either from the choroid, the retina, or the ciliary processes. It is often effused into this situation as the result of blows on the eye; but it occurs yet more frequently without any history of injury. A recent extravasation is easily discovered by the ophthalmoscope, and presents one of two different characters; either you see a black or reddish-black clot surrounded by almost clear vitreous humour; or, what is I think more common, the whole of the latter is blood-stained. In the latter condition, to look into the eye with the ophthalmoscope is much like looking into reddish apple-jelly not so clear as it should be, and you are quite unable to distinguish the details of the fundus. In all probability, you will still be able to make out, by the depth of colour at one spot, the position occupied by the original clot. In some cases, the effusions of blood are rapidly absorbed; in others, they remain for a long time. In the best cases of absorption some remnants are almost always left, in the shape of opaque floating films. Such is the present state of things in one of the eyes examined this evening.

CASE. The patient, John M., a pallid tremulous man, a carpenter, has been accustomed to drink freely. He came to me two years ago, complaining that he could but see a glimmer of light with his right eye, and that the other was failing. He had had perfect sight till four months previously. He had never used glasses till within the last six weeks, and they had been of little or no benefit. During the last few weeks, the eyes had rapidly got worse. He could not tell the time with the left eye, and could not see the clock with the right eye. A fortnight before, he said, he could have told the time well. He could not, with both eyes, read or spell out the letters of No. 16, and could but just make out No. 18.

He said he had felt well; but had been sleepless lately, probably on account of anxiety about his eyes. He felt well in all respects when the symptoms began. His first symptom was a black speck before his sight, and then a thick cloud took its place. In the right eye, I found numerous apoplectic spots in all parts of the retina. The margins of the optic disc were indistinct owing to deposits in the retina; and at the yellow spot was a group of white, highly refracting spots. In the left eye, the conditions were much less advanced; but there were apoplectic patches near the yellow spot, also some white glistening ones.

Four months later, he had improved in general health. Some of the extravasations had disappeared, and others were in process of absorption.

In January 1865, I heard that he had had a fit, but it had not left any paralysis.

You will see that I have not said anything as to blood in the vitreous humour; but, as he now has a large floating body in the vitreous humour, it is almost certain that he must have had an extravasation into the middle of his eye at some period. His case, therefore, affords us an instance of apoplexy of the vitreous humour, in association with retinal apoplexies, and in all probability with disease of the kidney.

CASE. John W., aged 41, came to the hospital on September 15th, with the statement that he had en-

joyed excellent sight till the previous Tuesday. On the evening of that day, he was at his work and suddenly found that his left eye was foggy. He rubbed it, but it got no better. When he came to me, he could but just count fingers with the affected eye, and said that there was a brown smoke-fog before it. The opthalmoscope showed the vitreous body semi-opaque and reddish, like apple-jelly. There were also large floating films in it. I could not distinguish the optic disc. Two months later, he could read No. 6, and I could dimly make out his optic disc. Three months after his admission, he could see tolerably well and the optic disc was clearly defined. There were still floating films in the vitreous humour; but the intervening parts were perfectly clear.

This man had had syphilis twenty years ago, with rash, etc., and had been salivated for it at St. Bartholomew's Hospital. As he had remained quite well for nineteen years, it seems scarcely fair to attribute the apoplexy of the vitreous humour to that cause. Still, however, it is very possible that his vitreous humour may have been left in an unsound condition by a former attack of syphilitic inflammation.

We will consider next the group of cases in which syphilitic inflammation of the vitreous body occurs. The instance of this which we have just demonstrated is an exceedingly good example of the results of this disease. The patient is a married woman, who contracted syphilis from her husband some months ago. It was followed by a rash, and afterwards by inflammation of both eyes. She came to me about two months ago, much in the same condition that she is at present. The eyes are not congested; there are no iritic adhesions; and under atropine the pupils dilate widely. On throwing light into the eye with the ophthalmoscope-mirror, we see numberless half-opaque films, which dance about in the movements of her eye. The substance of the vitreous humour between the films appears to be transparent; but had we examined the eye at an earlier period of the inflammation, we should probably have found that the whole was hazy and opaque and should have been quite unable to have obtained any reflex from the deeper parts. What we see now are the consequences of past inflammation.

Speaking generally, syphilis is by far the most frequent cause of inflammation of the vitreous humour. Whenever you find floating bodies in this substance, and have the history given that they are of recent occurrence, and that the eye was formerly quite sound, always suspect syphilis. Your suspicion will be strengthened if your patient is young and if both eyes are affected. I will pass, almost at random, through the note-book before me, which comprises some of the more interesting cases which have come under my care here during the last two years.

Case i. Mrs. E., aged 30, the wife of a soldier. In both eyes were numerous floating films in the vitreous humour, and the choroids were thinned and absorbed in patches. Her first symptom had been black specks before the eyes, then a thick fog. She denied a syphilitic history; but, as the conditions were symmetrical, and as they occurred together with choroiditis, I think that in all probability they were of syphilitic origin.

You will recollect that, in a former lecture on choroiditis disseminata, I brought forward evidence in support of Von Gräfe's opinion that most of our well marked examples of choroiditis disseminata were of syphilitic origin.

Case ii. Mary C., aged 30, a cook, unmarried, came under my care with iritic adhesions and opaque vitreous humour in the right eye. In the left eye she had retinitis. There had been a good deal of aching about the eyeballs, and both of them were somewhat congested. She denied all history of syphilis; but you will notice that the disease affected both eyes, and that there was iritis and retinitis as well. She had some suspicious blotches on the arms; and I have no doubt that she was the subject of syphilis. I prescribed accordingly.

Case iii. Mrs. P., aged 31, suffered from syphilis some years ago, and is the mother of many syphilitic children who have at different times been under my care. Her right eye is blind owing to the vitreous humour being opaque. I cannot illuminate the fundus. The original inflammation occurred some years ago. Her other eye is quite healthy.

Case iv. A young woman, aged 22, who admitted that she had had syphilis three months previously and had been salivated for it, came under care with tags of iritic adhesion in both eyes, numerous patches of whitish lymph in both choroids, and numerous films of opacity in the right vitreous humour.

Case v. John E., aged 32, had suffered from syphilis eight years before he came under my observation. His right vitreous humour was opaque, and full of moving films. The other eye was quite normal. He believed that the defect in sight had only existed for two months previously.

Case vi. John M., aged 37, contracted syphilis about two years ago. He was under my care first in the London Hospital, and subsequently here on account of severe double iritis. When the iritis was passing off, symmetrical inflammation of the vitreous bodies occurred, and for some months the poor fellow was practically blind. He has now somewhat improved; but his sight is still very defective.

When inflammation of the vitreous humour occurs from syphilis, it is almost always one of the secondary group; by which I mean that it occurs at the same time as the general rash on the skin, the sore-throat, and iritis. I think it is mostly rather late amongst the secondaries; at, say, from four months to a year after the chancre. It often occurs just after iritis; sometimes inflammation of the iris, vitreous body, choroid, and retina, occur together—illustrating the observation made long ago by Dr. Jacob of Dublin, that what is called syphilitic iritis is often a panophthalmitis and affects various other textures. I am a warm advocate for the use of mercury in these syphilitic inflammations of the eye. Our prognosis must be guarded; for, although in many cases, mercury does wonders in restoring an opaque vitreous body, in but few if any do we wholly get rid of the films which result. In most cases a long treatment is absolutely necessary.

In order to give a fair picture of the causes which may induce the changes in the transparency of the vitreous humour, I must mention the case of

William T., a poor miserable man, aged 35, who came under my care about two years ago. He had some opacities on his corneæ; but with the ophthalmoscope we found that the vitreous humour in each eye was opaque. The opacity was grey and cloudy, and at first sight suggested detachment of the retina; but, with painstaking, a dim view of the optic disc might be got. It was certain that the retina was not detached. The opacity was equal in almost all directions. The man denied having ever had syphilis, or having ever been exposed to the possibility of contracting it; but, with the utmost

misery of expression, averred his belief "that it was all caused by bad practices." It appeared that he had enjoyed good sight until the age of 17, when his eyes began gradually to fail. He had been addicted to onanism from early boyhood. He could now with difficulty make out letters of No. 16 at two inches. He was a pale cachectic man. I have learnt from his friends that since he was at Moorfields he has become quite blind, and that he is now in an asylum.

It is well known that muscæ are amongst the commonest consequences of sexual abuses; but, excepting this case, I have not met with any instance of actual blindness in connection with this cause; nor do I possess the notes of any case in which actual opacities were found in the vitreous, though I think I have seen several. The kind of muscæ which occur in connection with this cause are what are usually called pearly spectra, and are a phenomenon which may be made apparent in the eyes of the most healthy persons by certain optical arrangements. They do not, therefore, imply any opacity of the vitreous body.

Illustrations OF HOSPITAL PRACTICE:

METROPOLITAN AND PROVINCIAL.

PORTSEA ISLAND UNION HOSPITAL.

MEDICAL STATISTICS FOR 1865.

By FREDERICK PAGE, M.D., Milton, Southsea.

THE subjoined statistics of one of our great provincial Union Hospitals are, I think, interesting; and I trust that many of my colleagues will follow suit, and show the public that they are not the miserably conducted places that have been represented.

The Portsea Island Union consists of three parishes, comprising an area of 7,000 acres, with a population of 95,000.

The hospital of this union is a large detached brick building (in the rear and centre of the Union House), with an average of 260 patients, inclusive of about 80 lunatics. As it was not originally intended to accommodate so large a number, it has been added to when the emergency rendered it necessary; consequently, it is not arranged as it should be; still the wards are spacious, lofty, well ventilated, and appointed. The wards are unexceptionably clean, exceedingly well managed, and in a healthy locality, some distance north-east of the towns. The Union House itself is a very large establishment, consisting of a pile of brickwork, with two wings. The schools are of modern erection; and there are about 600 children attending them, receiving instruction, and living in the building.

The three blocks of buildings contain between 1500 and 1600 persons, and the numbers are rapidly increasing. The Union House, or main building, was built nineteen years ago, for the accommodation of 1,150 inmates, having at that time about 900 only. From that period to the present, the large increase in the population of this borough, and the peculiar class forming a large proportion of its inhabitants, has tended to augment the numbers of the destitute, the sick, and the aged; and will do so, no doubt, for an indefinite period.

The following statement shews the deaths for the last year.

January. There were 5 deaths this month from lung-disease; the ages were respectively 66, 60, 27, 65, and 64. The deaths from natural decay were 5; the average age, 76 years. The deaths from marasmus were 4 (all infants).

February. The deaths resulting from natural decay this month presented an extraordinary feature. They amounted to 7. The united ages were 599 years, and the average 85. The deaths from lung-disease were 4; the respective ages being 42, 50, 43 years, and 19 months.

March. The deaths resulting from natural decay this month were again 7; and the age nearly approached the patriarchal years of those dying last month from this cause; being in the aggregate 576 years, and averaging 82. The deaths from lung-disease were but 2, aged 65 and 25 years.

April. The deaths from natural decay this month were 4, each above 70, and not exceeding 77 years. The deaths from lung-disease were 4; their respective ages being 20, 27, 43, and 68 years. From other causes the deaths were also 4, making only 12.

May. The deaths from natural decay this month were only 2, aged 67 and 85 years; and from lung-disease 4, aged respectively 3, 22, 28, and 45 years.

June. Only one death from natural decay occurred this month, aged 65. From lung-disease there were 3; the ages being 37, 56, and 74. The deaths from brain-disease were 4; and the deaths from marasmus 3 (infants).

July. The deaths from natural decay this month were 5, averaging 74 years. The deaths from lung-disease were 4; the respective ages being 12, 21, 43, and 55 years. The deaths from brain-disease were this month again 4.

August. The deaths from natural decay this month were 5; the united ages being 408 years, and the average 81. The deaths from lung-disease this month were 4; the respective ages being 6, 21, 22, and 40. Three infants died from marasmus.

September. The only death this month from natural decay was that of a man aged 76. The deaths from *all causes* this month were 8 only. The deaths from lung-disease were 2, aged 22 and 45 years.

October. The deaths from natural decay this month were 5; the united ages being 398 years, and the average 79. From lung-disease, only 2 deaths occurred; the ages being 22 and 36 years. One death occurred this month from Asiatic cholera (aged 17 years), being the first case of the kind during the epidemic.

November. The deaths from natural decay this month presented the unusually large number of 11; the respective ages amounting to 866 years, averaging $79\frac{3}{4}$; the greatest age being 89, and the least 70. The deaths from lung-disease were also the highest in any month during the year (6); the respective ages being 36, 27, 37, 30, 31, and 40. The deaths from Asiatic cholera were 4; the ages being 62, 42, 40, and 20; and from choleraic diarrhœa 3 old men, aged 79, 83, and 81. The deaths from all causes during the month were 32.

December. The deaths from natural decay this month were 6; their ages, as usual, ranging from 70 to 80 years, and averaging 75. Four infants died from marasmus. From lung-disease 3 died, whose ages were 61, 64, and 43 years. No deaths from cholera took place this month. It visited the establishment towards the end of October, and the last case of 14 that was admitted into the hospital with cholera was on the 11th of November.

The average age of those dying from natural decay (59 in number) during the year was 76 years.

The total number of deaths for the year was 212.

Remarks. If we deduct the number of deaths resulting from natural decay, it will leave 154. Deducting from this number those dying from lung-diseases, would leave 111; and deducting the young children dying from marasmus would leave but 89 deaths from all other causes, out of an average of 1500 inmates all the year round, or about 6 per cent. Now, when the class of recipients is considered, consisting of the most destitute, the profligate, diseased, and the abandoned by other medical men and institutions, the proportion does not seem great.

In glancing at the statement, one is struck with the large number of brain- and lung-diseases, which may be accounted for by the extent of that great bane of humanity, the syphilitic taint. Worn-out prostitutes, suffering from this disease in the secondary and tertiary forms, almost invariably get diseases of the great nervous centres, the brain, spinal marrow, or ganglionic system; hence epilepsy, paralysis, contraction of the limbs, and idiotcy, and of which we have so many examples, and of which so many die. The next organs most liable to this poison are no doubt the lungs, hence consumption, and other lesions of these organs, producing death. I do not consider that any part or tissue of the body is exempt from the deleterious action of syphilis; I quite agree with Dr. Wilks that the time will come, and that soon, when the result of syphilitic deposit will be fully proved in every organ or tissue. Many of these cases might be arranged under syphilitic cachexy, and prostitutes ranging from twenty to thirty years of age, admitted here for their last home, and who die indirectly from the syphilitic poison, constitute a large number. It is very rarely that mercury can be used in these cases; when it is so, as in rupia, or other skin-affections, we invariably use it in the form of vapour with steam; but the constitution is generally too much worn down even for this.

I have come to the conclusion that the incautious use of this metal, during states of excitement or profligacy, does more harm than the disease would do, if allowed to run its own course; and I am quite certain that many have their constitutions ruined, and are brought to an early grave, by the use of this favourite specific, as it is called.

The facility of being treated by every quack whose great remedy is mercury, is a monstrous evil, the effects of which cannot be better seen than in this institution.

I believe that there are very many obscure diseases, which though not purely specific, yet possess a considerable amount of the syphilitic element, and are sometimes of an obstinate nature, until special treatment be adopted, when they rapidly recover. Cases of this kind are constantly met with, and are highly interesting.

The following operations have occurred during the year:—Lithotomy (lateral), 1; tracheotomy, 2; fistula, 5; cancer, 3; club-feet and other distortions, 5; dropsy, 7; tumours and minor operations, a large number.

The operation for stone, on a youth of 17, was unusual. The stone weighed 3½ ounces; its large circumference was 7½ inches; small circumference, 6 inches; largest diameter, 3 inches; smallest diameter, 2¾ inches. There were no bad symptoms, and the lad made a good recovery.

The operations for tracheotomy were performed for syphilitic laryngeal ulceration; and both patients recovered. Those for distortions, were some of them of very long standing. One was in a youth of 20, with talipes equinus; his leg had been condemned to amputation, but he recovered with a very useful limb.

The few cases of zymotic disease would seem to shew that our sanitary condition is highly satisfactory.

MIDDLESEX HOSPITAL.

CASE OF DIPHTHERIA; WITH ALBUMINURIA, HÆMORRHAGE FROM THE BOWELS, AND A PURPUROUS ERUPTION ON THE LIMBS: DEATH ON THE TWENTY-NINTH DAY.

Under the care of A. P. Stewart, M.D.

Charles H., aged 7, was admitted on March 23rd, 1864, with a thick ash-coloured membrane covering the left tonsil, and two smaller similar patches on the right. The tonsils were swollen; and there was considerable enlargement under the jaw, especially on the left side. Pulse 116, and variable. He had become feverish and languid on the morning of the 20th; and on the following day he complained of soreness of the throat, and the submaxillary glands were observed to be swollen. He was ordered a draught containing twelve drops of the tincture of the sesquichloride of iron and four grains of chlorate of potash every four hours, ice to suck, and cotton wool to be applied round the throat. The diphtheritic exudation had disappeared on the 28th instant, disclosing ulcerated surfaces, from which a mucopurulent exudation oozed, and from time to time coated the fauces with a membrane which could be easily removed by the mop. Nitrate of silver was applied in solution; but the ulceration advanced, and on April 8th the soft palate was found to be perforated on both sides in front of the posterior pillars, giving a nasal tone to the voice.

An eruption of slightly elevated purple spots was noted on the thighs, elbows, and knees, for the first time on March 30th; and, on the same day, the patient had copious hæmorrhage from the bowels. He was ordered half an ounce of decoction of logwood every four hours, and an injection of starch with five minims of laudanum; but, on April 2nd, there being still much blood in the motions, which were scanty and accompanied with tenesmus, two drachms of Bael wine were prescribed every three hours. The blood rapidly diminished in quantity; and on April 4th had entirely disappeared from the motions, which were passed without straining.

On and after April 8th, the urine was found to contain albumen, and numerous granular and hyaline casts were observed in the sediment. The patient emaciated rapidly after the hæmorrhage from the bowels; and vomited the beef-tea and wine which he was with difficulty got to take. The heart's action became weaker, and at times almost inaudible.

After April 10th, he became very restless, moaned constantly, and complained of pain in the lower part of the chest and in the epigastrium, which prevented sleep; and on April 16th rhonchus was heard throughout both lungs. The exhaustion increased, and he died on the 18th.

The eruption on the thighs, knees, and elbows, became better marked and more decidedly purpurous in appearance.

At the *post mortem* examination, the mucous membrane of the fauces was red and granular, and an elongated perforation was observed in front of each posterior pillar. The lungs were congested posteriorly; and, at the lower lobe of the right lung, there was a patch of pneumonia. There was some recent lymph on the visceral layer of the right pleura. A large fibrinous clot was found extending from the right ventricle into the right and left divisions of the pulmonary artery. In the lower part of the small intestine, there was enlargement, but no ulceration, of the solitary glands and Peyer's patches.

Remarks. In the three cases of diphtheria published in the British Medical Journal of last week, the advance of the local lesion was the cause of death; while, in this case, the throat-affection was comparatively trifling, and the disease proved fatal by the slower process of exhaustion.

The hæmorrhage from the bowels and the eruption indicated serious blood-change; and there is no doubt that the former, by its amount, accelerated death.

It is worth while noting the speedy effect of the Bael wine in arresting the hæmorrhage. Dr. Stewart finds it equally useful in all cases of true dysentery.

Original Communications.

RESULT OF EXPERIENCE IN BLEEDING, NOT LIMITED BY PARTICULAR ORGANS, DISEASES, CLASSES OF PERSONS, OR SEASONS.

By John H. James, F.R.C.S., Consulting Surgeon to the Devon and Exeter Hospital, Exeter.

A short time since, there was published in the British Medical Journal a communication from me on the subject of Bleeding, as connected with the present prevalence of a change of type in disease; and this resulted from my perusal of the very able address of Professor Stokes at the last meeting of the British Medical Association. The object of the present communication is to state briefly, but generally, the result of my own experience in general bleeding for acute diseases during a considerable portion of the present century, and also to show the presumptive proofs of a change of type during the latter period.

For any reliable investigation of the merits of this remedy, the examination must be of a very wide description. The wards of a hospital will not exclusively afford this; for there are many circumstances to abate the value of the evidence. The ranks of a regiment, or a ship's crew, will not; for they are men in the prime of life. The inhabitants of a large town, especially if manufacturing, evidently will not; neither will a practice chiefly among the rich, or among the poor. The physician sees disease from one point of view; and his cases are chiefly among the previously unhealthy. The surgeon, on the other hand, has to deal with a large number of cases not so circumstanced. Again, to select a particular organ as the fitting test of the result of the practice is, I conceive, to adopt a far too limited method. Again, the changes in the constitution of the air, as emphatically dwelt on by Sydenham and other writers of great authority, require that the results at long periods should alone be relied on.

However imperfect the sketch it may be in my power to give, yet it certainly has many of these advantages; and it has extended from August 1816, when I commenced my duties as one of the surgeons of the Devon and Exeter Hospital, till September 1863 (when I was attacked by an illness, which has disabled me from all active exertion and greatly impaired my sight). During the larger portion of that time, I was engaged in a very varied and extensive practice. From the very commencement, I had noted almost all the cases of interest which had come under my care; and I may mention that I have been enabled to construct tables bearing upon the causes of mortality after amputations (a subject little analysed before); also, my experience in strangulated hernia, be it worth what it may. Neither resulted from any previous intention of recording a particular class of cases; and I may say the same of that which I now present—namely, my experience in the practice of bleeding.* All the cases signified general bleeding, either from the arm, jugular vein, or temporal artery; for, with regard to local bleeding, although often combined, and often used separately, I thought, on the whole, it is so inadequate in amount and effect, that I excluded it from my tables. And I would here refer to a remark in my work on *Inflammation* (second edition, 1832, p. 176): "But, with reference to quantity, I may observe, that there is not a greater error than consuming the strength and exhausting the blood of a patient by local bleeding whose case requires general." This impression, which was very strong in my mind when that work was published, together with the different character of the diseases which then existed, led me to rely very little on this mode of taking blood for a large number of years; but, with the changes in the type, I find I employed local bleeding much more frequently, but by no means exclusively.

I must expressly state that, in every instance, I have taken the cases as they presented themselves, without a single omission, as such a proceeding would vitiate the whole. To give the tables *in extenso*, would be more than I could ask insertion, or at present be prepared for; but I offer a portion, which, as it has a semi-official character, may, at all events, claim attention. I mean that which includes the period during which the registry has been in operation; and I contrast it with a similar period recorded in my case-books before the institution of the registry. The semi-official period extends from August 1845 to September 1863, comprising a period of eighteen years, and constitutes the returns to the Registrar-General of deaths in my private practice; not, however, including cases seen at a distance in consultation.

I will now proceed to give a digest of the 185 cases of death so reported, which will show, as far as bleeding is concerned, a probable alteration in the character of the diseases which produced them, as compared with former periods. I shall first divide them into: 1, chronic and subacute; 2, acute.

Chronic and Subacute.

Diseases of the head and nervous system		9
Diseases of the thoracic viscera:		
Phthisis	35	
Chronic bronchitis	2	
Anomalous diseases of the lungs	2	39
Diseases of the heart and vessels		19
Diseases of the abdominal viscera:		
Liver	8	
Alimentary canal	6	14
Diseases of the urinary organs, including 4 cases of albuminuria		7
Varia:		
Cancer	6	
Gout	3	
Old age complicated	6	
Atrophy	3	
Ovarian disease	2	
Foramen ovale not closed	1	
Senile gangrene	1	
Mollities ossium	1	
Marasmus	1	24
		112

* Had this been expressly registered, there would have been an advantage; but I question whether this is not fully counterbalanced by the absence of any foregone purpose.

Acute.		
Diseases of the head:		
Seizures, apoplexies, and congestions		14
Diseases of the respiratory organs:		
Peripneumonia notha	9	
Pneumonia	8	
Influenza complicated	9	
Pleuropneumonia	1	
Bronchitis	3	
Empyema	1	
Croup	2—	33
Diseases of the abdomen, etc.:		
Dysentery	2	
Enteritis	1	
Hepatitis	1	
Gastritis with pneumonia	1—	5
Diseases of the heart		3
Fevers:		
Simple	7	
Eruptive	5—	12
Varia:		
Carbuncle	2	
Pertussis	1	
Erysipelas	1	
Asiatic cholera (*seu Febris cholerodes*)	1	
Puerperal convulsions	1—	6
Acute		73
Chronic		112
*Total		185

With respect to the acute cases, I should make a few remarks. A title will appear here, peripneumonia notha, admirably described by Sydenham; but which has, as I believe unfortunately, gone out of use. That inflammatory condition of the respiratory organs which Sydenham denominates by this title, has been lately merged in those of bronchitis and pneumonia. Now pneumonia, if of a pure character, appears to me to approach more to the type of a limited inflammation; while the rapid effusion in peripneumonia notha into the air-tubes and interstitial substance has more the characteristic type and termination of diffuse inflammation. It will be found that these cases chiefly prevailed among old and weak subjects, or during the prevalence of influenza. Some of the cases which I returned in the register as pneumonia, as well as those of bronchitis, perhaps deserved to be denominated peripneumonia notha; but I thought it more correct to adhere to the titles under which I had registered them.

It will be observed that, with one exception, as hereafter stated, bleeding was not employed; and, on the other hand, in many cases of pulmonic inflammations, stimulants and support were administered. I mention this the more particularly, because it appears to me that the plan of using wine and support has of late been claimed as *a new practice*; whereas, in these and many other inflammations, I had long since recognised their value. I will here take leave to insert two paragraphs from my work before mentioned. "*Diet, etc.*—But there are stages of inflammation in which we must change *locally* our cold applications for warm; so there are those in which the continued negation of all stimulus to the system will prove most injurious, and where 'Cibum opportunè datum' is equivalent to all other remedies." (P. 187). Again, at page 180: "*Bark, etc.*—It may appear a *novel* proceeding to speak of bark and ammonia, and other tonic or stimulating medicines, as *anti-inflammatory*. Nevertheless, if these directly tend to put an end to inflammatory action (and there are not many who will deny that there are some kinds or stages of inflammation in which they have this quality), it will be strictly correct to consider them in this point of view; and I have little hesitation in saying the converse is also true, and that bleeding will increase inflammation in some cases as decidedly as bark will in others, though by no means so often."

It will be seen from these, and many other passages, that I was not unaware, in 1831, of the value of such modes of treatment in certain cases.

Under the head of influenza, there are nine deaths, chiefly in 1847. There were severe attacks of the chest in most of these; but there were other remarkable symptoms which attended the cases which died, as well as those which recovered (and the disease was very prevalent). The most remarkable was the excessive perspiration; and in my case-book I noted the affinity to the sweating sickness of the Middle Ages. I observed in the next quarterly return of the Registrar-General that he had made a similar remark. The influenza of 1847, as well as of 1837, I treated very generally with support and stimuli. It is very worthy of notice that concurrently (not consequently) with the frequency of influenza, changes took place in the general type of disease. One complicated case, under very pressing circumstances, was bled, but without any useful result. This was one of the 185 cases. The other was a case of gastritis.

Of the cases of pneumonia, one occurred in a middle-aged man, and somewhat resembled that of Mr. Brunel, isnasmuch as a coin (a sixpence) had six years before passed into the left bronchus, where it became impacted just at the bifurcation, producing great dyspnœa during the remainder of his life. Inflammation came on from over-excitement, and terminated in fatal gangrene. I understood that he had consulted several men of eminence, both in Exeter and London, before he came under my care, but no attempt to remove the foreign body had been thought justifiable. Two were infantile cases; four were complicated with hepatitis; and two were aged persons (70 and 63 years respectively).

I may remark here that, while affections of the lungs and bronchia, low in character, proved frequently fatal, inflammations of the pleura and other serous membranes have, on the other hand, been very rare, as compared with former periods; and those who have studied the works of Bichât will not fail to bear in mind the different characters which the tissues when inflamed impress on the general system. Bleeding in the inflammations of the serous membranes rarely fail to serve, except in the puerperal form.

One word more with regard to a case returned as Asiatic cholera; but which disease I would rather designate as a special fever—namely, *Febris cholerodes*—possessing generally, but not always, flux. I cannot help here expressing my conviction, that much error has arisen, both as regards the infectious quality, the various symptoms, and the proper mode of treatment of this disease, from a term which offers a very partial view of its nature. The case which I returned, after being carried through its blue stage, went on as a most malignant fever, and shortly terminated fatally. There was sphacelus of the scrotum.

Ordinary cholera is not infectious; and, from a false analogy, the infectious character of this disease was strongly discredited by general opinion in this country; but as, I believe, it is now pretty commonly admitted on the continent, and the opinion has

* A detailed list transmitted with this, contains the exact returns to the Registrar-General: the initials (being substituted for the name at length), the disease, and date of death.

gained much ground in England, perhaps it may not be too much to consider it probable that its character as a fever may hereafter also be recognised. Of the value of bleeding, in many instances, I have not the slightest doubt, and employed it with success in 1832. In 1849, the number of cases which occurred in Exeter were remarkably reduced by the active precautions instituted. Two or three other cases occurred to me, one of which I bled with advantage at that period.

During the period of the registry, there were twenty-four cases of general bleeding which *recovered*. I here give a statement of them.

Head cases:		
Congestion of the brain	2	
Epileptic apoplexy	1	
Convulsions	1—	4
Respiratory organs:		
Pleurisy	2	
Pleuropneumonia	1	
Impeded circulation	1	
Croup	2—	6
Abdominal cases:		
Enteritis	4	
Hepatitis	1	
Peritonitis	2—	7
Varia:		
Hæmoptysis	2	
Fever	1	
Rubeola	1	
Asiatic cholera	1	
High inflammatory diathesis	1	
Threatened miscarriage	1—	7
		24

I will add, that these show a remarkable diminution in the number of cases bled, as compared with a similar preceding period of eighteen years to be presently stated; and this did not proceed from the doctrines which have recently been promulgated, because it will be seen, both by this return and the one to which I allude, that the amount of cases, according to my own observation, requiring it, had diminished very remarkably since the year 1837. I may emphatically state the doctrine against bleeding now so prevalent had not been broached by any sufficient authority at that time.

I must now proceed to state the result of my experience in bleeding during the preceding equal period of eighteen years, together with its relation to the presumed change in the type of disease. Now, the information I can supply under this head is less precise than that measured by the registry. It is founded on the data alone which my case-books afford. I will briefly mention why my experience was investigated.

A few years ago, I felt strongly called upon to ascertain what evidence was afforded as to the success of bleeding; and, as I before stated, I tabulated my cases contained in eleven large folio volumes.

The period from 1827 till 1845 being similar to that (as regards the number of years) which I have just given, I now propose, both as a continued evidence as to the results of bleeding, and indirectly as evidence of a change of type in disease. Were it in my power to go through the whole from 1816, I would willingly do so; but at present the labour is too great, and I will therefore only say, with regard to the first ten years, that I practised bleeding largely, chiefly in fevers, inflammations of the thoracic and abdominal viscera, and in surgical cases, and, I may perhaps be allowed to say, with much apparent success.

I was engaged in arranging these statistics at the time of my illness, with the full intention of stating them, that the profession might form their own judgment. That illness altogether prevented me from proceeding, until recently, when the assistance of Mr. Lydall, who has kindly attended me during nearly the whole period, has enabled me in some measure to accomplish the object I had in view.

The number of persons bled was 161. The number is large; but when it is considered that during this period many thousand cases came under my care in my own private practice,* I may perhaps be justified in saying that the proportion bled really was not very great. I am now in a position to offer a short sketch of what occurred in the eighteen years preceding those recorded in the registry.

List of Persons Bled.

1827 (from August)	0	1838	3
1828	13	1839	5
1829	2	1840	9
1830	5	1841	11
1831	3	1842	10
1832	1	1843	8
1833	12	1844	7
1834	23	1845 (before August)	1
1835	19		
1836	20		161
1837	9		

It will be remembered that 26 only were bled in the succeeding eighteen years. Now nothing varies more than the number bled in particular years. Thus, in 1829, there were bled 2; in 1831, 3; in 1832, 1 (exclusive of cholera); in 1838, 3. And, on the other hand, in some years they were very large, as in 1828, 13 cases; in 1834, 23; in 1835, 19; in 1836, 20. From this, it is fair to infer that the practice was by no means indiscriminate, but that the character of diseases varied in different years. Where the numbers were so large, it was necessary to ascertain whether it was accounted for by any epidemic. In 1834 only, there were a few cases of cholera. From these facts, I feel myself authorised in saying that there was a great difference in diseases in particular years.

The deaths were 16 (just one-tenth of the whole), as follows.

Head cases:		
Apoplexies		2
Respiratory organs:		
Peripneumonia notha	2	
Laryngitis terminating in phthisis	1	
Croup	2—	5
Abdominal cases:		
Hepatitis	2	
Peritonitis	1	
Gastritis	1	
Puerperal peritonitis	2—	6
Varia:		
Asiatic cholera	1	
Fever	1	
Effusion after scarlet fever	1—	3
Total		16

If we regard the fact, that most of these cases were of a very serious nature, the question must always be a doubtful one, to what extent bleeding proved injurious; or, on the other hand, of the large number that recovered, how many might have died if they had not been bled. But, taking the subject in the most unfavourable point of view, I would ask

* In proof of this, I may mention that during four years only—viz., from May 1842 till July 1846—2,200 cases, exclusive of operations, were entered in the eighth volume of my Case-Books.

if there are no other remedies which, like bleeding, although often beneficial, yet sometimes proves injurious. After all, any sweeping condemnation of this measure is surely inadmissible, for its results mainly depend upon the due quantity being taken, the mode in which it is taken, and more especially the time; for that which might have saved life one day may destroy it the next. Time is the chief element of success in our profession, as far as my experience goes. He must have been a fortunate practitioner who has never given an untimely purgative or a damaging dose of opium; and so of many other remedies.

Again, the prejudicial consequences of loss of blood have lately perhaps been set forth in too strong colours; for we cannot but observe that nature herself very frequently establishes them to the benefit of the person, as in epistaxis, hæmorrhoidal flux, and, I may even say, in many cases of hæmoptysis. The catamenia, too, approach so nearly to a flux of blood, and the beneficial effects of the flow are so obvious, that it comes into the same category. Again, if we look at the effect of large hæmorrhages in cases of flooding (unless repeated) or from wounds in battle or otherwise, we rarely find that the immediate consequences are not speedily repaired. If we also take cases of fever or inflammation cut short or abated by the practice of bleeding, and compare them with others who have undergone a long illness and convalescence from similar complaints not so relieved, and mark the respective conditions of the parties at the expiration of a few weeks, the pale faces and emaciated limbs of the latter will generally show both less and worse blood than the former indicate. So bleeding does not necessarily impair the condition of the person. On these important points I will not enlarge at present.

With regard to the 145 cases which recovered, I will simply transmit a list of the diseases for which the bleedings were instituted.

List of Persons who were Bled during the Eighteen Years preceding the Registry, and Recovered.

Head cases:		
Congestion of the brain	16	
Concussion	5	
Seizures	3	
Epilepsy	1	
Spinal congestion	1	
Incipient paralysis	1	27
Thorax and respiratory organs:		
Pneumonia	7	
Pneumonia with convulsions (child)	1	
Pleuropneumonia	1	
Bilious pneumonia	8	
Bronchitis	6	
Laryngo-bronchitis	1	
Laryngitis	3	
Croup	8	
Pleuritis	4	
Peripneumonia notha	1	
Influenza	5	
Suffocative catarrh	1	
Hæmoptysis	3	
Heart-disease	3	
Gunshot wound of thorax	1	53
Abdominal cases:		
Gastritis	4	
Enteritis	7	
Dysentery	1	
Peritonitis	2	
Hepatitis	6	
Entero-peritonitis	1	
Ileus	1	
Cholera Anglica	3	25
Fevers:		
Simple	5	
Simple, relieved by epistaxis	2	
Gastric fever	4	
Asiatic cholera (exclusive of the cholera in 1832)	3	14
Eruptive:		
Variola, incipient	1	
Variola, secondary	1	
Scarlet fever	2	
Scarlet fever, effusion after	1	
Rubeola	1	6 — 20
Puerperal cases:		
Puerperal convulsions	2	
Threatened miscarriage	1	
Severe spasms during pregnancy	1	
Severe colitis during pregnancy	1	
Threatened paralysis from obstructed catamenia	1	6
Varia:		
Strangulated hernia	1	
Pertussis	2	
Erysipelas	4	
High inflammatory diathesis*	4	
Obstinate constipation	1	
Acute conjunctivitis	1	
Febrile symptoms in syphilis	1	14
Total		145

The change in the species of acute diseases I have already alluded to; and I may state that there has been a great increase in certain other diseases, especially neuralgia, and the various cachexiæ. Also, boils, carbuncles, and diphtheria (to the frequency of influenza, varying in degree from a very slight to a very fatal complaint, I have already adverted); and there is no small reason to suppose that the very unnatural feeding of cattle without exercise, and in confined buildings, may produce unhealthy food for the human beings who consume it. The unhappy preponderance of town populations, with all its contingent circumstances of mental anxiety, stimulants, narcotics, and so forth, would also much contribute to such a result.

In conclusion, I may briefly say that the following facts appear; namely, that, in the last period of eighteen years, 185 deaths *registered* show only two deaths of persons who had been bled, while 24 had been bled during the same period and recovered. It also shows that, during the preceding period of eighteen years, there were 16 deaths of persons bled. What proportion that bore to the actual number of those who died during that period, I have no sufficient means of proving from the want of a registry; but I find that 161 cases altogether were bled, of which these 16 form a part—namely, one-tenth—and success seems largely to have attended the measure, since 145 were bled and recovered. With respect to the 16 deaths, I think it but right to say that it would be very unfair to impute this to the bleeding without great qualification. There were a variety of circumstances which would affect the whole number bled; such as age, season, locality, circumstances disturbing the patient, the adaptation of food, and more particularly bad nursing, as well as other measures that might have been employed at the same time. Such, I think, are the conclusions which may be fairly drawn with respect to bleeding, leaving much to be said in its favour.

Then, with regard to the type or character of the

* It is difficult to find an appropriate term for the state denominated as inflammation of the blood by persons not belonging to the profession, but certainly not inapt. These four bleedings occurred in the same person, and always with great benefit.

disease, which has been sufficiently dwelt upon before, I may remark that the facts here stated establish strong presumption that, as bleeding was less frequently practised, the character of diseases had undergone material difference.

Much more might be said on the manner in which bleeding acts in such cases; and I cannot think that it is satisfactorily accounted for simply by the removal of a portion of the blood, as seems to be the prevailing opinion at present. I will now, however, simply say,

"Multa renascentur quæ jam cecidere."

ON THE EMPLOYMENT OF LARGE DOSES OF IODIDE OF POTASSIUM IN SEVERE FORMS OF TERTIARY SYPHILIS.

By Henry Smith, F.R.C.S., Assistant-Surgeon to King's College Hospital.

The subjoined case was in the hospital under my care last summer. It attracted considerable attention at the time, partly from the extraordinary severity of the symptoms, but mainly in consequence of the rapidity of the cure under the influence of very large doses of iodide of potassium, when smaller doses of the same medicine had repeatedly failed to be of any service. Since the patient's dismissal, he has every now and then shewn himself at the hospital, and he continues quite well.

A tall well-made labouring man, aged 44, was admitted on July 24th, 1865. He was so terribly disfigured, that none of his features were discernible, the whole of his face being covered with a mask made of several pieces of linen. When these had been removed, the entire of the face with the exception of a part in front of the left ear, was one mass of deep unhealthy ulceration, presenting the well marked character of tertiary syphilitic ulceration of the skin. The poor man was a most hideous object, and was in a very weak state of health. There was, in addition, a large unhealthy ulcer over the right external malleolus leading down to bare bone.

It appears that he had the primary ulcer twenty years previously; this had been succeeded from time to time by various secondary and tertiary manifestations, which were remedied by appropriate treatment; but during the last three years this ulceration in the face had been present, and had defied all treatment. He had been under treatment at the hands of several hospital surgeons, and just previous to his coming to me had been an inmate for four months at one of the hospitals. He had taken a large quantity amongst other things of iodide of potassium; but he informed me that he had never used it in larger doses than five grains.

I had him confined to bed, ordered him generous nourishment, and prescribed twenty grains of iodide of potassium to be taken thrice daily. I must confess I had little hope of doing better than others with this poor man; but he had not taken the remedy more than a week, when manifest signs of improvement presented themselves. Some of the ulcerations began to diminish in size, his appetite improved, and no bad effects of so large a dose were observable. I then ordered the dose to be increased to thirty grains; and in two weeks the ulceration had half healed; he continued with the same, and at the termination of six weeks the whole of the ulcers had firmly and thoroughly healed, the man's appetite and strength had vastly improved, and the ulcer on the leg had much contracted. I dismissed him with injunctions to continue the medicine, which he did for some weeks longer, when he presented himself perfectly well in every respect. I saw this man last week, and he remains quite well.

This man was exhibited at the meeting of the Medical Society of London, when a large number of surgeons were present to hear the views of Dr. Boeck on syphilisation. I was glad to hear one or two of the speakers confirm my views as to the value of large doses of iodide of potassium, when smaller doses had failed. The pupils at King's College Hospital have, for some years past, been made familiar with the excellent results of the use of iodide of potassium in scruple-doses for severe tertiary ulcerations of the skin and affections of the bone. It appears to me, after a very careful investigation and much practical experience, that iodide of potassium is not very useful in curing the ordinary *secondary* forms of syphilis; but that when the disorder has shown itself in the more severe tertiary forms, as in ulcerations of the skin, large and painful nodes, affections of the hard palate and nose, the remedy in question is of the utmost value, when freely employed; but I think the case detailed especially shows the importance of giving very large doses in instances where the ordinary doses have completely failed to give any relief whatever. We must, of course, look out for the possibility and probability of iodism; should this occur, we need not give up the remedy altogether, but use it in smaller doses, and gradually increase it, until we have obtained a decided effect upon the symptoms. As an illustration of this, and as an example of the great value of iodide of potassium in a very intractable form of primary venereal ulceration, I will refer to a case recently under my care at King's College Hospital. It was that of an elderly man, who presented himself with an extensive serpiginous ulceration of the penis, which had commenced on the glans six months previously, and partially healing there, had extended over the whole circumference of the organ, destroying the prepuce, part of the scrotum, and showing no symptoms of abating. A peculiar characteristic of this ulcer, was the severe pain experienced by the patient both night and day.

This form of ulceration is by no means common, and amongst the large number of venereal cases met with at our hospital, I see but a case now and then. Hitherto, remedies seem to have been useless in stopping this ulceration; rest, time, and good nourishment, appear to have been the only effectual means. Iron, even in these slow but destructive cases, is useless.

Having hitherto failed to give any relief in such cases, and recognising the similarity between this and some of the ordinary tertiary ulcerations, I determined to try iodide of potassium in large doses, and accordingly ordered the patient to take ten grains three times daily. The patient came in four days quite iodised, but although the appearance of this sore was no better, the pain was greatly relieved. I therefore reduced the iodide of potassium to five grains three times daily. Iodism was no longer produced. In the course of a few days the sore began to heal, the pain entirely left him, cicatrisation went on steadily and surely, and, at the termination of one month, the man presented himself to notice with this large sore, which had resisted all sorts of treatment for six months, firmly healed.

16, Caroline Street, Bedford Square.

Vice-Versa. In England, where any one may sell drugs, there is a cry out against the liberty of sale, whereby through ignorance many persons are yearly poisoned. In France, where only *pharmaciens* are allowed to sell medicines, there is a loud cry raised against the restriction.

We are requested to remind members of the Association that the Annual Subscriptions became due on the 1st of January. They can be paid either to the Secretaries of the Branches; or to the General Secretary, T. Watkin Williams, Esq., 13, Newhall Street, Birmingham.

British Medical Journal.

SATURDAY, FEBRUARY 24TH, 1866.

THE COMMITTEE ON VENEREAL DISEASES.

THE Committee appointed by the Admiralty in October 1864, to Inquire into the Treatment and Prevention of Venereal Diseases in the Army and Navy, have finished their Report, so far at least as recommendations for the prevention of them are concerned. They have, we find, done little more than that which we stated, when the Committee was appointed, was all that the nature of the subject they had to deal with would enable them to effect; viz., recommend the periodical examination of prostitutes.

The Report begins with telling of the great spread of venereal diseases in the army and the navy, and the consequent loss to the country through the temporary incapacity thereby produced of so many soldiers and sailors.

"The admissions into hospital on account of venereal diseases among the troops serving in the United Kingdom, amounted in 1864 to 291 per 1000 of the strength; they constituted 29 per cent. of all the admissions; the average number of men under treatment for them was 19·1 per 1000 of the force; and the loss of service arising from them was equal to that of the whole force serving in the United Kingdom for an entire week. The statistics of the navy for 1862, show the number of cases admitted for treatment—for all diseases—throughout the service to have been 150·6 per 1000 of the strength. The average number treated for venereal diseases was 125·1 per 1000, constituting 12·5 per cent. of all the admissions. The daily loss from venereal diseases was about 586 men per day, or in the ratio of 9·9 per 1000, which may be looked upon as equal to the loss of the services of the whole complement of such a vessel as H.M.S. *Royal Oak* (iron-clad)."

The Committee examined "sixty witnesses, including the highest authorities of the army and navy, medical officers of both services, and members of the civil branch of the profession, etc." By "members of the civil branch" is no doubt meant medical men in civil practice. We mention this, as the phrase is capable of misconstruction. Medical men in the army belong to what is called the civil branch of the profession (military). Many of these witnesses bear testimony to the

"Fatal effects of syphilis on the human offspring. They testify to its prevalence amongst all classes of society, its insidious nature, the frequent failure of all but men of great experience to recognise it, and, moreover, to the most important fact, that the poisoned *fœtus in utero* is no infrequent cause of miscarriage in women."

The Report then goes at once to deal with the question of venereal diseases, through a consideration of the Contagious Diseases Prevention Act. This Act is said by the Report to be defective in many particulars. And, in reading these particulars, we think we may fairly claim some credit for having long ago denounced this iniquitous Act when it was before Parliament. For taking the objections to the Act which the Committee now take, we received severe admonitions from certain of our contemporaries. But the event has fully justified us by showing that our reasoning sight went beyond that of our monitors. The accusations brought by the Committee against this Act will no doubt cause its being reconstructed during the present Parliament. The Committee recommend—in fact, declare—that it is necessary that prostitutes be periodically inspected. And with this object in view, they make the following recommendations.

"1st. That, assuming it to be an indisputable fact that the power to repress venereal disease holds close relation with the power to obtain access to it in its early stages, during which it is more virulent and more readily communicated to persons susceptible of infection, *a periodical inspection or examination of all known prostitutes be made compulsory, under a well organised system of medical police.*

"2nd. That a surgeon be appointed by Government in each town for this duty; the said examination to be made by him either at the homes of the women, or at a dispensary or hospital appointed for the purpose; and that such surgeon be provided with the necessary powers for sending to Lock Hospitals all women found to be diseased either with primary venereal affections or constitutional syphilis; and for retaining them there until cured or restored to their friends.

"3rd. That a penal clause be introduced into the Act for the purpose of punishing those who infringe its regulation.

"4th. That the operation of the Act be extended to all garrison and seaport towns in the kingdom, where troops or ships of war are stationed.

"5th. That a clause be introduced for the prevention of the residence of prostitutes in public-houses and beer-shops.

"The Committee also recommend that all the Lock Hospital accommodation required under the Act should be, as far as possible, in the hands of the Government, and independent of private management.

"They also recommend that, wherever possible, a stipendiary magistrate should be appointed, or a fitting medical man invested with magisterial powers, as more likely than a non-professional man to take an active interest in the efficient working of this Act; and also that the jurisdiction of such magistrate should be extended beyond the limits of the military or naval stations included under the operation of the Act.

"They also feel that more particular instructions should be given to the borough police in the garrison and seaport towns, with a view to prevent the open

solicitation by prostitutes in the public streets, and the scandalous and barefaced immorality which is spoken of by some of the witnesses as disgracing Portsmouth and other towns of the same class; indeed, they cannot forbear stating their opinion, founded on the testimony before them, that the entire control of prostitutes might be safely confided to a judicious police administration, under the immediate sanction of a Secretary of State."

The Committee next discuss the question of the periodical inspection of soldiers and sailors; and they recommend that it should be adopted in the army, and in the navy whenever sailors have access to women. They also recommend that increased facilities for ablution should be given to soldiers and sailors, and that the necessity for such ablution should be impressed on them by the medical officers. They further recommend that "healthy exercise and recreation, etc.", should be found for the soldiers and sailors, to wean them away from debauchery during their leisure hours.

To certain of the recommendations in this Report, Dr. G. Balfour enters a protest. He objects to the "system of weekly examination of all known prostitutes" recommended by his colleagues. He affirms that such a system would be, what we have always affirmed it must be, "a recognition of prostitution as a branch of industry" by the legislature. Dr. Balfour would deal with the thing by repression, so "as to keep it within certain limits". He also strongly objects to the proposed weekly inspection of soldiers and sailors. He considers that it would be degrading to them. And he refers to the fact that this very system of weekly inspections was abolished in 1859, under the recommendation of Lord Herbert's Commission. Dr. Balfour, however, advises that all men going on, or returning from, furlough, should be inspected. He also gives his recommendations for rendering the present Contagious Diseases Act more effective.

With regard to the weekly inspection of soldiers and sailors, it should be added that the Army Director-General has stated, that venereal diseases are not more common now than they were before 1859, when inspections were in force; and that the duty would be very distasteful to medical officers.

Whether the proposed alteration in the Contagious Diseases Bill will slip through Parliament, as it formerly did, on the silent wings of expediency and a virtuous necessity, we cannot tell. But it is just possible that it may this time provoke serious debate; and that the whole question involved in it of legislating for prostitution may be brought seriously and solemnly before the public. The Government has no right to shirk the matter. If this Bill pass again, the principle of an imperial recognition of prostitution is admitted and adopted; and, if the principle be right and good in seaport- and garrison-towns, it needs no argument to show that it must be right and good in all other towns. This provision, therefore, for the health of seaport-towns, is the first step for the extension of the system of supervision throughout the country.

One thing, we confess, has grievously disappointed us in perusing the Report. We have, on several occasions when referring to this Committee, expressed a hope that so powerful a body would present us with some valid statistics to prove and to demonstrate that venereal diseases are less common in those countries where prostitution is under legislative supervision than it is in this country. We have expressed a belief, founded on a general knowledge of the subject, that venereal diseases are as common in Paris as they are in London; and we expect that there are not a half a dozen medical men in this country who have passed a medical session in Paris who would differ from us in that belief. The Committee, on this all important point, give us no information. The report of the laws in force in Paris, etc., on this matter, though of much interest, is in this view without any worth. And, moreover, there are one or two leading defects in it, which condemn it altogether as of service in this matter. The writer of it quotes Parent-Duchatelet. He, therefore, we conclude, still regards that author as an authority. But Duchatelet, in speaking of venereal diseases, affirmed that the main cause of their spreading in the community lay in what he called clandestine prostitution. He tells us, also, that there were about 4000 registered women in Paris, and 40,000 of the clandestine sort; and thence he argued, what can the examination of these 4000 avail, so long as the 40,000 can spread the disease without let or hindrance?

Now, this report on Paris prostitution gives us no idea as to the number of "clandestine" prostitutes in Paris. It tells us that the present number of registered prostitutes is about 5000; and if, therefore, we may take a comparison of the numbers as given by that greatest of arithmeticians Duchatelet, we may assume that the present number of clandestine prostitutes would be about 50,000. Now, taking facts of this kind as a basis of argument, of what avail is the police registration of prostitutes in large cities? For every woman registered and regularly examined, there are ten who are as free to communicate the disease as are women in this country. And that these ten do so communicate the disease is proved by a fact stated in this report, which tells us that, in 1864, 1 in every $7\frac{1}{2}$ of those of the clandestine women upon whom the police had laid their hands were found to have syphilis, whilst only 1 in 196 of registered women was so diseased.

This question, therefore, is manifestly a much wider one than appears on the surface; and has clearly, for the reason given, not been embraced in all its bearings by the Committee. If, as we have supposed, there be 50,000 clandestine prostitutes

against 5,000 registered prostitutes in Paris, and if 1 out of 7½ of the clandestine sort have syphilis, are we not justified in arguing that the supervision of prostitution in Paris is virtually of no avail in preventing the spread of venereal diseases? Is it worth while, then, to make a state supervision, to license prostitution, if, with all our best efforts, we are only able to insure the examination of one in every ten prostitutes? We again repeat it, upon the all-important point (the only test by which the benefits of the system of supervision can be tried)—viz., Are venereal diseases, *pro ratâ*, less common in Paris than they are in London?—the Report tells us nothing.

To sum up the labours of the Committee: they recommend an improvement to be made in the Contagious Diseases Act, and that soldiers and sailors be regularly inspected by their medical officers.

VACCINIA AND VARIOLA.

The experiments performed by the Lyons Committee on vaccinia and variola, to which we referred in the Journal for February 10th, although more complete than any which had previously been undertaken, and leading to results which were altogether different, were not altogether new, for the variolation of the cow had been attempted in our own country by Ceely, and on the continent by Dr. Thielé; and these observers had succeeded in transplanting the disease thus induced in the cow, and which they considered to be vaccinia, again to man. They transmitted the variolous poison, modified by passage through the system of the cow, from child to child; and Mr. Ceely had described with minuteness the characters of the vaccinia, which, as he thought, he had thus artificially induced. No one had, however, as far as we are aware, attempted the *variolation* of the horse until, as a conclusion to their long and laborious investigation, the Lyons Commission determined to investigate the point.

Horse-pox was induced by vaccination in seven horses; and these animals were subsequently inoculated with the matter of human variola. The result was entirely negative. Inoculations practised on non-vaccinated horses and asses produced, however, an eruption of a papular character, which bore no resemblance to the typical vaccinal eruption of the horse—*horse-pox*. This papular eruption was transmitted by inoculation from horse to horse, without any modification in its characters. The animals in which it had been induced were found to resist the action of vaccination. With the matter obtained from the eruption produced by the variolation of the horse, three children were inoculated. In one case, the inoculation failed completely. The second child became affected. Nine days after the inoculation, a pustule appeared on the left arm at the seat of the inoculation, and this was followed by a general eruption presenting all the characters of the eruption of a mild varioloid. The third child suffered in precisely the same manner, having first a local eruption, then a general eruption which was confluent in some regions of the body. The fluid from the first pustule of this child (No. 3) was used for inoculating a fourth. All the punctures succeeded; and three pustules formed on each arm, which were absolutely identical with pustules of vaccinia. Some supernumerary pustules developed themselves, however, around the primitive pustules; and two variolous pustules appeared on the abdomen. A fifth child was inoculated with the matter obtained from the initial pustules of child No. 4. A primitive eruption, localised to the inoculated part, resulted; and afterwards an extremely discreet secondary eruption, limited to the hands and forearm. The virus obtained from the eruptions which formed on these children did not, by inoculation, produce in the cow and horse vaccinia or horse-pox. The truly variolous nature of the affections induced in these children was further proved by the fact that a non-vaccinated child, which occupied the same ward as children 2 and 3, became spontaneously affected with variola; and by the mother of child No. 3, who had been vaccinated in infancy, falling ill and suffering an attack of modified small-pox.

The following are the conclusions to which the French commissioners have arrived.

1. Human variola can be transmitted, by inoculation, to the ox and horse, with as great certainty as vaccinia.

2. The effects produced by inoculating the two viruses (those of vaccinia and variola) differ completely.

3. An attack of vaccinia, as a general rule, protects animals of the ox and horse tribes from a subsequent attack of variola.

4. Variola, in like manner, protects these animals from a subsequent attack of vaccinia.

5. When cultivated methodically on these animals—viz., when transmitted from ox to ox or horse to horse—variola does not assume the characters of the vaccinal eruption. The variola thus induced either remains modified or dies out.

6. When transmitted to man, it induces variola.

7. When a second time transmitted from man to the ox or horse, it does not induce cow-pox or horse-pox.

On reviewing carefully the logically arranged series of facts which are embodied in the Report of which we have now concluded the abstract, we cannot avoid coming to the conclusion that the points of greatest importance—those which prove vaccinia and variola to be two distinct, although perhaps allied, disorders—have been clearly made out; and

we can scarcely refrain from concluding that the earlier experimenters had allowed themselves to be led into error.

The remarkable slightness of the eruption of variola in the ox, which indeed requires for its detection the closest observation, sufficiently accounts for its having hitherto escaped the attention of British as well as of continental observers. Much greater difficulty, however, exists when we attempt to reconcile the results of the recent French experiments with those of honest and painstaking observers, who certainly appear to have made out that *occasionally*, when variola is transmitted to the cow, an eruption is induced so like that of vaccinia as to have been mistaken for it by experienced observers. If there be one point which is better proved than another by the French Report, it is certainly this—that no certain opinion as to the identity or non-identity of two affections can be formed by merely observing the external characters of an eruption. The very dissimilar eruptions of cow-pox and horse-pox are shown to be eruptions of the same disease, merely modified by different animal species; and the eruptions of variola in man, in the ox, and in the horse, are shown to present such marked differences, that only an intimate knowledge of the fact of the one having been induced by, and being capable of inducing, the other, could lead to our recognising them as eruptions of the same disease. Again, the pustules induced by inoculating children with variolous matter which had been transmitted through the system of the cow, are shown to have been clearly variolous in their nature. They owed their origin to variolous virus, and they again induced variola; but still in some cases they presented so close a resemblance to vaccinal pustules as to have been undistinguishable from them, proving that just as from dissimilarity in eruption we cannot necessarily conclude as to the dissimilarity of affections, so a great resemblance—nay, absolute identity—of eruptions is not sufficient to characterise two allied affections as identical. If the variolous poison transmitted from man to the cow, and then retransmitted from the cow to man, induces in some cases pustules which are undistinguishable in external characters from those of vaccinia, is it extremely improbable that, in some rare cases, the variolous eruptions of the cow should present the same characters? Such exceptional cases are those, we presume, observed by Mr. Ceely, who, inoculating a considerable number of animals with variolous virus, only succeeded a few times in inducing the eruption which he considered identical with that of cow-pox. We presume that probably in all or in a majority of the cases observed by Mr. Ceely, the slight almost undistinguishable papular eruption of bovine variola was formed and remained unnoticed, whilst it was only when the extraordinary eruption occurred that the existence of an exanthem at all was ascertained. We cannot avoid believing that Mr. Ceely's positive observations were correct, whilst probably the conclusions based upon them were incorrect. He doubtless observed, as a result of variolous inoculation, vesicles identical with those of cow-pox, although he was probably wrong in arguing from their external resemblance their pathological identity. The facts of the French Commission, whilst they positively show that the transmission of variola from man to the cow, and back from the cow to man, does not convert it into vaccinia, just as clearly show that the varioloid induced is remarkable in characters—that there is an intensely vaccinal-*looking* eruption formed on the seat of inoculation, which is followed by a general variolous eruption; and they also show that, by transmission from child to child, the virus which has undergone this transmigration induces more and more vaccinal-looking (still essentially variolous) eruptions on the seat of inoculation, and general eruptions more and more limited in their distribution. May not the characters of the original variolous virus, transmitted to the cow, influence not a little the production of the generalised eruption which follows on retransmitting the virus to man? There is in the hypothesis nothing that appears to us unphilosophical or improbable, whilst it may serve to explain discrepancies between observers of the highest merit. May not differences in the intensity of the variolous poison account for the induction in one case of a local eruption with widely distributed general eruption, in another of a local eruption with scarcely any general eruption, and in a third of a strictly local eruption? That, however, the French observers satisfactorily proved the variolous nature of these vaccinal-looking local eruptions, induced by retro-vaccination, appears to us indisputable. Their early inquiries led them to the opinion that inoculation of the virus of of vaccinia *invariably* induced vaccinia when transmitted to animals of the ox tribe which had not previously suffered from vaccinia or variola; and that the virus of variola invariably induced bovine variola, and never vaccinia; and they had thus ascertained a characteristic reaction by which to test the vaccinal or variolous nature of a given eruption. The results which they obtained appear to leave room for no other conclusion than that to which they arrived.

THE GARLIC CURE.

Lord Granville lately said that, as touching Mr. Worms and the savoury garlic cure of cattle-plague, he had sent an inspector to Baron Rothschild to witness the wondrous effects recorded by that eminent pathologist—*The Times*. Mr. Symonds, the veterinary surgeon, was the inspector. Lord Granville remarks on the Report:

"That he had sent down an inspector to Baron

M. de Rothschild's farm for the purpose of examining Mr. Worms's systematic treatment, and, *although the result was not conclusive,* it was rather favourable than otherwise."

Now would any man in his senses believe, that even a noble Lord could be found to make such a remark with the letter of his own agent before him, which positively states that the animals said to have been so marvellously operated on by a gill of garlic and assafœtida never have had the cattle-plague at all? Says Mr. Symonds:

"Veterinary Department of the Privy Council.

"I have the honour to inform you that I went down to the seat of Baron Rothschild, for the purpose of investigating the treatment of animals affected with cattle-plague, as adopted by Mr. Worms. On the 9th instant, a heifer, gave indication of illness. Mr. Lepper, of Aylesbury, recognised some of the earlier symptoms of cattle-plague, and as such the animal was placed as soon as possible under the care of Mr. Worms. Notwithstanding all the attention which it received, it died on the fourth day of the attack. On Saturday, the 10th instant, two other heifers were also said to be attacked with the plague, and consequently were placed aside by themselves. On Monday one, Tuesday four, and Wednesday (the day of my visit), three more of the herd were removed as being likewise the subject of the plague. The ten animals were also placed under the care of Mr. Worms. The early cases were reported to me as having been cured, and the others as going on most satisfactorily. It required but little knowledge of the diseases of cattle to at once see that none of the ten animals had been, or were the subjects of any serious disease; and after giving to each of them a careful examination, I failed to detect the slightest symptom of cattle-plague in any one of them."

The *Times*, nevertheless, still tries to force the garlic down our throats; and we observe that one of our medical contemporaries has copied Mr. Worms's receipt in full, as if he thought there might be really something in it. Now, we would ask, in the name of all the scientific knowledge which medicine has given us, Is there a single fact on record which justifies us in believing that a dose of garlic, or of any other remedy, can cut short a continued specific fever? Does not all our knowledge show the uselessness of such attempts? Never in any man's experience has a fever of this sort been arrested in its progress; and, from the nature of the case, what is there to lead us to hope for such a happy conclusion? Is in accordance with anything science has taught us to believe that, when a specific fever has got possession of a man, has poisoned his whole system, has altered every globule of his blood and every fibre of his body, a few leeks in his belly or a string of onions about his neck can arrest the fermentative, or whatever sort of process it is which is going on there? Of one thing Mr. Worms may be very sure; viz., if he can prove his case, he will have made the greatest discovery ever yet made in medicine. But great discoveries in medicine have never yet been made in this kind of way—by the importation of specific cures from Ceylon or of puccoon from Canada. Great discoveries in medicine have always been made by master minds in medicine—not by village wise-women, nor amateur physic-dabblers, nor Drs. Dulcamara.

During the past week, several operations have been performed under Dr. Richardson's method of local anæsthesia, and with perfect success. We understand that on Sunday last Mr. Gowlland operated on a member of our own profession for fistula, Dr. Richardson himself applying the anæsthetic. The result was so good that the patient, after the operation, was not aware that the cut had been made. On Monday, Mr. Erichsen performed the operation for phimosis, Dr. Richardson again producing anæsthesia; and insensibility was produced in fifteen seconds, and the knife gave no pain whatever. On Wednesday, Mr. W. Adams removed a tumour of the size of a walnut from the foot of a young lady, Dr. Richardson in this case also applying the process. The insensibility was perfect in a minute; and Mr. Adams leisurely dissected out the tumour, without any sensation of pain being experienced by the patient. While the knife was slowly making its way, the lady was asked what she felt. She said she was conscious of the course of the knife, but that it was merely as though something was passing lightly over the surface, although the knife at that time was half an inch deep. On Tuesday, at University College, Mr. Henry Thompson applied the anæsthetic in two cases. He opened an abscess in the breast, and performed eversion of a diseased nail. The ether-jet was applied in each case only a few seconds, and both operations were absolutely painless. Different statements are made by different patients in regard to the sensation produced by the application of the anæsthetic. The lady, from whose foot Mr. Adams removed the tumour, said the sensation was rather pleasant than otherwise; others describe it as slightly unpleasant, and others as burning and sharp. On this point, Dr. Richardson says, a great deal depends on the part of the body subjected, and a great deal on the rapidity of the process. The mucous surfaces, the hands, and the face are more sensitive than the other parts of the body. More also is felt when the process is prolonged. It is best to push the process on rapidly; and it is good practice, in cases where it can be done, to compress the artery above the part to be operated on, so as to cut off for the time the supply of blood. Other methods for making the process itself quite free of sensation in every case may be devised; and, as Dr. Richardson is now devoting himself closely to experiments bearing on this subject, there need be no anxiety but that this object will soon be accomplished. He is also having a larger apparatus constructed, on what he calls the brush-principle, with the view of applying the method in a capital operation.

Lord Ellenborough, in the House of Lords, begged permission to express his astonishment that a letter from Warsaw had escaped attention. It stated that the Cattle-Plague had not extended into any district where the water was impregnated with iron. The learned and noble lord backed the notion with a corroborative anecdote. A gentleman to whom he had spoken of the letter thereupon observed, that "it was a remarkable fact that the only animal he had saved was one which had been in the habit of drinking from an iron vessel."

Dr. Farr tells us, through the *Daily News*, that the Cattle-Plague will in all probability follow the usual rule of epidemics; that it will rise and fall in a kind of parabolic curve; and he even goes so far as to give the probable numbers of cattle which will fall with the disease during the ensuing months, and suggests to us an early end of the disease. In support of his argument, he refers to the fact that the disease ran its course in the Roman States in 1711 in nine months, as detailed by Lancisi. But this fact, so far from telling in favour of Dr. Farr's views, tells directly against them. Assuredly, it was not through having run its natural course that the disease came to an end in the Roman States in nine months; but solely, as Lancisi himself said, because of the extraordinary measures which, under his wonderfully sagacious supervision, were adopted to suppress the spread of the contagion. The demonstration of this is found in the fact, which we are surprised Dr. Farr overlooked in his reading of Lancisi, viz., that the Cattle-Plague raged in all the other states of Italy for at least five years, from 1709 to 1714. In these other states, no distinct and rigorous measures were adopted to suppress the disease; but in the Roman States distinct and vigorous measures were adopted. How then can Dr. Farr use such a fact as this to illustrate his statistical position, that the Plague here will follow the nine months' course of the epidemic as it occurred in the Roman States in 1711? If he use the Italian epidemic at all, he should evidently have taken it as it occurred in those parts of Italy where it raged for five years before it ended, and not the isolated case of the epidemic in the Roman States, where it was manifestly suppressed in nine months. Again, Dr. Farr says nothing of the Cattle-Plague epidemic which, in the middle of the last century, lasted in this country some ten years. We will venture to say, that Dr. Farr will not find a single historical fact to back his conclusion that in nine or ten months the disease may quietly die out—may run through its natural curve. Dr. Farr, again, says that the returns show that the weekly relative increase in the number of cattle which now fall with the disease is less than it was at first; and he attributes this to the view that the disease is running the usual course of epidemics. He quite forgets to take into account the fact that at the present time every one is satisfied as to the virulently contagious nature of the disease, and consequently takes measures to prevent it. When the plague first appeared, thanks to the stupid and puffed-up ignorance of the *Times*, the disease was generally set down simply as a local London cow-shed nuisance, got, as S. G. O. sagely suggested, by Moonbeam out of Dungheap.

Dr. Paget of Cambridge has been appointed by the President to deliver the next Harveian Oration at the Royal College of Physicians.

The General Council has informed the Royal College of Physicians that the names of Abercrombie and Whalley have been removed from the *Medical Register*. The Council also request that no person whose name has been so struck off will be admitted to examination by any licensing body.

In consequence of a request made by the Government to the Royal College of Physicians, the President recommended that Dr. Goodeve be appointed a member of the Cholera Congress now assembling at Constantinople. In consequence, Dr. Goodeve has been so appointed, and is, we believe, already on his road to Turkey. Dr. Goodeve has had great experience of cholera in India. Other members of the conference are: the Hon. W. Stuart; Salih Effendi, Director of the Medical School at Koombarhané, and Dr. Bartoletti, member of the Board of Health, representing the Porte; Drs. Pelikan and Bykow and Mr. Lintz, representing Russia; Drs. Griesinger and Hertsch, the Prussian representatives; Dr. Salvatore, with the Chev. Vernoni, first dragoman of the Italian legation, representing Italy; and Count Lallemand, the French representative.

A valuable paper, on the Investigation of the Pulse in Disease by the Sphygmograph of Marey, was read by Dr. Foster at the last meeting of the Midland Medical Society. A large number of pulse-tracings, taken from patients suffering from various diseases, were exhibited. The author believed that the use of the instrument would prove a valuable aid in prognosis, as well as in diagnosis.

The same journal which announces the recovery of Oppolzer from typhus, tells us that Professor Stellwag von Carion, the oculist, is seized with the disease. A most extensive ovation is in preparation by the students to welcome Oppolzer back to his lecture-room.

Special Correspondence.

EDINBURGH.

[FROM OUR OWN CORRESPONDENT.]

MEETINGS, both of the Royal and of the Medico-Chirurgical Societies, have lately taken place, which were distinguished by papers of unusual interest.

At the Royal Society, the papers are rarely of such a nature as to concern any but those who specially devote themselves to scientific pursuits. Occasionally, however, topics of practical interest to our profession find a place amongst the papers contributed to it. On Monday night, Dr. Matthews Duncan read a paper "On the Laws of Human Fertility". Dr. Duncan has, in his previous investigations on "the variations of fertility and fecundity of women according to age", on "the weight and length of the newly born child in relation to the mother's age", and on "the laws of the production of twins", shown how well he was qualified to undertake difficult and intricate statistical investigations; and there are no investigations which require a more dispassionate and honest observer, or one more possessed of a judicious and well balanced mind, as there are none in which he is more likely to commit the mistake of obtaining exactly the result which he desires—a mistake which certainly has often enough been committed by our medical statisticians. In one of the papers to which I alluded, Dr. Duncan proved that there is a period of *maximum fecundity* in the life of every woman—*i. e.*, a period when, *cæteris paribus*, a woman has greater chances of having a child than at any other. This period of maximum fecundity is between 25 and 26. Women below this age are less fecund—*i. e.*, their chances of bearing children are less than those of their seniors; but their fecundity increases until the age indicated, when it begins to wane. These inquiries on fecundity were preliminary to the investigation of which the results were read at the Royal Society, and of which I shall now give a short abstract, which can scarcely do more than comprehend the more important conclusions. Dr. Duncan's inquiries are based upon an analysis of 16,301 families. The paper commenced by considering the absolute fertility of marriages. The absolute fertility of marriages in Scotland is 4.64; but this number, which is obtained by dividing the total number of legitimate children by the total number of marriages in the same time, is obviously of little value in telling us the number of children produced by fertile marriages. It would appear that fertile women living in wedlock during the whole of the child-bearing period of life—viz., from 15 to 45—as a rule produce about ten children. In the cases, however, where the woman is not only fertile, but persistently so to the close of the child-bearing period of life, the number of children is fifteen or above. Dr. Duncan, curiously enough, showed that, as a rule, we may form a very close approximation to the number of a fertile woman's family, at any epoch of married life, by dividing the number of years which have elapsed since her marriage by three. In the case of a woman who is *persistently fertile—i. e.*, whom we know to be still bearing—we may attain the result more correctly by dividing the number of years which have elapsed since marriage by two. Curious as are, however, the above details, they do not present the interest which attaches to the facts ascertained by Dr. Duncan relative to the influence of age at marriage on fertility. This is a point of infinite interest to the social economist, as upon it depends very much the solution of the question of the advisability of early marriages. It appears that the total fertility of fertile women, married at different ages, decreases as the age of marriage increases; women married young being more *persistently* fertile than women who marry when they are older. Thus, although, as Dr. Duncan has shown, women of from 20 to 25 have a higher *fecundity* than their younger sisters of from 15 to 20, yet the fertility of the latter will be greater than that of the former. The older, however, a woman is at the time of marriage, if she be fertile at all, the greater will be the intensity of her fertility *so long as it lasts*; the greater intensity of fertility being shown in the greater rapidity with which the children succeed one another, in the more frequent production of twins, etc. When we consider that the fecundity of women between 15 and 20 is, as Dr. Duncan shows, much lower than that of the next older women (about seven per cent. of the marriages contracted between these ages proving barren), and that the *intensity* of fertility is at this age likewise much less than in older women, it seems exceedingly strange that their fertility should be greater than that of women marrying when older. That marriages contracted between these ages are more persistently fertile than at any other, and therefore more productive of a large number of children, has, however, been proved by Dr. Duncan's investigation, and is most admirably brought out in the following table.

TABLE IX.—*Showing the Amount of Continuance in Fertility of Wives married at various Ages (as shown within Twelve Months).*

Age of mother at marriage	15–19	20–24	25–29	30–34	35–39	Total.
The number child-bearing in the 5th year of married life is 1 in ..	2.6	2.7	4·1	4.9	10.5	3.2
The number child-bearing in the 10th year of married life is 1 in ..	3.2	4.0	5.9	8.7	—	4.4
The number child-bearing in the 15th year of married life is 1 in ..	4.6	6.8	18.2	37.4	—	8.0
The number child-bearing in the 20th year of married life is 1 in ..	8.5	14.6	129.8	—	—	16.3
The number child-bearing in the 25th year of married life is 1 in ..	68.0	480.5	—	—	—	171.0

Sadler, who in the most vehement manner opposed the views of Malthus on the question of early marriage (as he did on every other), endeavoured to strengthen his position by a statistical investigation, and drew up tables which were considered to prove conclusively the superior fertility of older over

young women. He disregarded altogether this most important question of the *continuance* of fertility, and argued from his data, which merely proved the greater intensity of fertility of the older women, that their total fertility was greater—a conclusion now seen to be completely erroneous.

At the next meeting of the Society, Dr. Duncan is to read a paper "On some Laws of the Sterility of Women", of which I shall send an abstract.

On Wednesday, February 7th, the fifth meeting of the present session of the Medico-Chirurgical Society took place. The first paper read was by Dr. John Smith, and was entitled "Notes on some Points in the Administration of Chloroform". In this admirably clear and succinct paper, Dr. Smith pointed out that all dangers resulting from chloroform-inhalation might be divided into the two classes of avoidable and unavoidable, and that the former included by far the larger proportion. He deprecated the giving of chloroform in any but the recumbent posture; and expressed his disapprobation of the practice of putting gags into the mouth of patients subjected to operations on the mouth, as, when the mouth was thus artificially kept open, the muscles of deglutition were necessarily interfered with—a result which, he considered, ought to be avoided. He insisted on the danger of giving small quantities of chloroform, as is so often done by practitioners, who labour under the impression that, whilst they will confer a certain insensibility upon the patient, they will avoid the dangers attending upon complete anæsthesia. Dr. Smith contended that the danger of sudden syncope is by such a mode of proceeding rendered very great. Chloroform should in every case be given in such quantities as to produce complete anæsthesia, so as to avoid the infliction of the shock to the system which so often brings about the sudden cessation of the heart's action. A lengthy discussion took place; which did not, however, elicit any new or interesting fact.

Dr. Sanders then read a most interesting communication on a "Case illustrating the supposed Connection of Aphasia (loss of the cerebral faculty of speech) with Right Hemiplegia, and Lesion of the Third Left Frontal Convolution of the Brain". The great interest of the case lay in the fact that this was the first case in Great Britain, to Dr. Sanders's knowledge, in which a *post mortem* examination of such a case had verified the statements of M. Broca on this subject. Dr. Sanders pointed out that for a long time authors have recognised cases where there was a loss of the memory of words; for these cases are not very uncommon. The loss of the memory of words cannot be explained on the hypothesis of a loss of intelligence, as the patient obviously wishes to speak, and in many cases expresses in an obvious manner his distress at being unable to do so. The power of written language may be, and often is, lost. The affection is obviously independent of the actions of vocalisation and articulation, but is cerebral in its nature. Cases of aphasia have been divided into two groups: 1. Cases of amnesic aphasia, which depend upon the loss of the memory of words (the patients can neither write nor speak); 2. Cases of ataxic aphasia, in which the patient can write, but cannot speak, and where there is apparently a defect in the coordination of the movements required for the production of words. The subject of aphasia has within the last four years attracted the greatest attention on the continent, in consequence of the researches of MM. Auburtin and Paul Broca; and a great discussion took place on this subject last year in the French Academy. In this country, aphasia has lately become known, chiefly through the cases published by Dr. Hughlings Jackson and the lectures of Trousseau.

Bouillaud first in 1825 drew attention to the supposed localisation of the faculty of speech in the anterior cerebral lobes. He showed that, in an immense number of cases of disease of these lobes, speech was affected; whilst, in the cases where they remained unimpaired, speech was unaffected. On various occasions—viz., in 1839, 1848, and 1865—M. Bouillaud confirmed his original statement; which was, however, opposed by Andral, Lallemand, and Cruveilhier. In 1836, M. Dax read a paper at Montpellier on the connection existing between aphasia and hemiplegia of the right side. He pointed out that, in hemiplegia with aphasia, the lesion is always in the left hemisphere. M. Dax had himself collected forty such cases without meeting with one in which the lesion was in the right hemisphere. In 1861, M. Auburtin, a partisan of Bouilland's views, reasserted at the Anthropological Society of Paris the relation between the anterior lobes and the faculty of speech. M. Broca, who was present, was much interested in the discussion. He had at that time, at the Bicêtre, a patient who for twenty years had suffered from aphasia; and this patient was then moribund. He died soon after; and his anterior lobes were found diseased. In his dissections of other brains of persons who had suffered from aphasia, M. Paul Broca was led to limit the seat of the lesion not only to the left side, and to the anterior lobe of that side, but actually to the posterior third of the third left frontal convolution: this, which, like the other frontal convolutions, runs in a longitudinal direction, is seen at the anterior part of the fissure of Sylvius.

Having given the above very interesting historical details, Dr. Sanders proceeded to relate the history of the case which had fallen under his notice.

The patient was admitted into the Royal Infirmary December 16th, 1865; and died January 10th, 1866. For nearly a year before her admission, the patient had been excitable and bad tempered. Some days before, as she was rising from bed, she fell, frothed a little at the mouth, and became paralysed on the right side, the speech being affected. When admitted, she could speak some words plainly enough, but others she could not remember. She knew, for instance, that her own name was Margaret; but could not remember her surname. She could give very little assistance when her case was being made

out. Guesses would have to be made as to circumstances; and, when these were communicated to her, she would signify her assent to them, or the contrary. Some words she mutilated greatly. She spoke of Duncan and Flockhart as Doctor and Forrirt.

The paralysis of the leg and arm had much diminished before her admission into hospital. The power of voluntary movement had returned to the right leg. The movements of the mouth and cheeks were natural. There was no observable facial paralysis. Two days after admission, there was pain in the left leg, which was slightly dragged. Sensation and motion were found to be impaired, and there was great pain in the calf. The temperature of the leg and foot fell very low. There was very slight pulsation in the femoral artery. It was now obvious, that this paralysis of the left leg was an instance of the paralysis due to arterial obstruction, which was so well described by Romberg. Gangrene came on, and proved the cause of death. During her illness, a slight roughness with the first sound of the heart had been heard, but no distinct murmur. The nurse stated that on two occasions she had had slight fits; these were not, however, observed by the house-physician. During her illness, she would occasionally pronounce some phrases with very great distinctness; and she would then often repeat one of the words of the sentence—thus, "I am no better to-day, better, better, better." On one occasion, she was asked to sign her name, and made the attempt. She began by writing the letter J; but obviously knew that this was not right, and that the attempt was beyond her power, and gave it up, saying "I cannot do it, do it." This was, Dr. Sanders remarked, a case of amnesic aphasia, where the memory of words was more impaired than the articulation. On making a *post mortem* examination, it was found that the posterior part of the third left frontal convolution was flattened and depressed, and felt as if it contained fluid. On cutting through the gray matter, the white had the appearance of dirty cream. This softened part extended to the left corpus striatum. Examined microscopically, it contained an immense amount of granular matter. The other convolutions of the anterior lobe were not affected. Near the posterior extremity of the left Sylvian fissure, another small softened portion was found. No embolus could be detected in any of the cerebral arteries.

Of the great interest of these researches on aphasia there can be no doubt; for, if the views of M. Broca and others be correct, it would result that the two cerebral hemispheres are independent in function. Dr. Sanders urged the importance of physicians now making themselves acquainted with the system of describing the cerebral convolutions which had been introduced by Gratiolet, and which allowed us in the most definite manner to describe and define the position of any of the convolutions. This paper is certainly amongst the best which has been read at the Medico-Chirurgical during the last few years.

I have on more than one occasion referred to Dr. Thomas Keith's success as an ovariotomist. At that time, considerable as had been his success, it could scarcely be compared with that of the great English operators, as the number of his cases had been comparatively limited. Now Dr. Keith has operated forty-one times, and has only had nine deaths. Of his last twenty-five cases, only three have died; and of his last twelve, all have recovered. His recoveries have been, therefore, at the rate of 78·1 per cent. It is not to be supposed that Dr. Keith's success is to be attributed to an unfair selection of cases. That such is not true, is well known to the large number of professional men who have from time to time been invited to see Dr. Keith's operations, and may be further ascertained by reading the histories of the first thirty-five cases he has operated on, and which he published in the *Edinburgh Medical Journal*. To what, then, may we attribute a success of which we in Edinburgh are justly proud? I have had the good fortune of being present at several of Dr. Keith's last few operations, and may, perhaps, mention some of the circumstances which appeared to me to contribute to the patients' recovery. 1. In the first place, it is obvious that the judgment to discriminate the cases in which the mechanical conditions of the parts are such that operative interference is almost certain to lead to a disastrous termination, has its share in the success. 2. Great attention is paid to the condition of the patient before the operation. Dr. Keith avoids operating in cases where the patient is hot and feverish and the pulse keeps persistently high, until such time as these conditions are removed. He often, indeed very generally, taps the tumour he is going to remove, a few days before the operation. He thus renders the tumour more manageable; and, if the patient be feverish and irritable, this often gives relief. 3. Whilst he displays extreme neatness and dexterity in the operation, he avoids complicating it by all sorts of attempted innovations and so-called improvements. He is punctiliously careful not to allow any of the contents of the cysts to have access to the peritoneal cavity. He cautiously separates all adhesions with his fingers, and in securing the pedicle makes use of Mr. Spencer Wells' clamp. He lays extraordinary stress on the importance of arresting all hæmorrhage, all oozing, before bringing the lips of the wound together. Lastly, he brings the wound together by means of drill sutures, which, whilst they allow the edges to come closely together, are not drawn quite tight, and so accommodate themselves much more perfectly to any slight puffiness of the wound. I have never had the pleasure of seeing wounds heal in the extraordinary manner with which those of the patients on whom I have seen Dr. Keith perform ovariotomy have done. Primary union has been the invariable result.

Some time since, Dr. Keith applied to the managers of the Infirmary to have a ward allotted to him, for the reception of patients suffering from ovarian disease. The proposal was at first listened to with great favour by the managers, who nearly granted it. Before doing so, however, the opinions of the phy-

sicians and surgeons to the Infirmary were asked as to the advisability of the proposed concession. Whilst all the physicians, one of the obstetric physicians, Mr. Syme, and Dr. Annandale, were all in favour of the appointment, the other members of the staff objected. The other surgeons consider, it appears, that such an appointment would be an encroachment on their privileges, and therefore opposed the measure. That their opposition was ill-advised appears to me obvious. It is objectionable, I admit, as a rule, to have in a large general hospital specialists for the performance of particular operations, but the rule may be liable to exceptions, and what there was objectionable in the proposal made to the managers might have been removed. We have here the case of a disease of frequent occurrence, which may be removed by an operation, which in the hands of most (certainly our Scotch) operators, is frequently attended with fatal consequences, but which some few men appear to perform with results altogether unattainable by the majority of operators. May it not be a question whether the good of suffering humanity should not have been the first consideration of the managers; and whether the securing for a large number of poor women the services of by far the most successful ovariotomist in Scotland was worth the disadvantage of establishing a dangerous precedent? As the good of the community was so obvious, the managers might easily have solved the difficulty by appointing Dr. Keith an extra surgeon to the hospital, with the understanding that he would thus have the opportunity of operating upon such ovarian cases as presented themselves.

Ovariotomy is one of those operations which will never be successfully performed by the general surgeon. The difficulties of the operation are quite a minor consideration. By far the most difficult and anxious of the duties of the student of ovarian disease, consists in making an exact diagnosis; ascertaining, not merely the ovarian nature of a tumour, but more especially its relations, adhesions, etc. Is it possible for a surgeon, who only rarely is called upon to examine women, to apply all at once to his ovarian cases the knowledge and tact of an obstetrician? Without such knowledge, however, innumerable cases will be operated upon which ought never to have been touched; and a safe operative procedure will in the hands of some people be brought into discredit. The operation is one of those which legitimately must fall into the hands of those who make a special study of the diseases of women.

The Amount of Castor Oil manufactured in the United States is estimated at 300,000 gallons, one-half of which is manufactured by Baker and Brother, New York. This firm imports its castor-bean from the East Indies—about 75,000 bushels annually. The Agricultural Department urges its more extensive cultivation in the United States. The castor-bean plant is stated to be perennial in Los Angelos co., California, growing to the thickness of a man's thigh. In Randolph co., Illinois, and adjoining counties, it has been cultivated, yielding at least 20,000 to 30,000 bushels a season, the price at present varying from four to five dollars.

Association Intelligence.

BRANCH MEETING TO BE HELD.

NAME OF BRANCH.	PLACE OF MEETING.	DATE.
Bath and Bristol. [Ordinary.]	Victoria Rooms, Clifton.	Thurs., March 1st, 7.15 P.M.

Reports of Societies.

LIVERPOOL MEDICAL INSTITUTION.

Thursday, Jan. 25th, 1866.

Thomas F. Grimsdale, L.R.C.P.E., Vice-President, in the Chair.

Hæmaturia in Crew of a Ship carrying Turpentine. Mr. T. S. Walker briefly brought under the notice of the Society an instance where the whole crew of a ship conveying turpentine suffered more or less from hæmaturia during the voyage of about a month's duration. In one instance, the hæmorrhage was so great as to cause death; the man being found dead in his berth, covered with blood. With this exception, all recovered shortly after their arrival at port. There was no medical man on board. The drinking-water appeared free from contamination.

On Vaccination as a Remedy for Cattle-Plague. By A. B. Steele, Esq. The first and all-important question to be determined was the identity or non-identity of cattle-plague and small-pox; and on this point the evidence at present was conflicting, and further information wanted. It was remarkable that, many years ago, two distinct forms of bovine small-pox had been recognised; one the mild form, known as cow-pock; the other a malignant, fatal form, a devastating murrain, which might prove to have been identical with the cattle-plague of the present time. In favour of the identity, there were the opinion of Murchison, and the remarkable facts observed by Dr. Bellyse of Nantwich, that two cows out of fifty-two attacked with the plague, who alone escaped with lives, presented, on recovery, small-pox pits on their noses and scabs on many parts of their bodies. On the other hand, Mr. Gamgee denied and even ridiculed the idea of cattle-plague being small-pox. Mr. Ceely, whose opinions on this subject would to the author possess the greatest weight, had not, so far as he could learn, spoken decidedly on this important point. The case of Mr. Hancock, who had a cow-pock pustule produced on his hand from inoculation from a beast that died of cattle-plague, might be considered favourable, but not quite conclusive evidence of the identity. If the virus were that of malignant bovine small-pox, he might have expected a more serious and extensive affection; for, in former times, inoculation with virus from such cases gave rise to alarming and sometimes fatal results, as recorded by Macpherson. On the whole, however, there seemed sufficient probability of the analogy of the two diseases to justify the experiment of cattle-vaccination.

The next point to determine was, how the operation should be performed. Should preference be given to human variolous matter, to human vaccine, or to animal vaccine? On this question, the author had no experience of his own to relate. Contrary to what we should expect, Dr. Bellyse, after using both human lymph and animal lymph very extensively, had stated that he greatly preferred the former, as,

in his hands, it had been more successful in producing the vaccine disease in the cattle. Human lymph, when passed through the cow, loses some of its original activity, which is, however, regained by again passing it through the human system a few times; and this may explain the apparently less vigorous action of animal lymph. One remarkable feature in the records of the present extensive vaccination of cattle was the apparent facility with which the vaccine disease was transmitted from man to the cow, as compared with the extreme difficulty which attended the experiments of Ceely and others thirty years ago, who considered that, in successfully vaccinating the cow from the infant, they had accomplished a most difficult feat. The author had not heard the result of using small-pox matter. He had sent some tubes charged with variolous lymph to Dr. Littlejohn of Edinburgh, who promised to communicate the results. He had himself inoculated six cows with variolous matter, and two with human vaccine—all in the same shippen; but it was at present too soon to judge of the effects.*

As to the situation and mode of operating, much latitude was admissible. Any part of the animal where the hide was thin and delicate, as the vulva or the udder, would be suitable. He would scarcely be satisfied with the ear, being too far from the centre of the circulation. A spear-pointed grooved lancet, armed with liquid lymph, might be used; or, as recommended by Ceely, a coarse modification of Weir's scarificator, with ivory points. The thought the punctures should be numerous—the more the better; because, considering that it had been clearly shown that nothing less than four full sized vesicles were sufficient to confer protection on an infant, we might expect that a much greater amount of local effect would be necessary to ensure the requisite constitutional change in the warm organism of the cow. In pursuing observations, it must always be borne in mind that vaccination conferred no protection until the process was complete—that is, until the tenth or fourteenth day, or perhaps even later, when the vaccine disease had matured and declined. Inattention to this point might bring the measure into undeserved discredit. He thought that, on the whole subject of cattle-vaccination, we had at present everything to learn; and some months at least must elapse before we were in a position to draw any conclusive inferences from what was going on around us in reference to this question.

WESTERN MEDICAL AND SURGICAL SOCIETY.

FRIDAY, FEBRUARY 2ND, 1866.

GEORGE POLLOCK, ESQ., President, in the Chair.

Hypodermic Injections in Neuralgia of the Spine. MR. CHARLES HUNTER showed to the Society a boy with severe periodic neuralgia affecting the spine, in whom the neuralgic attacks could be cut short, each time they appeared, by the atropine injection. Wiliam K., aged 7 years, had a severe fit of convulsion after whooping cough, four years ago. He was insensible for many days after the fit, and had been paralysed in the right side since that time. He now walked lame with the right foot; the right hand remained clenched. He had been subject to neuralgia of a peculiar form for the last four years, for which galvanism and many other kinds of treatment had been tried, without any beneficial result. The neuralgia came on almost in a moment, in paroxysms of severe pain, and always attacked the region of the spine. The neuralgic attack when once it began, lasted from three to seven days, and consisted of paroxysms of two degrees of severity; the milder were very numerous, and to relieve them he ran to anyone near to have his back patted; the major paroxysms occurred ten or twelve times a day, and to mitigate these he rapped his back about, opposite to the eighth dorsal vertebra, pretty freely with a ninepin. The paroxysms were "duller" under this treatment; there was no tenderness of the spine to be felt; the pupils were always dilated before the attack came on. On November 29, Mr. Hunter injected one sixteenth of a grain of atropine over the spine; an attack having begun some hours before; on the 30th it arrested all further paroxysms, and the progress of that attack. On December 16, another attack commenced, and six severe paroxysms having occurred before the atropine puncture was used, Mr. Hunter injected one fortieth of a grain; there was complete arrest of spasms for twelve hours, when a slight return began, and the injection was repeated. No further spasms occurred from that time until January 12, 1866, when a single injection again arrested the attack. Altogether, up to February 3, five attacks had been arrested as soon as the atropine was injected, as effectually as quinine will arrest an attack of ague. Once only were *two* injections required to keep the pain off for a fortnight. The boy usually slept after the injection, and never had the symptoms of "atropine intoxication" to any extent.

Cancer of the Pharynx. Mr. HUNTER exhibited a specimen from a healthy looking woman, aged only 33, who lived about seven months from the appearance of the first symptom. For four months the symptoms were those of a cold in the throat and windpipe, clear expectoration, slight huskiness of voice, very slight dysphagia. Gradually the latter became the prominent symptom, and she ultimately died with all the symptoms of stricture of the œsophagus. The disease did not, however, involve that tube, but greatly contracted the lower part of the pharynx with a villous growth, which on the right side had ulcerated, and had produced an abscess, which, burrowing among the condensed tissues of the neck, burst over the trachea just before she died. For the last few months of her life this patient lived chiefly on beef-tea and milk enemata.

Specimens. Mr. H. B. BANNISTER exhibited two Tapeworms from the Peritoneum of a Rabbit; no worms being found after a careful examination in the intestines.

Mr. VASEY showed a Lower Jaw-Bone in which the wisdom teeth were situated in the sigmoid notch of the rami.

Dr. MARTIN showed two good sized Pieces of Glass, which had travelled from a wound to some distance under the scalp.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, FEBRUARY 13TH, 1866.

JAMES ALDERSON, M.D., F.R.S., President, in the Chair.

CASE OF PHOSPHATIC CALCULUS IN THE MALE BLADDER, WITH A NUCLEUS OF BONE (PROBABLY A SEQUESTRUM DETACHED FROM THE INNOMINATE BONE).

BY HENRY THOMPSON, F.R.C.S.

A MAN, aged 40, was sent to the care of Mr. THOMPSON, at University College Hospital, by Dr. R. Uvedale West, of Alford, Lincolnshire, in June 1865, for an urinary affection of two years' standing. On examination, a stricture near the orifice of the urethra,

* The two cows inoculated with the vaccine lymph have taken satisfactorily; the other six were abortive or failures.

and a stone in the bladder were found. On June 27th, the stricture was divided by the bistoury, and the first crushing was performed on that day. All going on well, the stone was again crushed on the 30th. On this occasion the *débris* withdrawn in the jaws of the lithotrite was remarked at the time to be unusual in character, but was not then minutely examined. Four days after this, retention was caused by a fragment impacted in the urethra; this was withdrawn by means of the forceps, and it was at once seen to be a fragment of bone. Other small pieces followed, and the patient went out, cured, on the 15th July. He remains perfectly well at the present time.

It was not until after the appearance of the bone, that a minute history of the case was taken. The following circumstances were then elicited: the patient had had severe pain in the right hip seventeen years ago, and was lame for more than a year. Then an abscess broke externally, the cicatrix of which, among many others, is seen about the joint. Another attack took place three or four years after, from which several abscesses and much pain and lameness resulted. Two years ago another attack laid him up for several weeks, but no external abscess resulted. When recovering from this, he became the subject of some pain and frequency in micturition; and finally the ordinary symptoms of stone appeared, and continued up to the time of his admission.

The author made reference to some analogous but not precisely similar cases, no example of the latter having been at present discovered.

The conclusion which he arrived at, after full investigation was, that the origin of the calculous formation in this case was the existence of disease in a part of the os innominatum, resulting in necrosis of a small portion; and that this portion ultimately exfoliated and detached itself, to be extruded, not externally by the surface of the body; not by means of abscess which should follow the usual course along the tracks of muscles or vessels, but by one which communicated directly with the bladder, so that the sequestrum made its way into that cavity, and formed the nucleus of the phosphatic stone for which the patient was subsequently successfully operated on by lithotrity.

CASE OF LITHOTOMY; MULBERRY CALCULUS WEIGHING EIGHT OUNCES AND A QUARTER: DEATH.

BY JOSEPH ALLEN, M.R.C.S., NORWICH.

The author was summoned to the Rev. T. C., a thin spare man, of nervous temperament, aged 56, on Nov. 16th, 1864, and found him suffering great pain and irritability of the bladder. He was a married man, of temperate habits. He had been married seventeen years and a half, and had three children growing up. A few days previously he had caught cold whilst performing the funeral service at the cemetery, and had suffered considerable pain in the body since, accompanied with frequent and painful micturition. He had tried several remedies without avail. Opiates and other anodynes, etc., were prescribed, but with only temporary relief. His history was as follows.

He was born in Surrey, and from his boyhood was fond of exercise, running, jumping, etc., but frequently suffered great pain afterwards, and often passed blood in his urine; this he concealed, lest he should be debarred from such pursuits. As a young man, hunting had the same effect, but his love for the sport was too great to allow him to give it up. He resided at Calais for eleven years, and enjoyed good health all the time. He afterwards spent seven years in London. He was ill for about three weeks shortly before leaving London with inflammation of the bladder, according to his account. He had resided in Norwich about five years. His health generally had been good, dyspepsia being his chief ailment, which a little carbonate of soda mostly removed. He confessed, however, to great irritability of his bladder for some years past, having been compelled whilst in London to micturate every two hours, and latterly he had been unable to retain the urine more than one hour, so that he was compelled to time his visits in the parish accordingly.

On Dec. 5th, 1864, he was sounded by Mr. ALLEN in the presence of Dr. Eade, having previously refused to permit it through false delicacy. The sound, immediately on entering the bladder, came into contact with a large and hard stone. The urine contained lithic acid in considerable quantity, also pus-globules.

It was determined to perform lithotomy, which was accordingly done on the 8th of December. The ordinary lateral incision was made, and the stone readily seized with the forceps. On attempting to extract it, however, it was found to be one of no ordinary size. Larger forceps were then introduced, and a firmer grasp obtained, but without avail. In order, therefore, to avoid laceration of the parts as much as possible, the fibres of fascia on each side were carefully cut with a blunt-pointed bistoury by Mr. Cadge, traction being made on the stone at the same time. The perineum was enormously distended during the extraction of the stone. After a short time a mulberry calculus, weighing eight ounces and a quarter, was removed. There was scarcely any hæmorrhage, and very little laceration of the parts. The patient was remarkably well after the operation, and for a time progressed most favourably, the wound presenting a healthy appearance, and gradually closing. He was able to retain his urine in the bladder for three hours, a thing he had never done before for years. After a time, however, his spirits began to flag, and he became fidgety and impatient; and although well supplied with nourishment and stimulants from the first, he gradually became weaker, and at last sank from exhaustion on Jan. 20th, 1865, six weeks after the operation.

THE SEWAGE OF LARGE TOWNS. In the House of Commons, Sir G. Grey has stated that the Government do not intend to propose any additional legislation with regard to the sewage of large towns. In the course of last Session, an Act was passed to give municipal authorities power to acquire land, and a Commission was also appointed to inquire into the state of rivers in the United Kingdom. Until some experience shall have been obtained of the operation of that Act, and until a report shall have been received from the Commission named, the Government do not think it expedient to propose any further legislation on the subject.

NEW CITY LUNATIC ASYLUM. On the 19th instant, the Lord Mayor paid a visit to the new Lunatic Asylum for the City of London, which has been erected at Stone, near Dartford, and is now ready for the reception of patients. The asylum has been erected at a cost of £65,000, from designs by Mr. Bunning, and is intended to accommodate 250 patients. It is fitted up with baths and lavatories, laundries and workshops, and surrounded by spacious grounds tastefully laid out. Bagatelle boards, and other games and means of recreation, are provided for the inmates—in short, all the appliances for comfort and convenience which have been adopted of late years in the best regulated establishments for the treatment of persons afflicted with insanity in all its varied forms. The plans and designs have been approved by the Home Secretary and the Commissioners of Lunacy.

Correspondence.

THE CHOLERA QUESTION.

LETTER FROM JAS. G. DAVEY, M.D., L.R.C.P.Lond.

SIR,—I learn from Dr. Johnson's letter of February 12th, that he is at a loss to understand how, or in what way, the pathological theories advocated by him and me, in regard to cholera, harmonise, or approximate each other. His own and my views Dr. Johnson declares to be "so diverse" that there can be no collision between them. To support this position, the few following words are quoted from me, viz., "The proximate cause of choleraic disorder is located in the ganglia of the great sympathetic nerve." Now, if Dr. Johnson had proceeded farther with the perusal of my several papers, in the *Lancet*, he would have seen in what way the "agreement between him and me" does really exist. If Dr. Johnson had continued the inquiry, he would have discovered that the presence of "the morbid matter in the blood" (to which *alone* he refers the disease under consideration), together with its ill effects on the powers of life, is referred by me to a first cause—one not yet reached by himself; so far as one can judge from the *Notes on Cholera*, etc.

The "*irritant action of morbid blood*" on the organism, the greatly impeded circulation and respiration, the discontinuance of the ordinary chemical changes effected in the lungs (as indicated by the reduced amount of carbonic acid exhaled, as well as by the defective oxidation), the reduction of the temperature of the body, collapse, and the deranged secretions of the primæ viæ—to say nothing of the "complex and admirable correlation between the various organs and functions of the body, so that derangement of one organ involves often, as a necessary consequence, disorder, even structural change, in one or more distant but closely associated organs" (Johnson), are points insisted on by me in the several papers referred to in my last letter in the JOURNAL, and to each one of which Dr. Johnson has also devoted a full share of attention. The kind of "resemblance," then, between our "doctrines," no one needs to be at a loss to understand; and these, I think, are not so very "*remote*"—due regard being, at the same time, had to Dr. Johnson's views, as contrasted with my own, in reference to the order of occurrence of the several pathological facts above enumerated.

I have read, as Dr. Johnson suggests, at page 95 of his book, the remarks as to the practice of ten Indian medical men who used, in many instances, "a combination of opiates with purgatives" for the cure of cholera; and, I believe, that in a correspondence with Dr. Johnson some years since, I called his attention to the eliminative treatment of cholera, as adopted by one of the gentlemen named by him, viz., Twining. Let me add here, it was in 1834, at which time I was at Calcutta, that I learned from Mr. Twining this "new" (?) mode of managing cholera patients. In this year (1834), it was that I got to condemn chalk mixture and opium in all cases of cholera and of ordinary diarrhœa; to know that in the worse and most fatal forms of the first-named disease there is, very commonly, neither vomiting nor purging; and to conclude, therefore, that the accepted "theory" which ascribed collapse, and even death, to the loss of the fluid constituents of the blood, was a mere sham; and that, in words written twenty-four years ago (see *Lancet*), the great objects to be kept in view in the treatment of "cholera asphyxia" are, first, to support the vis vitæ; secondly, to restore, by a careful elimination from the stomach and bowels, the morbid secretions therein formed—the normal condition of the whole organic apparatus, *i. e.*, the thoracic and abdominal viscera—the early seat of the malady, and source (internal or subjective) of its several and prominent phenomena; or, more briefly, "*to substitute a normal for an abnormal defæcation.*"

Dr. Johnson will excuse me if I ask him to read an excellent little book, *On the Nature of Cholera as a Guide to Treatment*, by Mr. William Sedgwick. This book might persuade Dr. Johnson to look more kindly for a first or antecedent cause of that "*blood-poison*" in cholera to which alone he now refers the "arterial spasm"—the arrest of the blood-current in "the pulmonary arteries," the "impediment to the passage of the blood from the right to the left side of the heart," the small amount of oxygen introduced into the system, the reduction of temperature, and the diminished formation of carbonic acid, bile, and urine, etc., etc. Should Dr. Johnson be induced to commence this search for such a first or antecedent cause, he will, I think, find it in that portion of our organism, viz., the cœliac plexus, and the several ganglia of the sympathetic nerve, on which the very dangerous, even fatal effects of a heavy blow on the epigastrium, of fear, of narcotic poisons, and of bites of venomous serpents, etc., are expended. The *shock* to the organic nervous system, in these several instances, involving, as it must do, a great and manifest interruption to the action of the heart and lungs, etc., is—as a physiological necessity—directly followed by blood-poisoning and its manifold results. However little the carbonic acid formed in the system may be, the lungs are in no position to get rid of it; its presence but aggravates the ill effects of the SHOCK. Diarrhœa or vomiting and collapse succeed, when death not unfrequently closes the scene; *and very much the same phenomena occur to a cholera patient.*

I am, etc., JAS. G. DAVEY.

Northwoods, near Bristol, February 18th, 1866.

LETTER FROM G. BODINGTON, L.R.C.P.Ed.

SIR,—I am willing to leave the cholera question now to the judgment of the profession so far as I have been concerned with it. There is, however, a matter of a personal character demanding a few remarks from me.

Dr. George Johnson, in his letter of the 17th inst., alludes to "one of your correspondents" (who had written in a previous number of your JOURNAL in terms somewhat deprecatory of his own abilities as a controversialist) in language which is neither polite nor even civil. He avoids all the statements and arguments of "your correspondent"; but takes advantage of his moderate estimation of his own "competency" to hold him up to derision—to "stamp him out", as it were. Dr. George Johnson "puts his foot down", and your correspondent is done for, of course. This may be to Dr. G. Johnson a very satisfactory way of coming to conclusions on a controversial question, which you yourself admitted in last week's JOURNAL to be one of great importance. But I must remind him that, in respect of the quotation from Bishop Butler's preface, which he hurls at the heads of his opponents—including your too modest correspondent of last week, of course—I know of no medical writer to whom Butler's remarks are so thoroughly and completely applicable as to Dr. George Johnson himself; and he should know, and indeed will learn practically, that he who flings missiles at others may expect to have them hurled back and returned with interest. To quote Dr. George Johnson's own words, we really "have had enough of baseless assumption and indefinite speculation on this subject."

I much regret that he should have given an adverse turn to this controversy, which has nothing to do with the real questions at issue, or the promotion of scientific inquiry; but which of necessity requires a reply, by way of rejoinder, on account of the personal insinuations in which he has indulged.

I am, etc., GEORGE BODINGTON.

Sutton Coldfield, Feb. 19th, 1866.

THE TREATMENT OF RHEUMATISM.

LETTER FROM JOHN PURSELL, M.D.

SIR,—In the JOURNAL of the 10th instant appear some editorial comments on the last volume of *Guy's Hospital Reports*, on the subject of the Treatment of Rheumatic Fever. The cases were under the care of Drs. Gull and Owen Rees, and were treated negatively by the use of what is called "mint-water"; "the rheumatic entity", as you correctly term it, being "left to its own devices"; or, in other words, "the cases were left to Nature, so far at least as the mere giving of drugs was concerned." Now, as to the conclusions drawn from the forty-one cases reported, it is assumed that the ordinary treatment of rheumatism *minus* drugs is as efficacious as the ordinary treatment by drugs. You further proceed to remark that "Dr. Gull's undoubted conclusions drawn from these cases are, that the drug-treatment of acute rheumatism, *cæteris paribus*, is no better than no treatment at all; that cases treated without drugs do as well in all respects as cases treated with drugs; and that, therefore, too much importance is attached to the use of drugs in those cases of acute diseases which have a natural tendency to recovery."

It is apparent that Drs. Gull, Owen Rees, and Sutton, have passed by unnoticed the pamphlet I wrote and published on the Successful Treatment of Rheumatic Affections, in July 1863 (published by Churchill and Sons), and which was favourably noticed in the JOURNAL of the following September. In this pamphlet, I gave the details of six cases (out of some hundreds) of acute rheumatism treated by the plan there detailed; not by calomel and opium, but by a generous diet, the administration of bark in the form of cinchona or quinine, combined with opium, every four or five hours, and continued mild counterirritation on the spine. By the united agency of this treatment, I further demonstrated the curability of the severest forms of acute rheumatism in a period varying from four to seven days—that is, from the commencement of treatment to the establishment of convalescence.

Again, is it not well known to every experienced member of the profession, from long observation, that invariably, where inefficient means—such as homœopathic or mint-water treatment—has been pursued, the patient will and must be the subject of various depositions in the fibrous or synovial structures, independently of the treatment, usually of a negative character, being protracted to an almost indefinite period? I have lately had under my professional care two cases of chronic rheumatism, each of two years' standing, and both the sequelæ of acute rheumatism, where in each case one of the knee-joints became preternaturally enlarged from effusion of organised lymph and thickening of the synovial membrane. Both were cured in about a month by the local application of the unguentum hydrargyri mitius cum camphorâ, spread on lint, and applied to the diseased joint, renewing the dressings and flannel bandages every four or five days, and prescribing laxative medicines every three or four mornings. No treatment can in any degree equal the success of the above both for safety and success, as fully detailed in my recent work; and, further, there is no remote probability of any sequelæ attending the convalescence. I have treated many cases of sciatica and lumbago, of an acute and chronic character, which have speedily succumbed to the means employed, without the aid of baths, etc., which usually have proved of no permanent benefit. I am, etc.,

JOHN PURSELL.

27, Park Crescent, Brighton, Feb. 20th, 1866.

POOR-LAW MEDICAL REFORM.

LETTER FROM RICHARD GRIFFIN, ESQ.

SIR,—I have now in the hands of the printer the draft of a Bill containing seventeen clauses; with a commentary on each clause, pointing out the reasons for their proposition. There is also a letter addressed to the members of Parliament bringing all the important points of the subject prominently before them. A copy will be sent to each medical officer who has sent a subscription to the Association within the last twelve months, as well as to each member of Parliament, as soon as the Bill is brought before the House.

If any of your readers can assist me by naming a gentleman willing to undertake the charge of the Bill, I shall be glad to hear from him. The printer informs me he cannot keep the type standing; I therefore trust that those medical officers who intend subscribing will do so without delay, so that I may order the number of copies of the pamphlet actually required for them. I am, etc.,

RICHARD GRIFFIN.

12, Royal Terrace, Weymouth, Feb. 17th, 1866.

List of Subscriptions received by Mr. Griffin. W. Norman, St. Columb Major, 5s.; R. R. Allen, Belper, 10s.; F. Eldridge, Andover, 20s.; E. Heginbotham, Wincanton, 10s.; J. W. Combs, Ticehurst, 5s.; J. Wills, Sturminster, 10s.; J. Smart, Bethnal Green, 10s.; W. Jones, Wigton, 5s.; M. Mason, Sudbury, 10s.; J. A. Ledgard, Carlton, 5s.; R. Ransom (not union), Cambridge, 10s. 6d.; J. Dowse, Huddersfield, 5s.; C. Taylor, Melksham, 5s.; C. H. Parsons, Foleshill, 5s.; T. Hewlett, Hendon, 21s.

List of Subscriptions received by Mr. Prowse. C. Dandy, Ormskirk, 20s.; G. R. Burtt, Chard, 10s.; J. H. Somerville, Walsal, 10s.; G. S. Robinson, Saffron Walden, 10s.; W. Williams, Festiniog, 10s. 6d.; R. Roberts, Festiniog, 10s. 6d.; T. S. Douglas, Cockermouth, 10s.; W. Sutherland, Bellingham, 5s.; J. S. Barrett, Abingdon, 10s.; J. W. Moorhouse, Ellesmere, 10s. 6d.; L. H. Franklyn, Lexden and Winstree, 5s.; E. Jones, Merthyr Tydfil, 10s. 6d.; G. R. Cook, Dartford, 5s.; J. G. Terry, Tenterden, 5s.; W. Hitchens, Bath, 10s.; S. Molyneux, Wigan, 10s. 6d.; J. Renton, Hexham, 10s.; W. Dixon, Doncaster, 10s. 6d.; H. Grace, Bristol, 10s.; H. M. Grace, Clifton, 20s.; C. M. Thompson, Godstone, 10s. 6d.; M. J. Egarr, Wisbeach, 5s.; H. Harland, M.D., Uckfield, 21s.; E. F. Whitaker, Witney, 5s.; J. Hesslegrave, Huddersfield, 5s.; S. Drew, Wortley, 7s. 6d.; E. P. Hemingway, Eton, etc., 21s.; R. Slater, Ashton-under-Lyne, 5s.; F. Workman, Reading, 10s.; H. Bishop, Tunbridge 21s.; G. H. Macnamara, Eton, 20s.; W. Lattey, Southam, 5s.; R. Lamb, Islington St. Mary, 5s.; E. Marshall, Croydon, 21s.; J. C. Reid, Morpeth, 5s.; W. Arras, Carlisle, 10s.; R. Smith, Epsom, 5s.; J. S., 5s.; T. Holyoake, Seisdon, 10s.; L. F. Yelf, Shipston-on-Stour, 10s.; T . . . s, 5s.; J. Tiley, Hitchin, 5s.

TARIFFS OF MEDICAL FEES.

Sir,—The gentlemen at Manchester and Bridgewater, who have drawn up the "tariffs of medical fees", are deserving of the most cordial thanks of the profession at large; but there is one point of yet unwritten medical lore that remains to be fixed. Where does the medical free-list (so to speak) begin and end? *Imprimis*, we have the members of our profession, their wives and families. To this some practitioners add the clergy, etc., etc. Without wishing to limit the charitable doings of our professional brethren, there surely should be some limit; and it is very difficult for the younger members of the profession to draw the line, the more especially as it is more a matter of pecuniary consequence to them than to their more affluent seniors.

The lawyers, I believe, do not hesitate to charge their brethren. The clergy are not always liberal. A gentleman related to me the case of a bishop who was offered and *accepted* a fee for burying a poor curate. An instance, where a clergyman took the burial fees for burying a brother clergyman's wife, is fresh in my memory. It is exceedingly creditable to us that we are, perhaps, *the most liberal profession*; but I opine that frequently, in neglecting to charge persons connected with our profession (whose position is such as not to require charity), we do not either benefit ourselves or do any kindness to the recipient.

A case occurred to me about three years since, where I was called in to attend a widow lady. I attended her for some time, and successfully. At the usual period of the year, I sent her a memorandum of what she was indebted to me. She has subsequently employed another medical man; the reason assigned being, that I *charged her for attendance*, she being *a medical man's widow*. The lady never introduced herself to me as such, and I had not the remotest idea that she was in any way connected with the profession. I should add, that she was by no means in circumstances requiring charity.

I take the liberty of suggesting this point for the consideration of your readers, and especially of those who have drawn up these "tariffs": Where are we not to charge? I am, etc., "Square."

January 1866.

PATHOLOGY AND TREATMENT OF LATERAL CURVATURE OF THE SPINE.

Letter from Richard Barwell, Esq.

Sir,—Will you kindly give insertion to the following remarks in reply to a letter from Dr. Dick, published in your Journal of 10th February, 1866.

Dr. Dick has more especially taken exception to this phrase of my paper, read before the Medico-Chirurgical Society, on the 9th January. "The spine is incapable of assuming a lateral bend without at the same time undergoing rotation;" and a great part of his epistle is occupied in stating that a spine may remain non-rotated while receiving a lateral inclination from inflammatory disease of the pectoral or abdominal organs. This fact is not only well known to me, but that whole class of cases were, in the paper as read to the Society, particularised and excepted from the ordinary category of rotated spines.

Dr. Dick says, "no anatomical arrangements have been made for rotatory movements in single parts of the spine." Surely Dr. Dick did not at the moment of writing consider that important set of muscles termed *Semi-spinalis dorsi*, *Multifidus* and *Rotatores* spinæ, or better massed together under the name of *Transverso-spinalis* (note Holden's *Human Osteology*, p. 175), which arising from transverse, are inserted into spinous processes; the deeper portions into the spine of the bone immediately above that whence they originate. Hence, in all parts of the spine, these muscles run very much across the axis of the column, and in the dorsal region are absolutely transverse, and can have no other possible action than that of rotating single portions of the spine.

I do not quite see how your correspondent's remarks upon the prevalence of lateral curvature in women affect the question which he wishes to raise; but if, as is currently imagined, and as I fully believe, the wearing of stays has a good deal to do with the production of the deformity, it becomes evident that it cannot be rational to treat a distortion thus caused by compelling the sufferer to wear a still more rigid and uncompromising species of stays, under the name of "support." My experience has not brought to my knowledge any instance of the pleasure which Dr. Dick supposes his patients to derive from the instrument.

I should be happy to give Dr. Dick all the details of my experiments for which he expresses a desire; but they were fully detailed in the paper in the form in which it was read; that paper is now the property of the Royal Medical and Chirurgical Society, and, until the Council have decided what to do with it, a repetition of the same thing in a letter would be undesirable. A short abstract of a long paper, as that which appeared in your Journal of the 15th January, and upon which Dr. Dick founds his remarks, must necessarily omit all such details as that gentleman desires. I, therefore, cordially agree with him in regretting his absence from the rooms on the occasion in question, since I feel assured that, had he been present, some of the remarks contained in his letter would not have been made; while others, doubtless valuable, would have suggested themselves to his mind.

I am, etc., Richard Barwell.

February 13th, 1866.

Cures for the Cholera. Dr. Macpherson, for many years one of the physicians to the Calcutta Hospital, gives his experience of the treatment of cholera, in the following words:—"The experience of the last fourteen years in Bengal has not been dissimilar. How many of the new remedies have stood their ground? Salinee nemata, the successors of saline injections into the veins, have had their day. Croton oil and opium pills were at one time pronounced to be nearly infallible. Bloodletting I saw at one time employed; it is now entirely abandoned. A Madras surgeon found carbonate of soda wonderfully efficacious, as if to neutralise the acid of the Austrian cure. Ether and chloroform were immediately seized on, not only to allay the spasms, but to cure the disease. One surgeon recommended to the service the practice of parboiling his patients, but lived to abandon the procedure. The cold sheet, whether dipped in plain cold water, as in Bombay, or in an acid solution, as in Bengal, has been considered to work wonders. Quinine was recommended to the public, and immediately the newspapers were filled with the accounts of cures worked by the indigo planters by means of it. Nitrate of silver has been recommended here as in France, and may deserve a more extended trial. On the ground that, as an absence of bile from the evacuations was the great characteristic of cholera, its restoration *must* be the great remedy, ox-gall was recommended—and tried. Among all these remedies I can scarcely say that any one is an important addition to our stock, except perhaps chloroform."

Medical News.

ROYAL COLLEGE OF PHYSICIANS OF LONDON. At a general meeting of the Fellows, held on Monday, February 19th, 1866, the following gentlemen, having undergone the necessary examination, and satisfied the College of their proficiency in the science and practice of medicine, surgery, and midwifery, were duly admitted to practise physic as Licentiates of the College :—

Burn, Joseph, Bourne
Cribb, Henry, Bishop's Stortford
De Tatham, Hamilton, 40, Dorset Square
Edgelow, George, Kensington Square
Jackson, George, Plymouth
Morrill, John, Guy's Hospital
Webb, John Holden, St. Mary's Hospital

At the same meeting, the following gentlemen were reported by the examiners to have passed their primary examination for the Licence :—

Boyle, William Percival Magor, Guy's Hospital
Cheesman, Henry, Guy's Hospital
Gurdon, Charles Gôte, Guy's Hospital
Hill, James Robert, St. Mary's Hospital
Kemp, William George, St. Bartholomew's Hospital
Mackenzie, George Welland, London Hospital
Morris, John William, Guy's Hospital
Nankivell, Arthur Wolcott, University College
Ockenden, John, St. Mary's Hospital
Perkins, John Robert, King's College
Ridge, John James, St. Thomas's Hospital
Smith, Eldred Noble, St. Mary's Hospital
Thomas, John Davies, University College
Todd, William James, King's College
Trevor, Arthur Tudor Humphreys, King's College

APOTHECARIES' HALL. On February 15th, 1866, the following Licentiates were admitted :—

Bolt, Robert Andrew, Blackman Street, Southwark
Edmonds, Charles George, Southampton Street, Camberwell

APPOINTMENTS.

*BIRD, William V., M.D., appointed Honorary Surgeon to the Bootle Dispensary, near Liverpool.
*FOSTER, Balthazar W., M.D., elected Physician to the General Dispensary, Birmingham.
REED, Walter Hugo, Esq., appointed Assistant Medical Officer to the Derby County Asylum.
TUCKWELL, Henry M., M.D., elected Physician to the Radcliffe Hospital, Oxford, in the place of G. W. Child, M.D., who has resigned.

ARMY.

BAIN, Staff-Surgeon D. S. E., to be Staff-Surgeon-Major, having completed twenty years' full-pay service.
CALDER, Staff-Surgeon William M., to be Surgeon 103rd Foot, *vice* Edward G. Noott.
CHURCHILL, Assistant-Surgeon Alexander F., 109th Foot, to be Staff-Assistant-Surgeon, *vice* J. B. Jardine.
KIDD, Assistant-Surgeon Leonard, M.B., 27th Foot, to be Staff-Surgeon, *vice* Patrick M'Dermott, M.D.
LEITCH, Surgeon J., M.D., 41st Foot, to be Surgeon-Major, having completed twenty years' full-pay service.
LEWINS, Staff-Surgeon R., M.D., to be Staff-Surgeon-Major, having completed twenty years' full-pay service.
PATTERSON, Assistant-Surgeon L. O., Royal Canadian Rifle Regiment, to be Staff-Surgeon, *vice* W. Ord Mackenzie, M.D.
PRESTON, Staff-Assistant-Surgeon Alexander F., M.B., to be Assistant-Surgeon 27th Foot, *vice* L. Kidd, M.B.
ROBERTSON, Staff-Assistant-Surgeon Schoedde, M.D., to be Assistant-Surgeon Royal Canadian Rifle Regiment, *vice* Leslie O. Patterson.
SAINTER, Assistant-Surgeon James D., Royal Artillery, to be Assistant-Surgeon 109th Foot, *vice* A. F. Churchill, M.D.
TAYLOR, Staff-Assistant-Surgeon Duncan C., M.D., to be Staff-Surgeon, *vice* Samuel J. Bayfield.
THISELTON, Staff-Assistant-Surgeon Edward, to be Staff-Surgeon, *vice* W. Armstrong.
TULLOCH, Staff-Assistant-Surgeon John, M.D., to be Staff-Surgeon, *vice* W. M. Calder.

ROYAL NAVY.

FINUCANE, Daniel, Esq., Surgeon, to the *Prince Albert*.
JOHNSTON, D. M'N., M.D., Assistant-Surgeon, to the *Irresistible*.
MILNE, James G., Esq., Assistant-Surgeon, to the *Indus*.

VOLUNTEERS, (A.V.=Artillery Volunteers; R.V.=Rifle Volunteers):—

BREWER, W. H., Esq., to be Surgeon 1st Monmouthshire A.V.
CAMPBELL, D., Esq., to be Honorary Assistant-Surgeon 11th Argyleshire A.V.
LONG, F., Esq., to be Hon. Assistant-Surgeon 15th Norfolk R.V.
MILES, T., M.D., to be Honorary Assistant-Surgeon 25th Kent R.V.

BIRTHS.

BRISTOWE. On February 19th, at Queen Square, Westminster, the wife of John S. Bristowe, M.D., of a daughter.
GAINS. On January 21st, at Newcastle, Jamaica, the wife of George E. Gains, Esq., Surgeon 6th Royals, of a daughter.
HICKS. On February 13th, at Old Street Road, Finsbury, the wife of G. Borlase Hicks, M.D., of a son.
LONG. On February 16th, at Leamington, the wife of C. F. Long, M.D., of a daughter.
OGLE. On February 13th, at 13, Upper Brook Street, the wife of *John W. Ogle, M.D., of a son.
RIDING. On February 16th, at 36, Euston Square, the wife of W. S. Riding, M.D., of a daughter.
SWIFT. On February 7th, at Southsea, the wife of B. Swift, M.D., Surgeon-Major 14th Regiment, of a son.
WALKER. On February 16th, at Peterborough, the wife of *Thomas J. Walker, M.D., of a son.
WATKINS. On February 17th, at 11, Chandos Street, the wife of L. S. Watkins, Esq., Surgeon, of a son, stillborn.
WHITE. On February 17th, at Frome, Somerset, the wife of William A. White, Esq., Surgeon, of a son.

DEATHS.

ADAIR, Ponsonby Kelly, M.D., Medical Superintendent Indo-European Telegraph Establishment, at Kurrachee, aged 28, on January 18.
BAIRD. On February 12th, at Dover, aged 18, Julia Isabella, daughter of Andrew W. Baird, M.D.
LEACH, Henry, Esq., Surgeon, formerly of Sandgate, at Leigh, Essex, on February 20.
MORRIS, William, M.D., at Newbury, Berkshire, aged 33, on February 20.
SIMPSON. On February 16th, at Edinburgh, aged 17, Jessie, eldest daughter of *Sir James Y. Simpson, M.D.

ROYAL COLLEGE OF SURGEONS. There are 1,310 Fellows of the College of Surgeons, of whom 744 are by election and 254 honorary, and 302 by examination.

THE TRICHINA DISEASE. The Minister of Agriculture has sent M. Delpech, Professor of Medicine; M. Raynal, Veterinarian; and M. Alfort, to Germany, to examine and report upon the trichina disease prevalent in pork.

THE CATTLE-DISEASE. Dr. Trench, the medical officer of health for Liverpool, we read, has the confidence of the dealers, the butchers, and the corporation; and is working indefatigably to prevent the spread of the cattle-disease in the borough, and has made many excellent suggestions to that end.

THE POOR-LAW BOARD. Dr. Edward Smith, who has for some time past been Inspector of Poor-Law, has, we are glad to hear, been further appointed Medical Officer of the Poor-Law Board. It is by appointments of this nature alone that our profession will be ever able to exert its proper influence in directing the sanitary affairs of the country.

THE REGISTRAR GENERAL'S WEEKLY RETURNS, if not pleasant reading, are always instructive, and this week's bill of mortality contains some items especially interesting. For instance, we find that the death-rate of Liverpool is nearly 100 per cent. higher than that of London, and Leeds nearly as unhealthy. What that really means is worth consideration, even by the most cursory reader. Further, we observe that the mortality of the chief city of that dreadfully slow-moving country, Austria, happens to be exactly the same as of that wonderfully progressive and wealthy city of our own prosperous and enlightened land, Liverpool. If life is worth anything, if we are to be consistently horrified by a wreck or a railway collision, would it not be as well to account for this annoying coincidence. (*Pall Mall Gazette.*)

A Bird with False Plumage. The British Medical Journal alludes to a lady holding the degree of M.D. from the University of Philadelphia, who is said to have acted as *chirurgienne* to a lying-in hospital in that city, and to have made the voyage to Australia in charge of a ship, and who applied, in June last, to the Medical Board at Melbourne, to be placed on the register. The *Australian Medical Journal* also alludes to the case. We call the attention of our English and Australian contemporaries to the fact, that the degree held by this lady, if indeed she holds any at all, is not from the University of Pennsylvania, but from a hybrid concern, "eclectic, homœopathic," etc., at which men and women attend lectures together, and which has secured from a pliant legislature a charter, under the title of Penn Medical University. (*Philadelphia Med. Reporter.*) [Our information was derived from the *Australian Medical Journal*. Editor.]

Surgeons in the Army and Navy. The Committee appointed in November, 1865, by the Admiralty, War Office, and Horse Guards—and including, besides the representatives of these departments, a delegate from the College of Surgeons and from the College of Physicians—has presented its report upon "the whole question of the rank, pay, and position of the medical officers of the army and navy." The Committee has inquired into the nature of the alleged grievances and has proposed remedies which it is hoped will be satisfactory. They recommend that their relative rank shall be recognised in seat and precedence at mixed boards, but suggest that these boards may in many cases be discontinued, reports from medical officers being substituted. They advise the distinct statement of relative rank in the *Army List*, and other alterations in the printing of the lists which will meet the present objections of medical officers. "In view of the proper requirements of the service, and in order to encourage the coming forward of a larger number of the most eligible class of candidates, and thus to render the competitive examination really worthy of the name, and such as was contemplated upon its establishment," they recommend an increase of pay:—For assistant-surgeons, above five years' service, 12*s.* 6*d.* in lieu of 11*s.* 6*d.* *per diem*; above ten years' service, 15*s.* in lieu of 13*s.*, or, on promotion, 17*s.* 6*d.*; above fifteen years, 17*s* 6*d.* in lieu of 13*s.* For surgeons, above ten years' service, 17*s.* 6*d.*; and above fifteen years, 20*s.* For surgeon-majors, above twenty years, or on promotion, 24*s.*; above twenty-five years, 27*s.* They recommend that army medical officers be permitted to retire after twenty years' service on full pay; but provisos are attached to the recommendation which may not be so satisfactory as could be wished. Surgeon-majors retiring compulsorily, at fifty-five years of age, will receive the half-pay of £1 a day. In respect to the navy, the Commission make a number of recommendations which we have not space to quote; but they have recognised the propriety and justice of placing the naval on an equal footing with the military medical officers, which has not been the case hitherto, and recommend measures which will not only have that effect, but will even hold out additional advantages, such as may in some degree compensate for the less favourable nature of the naval service, and particularly for the difference which exists between the two services in the matter of forced loss of time upon half-pay. They recognise also, the fact that, "in order to meet the increased competition, which other fields of employment open to medical men in civil life, it is necessary to increase the pay and prospective advantages of the service, in order to obtain a due supply of well and liberally educated candidates." The special favour shown to the navy has drawn forth a protest from the Army Director General, Dr. Gibson; otherwise the committee seem unanimous. (*Pall Mall Gazette.*)

OPERATION DAYS AT THE HOSPITALS.

Monday.....Metropolitan Free, 2 P.M.—St. Mark's for Fistula and other Diseases of the Rectum, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

Tuesday. .... Guy's, 1½ P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.

Wednesday... St. Mary's, 1 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.

Thursday.....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Great Northern, 2 P.M.—London Surgical Home, 2 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.

Friday..... Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

Saturday.....St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1·30 P.M.—Charing Cross, 2 P.M.—Lock, Clinical Demonstration and Operations, 1 P.M.—Royal Free, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

Monday. Royal College of Surgeons of England, 4 P.M. Professor Huxley, "On the Classification and Structure of the Mammalia."

Tuesday. Royal Medical and Chirurgical Society, 8 P.M. Mr. Callender, "On Stricture of the Urethra"; Mr. T. Holmes, "On Lumbar Colotomy."

Wednesday. Royal College of Physicians, 5 P.M. Dr. Sieveking. Croonian Lectures. "On the Localisation of Disease."—Royal College of Surgeons of England, 4 P.M. Professor Huxley, "On the Classification and Structure of the Mammalia."

Thursday. Harveian Society of London, 8 P.M. Dr. Broadbent, "On Prognosis in Heart-Disease."

Friday. Royal College of Physicians, 5 P.M. Dr. Sieveking. Croonian Lectures. "On the Localisation of Disease."—Royal College of Surgeons of England, 4 P.M. Professor Huxley, "On the Classification and Structure of the Mammalia."—Western Medical and Surgical Society, 8 P.M. Practical Evening for Cases and Specimens.

TO CORRESPONDENTS.

*** *All letters and communications for the* Journal, *to be addressed to the* Editor, 37, *Great Queen St., Lincoln's Inn Fields, W.C.*

Communications.—To prevent a not uncommon misconception, we beg to inform our correspondents that, as a rule, all communications which are not returned to their authors, are retained for publication.

Correspondents, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

The Army and Navy Medical Services Committee.—We have the Reports of the Committee on the Position, Pay, etc, of the Army and Navy Medical Officers; but we refrain (for obvious reasons) from publishing them, in consequence of knowing that their publication at the present time would be considered premature. They have not, as yet, undergone the consideration of the authorities who have to deal with them.

COMMUNICATIONS have been received from:—Mr. Richard Griffin; Mr. H. Saunders; Mr. T. M. Stone; Mr. Henry Smith; Dr. Anderson; Mr. James; Dr. Gamgee; Dr. James Russell; The Hon. Secretaries of the Western Medical and Surgical Society of London; Dr. Davey; Mr. William Copney; Dr. B. Foster; Mr. Somerville; Dr. Bodington; Dr. J. Pursell; The Honorary Secretary of the Royal Medical and Chirurgical Society; Dr. F. W. Gibson; Mr. W. Eddowes; and Mr. S. Wood.

BOOKS RECEIVED.

1. Transactions of the Obstetrical Society of London. Vol. VII, for the year 1865. London: 1866.

Pathological Explanation

OF

THE CHIEF PHYSICAL CHANGES IN THE BLOOD OF CHOLERA PATIENTS.

BY

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PHYSICIAN TO KING'S COLLEGE HOSPITAL; PROFESSOR OF MEDICINE IN KING'S COLLEGE; ETC.

THE blood of patients during the stage of choleraic collapse is found to have undergone very remarkable physical changes. It coagulates imperfectly or not at all; it is of dark colour, and apparently thicker than natural; its specific gravity is considerably increased. According to Becquerel and Rodier, the maximum specific gravity of blood in the healthy male is 1062, and in the female 1060. In cholera cases, Dr. Garrod found the specific gravity in adult males to be, in round numbers, 1076 and 1081; and in females, 1068, 1074, and 1076. (*London Journal of Medicine*, vol. i, p. 409.) Can we explain these physical changes in the blood? To a considerable extent we can.

It is manifest that in cholera-blood there is an excess of solids in proportion to water; and the explanation which is generally given of this condition is that, the water having been drained away by the intestinal discharges, a concentrated blood is left behind in the vessels. Now, it is to be observed, that this great increase in the density of the blood is found to occur only during the stage of collapse. So long as the symptoms are those only of epidemic diarrhœa with bilious stools, no matter how copious may be the drain of liquid from the stomach and bowels, the blood does not undergo those striking physical changes which are so constantly present during the stage of collapse. If loss of water be the sole or the chief cause of the blood-thickening, why is it that this change in the blood occurs only during the stage of collapse, when, as a rule, there is a less copious drain of liquid from the blood than during the stage of bilious diarrhœa? And; if loss of water be the main cause of blood-thickening, what is the explanation of the fact that, during the stage of reaction from collapse, the blood becomes rapidly thinner, notwithstanding a continuous drain of water from the blood by vomiting and purging? The answer which is usually given to these questions is this. During collapse, the process of absorption is almost or altogether suspended, so that the drain from the blood is not counteracted by the absorption of liquid from without—a process which is in active operation before the onset of collapse, and during reaction after collapse. There is some truth in this argument; but it is not the whole truth, as we shall presently see.

I have, in a previous communication (BRITISH MEDICAL JOURNAL, Jan. 20, p. 61) given what appears to be the rational explanation of the diminished absorption during the stage of collapse. It is a necessary result of the diminished blood-current—first through the pulmonary vessels, and consequently through the systemic vessels. Absorption during collapse will be checked in proportion to the diminution and retardation of the blood-stream. In many, probably in most cases of collapse, the amount of liquid excretion from the blood is also lessened during this stage, in consequence of the diminished supply of blood to the systemic arteries; and, in cases of extreme collapse, the flow of blood through the lungs is so nearly arrested, that the process of intestinal excretion is almost suspended. As a rule, however, it is probable that absorption is lessened in a greater degree than the excretion of liquid; and hence one cause of the increased density of the blood—namely, a draining away of liquid, not counterbalanced by an equivalent amount of absorption.

But there is another cause for the excess of solids in the blood during the stage of collapse, and that is *defective aëration of the blood*; and, as a consequence of this, an accumulation of solid constituents, which, in combination with oxygen, are normally excreted in the form of carbonic acid, bile, and urine. I have before shown (BRITISH MEDICAL JOURNAL, Jan. 27, p. 87) that the scanty stream of blood through the lungs during collapse involves, as a necessary consequence, a proportionate diminution of the amount of atmospheric air introduced into the system, and an equally scanty formation of carbonic acid, bile, and urine. The chief change in the blood-constituents consists in an excess of red corpuscles and albumen in proportion to water, and a deficiency of fibrine; so that the blood coagulates imperfectly, or not at all. Now, that this alteration in the physical condition of the blood is in great part due to defective aëration, is certain. Increased thickness and density of the blood is known to occur as a consequence of defective aëration when there has been no drain of liquid to explain the physical change in the blood. Thus the late Dr. Dundas Thomson states that one specimen of blood from "a patient who laboured under an affection of the mucous membrane of the air-tubes," contained a greater excess of solids in proportion to water than he had found even in cholera-blood. (*Med.-Chir. Trans.*, vol. xxxiii, p. 67.) Then Dr. Garrod admits (*loc. cit.*) that, according to his experience of cholera-blood, "the amount of intestinal evacuations in any case is by no means an indication of the extent to which the blood has become altered."

It is an acknowledged fact that, when animals are made to breathe a highly oxygenated atmosphere, the amount of fibrine in their blood is increased, while the albumen and globules are rapidly diminished in amount. Dr. Gairdner proved this by experiments on rabbits. (See his book on *Gout*, 1851, p. 152; also Carpenter's *Human Physiology*, 4th Edit., p. 157.) This result, too, is in accordance with the observations of Dr. Franz Simon (*Animal Chemistry*, Sydenham Society, vol. i, p. 157), who says: "It is a well known fact that the respiratory process not only increases the plasticity of the fibrine in the blood, but also its quantity; and that, on the other hand, the amount of fibrine diminishes in blood which is not efficiently brought in contact with oxygen." The deficiency of fibrine and the imperfect coagulation of the blood in cholera are in strict accordance with this doctrine. Then Simon states, and confirms his statement by the results of analysis, that, with very few exceptions, the amount of fibrine always varies

inversely with the mass of the blood-corpuscles; or, in other words, that the more corpuscles there are, the less in quantity is the fibrine, and *vice versâ*. And he explains this result by the statement, that oxygen quickens the metamorphosis of the corpuscles, and that the products of this metamorphosis are fibrine, urea, uric acid, and biline. The dark colour of the blood during collapse, is obviously a result of defective aëration.

For our present purpose, it is not necessary to enter into tedious details as to the precise chemical changes which the blood undergoes under the influence of oxygen. It is certain that carbonic acid, bile, and urine, are products of oxidation of blood-constituents. It is equally certain, that defective oxygenation, such as occurs during choleraic collapse, will result in accumulation of unoxidised material in the blood; there will then be a relative excess of solids and an increase of specific gravity. Then it can scarcely be doubted that the rapid fall in the density of the blood during reaction is, in great part, due to the oxidation of solid blood-constituents which have accumulated during collapse, and which are now abundantly excreted in the form of carbonic acid, bile, and urine.

If now we reconsider the probable causes of this increased thickness and density of blood, we find that, whereas the drain of liquid from the blood is in a greater or less degree continuous throughout all the stages of the disease, the remarkable blood-thickening is limited to the stage of collapse. The drain of liquid from the gastro-intestinal canal, then, cannot alone be the cause of the blood-change.

But there are two other conditions which invariably coexist with collapse; these are diminished absorption and defective respiration. It is scarcely possible to determine which of these two concurring influences is the more powerful in increasing the density of the blood. One point, however, is quite certain, and it is this: that *thickening of the blood is a consequence and not the cause of collapse.* The primary link in the chain of phenomena is a more or less complete arrest of blood in the pulmonary artery; next, as a consequence of the diminished blood-stream, there is a defective absorption of air—in other words, defective respiration—and defective absorption of liquids; then, as a conjoint result of defective respiration and absorption, there is an increase in the thickness and density of the blood.

Arrest of blood in the pulmonary artery } causes { Defective respiration and diminished absorption.

Defective respiration and diminished absorption } cause { Increased thickness and density of blood.

I need not repeat here the facts and arguments which I adduced in my last communication (British Medical Journal, Feb. 17, p. 165) to disprove the hypothesis that the arrest of blood in the lungs during collapse is a consequence of a previous blood thickening.

Opium has been largely given for the purpose of preventing the blood thickening in cholera. The effect has been the exact opposite to that which was intended.

The tendency of opium is to check the escape of the morbid poison and to favour its accumulation in the blood. Then there follows the arrest of blood in the lungs, and, consequent on this, the much dreaded blood thickening. I had observed this effect of opium in cholera long before I could explain it. Now I find an entire agreement between therapeutical experience and pathological science.

Illustrations
OF
HOSPITAL PRACTICE:
METROPOLITAN AND PROVINCIAL.

BIRMINGHAM GENERAL HOSPITAL.

A CASE OF POLYSARKA, IN WHICH DEATH RESULTED FROM DEFICIENT ARTERIALISATION OF THE BLOOD.

Under the care of James Russell, M.D.

The following case indicates a somewhat unusual mode in which an excessive tendency to the production of fat in the general cellular tissue may cause death. So far as I am aware, the tendency to death in cases of this description is usually through the heart. My present case exhibits this tendency taking place through the lungs.

Under ordinary circumstances, death takes place in consequence of the heart participating in the abnormal growth of fat in the tissues. Fat becomes deposited upon the exterior of that organ as a part of the general growth of fat in the system, constituting the fatty growth of Dr. Quain. By degrees the quantity of fat augments; and, in process of time, the fat-globules begin to intrude themselves between the muscular fascicles, and gradually effect their destruction.

It may, however, be noted in passing, that this process of wasting of the muscular fascicles is not a necessary consequence of the growth of fat upon the exterior of the heart. Fat may exist there in preternatural quantity, whilst the fibre retains its healthy condition; but wasting is always liable to occur, and such liability constitutes one of the chief dangers of the state of corpulence. Under the former circumstances, a sharp line of demarcation is seen on section, separating the fat from the muscular tissue; but, in proportion as this line becomes indistinct, and the fat-tissue merges gradually into the muscular, is the destructive tendency, of which we are speaking, being developed.

In the advanced stages of the disease, such scanty remains of muscular fibre are found in the heart, that the observer finds it difficult to explain how the heart could possibly have carried on its work; and thus death takes place emphatically through the heart, sometimes very suddenly, at other times by a more gradual but very painful process of cardiac apnœa.

In the case which I am about to relate, a condition of complete cyanosis was established some time before death, evidently by very gradual stages. Venous blood had been evidently circulating through the vessels for a considerable length of time, and the patient died poisoned by carbonaceous matter. This state of cyanosis seemed attributable to want of pulmonary capacity, sufficient to meet the increased demand for oxygen created by the highly carbonised state of the tissues and of the blood. The disproportion between the size of the lungs and that of the entire body, enlarged as it was by excessive growth of fat, was most striking after death. The lungs were manifestly unequal to the requirements of the case.

The amount of fat upon the heart was comparatively small; and the fascicles of the organ were nearly healthy. But the heart was generally and

onsiderably enlarged; and this enlargement of the eart coincides with the explanation already given. As is well known during asphyxia, the circulation of he blood highly charged with carbon, through the apillaries of the lungs, is retarded and finally arrested; ut Dr. John Reid has established that a similar bstruction to the capillary circulation is present at he same time through the entire body, and for a like eason. He found that the mercury in the hæmadynamometer connected with one of the large arteies "actually stood higher.....and the large arteries ecame more distended and tense for about two minutes after the animal had become insensible..... han when the animal was breathing atmospheric ir freely." This phenomenon Dr. Reid explained by 'an impediment to the passage of the venous blood hrough the capillaries of the systemic circulation, imilar to that pointed out in the capillaries of the ulmonary circulation, by which the force of the left entricle was principally concentrated in the arterial ystem." (*Researches*, 1848, p. 26.)

In the case under consideration, a gradual process f asphyxia, so far as the blood was concerned, was lowly established during life; and consequently the ondition proper to asphyxia was set up in the capilaries of the lungs and also of the system at large. Hence the equal hypertrophy of the pulmonary and ystemic ventricles was established in order to overome the obstacle. Hence also, at the period of dease, when the capillary obstruction was complete, ll the cavities of the heart were alike loaded with lark blood. No doubt, the renal disease, which apeared to be secondary to the other morbid prosesses, would also contribute in causing hyperrophy of the systemic ventricle, in accordance with what is usually observed in Bright's disease of the idneys.

It is worthy of observation that, with so extensive nd general a production of fat, the secreting cells of he liver and kidneys did not at all participate; in act, the liver-cells were unusually destitute of oil. The question suggests itself, whether the unusual bsence of fat from the cells of the liver does not inlicate that the latter organ was wanting in the disharge of its proper function, and had thereby thrown nore work upon the lungs.

Case. Mrs. W., aged 45. Her family presents a narked tendency to corpulence, both parents being ery stout, especially her father, and one sister likevise. She declared herself to have been a hearty ater, but not to have cared for meat. These two articulars she repeated several times. She had runk a good deal of tea; and had been fond of fats, f bacon, and of vegetables, and had eaten largely of read. She had not been intemperate, and had led n active life until the last nine or ten years.

She had been increasing much in corpulence during he last three years especially; and, for this term or onger, she had suffered from shortness of breath, but he had never had cough nor any expectoration of mportance.

For two years, she had been exceedingly drowsy. To such an extent had this been the case, that she had een afraid to sit near the fire; and, whilst attending s an out-patient, she requested to be dismissed peedily, lest she should fall asleep in the hall. She ad not had much headache, but considerable vertigo or five months.

She was a very corpulent woman, with abundant leposit of fat; she had a copious double chin, an exensive abdomen, and such full breasts, that it was mpossible to percuss the cardiac region. Her face vas injected with dark blood, and she stated that he lividity was often very intense; the jugulars were ot distended. Her urine was loaded with albumen, and presented a large number of hyaline and waxy casts, small and of full size.

She continued to attend as an out-patient for some weeks, and then was admitted into the hospital. At this time she was very dull and torpid; her face was completely livid. There was general but not copious anasarca of the trunk and lower extremities. Yet she was able to lie down easily; and presented no important symptoms of chest-disturbance. Her appetite continued very good; even on the last day of her life, she applied for an increase in the ordinary hospital allowance.

She lived for fifteen days, becoming gradually more torpid, and soon fell into a state of low delirium. Her death seemed to be hastened by an attack of livid erysipelatous inflammation, which attacked her legs and extended to her trunk. Her pulse varied between 104 and 132. Her respiration rose, with some variations, from 32 to 64.

The temperature of the axilla attained 103.2° for a single day, with the setting in of the erysipelas; but, with this exception, it only once rose so high as 98°, and twice—viz., six days and one day before death—sank to 95°.

Sectio Cadaveris. Two inches of fat existed beneath the integuments of the abdomen, and more than one inch over the thorax. The peritoneal folds were also loaded with fat. The lungs were gorged with blood; they were partially emphysematous at their edges. The bronchial tubes were very livid, and contained some mucus. The lungs looked surprisingly small when compared with the magnitude of the body. The disproportion struck us at first sight. It would even have been apparent even had no increase of size been contributed by the fat. The heart weighed nineteen ounces; its cavities were loaded with dark coagula. Its ventricles were uniformly dilated, and were hypertrophied to a corresponding extent. No important amount of fat existed upon its surface. The coronary arteries were healthy; the valves nearly so. The pulmonary artery was free. The muscular tissue was firm and healthy; the fascicles were nearly healthy; those of the right ventricle only falling a little short of the normal standard, by reason of some fine mottling apparent in several of them. Two or three of the external muscles of the body were examined, but were only found to present a tendency to fine mottling in particular fascicles. The liver weighed five pounds; its cells were abnormally free from oil; the gall bladder was small, and contained a small quantity of dark bile. The spleen weighed ten ounces and a half; it was healthy. The two kidneys weighed fifteen ounces and half. The tufts and intertubular capillaries were loaded with blood, and the former were very opaque. The cells were small and imperfectly formed; but few well developed cells presented themselves. The renal tissue was generally very opaque, especially around the tufts, rendering the use of acetic acid necessary for a satisfactory examination; but hardly any oil was discovered. Many separate tubes were loaded with cells, and quite opaque. The shape and size of the tubes were normal. Several of the small arteries were hypertrophied; the matrix was thickened.

Trichinæ. Although no deaths have been reported in France, the Government has taken the subject into its consideration. Last year the Minister of Agriculture, etc., requested the Academy of Medicine to inquire into the matter, and that body commissioned Dr. Delpech to report on the disease. The Minister had, moreover, sent Dr. Delpech, and M. Raynal, Professor at Alfort, to Germany to examine the disease as regards animals.

Original Communications.

CASE OF INFANTICIDE.

By John Barclay, M.D., Banff, N.B.

Cases of infanticide are unfortunately of too frequent occurrence all over Great Britain; but their frequency, and the experience that ought to be derived therefrom, has not rendered the examination of the murdered infants very much easier, nor smoothed away the many difficulties attendant on the giving of evidence when the mothers are brought to trial. Few cases are recorded in the medical journals; and the reasons why this is the case are many, one of the chief being, that the great majority of practitioners have little or no interest in medico-legal work—not finding it, I suppose, to their interest to take any.

It were a good thing if the medical periodicals would devote part of their space to forensic medicine, for reports of instructive and interesting cases, and for the discussion of medico-legal subjects in general.

The following is a case curious from the mode in which death was brought about. Ten days after its birth, the child was discovered in a wooden box in the mother's bed-closet, and submitted for inspection. The following is a copy of the report sent to the Procurator-Fiscal.

"We hereby certify on soul and conscience that, between the hours of twelve o'clock noon and two o'clock afternoon, on Wednesday, the sixteenth day of March, 1864, we inspected the dead body of a female infant, daughter of B—— T——, then lying within the Sheriff Court Buildings, Banff, parish and county of Banff, when the following appearances were observed by us; viz.:

"(*Externally*). The body, which was well formed and well nourished, was wrapped in a grey wincey petticoat, which contained also the after-birth, the sleeve of a white cotton shirt, and a piece of flannel; the whole being soiled with blood and the matter peculiar to the bowels of infants at birth, the so-called 'meconium'. The body measured nineteen and a half inches in length, and ten and a half inches from the crown of the head to the centre of the navel. Along with the after-birth it weighed nine, and without the after-birth eight, pounds imperial. Skin of the head and face of a bright red colour, except around the eyes, where it was of a bluish or greenish tinge. Transparent parts of the eyes dimmed and fallen in. In front of the neck, midway between the top of the breast-bone and the chin, and a little to the right of the middle line, a bluish discoloured spot, of an irregularly circular form, an inch in diameter either way. Three slight discolourations of the skin on the neck beneath the left ear, each half an inch in diameter. A bluish discoloured spot, an inch in diameter, over which the scarf-skin was partially detached, on the upper part of the right breast. The rest of the front of the breast reddish. Sides of the belly greenish. Twenty-two and a half inches of the navel-string remained attached to the body in a flaccid state, the extremity of which was regularly divided, but presented no appearance of having been tied. Six inches of the navel-string also remained attached to the after-birth, the extremity of it likewise presenting the same regularly divided appearance. Joints flaccid. Dependent parts of the body of a livid colour. The fatty matter peculiar to the skin of infants at birth present in the armpits and groins. Finger-nails pale. Skin of the hands as far as the wrists blanched and wrinkled. Thumbs drawn into the palms of the hands, and the fingers bent upon them. Great toes bent slightly downwards. The body exhaled a very putrid odour. Nothing else unusual observable on the exterior of the body.

"(*Internally*). Scalp bloody; veins on the external and internal surfaces of the brain intensely loaded with dark fluid blood. A greater number of bloody points in the brain than usual. Tongue projected beyond the gums in front, which had left their impressions upon it. Nothing unusual in the mouth, throat, or gullet. Frothy glairy fluid in the windpipe. On dissecting the layers of the skin involved in the above-named discoloration in front of the neck and the fleshy parts underneath it, a very small quantity of dark effused blood was seen between the two fleshy bundles on the right side of the neck, termed the 'sterno-hyoid' and the 'sterno-thyroid' muscles, the effusion being about a quarter of an inch in its greatest breadth, but not of sufficient thickness to admit of being measured. The spots seen on the breast and on left side of the neck had no effused blood underneath them. Right side of the heart contained little, but the left side was full of dark fluid blood. The lungs, fully expanded and filling the cavity of the chest, weighed nine hundred and eighty grains; their margins were rounded; they crackled on being cut and handled, and gave out air-bubbles on being pressed under water. Together with the heart and part termed the 'thymus', they floated high in water, and alone they floated high above its surface, both whole and in fragments, and both before and after firm compression. The surfaces of the lungs were extensively mottled with bright rose patches on a chocolate coloured ground, and there was less blood in the lungs than usual. Bloodvessels peculiar to the infant at and before birth slightly contracted and filled with a pale yellow solid matter. Stomach filled with a reddish glairy fluid. Bladder empty. A bony point at the lower end of the thigh-bone. The green matter peculiar to the bowels of infants at birth in the large gut. Nothing else unusual observable within the cavities of the head, chest, or belly, or about the top of the spine.

"We further certify on soul and conscience, that, from the above examination of the body of this infant, we are of opinion that it had been born at or near the full period of its mother's pregnancy; that it had lived to respire; and that its death had been caused by apoplexy (congestive) of the brain, the probable result of pressure applied to the bloodvessels in front of the neck.

"(Signed), ——————."

In the case of this child, which had arrived "at or near the full period of its mother's pregnancy", the intention of the parent had no doubt been to asphyxiate it by pressure on the throat; but ignorant of where the windpipe was to be found, or missing it in the excitement of the moment, she applied the pressure with her thumb firmly on the right side of the neck exactly over the large venous trunks, and with her fingers, though not so firmly, on the left side of the neck over the upper end of the sterno-mastoid muscle, thus pretty effectually arresting the flow of blood downwards from the brain. That such was the case, is, I think, amply borne out by the intensely congested state of the head and face, and of the brain and its membranes; by the fulness of the left side of the heart; by the state of the tongue, thumbs, and great toes, which indicated death by convulsions; and by the absence of any of the signs

death from asphyxia, or of any other adequate use of death. The process of respiration had been ery fully established, as seen in the well-developed ndition of the pulmonary air vesicles, ascertained y the application of the various tests, and by the ntracted state of the fœtal bloodvessels. No uric id crystals were found in the kidneys. The bony oint was very distinct in the lower end of the igh-bone.

REMARKABLE CASE OF "MISSED LABOUR":

RETENTION OF A FŒTUS IN THE ABDOMEN FORTY-THREE YEARS.

By R. W. Watkins, F.R.C.S., Towcester.

N January 10th, 1866, I visited, by request, Elizaeth Jones, aged 74, widow of William Jones, a small illage shopkeeper at Stoke Bruerne, Northamptonire. She gave me the following history, which I ill narrate as nearly as possible in her own words.

About forty years ago, she was in labour with her econd child. Her first, born two years previously, aving had water in the head, had survived its birth aly a few hours. The labour being very lingering, ey had sent for my late father, who attended her, nd remained with her during the night. On the llowing day, being very busy, and the labour aving made no progress, he left her in charge of the idwife who was in attendance upon her. The ains were lingering, but not very severe. On the ird day, she felt something "drop down suddenly side her; and the child, the movements of which e had constantly felt up to that time, at once beame cold as a stone." She was in great pain, and y father attended her for a considerable period. he refused to allow any other surgeon or physician attend her, or to have any operation performed. he gradually improved in health, although she was ery weak for a long time, and did not decrease in ze for several years.

Upon examination, I found her much emaciated, ith a hard bony tumour in the lower part of the bdomen, exactly resembling the fœtal head. It ould be easily moved from side to side; and, on areful manipulation, I believed that I felt the back art of the thorax in close approximation to it. She as evidently sinking from chronic renal disease; nd, knowing that her end was approaching, had ent for me to request that I would make a *post ortem* examination. She had previously made a imilar request to Mr. William Knott.

The story was corroborated by some of her neighours, and by the rector of the parish, who had eard from my father a full report of the case. It as also stated, that at different times three little ones, "like finger-bones," had come away from her; ut they had not been preserved.

On referring to old ledgers, I found the entry of the ttendance on October 8th, 1822, in the handwriting f my grandfather, with the subsequent payment of e fee marked in my father's handwriting, and ith his initials.

The woman died on January 13th, and the exaination was made on the 15th by Mr. William nott, in the presence of Mr. Knott, sen., Mr. Garke, and myself. On making an incision through he abdominal parietes and opening the peritoneum, e immediately observed a hard white substance, hich proved to be the vertex of a fœtal skull; and, n enlarging the opening, a perfect fœtus was exracted without difficulty. It was covered with lastic lymph; the limbs were flexed anteriorly on the body, and the head bent forwards to meet them, in the manner usually depicted in plates of the gravid uterus. It was attached by the umbilical cord to a vascular tumour of about the size of half an orange, which appeared to be the atrophied placenta, and which was connected by ligamentous attachment to the peritoneal covering of the broad ligament near the left ovary. One portion of this vascular tumour appeared to be a mass of unorganised lymph, containing fluid. Neither the fœtus nor the supposed placenta had any adhesions to the peritoneum, except the ligamentous attachment I have already mentioned. The uterus was perfectly normal. There was no cicatrix or other marks of injury on any portion of its surface. The ovaries were pale, but quite natural in size and form. There were no adhesions of the peritoneum in any portion of the abdominal cavity, and no appearance of previous inflammatory action in any part of the large or small intestines. The kidneys were extensively gorged with venous blood, and very friable; the left being more affected than the right. The spleen also was much congested and friable. The stomach and liver were healthy. The gall-bladder contained about twenty hard dark gall-stones. The pancreas was very much diminished in size. In front of the aorta, and immediateiy above the inferior mesenteric artery, to which it was connected by condensed cellular tissue, was a white encysted tumour, of about the size of a hen's egg, containing a milky fluid.

The above extraordinary case is, so far as I am aware, quite unique, and will be interesting, not only as an instance of recovery from tubular gestation and probably rupture, but also from the comparatively slight local and constitutional effects of a foreign body retained in the cavity of the peritoneum for more than forty-three years. The specimens have been forwarded to Dr. Barnes, for exhibition at the meeting of the Obstetrical Society.

PROPAGATION OF SYPHILIS BY VACCINATION.

By J. Hyde Houghton, Surgeon to the Dispensary, Dudley.

In the Journal of January 6th is a paragraph of which the following is a copy: "Dr. Millard, of the Hôpital St. Antoine, has related in *L'Union Médicale* what he considers an undeniable case of syphilis produced by vaccination. The case has also been most carefully investigated and the conclusion accepted by MM. Depaul and Ricord."

Apropos of the subject, I beg to send notes of a case (carefully taken at the time) which has lately come under my observation.

Louisa B., aged 9 years, was admitted a patient at the Dispensary, November 1st, 1865, under my care. She was a pale but tolerably well nourished child. The tongue was clean; the appetite good; the bowels regular. The child was considered by her mother to be in pretty good health, but had been brought to the dispensary for a "rash". She had a scaly eruption with a well marked coppery colour, most plentiful on the scapulæ and nates, but also more slightly on the shoulders, chest, and abdomen; a little also on the upper part of the thighs. There was falling off of the hair on the head, eyebrows, and eyelids. She was subject to ulcerations about the angles of the mouth (still existing), and well marked mucous tubercles round the anus and vagina. The bridge of the nose was rather expanded, but the teeth were not notched or conical.

Her mother was a healthy, pretty-looking woman, aged 33. Her father was quite healthy, aged 40. I

had no reason to suspect any trace of syphilis in either. Her mother had had seven children, and one abortion six years since.

The first child was born fourteen years since, and died aged 4, of scarlet fever. It had always been quite healthy, and never had any "rash" before the fever.

The second child died in twenty-four hours after a very severe labour. It seemed quite healthy.

The third is alive and well. It never had any rash or illness.

The fourth lived only twenty-four hours; the cause of death was unknown. It had no skin-disease, and seemed healthy.

The fifth is the patient. She was born quite healthy, and never had any rash or indisposition till after vaccination at three or four months old, soon after which she had ulcers behind the ears, under the arms, and round the anus, etc.; and she had had more or less of an eruption ever since, but for the last three or four weeks it had been becoming much worse.

Two children had been born since. Both were well, and had never suffered from any rash or had any indisposition in their lives.

The child was put under a course of bichloride of mercury; and the tubercles were dusted with calomel. On November 29th, the tubercles on the anus were quite well; those on the vagina nearly so. On December 13th, the tubercles and ulcers at the angles of the mouth were quite well. The stains had entirely disappeared. She was quite free from all trace of syphilis, and her health was much improved.

I have taken pains to make the most careful examination of, and inquiries respecting, the father and mother, and of the other children, to endeavour, if possible, to find if any trace of syphilis, or any history of syphilis, existed in either; and I have also made collateral inquiries (into the history of the father particularly), and I am unable to find the slightest ground of suspicion of syphilis. The brother of the father, a most respectable man, holding a responsible situation, to whom I explained the reasons of my inquiries, and who was well able to appreciate the scientific importance of them, assured me that he had never had any reason to suspect that his brother had had syphilis, and that he well remembered the children who died being remarkably beautiful and healthy-looking.

I presume, then, that the account of the symptoms and the results of the treatment prove to a demonstration that the disease from which the child suffered was without doubt syphilis; and it appears to me equally conclusive that the poison was conveyed by vaccination.

Two healthy parents have born to them seven healthy children. The first four and the last two have never presented the slightest trace of syphilis. The fifth child is born healthy. After vaccination at the fourth month, symptoms appear, which continue with more or less severity for nine years; they present the best marked indications of constitutional syphilis, and are immediately relieved and speedily cured by mercury. If the first four children and the last two escaped the infection, the proof appears to me conclusive that the disease was not hereditary. How, then, was it induced? Its appearance almost immediately after vaccination, in the absence of any other apparent source, seems to me equally conclusive as to its origin.

Sources of fallacy in the argument, which have escaped me, may occur to others more conversant with the subject than I am; but the question is so important and interesting, that, should such arise, I shall be happy to make any further investigations suggested to me to establish the case as one of "syphilis induced by vaccination", or to show that I have been in error in my conclusions. One fact, however, strikes me as satisfactory; viz., the doubt which exists in the professional mind on the subject is a clear proof of the infrequency of the "propagation of syphilis by vaccination".

N.B. I forgot to mention that the children living are models of health.

Reviews and Notices.

ON THE ANATOMY OF VERTEBRATES. Vol. I. FISHES AND REPTILES. By RICHARD OWEN, F.R.S., Superintendent of the Natural History Department of the British Museum, etc. Pp. 650. London: 1866.

IT is now more than ten years since the talented author of this work published the second edition of his *Lectures on the Comparative Anatomy and Physiology of the Invertebrate Animals*, which contained a full exposition of his views on the organisation of that division of the animal kingdom. We have now the gratification of announcing that he has contributed a further instalment towards a complete treatise on Comparative Anatomy.

To the proper subject matter of the volume Mr. OWEN has prefixed an elaborate preface. Anatomy, he says, may be studied in several ways and for several purposes. 1. An animal, as man, the horse, or any other, may be dissected in order to a knowledge of its structure, without reference to any other. To this kind of investigation belong Anthropotomy or the Anatomy of Man, and Hippotomy or the Anatomy of the Horse. As unsurpassed examples of "this monographical kind of anatomical science", in addition to the numerous works on man and on the horse, the author refers especially to the treatises of Lyonnet on the Cossus Ligniperda (*Chenille du Saule*); of Bojanus on the European Tortoise; of Straus-Durckheim on the *Melolontha Vulgaris* and on the Cat; of Elijah Walton on the Camel, etc.

2. Another application of anatomical research is to the investigation of some particular organ or system, either in one animal or throughout the animal kingdom. This is exemplified in Mr. Swan's works on the Nervous System, and in Mr. Owen's on Odontography. The most signal example, however, is in the Hunterian collection, which is arranged in series according to the organ, from the simplest progressively to the most complex conditions. "The mechanism of the organ is here unfolded, and its gradations are compared, to discover its mode of working"; and this kind of investigation may be termed Physiological Anatomy.

3. A third kind of anatomy is the Homological, which has been termed "Transcendental" or "Philosophical". This "seeks in the characters of an organ and part those, chiefly of relative position and connection, that guide to a conclusion manifested by applying the *same name* to such part or organ." Its concern is not with function, but with important generalisations.

4. A fourth kind of anatomy is that which traces the development of a species from the impregnated ovum—Embryology or Developmental Anatomy.

5. Zoological Anatomy investigates the structure of an animal in its totality, illustrating the degrees of affinity and the circumscription of natural groups.

6. Histology gives the results of researches made by means of the microscope on the tissues.

7. A seventh way of studying anatomy is followed "when we pursue investigations of form and structure beyond the animals that *are* to those that *have been*". This is Palæontology.

After describing these various methods of anatomical study, Mr. Owen shews that the ordinary limitation of the term Anatomy to Anthropotomy is incorrect, inasmuch as "no special anatomy can be rightly and fully understood save on the basis of the general science of which it is an integral part". It is only by the study of anatomy throughout the animal kingdom that we can trace parts from their irrelatively repeated development in the lower forms of animal organisation to their reduced number and specialised function in the higher forms; so that "we pass from the many and the like to the few and the diverse".

The author then says a few words on *homology*—a term which had been in use before 1843, but had often been confounded with analogy. The difference must be now known to many of our readers; but Mr. Owen's concise definition may be repeated.

"'Analogy' strictly signifies the resemblance of two things in their relation to a third; it implies a likeness of ratios. An 'analogue' is a part or organ in one animal which has the same function as a part or organ in another animal. A 'homologue' is the same part or organ in different animals under every variety of form and function."

In other words, analogy may be said to mean functional or physiological identity; homology, structural or anatomical identity.

After giving examples of homology, the author explains the reasons which led him to attempt a reform in the nomenclature of the parts of the skeleton.

Commenting on zoological anatomy as an "indispensable instrument to the classifier, if not to the determiner, of the species of animals," Mr. Owen enters into some controversial remarks for the purpose, as he says, of condemning the practice of "representing a zoological definition of a part which an anatomist may have given in a classificatory work, as the exponent of his homological knowledge and descriptive of such part in its various modifications and grades of development."

Embryology is next commented on; and it is shewn that "every species is such *ab initio*, and takes its own course to the full manifestation of its specific characters, agreeably with the nature originally impressed upon the germ." The stage of formation of the germ-mass having been completed, the development of the animal proceeds according to its specific type, without passing through stages identical with the conditions met with in lower forms. Even in the instance of marked deviation from the archetype in certain species, these are at once approached during development, and are not the result of secondary change.

"If, in a thoracic or jugular fish, the position of the pelvic limbs departs from the typical one, these limbs bud out in the embryo in that special and anomalous place. When a higher species departs from type by a thoracic position of the scapular or occipital limbs, they likewise bud out in such special position. In both cases the hæmal arch, sustaining such appendages, is liberated from the rest of the segment for the special needs of the species, and the embryo of such never shews it fixed."

Several instances are given for the purpose of showing how the study of the archetype skeleton explains the empirical facts of embryology; and it is also shown that embryology of itself cannot be safely applied to the determination of the homological relations of parts.

In his remarks on Palæontology, the author observes that "the existing kinds of vertebrates constitute part only, perhaps a very small proportion, of those which have lived." The study of extinct animals shews also, he says, that

"A progress from more generalised to more specialised structures, analogous to that exemplified in existing grades of animal life and in successive phases of individual development, is appreciable in the series of species which have succeeded one another upon this planet.

"Certain structures which are transitory or rudimental in existing species are persistent and developed in extinct."

Thus the caudal vertebræ, which in existing species of fishes and of birds are blended together, retained the embryonic form and remained distinct in the palæozoic fishes and mesozoic birds. The earliest eocene ruminant—the *Anoplotherium* of Cuvier—retained the transitory characters of its successors—the distinct metacarpals and metatarsals, and the absence of horns; and developed the aborted characters—having small and equal sized upper canines and incisors. In the eocene mammal representing the horse, those parts of the foot which are rudimentary in the modern animal were developed, so that a foot with three digits existed.

Of the "rudiments" of parts and organs which are retained undeveloped or do not arrive at functional development in existing species, some "shew beginnings of parts which rise to perfection in higher orders of the existing species; others are remnants of organs that were fully developed and functional in extinct species." Instances are given also of the loss or modification of parts, which Mr. Owen attributes to external circumstances; such as loss of certain of the resisting structures of the foot in the camel and other animals which frequent arid plains or deserts; and the degeneration of the visual organ in species inhabiting dark caves or recesses. Again,

"The prevalence of birds in New Zealand without wings (*Dinornis*) or too feebly developed for the purpose of flight (*Apteryx, Brachypteryx, Nitornis*, etc.), is associated with the absence in those islands of any higher form of life exercising distinctive mastery of organisation, until the immigration of the human race. The wings of such birds, like the eyes of the cavern fishes and crustaceans, would seem to have degenerated for want of use; their legs, by which locomotion was exclusively exercised, to have gained in size and strength."

External circumstances, such as change of climate, may produce not only the modification but the extinction of species. This extinction, Mr. Owen observes, falls on the larger rather than on the smaller animals; and this he attributes to the circumstances that the larger animals are more liable than the smaller to suffer from such agencies as drought or

want of food; and that the smaller animals are, as a rule, more prolific than larger ones.

"The actual presence of small species of animals in countries where larger species of the same natural families formerly existed, is not the consequence of any gradual diminution of the size of such species, but is the result of circumstances which may be illustrated by the fable of the 'Oak and the Reed'; the smaller and feebler animals have bent and accommodated themselves to changes which have destroyed the larger species. They have fared better in the 'battle of life'."

While Mr. Owen thus admits the force of external agencies in affecting the continuance of organs and of species, he is not prepared to follow the Darwinian hypothesis of the origin of species by natural selection—a hypothesis which, he says, is powerless to explain the differences in structure which, *e. g.*, distinguish *Troglodytes* from *Homo*.

We now come to the work itself of which we have analysed the preface; and, as it is naturally a collection of details, it would be impossible to enter on any long examination of the author's statements. It contains twelve chapters.

In the first chapter, the general Characters of Vertebrates, developmental and structural, and their modifications, are described. On the divisions of the vertebrates, the author remarks:

"The broad and well marked characters afforded by the respiratory system will probably give permanence to the division, so convenient for most purposes, of the vertebrate province into four great classes; viz., *Pisces, Reptilia, Aves, Mammalia.*

"But many important relations and affinities are thereby masked. Although the last two classes agree, as 'hot-blooded vertebrates', in their higher cerebral development, and in the more complex heart and lungs, birds, by genetic and developmental characters, as well as by the general plan of their organisation, are more naturally and intimately allied to the oviparous saurians than to the viviparous mammals. In their generation and development, modern batrachians differ from other cold-blooded air-breathers, and agree with fishes. Present knowledge of extinct forms clearly exposes the artificial nature of the primary groups of oviparous vertebrates. An important link, the *Pterosauria*, or flying reptiles, with wings and air-sacs, more closely connecting birds with the actual remnant of the reptilian class, has passed away. Other extinct orders (*Ganocephalia* and *Labyrinthodontia*) have demonstrated the artificial nature of the distinction between fishes and reptiles, and the close conditions that connect together all the cold-blooded vertebrates." (P. 6.)

Of the different modes in which a binary division of vertebrates may be effected, Mr. Owen prefers that which arranges them into "*Hæmatothermal*, having the four-chambered heart, spongy lungs, and hot blood; and *Hæmatocryal*, having less perfect breathing organs, less complex heart, with cold blood." The *Hæmatocrya*—fishes and reptiles—form the subject of the present volume; and they are divided into five subclasses—Dermopteri, Teleostomi, and Plagiostomi (including Fishes), Dipnoa (comprehending the extinct Ganocephala, Labyrinthodontia, and Batrachia), and Monopnoa, including the extinct Ichthyopterygia, Sauropterygia, Anomodontia, Dinosauria, and Pterosauria, with the existent Chelonia, Lacertilia, Ophidia, and Crocodilia.

In the following eleven chapters are discussed in order the Osseous, Muscular, Nervous, Digestive, Absorbent, Circulatory and Respiratory, Urinary, and Tegumentary Systems of Hæmotocrya, their Peculiar and Ductless Glands, and Reproducible Parts, the Generative System, and their Generative Products and Development.

Such a work as this is beyond criticism. When the second volume appears, there can be no question that the whole will form the great English work of the day on the Comparative Anatomy of the Vertebrates.

Some Effects of the Climate of Italy. By Thomas King Chambers, M.D., Fellow of the Royal College of Physicians; Honorary Physician to H.R.H. the Prince of Wales; etc. Pp. 95. London: 1865.

The substance of this book has already appeared in the form of lectures in the pages of a cotemporary; and the author has revised his remarks, and arranged them under four heads; viz.: 1. Personal Experience; 2. Statistical Evidence; 3. Powers of the Air; 4. Practical Application.

In the first part, Dr. Chambers tells us how, after having in 1864 undergone amputation of the thigh on account of rupture of the popliteal artery, he attempted at the end of some months to return to his professional duties, but soon found himself unfit for the task; and how, at the advice of his friends, he relinquished practice for a time and travelled to Italy, returning with renewed health. He gives a description of the condition in which he found himself at starting—a condition which is common enough, and which is popularly known as a "break-up". There is no manifest disease, but an apparent readiness for the inroad of disease and degeneration. There is no pain, no abnormal discharge of function; yet the functions are imperfectly performed, and the individual is not what he has been. After a time, unless the general health be attended to, the disorder fixes itself on some one organ—generally that which has been overworked during the early period of failing health. He then goes on to point out the necessity of attending to this condition and employing proper means; and shews how, in his case, his health was restored by his Italian travel, without the aid of medicine.

Being led by this to inquire what was the actual effect of the Italian climate in producing and arresting disease, he found, he says, that the evidence of the medical profession in Italy went to shew that in that country cases of acute greatly predominate in proportion over those of chronic disease. This subject he further examines, in the second part of the book, by Statistical Evidence. He first gives the result of an examination of the Register of Mortality in Genoa for the year 1861, and of the English Registrar-General's Report for 1862. The population of Genoa he has taken as 120,000, and the register showed 4,303 deaths; while in London, comprising a population of 2,804,000, there were 67,371 deaths. It will be seen that the mortality in a given population is greater in Genoa than in London; the proportions being about 3:2. He finds that the proportion of deaths from zymotic diseases to the total deaths was nearly the same in the two cities; while chronic diseases shewed a mortality of

1 in 3.2 in London, and of 1 in 5.6 in Genoa; acute diseases (excluding zymotics) giving 1 in 7.7 deaths in Genoa, and 1 in 3.3 in London. He also compares the statistics of the Ospitale Maggiore at Milan, where 61,761 medical patients were admitted in three years, with those of St. Mary's Hospital in London, where 7,319 medical cases were admitted during nine years, and brings out the following results.

At the Milan Hospital, chronic diseases, 1 in 13; at St. Mary's Hospital, 1 in 5.

At the Milan Hospital, acute diseases (including zymotics), 1 in 1.9; at St. Mary's Hospital, 1 in 31.

In any conclusion to be drawn from hospital statistics, there is an important point to be borne in mind, of which Dr. Chambers does not take notice; viz., to what extent selection has been carried out in the admission of cases. His statistics, and his deductions therefrom, should, before being finally accepted, be tested by other competent observers. In the meantime, taking the two returns (those from Genoa and Milan) together, we must acknowledge that he has given *primâ facie* evidence of a remarkable prevalence of acute over chronic disease in Italy, as compared with England. He concludes from his investigations:

"1. That there is a remarkable excess in the mortality from chronic disease in London over that of an Italian town similarly circumstanced.

"2. That this excess in mortality is united to, and probably arises from, an excess in prevalence.

"3. That the excess is most striking in diseases where a tendency to degeneration of tissue is the most marked, and the most directly the cause of disease.....

"4. The proportion of degenerative to other diseases is here exhibited in such as are wont to seek public aid in sickness, and is not confined to those in easy circumstances. It may, therefore, with reason be attributed to the climate or endemic habits of life, and not to any peculiarity of class." (Pp. 47-8.)

The remaining two parts of the book contain some information on the climate, physical peculiarities, etc., of Italy, and on the diseased states likely to be benefited by a sojourn in that country. There are also some practical suggestions and cautions, by which the value of the book is increased.

AUSTRALIA FOR THE CONSUMPTIVE INVALID: the Voyage, Climate, and Prospects for Residence. By ISAAC BAKER BROWN, junior, late Surgeon-Superintendent H.M. Emigration Service. Pp. 138. London: 1865.

MR. I. B. BROWN believes that, though books have been written on the climate of Australia, no attempt has hitherto been made to "set forth impartially the great and diversified advantages to be gained by residence in the various parts of this vast territory." This defect he endeavours now to supply; and accordingly gives sundry remarks on climate and consumption; on the voyage to Madeira, the Canaries, etc., and to Australia; and specially, for the most part as the result of personal observation, descriptions of the climates of each of the different parts of Australia—pointing out their distinctive characters, and showing how incorrect it is to speak in general terms of "the climate of Australia". The book is written for the laity, and seems likely to be of service to them; but the author believes also, and rightly, that it may be found useful by professional men.

Progress of Medical Science.

ANATOMY, PHYSIOLOGY, & PATHOLOGY.

INFLUENCE OF CHLOROFORM ON RESPIRATION AND CIRCULATION. Dr. P. Q. Brondgeest sums up, in the following conclusions, a paper on the influence of chloroform on the action of the heart, on respiration, and on the pressure of the blood, in connection with section of the vagus nerve, and with poisoning by woorara. 1. The inhalation of chloroform exercises a remarkable influence on the frequency and strength of the heart's beat. The rhythm of the beat is at first slow, but afterwards is quickened; this quickening continues until death, and is accompanied by a diminution in the power of the heart's action. 2. These phenomena appear whether chloroform is inhaled through the mouth or through an opening in the trachea, provided that it be given in sufficient quantity. Small quantities of chloroform administered during a long period do not exercise any undoubted influence on the action of the heart. 3. The pressure of the blood diminishes from the commencement of the inhalation of chloroform, until death. This diminution of pressure takes place during the retardation of the heart's beat, as well as during its acceleration. 4. After poisoning by woorara, retardation of the heart's action sets in, in some manner, and the heart's beat rapidly becomes very weak, so that death speedily follows, sometimes even during the retardation, sometimes when there is some acceleration. 5. After division of both pneumogastric nerves, the inhalation of chloroform is attended by a slow and regular diminution of the heart's action. A sudden and remarkable diminution does not occur. Death follows very speedily. 6. The respiratory movements, like the heart's action, are suddenly rendered slower; and then, almost simultaneously with the heart's action, are accelerated. They cease before the movements of the heart. 7. After division of the pneumogastric nerves the respiratory movements suddenly cease, often for half a minute; after which they return and are quickened. 8. Among the causes of death after the administration of chloroform, paralysis of the heart's action comes specially into notice. The chloroform exercises a paralysing action either on the muscles or on the nerve-centres of the heart, from which the rhythmic contractions proceed. Contractions cease sooner in the ventricles than in the auricles. 9. When the heart's movement has nearly ceased, the surest means of arousing it, and of obviating death, is to employ artificial respiration for a lengthened period. 10. When both pneumogastric nerves are divided during narcotism from chloroform, the heart's action is not remarkably quickened, but it continues until death of less power than before the section was made. (*Nederlandsch Archief voor Genees- en Natuurk.*, 1865.)

EPITHELIAL CANCER OF THE ŒSOPHAGUS: PERFORATION OF THE AORTA. Dr. C. van Wicheren relates the following history of a patient who was admitted into hospital only a few hours before death. J. B., an under-officer in the miners and sappers, aged 49, had been addicted to drink up to the commencement of his illness. In May 1863, he began to complain of pain in the region of the throat, closely resembling gastralgia. Narcotics and antacids were

given with apparent, but only temporary, benefit. In January 1864, he felt difficulty in swallowing solid food. There was also occasional vomiting after taking food. The pain, which was greatest in the epigastric organ, a little towards the left side, increased; while deglutition became more difficult, and the vomiting more frequent. The patient had already for some time abandoned the use of stimulating meat and drink, and confined himself to soft or fluid food, as nutritive as possible, and in sufficient quantity. He took oleaginous and narcotic medicines when the pain or vomiting were especially severe, with much relief. The vomited matters consisted of food mixed with much mucus; but hitherto had never contained blood. Notwithstanding the dysphagia, pain, and vomiting, scarcely any loss of strength or emaciation could be perceived; the patient was able to transact some business daily. The appetite remained for some time keen, although the tongue was permanently covered with a greyish coat, and a very unpleasant odour escaped from the mouth.

His condition appeared to remain unchanged for a long time, when, on August 28, after an act of deglutition, he felt a violent tearing pain in the course of the œsophagus. Febrile reaction followed, and the patient, through almost total abstinence from food for several days, felt weak. This peculiar severe pain did not return; and when, after some days, the patient ventured to take more solid food, it unexpectedly passed down much more readily than before. The vomiting was also less frequent: the vomited matters now contained, besides pieces of food, frequently a muco-purulent, sometimes a rust-coloured fluid.

On the whole, the patient for some time felt much relieved. The pain had not indeed entirely left him, but its duration was much shorter, and it was less violent, since deglutition had become much more easy; he felt as if the impediment were in a great measure removed. He was thus enabled to take a sufficient amount of food, in the fluid form, to increase his strength and arrest emaciation. The skin was very pale, but had not a cachectic appearance.

This favourable change was of but short duration. From the end of September deglutition became still more difficult and painful than before, and the vomiting increased. In the beginning of October the vomited matter was nearly entirely coloured with blood. On the evening of October 14th, six ounces of blood were vomited, and the patient had a feeling of severe oppression which lasted all night. Medical aid, however, was not called in till the next morning, when the vomiting of blood had again occurred, and the patient's condition had become very dangerous. At ten o'clock on the morning of the 15th he was brought into hospital, where he was found to present evident symptoms of internal hæmorrhage. The countenance was clearly pale, and had an anxious expression; the eyes were sunken, and the lips and tongue pale; the limbs were cold, covered with clammy sweat, and trembling; the pulse was very small, and the patient was nearly in a state of syncope. At about half-past eleven the patient again vomited a quantity of arterial blood amounting to nearly fourteen medicinal ounces. The collapse increased, and, towards one o'clock in the afternoon, the inclination to vomit returned, with most severe depression, under which the patient sank before the act of vomiting could be accomplished.

Post Mortem Examination. The body was in good condition. The epigastrium was raised, resistant to pressure, and dull on percussion. The stomach, which was much distended, was opened along the greater curvature after tying the duodenum, and was found to contain a large quantity of coagulated blood. The mucous and other membranes of the stomach were normal, without ulcerations or erosions. On turning aside the intestines, the inferior vena cava and the aorta, at the level of the third and fourth lumbar vertebræ, were displaced from their normal course. This was caused by a circumscribed tumour, of the size of a small hen's egg, which lay between the vertebral column and the vessels. The latter were on both sides firmly united to the tumour, which raised them. The vessels themselves presented no morbid appearance.

The lungs were healthy; posteriorly there were firm adhesive bands between the costal and pulmonary pleura; the left lung was pretty firmly adherent to the middle part of the œsophagus. The heart was normal. There were very firm adhesions between the œsophagus and the vertebral column, and the aorta, trachea and œsophagus, were also firmly matted together by very thick connective tissue.

The œsophagus was considerably thickened just above the cardia, and the whole lower half was very firm to the touch. The lumen of the tube was so much narrowed, that the finger could not be introduced into it from the cardia. The lymphatic glands around the œsophagus and the bifurcation of the trachea were enlarged, very firm, and of a bluish black colour from the deposit of pigment. The upper part of the œsophagus was, on laying it open, found to be healthy.

From the level of the third dorsal vertebra to nearly an inch above the cardia, the mucous membrane of the œsophagus was nearly destroyed, or so loosely connected with the subjacent tissue that it could easily be removed by the forceps. Here and there small coagula of blood could be seen between the remains of the destroyed tissue. At the upper part, where the degeneration commenced, the lumen of the tube was narrowed, just as it was near the cardia. Between these narrowed portions the canal was distended backwards, at the point where the œsophagus passes over the aorta. Here not only the mucous membrane was destroyed, but also, in part, the remaining walls of the œsophagus. Opposite this point was found a small opening (about a square *centimètre*) partly covered with a thin pellicle. This opening was connected with the cavity of the œsophagus by a canal about four-tenths of an inch in length, directed obliquely downwards, and formed in the connecting tissue between the parts.

At the point of communication of the aorta with the œsophagus, the middle and external arterial coats, as well as the whole of the œsophageal walls, were destroyed for a space of about a *centimètre* around the opening. The internal coat was not affected; the pellicle which lay loosely over the opening was a portion of this coat, and could be placed over the hole so accurately that only a small fissure remained.

On microscopic examination, the destruction of tissue, above described, was found to be due to epithelial cancer. Cells resembling those of flattened epithelium preponderated so much in quantity, that scarcely any others of irregular form, or free nuclei, could be detected. In many cells the nucleus was distended into a large vesicle; here and there they were arranged more or less consecutively in small collections. Between the cells were scattered bands of connective tissue, and, near the perforation in the aorta, many twisted elastic filaments. The morbid deposit was found everywhere, immediately beneath the mucous membrane as well as in the muscular cord and in the connective tissue between the aorta and œsophagus. The large lymphatic glands behind the œsophagus presented a similar degeneration.

The tumour in the lumbar region also consisted of

epithelial cancer; it was circumscribed, and enclosed in a sac formed of the connective tissue between the large vessels and the vertebral columns. It was divided into large meshes by thin offsets of the connective tissue; and consisted of large flat rhomboidal cells. On the part of the vertebral column, from the sixth dorsal to the third lumbar vertebra, no trace of cancer could be detected in the connective tissue. There was thus no continuity of the disease; the tumour in the lumbar region was anatomically distinct from the disease in the œsophagus.

After summing up and commenting on the principal features of this case, Dr. van Wicheren remarks that instances of perforation of the trachea and of communication of it or the lung with the œsophagus, have been related by Lieutand, van Doeveren, Alberts, Vigla, Hartung, and other writers. There are also numerous instances in which hæmorrhage into the œsophagus has followed perforation of the aorta, but this has as a rule been the result of aneurism. Perforation of the aorta, as the result of cancer originating in the œsophagus, is very rare. Dr. van Wicheren has met with three cases only; one related by van Doeveren, another by Bürger, and a third by Pfeufer. As to the form of cancer affecting the œsophagus, Förster found that, in thirteen cases out of sixteen, it was of the epithelial kind. (*Nederlandsch Archief voor Genees- en Natuurkunde*, 1865.)

MEDICINE.

The Dropped Arm. Under this title, Mr. Hingeston of Brighton describes a rare form of paralysis of the arm, not resulting from lead poisoning. It appears to be the result of central nervous disease. It is the loss of the arm arising from muscular debility, or, more strictly speaking, from loss of tone of the nerves supplied to the arm through the axillary plexus. It is not a form of hemiplegia. It is a form of palsy, but altogether distinct from what is usually understood by the term of a paralytic stroke; neither is it any way akin to creeping palsy. which comes on stealthily, beginning with numbness of the limb, and gradually creeping up from the extremities to the trunk, and at last involving the whole of one side of the body, the half of the face, and the tongue; on the contrary, in these cases, there is no numbness of the arm, nor of the fingers, nor of the leg of the corresponding side. There is, primarily, loss of the use of the fingers of the right arm, for it must be remarked that the affection is limited to the right arm, and never, as far as Mr. Hingeston has seen or heard of it, extended to the left.

The first case of this sort that he met with, was in the year 1830. It occurred in the person of a German. He was a leuco-phlegmatic, somewhat corpulent person, a single man, and temperate. He began to lose the use of his hand. It was evidently not an ordinary case of paralysis. As his means were ample, all the learned and distinguished physicians and the highly talented surgeons of that days were consulted (who, with one exception, are now no more). One surgeon proposed cupping on the neck, a tartar emetic blister, and a smart course of calomel and opium. Time went on, and the patient got worse; his arm refused to work, and the hand would no longer hold the pen. As he was one of those who never yield to obstacles, he resolved to teach himself to write with his left hand; but, at last, he felt that he was no longer what he used to be, and was unable to cope with the rest of the world; so he retired to Germany. He had a flabby heart, and a predominant venous circulation. This gentleman eventually died of apoplexy.

We are requested to remind members of the Association that the Annual Subscriptions became due on the 1st of January. They can be paid either to the Secretaries of the Branches; or to the General Secretary, T. Watkin Williams, Esq., 13, Newhall Street, Birmingham.

British Medical Journal.

SATURDAY, MARCH 3rd, 1866.

THE ARMY AND NAVY MEDICAL SERVICE.

We this week publish the results of the labours of the Committee appointed by the Admiralty to Inquire into the Rank, Pay, and Position, of Army and Navy Medical Officers.

We believe the whole profession will agree with us, that the recommendations of the Committee, as embodied in these reports, will, if carried out by authorities, not only remove every just cause of complaint on the part of army and navy medical officers, but will render the services deservedly popular. More than this, we believe that, if new warrants are issued in accordance with the reports of the Committee, army and navy medical appointments, instead of being tabooed, will become objects of ambition with the best class of our young medical men; and that the examination for admission to the services will then be, what Lord Herbert desired they should, really competitive; which they assuredly are not at the present moment.

It will be seen that the Reports recommend the removal of every grievance complained of by our army and navy medical brethren; and, besides this, advise that a substantial addition be made to the pay of the medical officers in both services.

We cannot doubt for a moment that these recommendations will be also received by medical officers with full satisfaction; and that, if they be only faithfully and fully carried out, future discontent will be hushed in both services.

Our Association has a right to look to this bright conclusion with no little satisfaction; for it was with the British Medical Association that the movement commenced which has thus so far happily terminated. It should not be forgotten that, after attention had been called by our Journal to the grievances under which army and navy medical men laboured, the question was taken up seriously by the Metropolitan Branch of the Association; and that, in consequence, deputations waited severally upon Earl de Grey, the Commander-in-Chief, and Dr. Gibson. This serious agitation of the question doubtless gave an impulse to the minds of authorities to consider the matter.

Happily, at this juncture, the question was not allowed to slumber; but was further brought by Dr. Stewart and Dr. Markham before the Royal College of Physicians. After some discussion thereupon, a Committee was appointed by the College to inquire into the condition of army and navy medical officers. This Committee consisted of Dr. Black, Dr. Gavin Milroy, Dr. Stewart, Dr. Sibson, Dr. Armstrong, and Dr. Markham (who acted as secretary). The Committee entered heartily into a long and full investigation of the whole subject; and, after much labour, drew up a report, which was presented to the College. Considerable discussion took place thereon; and no little opposition (much of which manifestly received its inspiration from the Army Medical Department) was made to the report. The College Committee, nevertheless, thoroughly convinced of the justice of the cause they were advocating, remained firm to their text; and eventually the good sense of the College prevailed, and it was resolved that memorials embodying the grievances referred to should be presented to the First Lord of the Admiralty and the Secretary of War.

The result of these memorials was the appointment of the Admiralty Committee; by which has been produced the very important Reports now under our consideration.

All this is highly satisfactory. It shows excellent service done to the profession by the British Medical Association; it proves the high estimation in which the opinion of the Royal College of Physicians is held by the Government; and it also shows that there is no unwillingness on the part of authorities to do justice to our medical brethren, when their grievances are properly and fully brought under their consideration. Indeed, on this score we cannot but surmise that injustice has been done to the heads of the Army and Navy Departments. For it is certain that they have displayed an earnest desire on this occasion, both to learn the cause of the medical officers' grievances, and also willingness to remove them. In truth, the medical profession is deeply indebted to the gentleman who presided over the Committee—to Admiral Sir A. Milne—for his enlightened and liberal conduct of the business there; and for the very considerate way with which he entered into and met the grievances alluded to. We wish we could apply the same observations to those who have the immediate management of our Army and Navy Medical Service. We wish we could say, that none of the changes brought, year after year, against them, were unjust.

It appears to us that the Head Centre of the Medical Departments is ill constituted; that it possesses neither the power nor the influence, or, if it possess, knows not how to exercise that power and influence, which ought to be exerted by those who are the professional heads of these great public departments. We cannot help but ask ourselves this question—the profession has a right to ask: Why did not those who represent the Medical Departments speak to the authorities with the like professional tone, and to the same purport with that used by the College of Physicians? We feel bound to put the fact on record, that the heads of the Medical Department have not been able to procure justice for those over whom they immediately preside. And, more than this, we regret to add, that not only is it not through any action of theirs that all this great good has been won, but rather in spite of their action.

Our firm belief is, that if the whole case had been properly laid before the governmental authorities, these grievances would have been long ago removed. We say this, because in all this matter we note an earnest desire on the part of the Government to do full justice to medical officers. Indeed, what better proof of this can we have, than the fact of these Reports lying before us; which, if carried into effect, will undoubtedly, in the eyes of the whole profession, remove every cause of complaint on the part of medical officers?

To justify what we here say, we may remind our readers that every single advantage gained by our army and navy medical brethren during these last past years has been won for them by the determination of their brethren from without. If, for example, justice required what has been granted in the matter of branding, of forage, of mess-subscriptions, of servants, etc., why was it left to the profession at large to wring the benefits from authority by agitation? Why did not the heads of departments take care long ago that such justice was done? And then, again, in these great results—these Reports lying before us—what thanks to the proper heads of departments for them? Are not, indeed, these Reports, thus obtained, their very condemnation? Who have been more consistent opposers of the outside professional movement, which alone has brought about all this great good, than the heads of these departments? Is it not a notorious fact that every effort has been made by those in office to silence the voice of the profession at large—to arrest the action which has been effectual in obtaining these reforms? We speak strongly, because those to whom we refer have forfeited the confidence of the profession, and because we believe that the pressure of professional watchfulness should still be exercised in favour of our army and navy medical brethren. If, as we have seen, those who represent the medical services with the executive authorities are unable, either through the defect of the system which they administrate, or through their own want of courage, or of power to appreciate the duties of their high position—a position which should make those who occupy it the exponents of the highest professional sentiment, of the

science and the dignity of medicine—it is manifest that to the force of the profession at large our medical brethren in the services must look for support and comfort and justice.

In the meantime, we have to put it on record, that to the British Medical Association and to the College of Physicians must be given the credit of having brought the matter before the Government in its true light and professional bearing; and that to the Admiralty is especially due the credit of having listened to the voice of the profession, as represented by them. What thanks in this business are due to the Army Medical direction, from the Government on one hand and from the profession on the other, our readers can judge for themselves.

LOCAL ANÆSTHESIA.

We are very pleased to find that our notices of Dr. Richardson's method of producing local anæsthesia have attracted the attention of heads of the profession in this country. We have week after week alluded to the subject on account of its very great and immediate importance. The number of deaths which have resulted from chloroform even during the past few months, when administered in trivial operations, is really lamentable. But now we have a right to say that any deaths which may in future result from chloroform administered to produce anæsthesia in the performance of small external operations, will bring a most heavy responsibility on those in whose hands they happen. The certainty, the rapidity, and the facility, with which Dr. Richardson's method may be applied locally, are now facts beyond all dispute. To what extent this local method may be applied, we have yet to see; but its present success seems well to justify Dr. Richardson's hopes and ambition to apply it with success in large and deep-cutting operations—even in large amputations. The importance of this method has from the very first deeply impressed itself upon us; and therefore is it, that we again and again thus urge it upon the attention of our brethren. One incidental remark we may add. It is that here, as in like instances, humanity has to thank science, and not quackery, for the benefits which medicine bestows upon mankind. Who ever heard of any such great good having sprung from the dead sea of homœopathy, or of any other of those delusions and treacheries which disfigure and disgrace our profession? Indeed, it is something remarkable, and to us very suggestive and satisfactory, that there is no instance of one—the smallest—addition to medical science, or to any of its kindred studies, having been made by those who profess and practise the delusions referred to. No spark of living science has ever yet been struck by those *soi-disant* medical men who have fallen into that *mare mortuum*. Is not this fact something to make such men reflect? Must there not be fatal error in a practice, they might ask themselves, which yields to its professors only the bitter apple which crumbles into dust when touched? All lovers of our profession will rejoice that this method is the device of one who has long devoted himself to physiological and pathological researches—of one who may truly assume the title of a scientific physician. We must be permitted, in conclusion, to express a word of regret and surprise that some of our medical contemporaries have either not seen or have neglected to acknowledge this immense boon which Dr. Richardson has given to surgery.

Since the above lines were written, we have received the following from Dr. Richardson. That his method should have partially failed in his first attempt at a large operation, is only what every impartial observer would naturally expect; but the very fact of his attempting it, and the amount of success, show clearly enough that, with a modification of instruments and more experience in like cases, the very great and desirable end will be obtained.

"12, Hinde Street, W., February 28th, 1866.

"Sir,—Permit me briefly to intimate that the first application of my method of local anæsthesia in a capital operation has been made this day by myself at St. Mary's Hospital, with but partial success.

"The operation, which was performed by Mr. James Lane, was the removal of the carcinomatous breast of a woman far advanced in life. The superficial incisions were conducted without pain; but the deeper incisions and dissections gave rise to the expression of great pain on the part of the patient.

"The reason why the success was not perfect was, that the apparatus I employed had not sufficient power to narcotise the whole of the structure. I had provided myself with a triple jet spray-producer; but, at the moment when it was wanted, from a mechanical difficulty which could hardly have been foreseen and which is readily obviated, it ceased to act. I was, therefore, obliged to use the single jet, which proved too limited in effect. The mass to be removed having a broad, deep, and firmly adherent hold on the muscles, and being exceedingly vascular, I could not produce a sufficient extension of the anæsthetic process to allow Mr. Lane to dissect with the rapidity necessary in cases where the flow of blood is large.

"Since my first announcement of the new method of local anæsthesia, on the third day of this month, not less than one hundred and fifty minor operations have been performed by it successfully; and in this case a deeper anæsthesia was produced than is necessary for any of the operations which you have epitomised in your leading articles. For deep operations, involving incisions of several inches below the surface, it will, however, be requisite, as the case referred to proves, to have the means of readily extending the anæsthetic effect at present producible.

"You have taken, sir, so able and so generous an interest in my labours, that I feel it due to you and your readers that you should be the first to state how far those labours may be safely trusted, and where their success ceases.

"I am, etc., B. W. Richardson."

At another page of the present number, our readers will find a highly interesting letter from Dr.

Cruise of Dublin, who narrates a case requiring something beyond a superficial incision, in which Dr. Richardson's method was employed with perfect success throughout the operation.

Homœopathy has issued its cattle-plague manifesto; viz., a Report guaranteed by the signature of "Marlborough, Chairman." It appears to be a tolerably honest document, for it admits a complete collapse of homœopathic curing of Cattle-plague—rather a painful confession, after so much noisy boasting! The Report of the Association for the Trial of Preventive and Curative Treatment of the Cattle-Plague by the Homœopatic Method tells us

"That it has now been three months in operation, having had extensive experiments carried out in Norfolk, Yorkshire, Cheshire, etc. The general result has been a conviction that, while very much may be done by isolation to prevent the spread of the disease, and considerable success has attended the practice of remedial treatment when assisted by careful nursing and proper diet, yet the degree of constant watchfulness needed for the due administration of homœopathic remedies is so great that much success by this system in so new and formidable a disease can hardly be expected from any others than skilful veterinary practitioners or persons conversant with the system and method of practice."

Their great gun and comfort in the Report is a return from a Mr. Hope of York, a layman. He writes:

"I am happy to inform you that homœopathy has had the honour of clearing the city of York of the plague, for the last five cows were cured by me in fourteen days."

Notwithstanding their effervescent layman Hope, the Association honestly admits itself to be a failure, and then explains the matter.

"The greatest watchfulness and skill are requisite in carrying out the homœopathic treatment, each symptom, as it manifests itself, requiring specific attention, and thus calling for a greater extent of competent medical assistance than can be obtained. The legislature having now ordered the slaughter of infected and suspected animals, the efforts of the Association must necessarily be suspended."

The sum of this tale, then, is, that they have arrived at the conviction that the isolation of diseased cattle will do a good deal towards preventing the spread of the disease, but that homœopathy can do nothing—the symptoms of Cattle-plague being so numerous and complex as to overwhelm the capacity of globulistic veterinaries.

Lord C. Paget, in bringing forward the navy estimates in the House of Commons on Monday last, thus referred to the Admiralty Committee on Army and Navy Medical Officers:

"There is another very valuable and important class of officers in the navy, though one not included in its combatant sections. I speak of the medical officers, whose professional services being much sought after and far better remunerated in private practice than in the navy, has rendered it absolutely necessary that better prospects should be held out to attract them to that service. My noble friend, the Duke of Somerset, therefore called together, during the autumn, a committee, which was presided over by Sir Alexander Milne, a distinguished admiral, and on which officers of the army and navy were placed, together with two eminent medical men (Dr. Markham and Mr. Busk), the one a member of the College of Physicians and the other a member of the College of Surgeons; and I am bound to say, that both of those bodies have given us their most cordial assistance with a view to put the medical officers of the navy in such an improved position as that, while no unreasonable demand shall be made on the public, greater inducements than heretofore shall be offered to tempt them to make the navy their profession. Sir, that scheme will likewise be laid before the House in a very short period."

Sir J. Pakington said:

"I think it necessary to allude to the intention of the Admiralty, as a result of the recommendation of the committee, to improve the position of the medical officers of the navy. I did not understand him to say whether the committee sitting on the subject had made their report; but I will be glad to find the noble lord coming down to Parliament and proposing some change in the position of these officers; for it was a matter of great regret to me that one of the first acts of the Admiralty was to reverse the changes which I had made for the benefit of the medical officers of the navy. The result has been that this branch of the naval service is left in a most unsatisfactory position. It is not to be wondered at, therefore, that, during the last few years, a difficulty has been experienced in getting students to enter the service; and I am glad that the Admiralty appear to think it necessary to retrace their steps."

Deputations from the various literary and scientific institutions of the West waited on the Mayor of Exeter on the 17th ult., to petition him that he would invite the British Association for the Advancement of Science to hold a meeting in the ancient city of Exeter at an early period. The British Medical Association was represented on the occasion by Mr. T. L. Pridham, President of the South-Western Branch; Dr. Shapter, of the Exeter Hospital; Mr. De la Garde, Senior Surgeon of the Exeter Hospital; Mr. C. E. Roper, Surgeon to the Exeter Hospital; and Dr. Nankivell, of Torquay. The meeting was unanimous in its wishes to welcome the members of the British Association to visit Exeter.

Mr. Simonds's last report has, we suppose, given the finishing stroke to Mr. Worms's cattle-plague perfect cure. The following is Mr. Simonds's summary of inspection of Baron Rothschild's cattle, under Mr. Worms's treatment, and said to have been living demonstrations of its successful application.

"*Summary of the* 25 *Animals.* 11 are unaffected; 5 are not severe cases of plague; 5 have died; 4 are sinking under the attack.

(Signed) "Jas. B. Simonds."

Mr. Worms, we believe, brought his cure from Ceylon, where he witnessed its wonderful effects on animals who, no doubt, never had the cattle-plague.

ARMY AND NAVY MEDICAL SERVICE.

REPORT

Of the Committee appointed by the Lords Commissioners of the Admiralty, Her Majesty's Secretary of State for War, and Field Marshal His Royal Highness the Duke of Cambridge, Commanding-in-Chief, to inquire into the whole question of the Rank, Pay, and Position of the Medical Officers of the Navy and Army, in terms of the following letter:

Admiralty, 20th November, 1865.

SIR,—My Lords Commissioners of the Admiralty have, in conjunction with Earl de Grey and Ripon, and his Royal Highness Field Marshal the Duke of Cambridge, Commanding-in-Chief, nominated certain officers to constitute a Committee to inquire into the whole question of the rank, pay, and position of the medical officers of the Navy and Army.

The Royal College of Physicians and Surgeons have, at the request of the Admiralty and War Office, each nominated a gentleman to assist in the deliberations of the Committee.

The following is a list of the members of the Committee:—

Vice-Admiral Sir Alexander Milne, K.C.B.
Major General Lord William Paulet, K.C.B., Adjutant General.
Captain Douglas Galton, F.R.S., Assistant Under Secretary of State for War.
Sir James B. Gibson, K.C.B., Medical Director General of the Army.
Dr. Alexander Bryson, C.B., Medical Director General of the Navy.
Dr. William O. Markham, Fellow of the Royal College of Physicians.
George Busk, Esq., F.R.S., Member of the Council of the Royal College of Surgeons.

The Board of Admiralty and the Secretary of State for War are desirous that you should preside over the meetings of this Committee. You will call such evidence and for such documents as may be necessary to enable the Committee to arrive at a full knowledge of the facts involved in the questions submitted to you.

My Lords and the Secretary of State for War will be glad to receive from the Committee, at as early a date as may be convenient, a report of their opinions, with any recommendations they may have to make, and the evidence upon which such recommendations may be founded. I am, Sir,

Your most obedient Servant,
(Signed) W. G. ROMAINE.

Vice-Admiral Sir Alexander Milne, K.C.B.

1. The Committee having met on the 20th November, considered it desirable that the evidence taken before the Royal Commission in 1857-8, "on the regulations affecting the sanitary condition of the army," under the presidency of the late Lord Herbert, with the Report and Recommendation of that Commission, and also the Evidence and Report of a Committee of the House of Commons in the session of 1856, on the Medical Department of the Army, should be laid before them. Those public documents contain much information respecting the position of army medical officers at the period of the issue of these reports, and their claims for consideration at the hands of Her Majesty's Government, and explain the grounds on which the Secretary of State for War promulgated the Royal Warrant of 1st October 1858, which conferred on the medical officers of the army "relative rank, with all precedence and advantages attaching to the rank with which it corresponds, except as regards the presidency of courts martial."

2. It appears that not long after the issue of that Royal Warrant, some alterations in its provisions were made by a memorandum issued from the Horse Guards in December, 1858, depriving medical officers of certain advantages which had been conferred upon them by the terms of the Royal Warrant, and in particular excluding them from the presidency of courts of inquiry, of committees, and boards of survey.*

The alterations introduced by this memorandum were embodied in the new Army Regulations of 1st December, 1859, and were confirmed by a Royal Warrant of date 1st May, 1863.

Considerable disappointment appears to have arisen in the minds of the medical officers of the army, when these alterations in the Royal Warrant of 1st October, 1858, became known and their operation practically felt; and the existence of this feeling was brought prominently under the notice of the Secretary of State for War in a memorial addressed to him on the 12th July, 1865, by the president and fellows of the Royal College of Physicians, in which they express their great regret "to know that a general and settled feeling of discontent with their condition prevails among the medical officers of the army, and they cannot doubt that this must operate prejudicially, not only on the interests of the medical profession, but also and with still more injurious effect upon the military service of the country."

3. The evidence adduced before the Committee, bears out the statement of the College of Physicians, that a feeling at present exists on the part of the medical officers of the army that they have been deprived of some of the advantages accorded to them by the Royal Warrant of 1858; and witnesses have stated that they consider their position to be in some respects even more unpleasant now than before the issue of the Warrant which was intended to remedy all cause of discontent, on account of the terms of the Warrant not having been faithfully carried out.

The expression of complaint at being deprived of their position as presidents of courts of inquiry, of committees, and boards of survey, is not, however, entirely unanimous. The medical officers have no wish to be mixed up with questions of discipline,† but they consider themselves aggrieved at being disqualified from being presidents of those mixed boards at which, by their professional education, they are specially fitted to lead an inquiry, and at being obliged to appear only as witnesses, when these Boards are presided over by combatant officers junior to themselves in rank.

4. After giving full consideration to every point involved in this question, both as regards the general discipline of the army on the one hand, and on the other the natural feeling of disappointment on the part of the medical officers, as to the non-recognition of their relative rank, the Committee has come to

* Also a Warrant of March 28th, 1861, negatived Clause 16 of the Warrant of 1858, which gave the surgeons relative rank according to dates of commission; but this Warrant of 1861 was itself negatived by Warrant of May 1863, and the original clause (16) restored.

† In the Army Medical Instructions there is inserted a letter, addressed to the Secretary of State for War, by the late Lord Herbert, explaining the principles and the changes introduced in the new code. He says:—

"In the Hospital Regulations generally we have, in accordance with the opinion of the Royal Commission, liberated the medical officers, wherever it is possible, from all duties not strictly professional; a change indispensably necessary for the efficiency of the medical officers, in order to enable them to devote more time to the higher duties of their profession, and the better to perform the sanitary duties with which we have now charged them."

the conclusion that, as "such relative rank shall not entitle the holder to military command of any kind whatsoever, nor to the presidency of courts-martial," the interests of the service would not suffer, by so far re-establishing the provisions of the Royal Warrant of 1st October, 1858, as to confirm the right of medical officers of the army to preside at Boards to which they may be summoned (with the exception of courts-martial and courts of inquiry into military offences) according to their relative rank with combatant officers (See Appendix, No. 68, 69.)

It has, however, been given in evidence that there does not appear to exist any real necessity for continuing those mixed boards, which now give rise to difficulties in regard to relative rank, and that a regulation might be laid down, with advantage to the service, for referring questions requiring medical opinions to the medical officers for their report; and we would submit this suggestion for the consideration of the authorities.

5. Another source of complaint assigned by medical officers has regard to their social position at mess, on public occasions; they consider that, by the terms of the Royal Warrant of 1st October, 1858, they are entitled to "all precedence and advantages attaching to the rank with which it corresponds." The evidence as to the position accorded to medical officers at mess shows that in some regiments the precedence was at once accorded on the receipt of the Royal Warrant, whilst in others it has been left without notice, and no precedence has been given; and the Committee has evidence that in one case at least such precedence, after having been given, was withdrawn.

The apparent fact that the medical officer is regarded as having no defined position has evidently caused considerable irritation and ill-feeling; and this feeling, we are of opinion, would be removed by the establishment of a regulation so framed as to prevent future misunderstanding, as we consider that it was intended by the terms of the Royal Warrant to place medical officers upon precisely the same basis in regard to position as other officers of corresponding rank. We therefore recommend that the first position at mess on official occasions should be occupied by the senior combatant officer present; and that the second position when formally assigned should properly be determined by the relative rank of the officers present; at the same time, we do not consider that it is advantageous to the service, that there should be a second recognised place.

6. Again, some of the medical officers of the army have represented that it is a cause of disappointment, in their branch of the service, that their position, according to their relative rank with the combatant officers, is not more publicly known or acknowledged; and these officers consider that it would be only due to their officially recognised position in Her Majesty's service, that their names should be inserted in the general list of army combatant officers, according as they rank with such officers, and that their names should in a similar manner appear in the list of combatant officers in each regiment. The Committee are of opinion that the relative rank of each medical officer should be easily ascertainable by reference to the official Army List, but consider that great inconvenience would arise were the names of the medical officers intermingled with those of the combatant officers in the general and regimental lists. They consider that it is due to these officers that their names should be placed in a more prominent position in their respective regiments than is the case at present, and that they should be inserted above all the officers of the staff, and that a general list of all the medical officers of the army should appear in the official list, wherein at a glance might be seen their relative rank with each other, and also with the several ranks of combatant officers, and the number of the regiment in which they may be serving.

It has also been brought to the notice of the Committee, that the removal of the medical officers from the list of the regimental staff in the classification of officers in the Queen's Regulations is considered prejudicial to their professional position; the Committee recommend that they should be restored to their former position; and they submit for consideration whether the medical department should not be placed immediately after the list of combatant officers in the Army List, as from ther greater liability to exposure to the casualties of the service, they stand in a closer relation to the combatant officers than do officers of the other departments.

7. Another source of misunderstanding has been brought under the notice of the Committee; namely, that medical officers holding the relative rank of field-officer, and as such granted forage, are not permitted to appear mounted on parade. The Committee are of opinion that, as it is manifestly most inexpedient that differences of practice should occur in the service, according to the different views of the commanding officers as to these officers appearing mounted or not, it should be made compulsory for every medical officer ranking with a field-officer to provide himself with a charger, and to appear mounted on parade.

8. The Committee having given their careful attion to these several matters of detail which were put forward in the memorial of the Royal College of Physicians as causes of complaint, operating prejudicially not only on the interests of the medical profession, but also with still more injurious effect upon the military service of the country, and having recommended such measures as they believe will remove these difficulties, have taken into consideration the question of pay and retirement.

The Director-General, in his replies to certain questions put by the Committee, has stated that he has at present a sufficient number of medical candidates for the wants of the army service; but it would appear that since the establishment of the competitive examination at Chelsea in the year 1860, a period representing thirteen sessions, the number of qualified candidates has on three occasions fallen short of the number of vacancies; but it may be added that, on other occasions, the examinations have rarely been so fully competitive as is on many accounts desirable, and as it was hoped they would be when these examinations were instituted.

In order to render this more manifest, and to show how desirable it has become to endeavour to attract a larger number of well educated candidates to compete for admission into the army medical service, and at the same time to point out what would appear to be some of the causes of the present deficiency of eligible candidates, the Committee offer the following statement.

In the Appendix No. 20 will be found a return of the number of candidates who have been examined at Chelsea Hospital as to their professional qualifications between January 1860 and February 1865. During this period, the candidates who passed were arranged in three divisions or classes, according to the number of marks gained. The result during the period in question was as under.

1st Class.	2nd Class.	3rd Class.*	Rejected.
6	144	199	110

* It should be stated that 19 of the third division did not enter the service, owing to there not being a sufficient number of vacancies at the time.

These figures seem to establish the fact that a majority of candidates passed with the minimum qualification required for their admission at all into Her Majesty's service. But it is further to be remarked that, during the last three years, there has been a gradual increase in the number of candidates who passed in the third class, and simultaneously a considerable increase in the number of those rejected. Thus, during 1860, 1861, and 1862, there were passed into the service,

6 candidates in the first class.
72 „ „ „ second „
45 „ „ „ third „

Whilst during 1863, 1864, and the first half of 1865, there were,

0 candidates in the first class.
72 „ „ „ second „
135 „ „ „ third „

And of 167 candidates for examination in 1860, 1861, and 1862, 25 only were rejected; whilst in 1863, 1864, and 1865, of 319 candidates, 99 were rejected; that is to say, about 15 per cent. failed in the examination in the former period, and 30 per cent in the latter. To which it may be added, that at the last examination in August 1865, of 31 candidates, 17 were passed and 14 rejected, or at the rate of more than 45 per cent.

It is manifest, therefore, that there is at present a considerable deficiency of candidates of that higher class of professional attainments which it was hoped would have presented themselves as competitors for Her Majesty's service, and which it is on every account so desirable to procure.

In endeavouring to find the reasons for this deficiency, the Committee have been led to the conclusion that it may be referred to several causes, some intrinsic to the service itself, and some extraneous to it.

The alleged causes of the unpopularity of the army medical service, arising from the so termed grievances of the officers, have already been sufficiently adverted to. The following reasons, extraneous to the service, accounting for the dearth of well qualified candidates, have been brought to the notice of the Committee.

(1) That, although the number of surgical diplomas from the Colleges of London, Edinburgh, and Dublin would appear to have increased during the last ten years, it appears by evidence to be the general impression that the actual number of surgical practitioners has decreased, or not kept up with the increase of population;* whereas a far wider field for the medical profession has been opened out in the emigration-ships, and in the service of the large steam-navigation, mining, and other companies, and in the colonies.

The consequence is, that Her Majesty's service is brought into a more severe competition than formerly with the other demands upon the medical profession.

(2) In further explanation of the comparatively small number of English candidates, and as showing that at present the army medical service is not sought by a very large number of medical students whom it would be desirable to induce to become competitive candidates, it has been stated by the professors at Netley, and by other competent witnesses, that few of the numerous students frequenting the London medical schools can at present be induced to come forward at the examinations. The number of English students who now present themselves is so small as to be out of all proportion with the number of medical men educated in England, as will appear from the circumstance that, out of the last 490 candidates for admission into the army medical service, 264 were educated in Ireland, 89 in Scotland, only 89 in England, and 48 in mixed or foreign schools. Of those 490 candidates, 347 were received into the service; viz., 168 Irish, 71 Scotch, 71 English, and 37 from mixed schools.

It appears, also, that at a late Chelsea examination, of 77 successful candidates, 47 were from Irish, 18 from Scotch, and only 8 from the English medical schools; so that practically, at the present time, the list of candidates at the competitive examination receives but a very scanty addition from the numerous class of English students, and the medical service of the army derives but little benefit from the immense field of instruction afforded by the great schools and hospitals of the metropolis.

In addition to what has been shown above with respect to the position taken by the majority of the candidates who have passed at the Chelsea examination, and the large proportion of those that have been rejected, it should be remarked that, in the classification there given, only the strictly professional qualifications are regarded; but, besides this, several witnesses have stated, and the Committee are of opinion, that it would be highly desirable, if possible, to secure for the Medical Department of the Army the services of men not only professionally qualified, but also of better general education and information than would appear to be possessed by many amongst those who have presented themselves for examination.

9. In view of the proper requirements of the service in this regard, and in order to encourage the coming forward of a larger number of the most eligible class of candidates, and thus to render the competitive examination really worthy of that name, and such as was contemplated upon its establishment, the Committee, from the information before them, and supported by the deliberate opinions of gentlemen of the highest professional attainments and experience connected with the medical schools of London, who have been examined, consider that, besides the removal of the alleged grievances of medical officers above referred to, a certain increase of pay is absolutely called for; and with this view, and after full consideration, they recommend that an increase of pay should be extended to medical officers, in accordance with the annexed scale. (*See Table, next page.*)

A proposal to increase the pay of the inspectorial ranks was made, but the Committee, being divided in opinion, do not make any recommendation.*

10. The Committee also consider that the prospect of optional retirement at an earlier period than at present permitted would prove a further inducement to young medical men to enter Her Majesty's service; they therefore recommend that army medical officers should be permitted to retire after twenty years' service on full pay; but at the same time, with a view to guarding the interests of Her Majesty's service, they are of opinion that the rate of half-pay awarded to officers so retiring should not exceed five-tenths of their full-pay,† and that officers with

* So far as can be gathered from the Medical Directories, the number of practitioners in the United Kingdom has very slightly increased in the last five years; and the number of medical students registered in the English schools has diminished during the same period. The number of surgical diplomas granted by the Royal College of Surgeons of London during the fifteen years ending 31st December 1849, was actually slightly in excess of the number granted in the last fifteen years.

* The proposal was to increase the minimum pay of Deputy Inspectors-General to 30*s.*, after twenty-five years' service to 34*s.*, and after thirty years to 38*s.*; of Inspectors-General to 45*s.*, and after twenty-five years' service to 50*s.*

† As recommended to the Committee of the House of Commons in 1856, by Sir Andrew Smith, when Medical Director-General of the Army.

Scale of Pay proposed for Army Medical Officers.

Rank.	Under 5 years' service.		Above 5 years' service.		Above 10 years' service.		Above 15 years' service.		Above 20 years' service.		Above 25 years' service.		Above 30 years' service.	
	Present rate.	Proposed rate.	Present rate.	Proposed rate.	Present rate.	Proposed rate.	Present rate.	Proposed rate.	Present rate.	Proposed rate.	Present rate.	Proposed rate.	Present rate.	Proposed rate.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Assistant-Surgeon	10 0	10 0	11 6	12 6	13 0	15 0	13 0	17 6+	—	—	—	—	—	—
Surgeons	..	..	..	..	15 0	17 6*	18 0	20 0	—	—	—	—	—	—
Surgeons-Major	..	..	..	..	..	..	..	..	22 0	24 0*	25 0	27 0	—	—

* Or on promotion.

+ Provided he passes his examination before ten years.

this service should be permitted to retire on the present half-pay of their rank, if, after one year on half-pay, they are reported by a Medical Board to be permanently unfit for further service.

11. The Committee further recommend, that as a special reward to officers of long and good service, who, owing to the comparatively small numbers of the inspectorial ranks, have not been promoted to any higher position than that of surgeon-major, such officers of the rank of surgeon-major, as have served for twenty-five years on full pay should, on being compulsorily retired at fifty-five years of age, receive the half-pay of £1 a day, but such officers retiring voluntarily under fifty-five years of age should receive only seven-tenths of their full pay.

And that all medical officers who may be found unfit, by a Medical Board, for further service, in consequence of illness contracted in and by the service, shall be allowed to retire on the rate of half-pay to which they may be entitled by service, according to the rates at present allowed. Surgeons-major of twenty-five years' service so retired, to be granted £1 a day.

12. In the course of the examinations before the Committee, the question of placing all medical officers on the staff and of doing away with the regimental system has been repeatedly alluded to. The opinion of officers on this point appears to be much divided. The majority of those attached to regiments express themselves disinclined to any change, which no doubt would alter their social connexion with their regiments, but others strongly advocate a measure which would unite the medical officers as a body in one scientific corps, and under one system. This question appears to the Committee to be beyond the province of their inquiry, but to be well deserving of consideration.

We have now to recommend:

1. That at all Boards upon which army medical officers may be summoned as members, they should sit and take precedence according to their relative rank, and should preside, if senior in relative rank to the combatant officers, with the exception of courts-martial and courts of inquiry on military offences.

It is, however, suggested, for the consideration of the authorities, whether it is not advisable to establish regulations for referring all necessary questions to medical officers for their opinion and report, and to discontinue the system of mixed boards.

2. With the view of preventing misunderstanding as to relative rank at mess:

That invitations sent by the colonel, or officer commanding, in the name of himself and the officers of a regiment, be considered official, and that the senior combatant officer present should always preside; and

That, where a second position is formally assigned on such occasions, such position should be determined by relative rank, as defined by the Queen's Regulations and Warrants; we consider however that no second place should be recognised.

3. That in the Monthly Army List, the names of the medical officers of each regiment be inserted above those of the other regimental staff, with a heading of "*Medical Officers.*"

Also, that a general list of all medical officers in the army be inserted in the Monthly Army List, and that in such list the relative rank of each class of medical officers with the corresponding rank of combatant officers should be clearly stated; thus:

Inspectors General of Hospital (ranking with Major Generals).

Deputy Inspectors General of Hospital (ranking with Colonels), etc.

And that opposite the name of each officer should be the number of his regiment or the station on which he is serving.

That medical officers be replaced in the list of the regimental staff in the classification of officers in the Queen's Regulations; and it is submitted for consideration whether the Medical Department should not be placed immediately after the lists of combatant officers in the Army List.

4. That medical officers, ranking with field officers and being allowed forage, should be ordered to provide a charger and to appear mounted on parade.

5. That increase of pay and earlier retirement be granted as defined in paragraphs Nos. 9, 10, and 11.

MEDICAL OFFICERS OF THE NAVY.

The Committee having met to consider the rank, pay, and position of Naval Medical Officers, the Chairman stated that Captain Henry B. Phillimore, R.N., had been appointed a Member of the Committee, and would attend in the place of Lord W. Paulet, K.C.B., on the inquiry respecting the Medical Officers of the Navy.

The Evidence and Report of the Royal Commission in 1840 on Navy and Army Promotion; and

The Evidence and Report of the Committee of the House of Commons on the Navy Estimates in 1848;

were added to the other papers already on the table.

A memorial addressed by the Royal College of Physicians, dated the 12th July, 1865, to his Grace the Duke of Somerset, First Lord of the Admiralty, pointing out the "general and settled feeling of discontent with their condition which prevails among the Medical Officers of the Navy;" and "that it is highly desirable that the medical services of the Army and Navy should be assimilated as closely as their relative nature will admit in rank, pay, position, and retirement," was read; also three letters respecting that memorial, from Dr. Bryson, C.B., Medical

Director-General of the Navy, to the Lords Commissioners of the Admiralty.

At the commencement of the inquiry into the condition of the Naval Medical Service, the Committee was informed by Dr. Bryson that he experiences the very greatest difficulty in obtaining young men to join the service; and that at present he has only 3 candidates on his list, while upwards of 40 Assistant-surgeons are required to supersede Surgeons employed in lieu of Assistant-surgeons, to fill up vacancies, and to provide for the common exigencies of the service.

Deeply impressed with the gravity of this condition of the service, the Committee have in the first place endeavoured to discover the reason for so great a deficiency of candidates, and from the evidence brought before them have come to the conclusion that it may be referred chiefly to the following causes:

1. The Committee was informed that when the Royal Medical Warrant of 1st October, 1858 became known to the Lords Commissioners of the Admiralty, they obtained an Order in Council, dated 13th May, 1859, and in the same month issued a Circular Order conferring rank, pay, and retirement on Naval Medical Officers, on the same terms as were granted to Army Officers.

It is alleged that the non-fulfilment of this Order in Council in some of its provisions has acted prejudicially to the interests of the service, by deterring medical candidates from entering the naval service, and that the professors at the various schools have dissuaded students from doing so.

The existence of this alleged grievance, and the unfavourable impression produced by it upon medical teachers and students, and consequently its prejudicial effect upon the service, appears to be fully established by the evidence before the Committee, and it is also confirmed by Dr. Bryson in his letter of the 9th August, 1865.

2. A second reason may be sought in the fact that, although the number of surgical diplomas from the colleges of London, Edinburgh, and Dublin has apparently increased during the last ten years, the general impression of medical gentlemen is that the actual number of medical students has decreased or not kept up with the large increase of the population.

3. A third reason for the deficiency of medical candidates for Her Majesty's Service, and one which would seem to be of great force when taken in conjunction with the foregoing, is the wider field which of late years has been opened for surgeons, both in this country and abroad, in emigrant ships, and in the service of the large steam navigation, mining, and other companies, and in the colonies, etc.

Her Majesty's Service therefore is necessarily brought into a much more severe competition with the general public demand for medical men than was formerly the case.

Exclusive, however, of these considerations, the Committee are led to believe that a general opinion prevails at the medical schools that the naval service does not hold out the same inducements, nor the same prospects as the Army Medical Service; that, independently of the personal and social discomforts which are inseparable from a sea life, and which are especially experienced by young men on their first joining the naval service, the pecuniary and social advantages are in favour of the military service; and that young men, in the choice of a profession in which their future prospects are so materially involved, naturally prefer that service which appears to them to hold out the greatest advantages. That this is the case appears to be confirmed by the fact that, whilst the army obtains as many medical officers as are required, the navy does not secure the requisite number of candidates for the service, and many young men resign their appointments to seek other employment.

The contrast between the two services with respect to the relative rank, pay, allowances, and position of the respective medical officers is shown in the following statement of particulars, and from returns which appear in the Appendix it was ascertained that, although the full and half-pay and retirement are the same, there are certain differences in pecuniary and other allowances between the two services disadvantageous to Naval Medical Officers.

1. For instance, by the Royal Warrant of 1st October, 1858, and the Order in Council of 13th May, 1859, it is stated that there shall be four ranks of medical officers, namely,—

Inspector-General;
Deputy Inspector-General;
Surgeon, who after 20 years' service shall be styled Surgeon-major in the Army, and Staff-surgeon in the Navy;
Assistant-surgeon.

But in the Army the Surgeons-major have not only been put on a separate list, but promotion to that list has been made by Royal Warrant, virtually establishing "Surgeons-major" as an additional or fifth rank.*

In the Navy no such distinction has been made, either in respect to a separate list of Staff-surgeons, or a distinct rank, the Order in Council only admitting of the four ranks. This difference of practice gives the Army Service an advantage.

2. The Assistant-surgeon of the Army counts all the time he serves on full pay towards his future promotion, advanced pay, and retirement.

The Assistant-surgeon of the navy, although his full service counts towards increased pay and retirement, can only count 10 years of his service towards his promotion as Staff-surgeon.

3. The Army surgeon is always on full pay, except in cases of reduction, consequently all his time from his entry into the service is available continuously for future advancement.

With the Navy-surgeon it is different; he is placed on half-pay so soon as his ship is paid off, and may not be again employed for one, two, or more years, all of which time is lost to his future advancement and retirement; and from the evidence as well as the return it appears the naval surgeon on an average has to be about 24 years in the service before he can complete 20 years' full-pay time.

4. Although the Order in Council of the 13th May, 1859, established the same rates of full and half-pay and retirement to Naval Medical Officers as were given to the same rank of Army Medical Officers by the Royal Warrant of 1st October, 1858; yet the pecuniary and other allowances have not been equalised; for instance,—

5. At the military hospitals at home, Army Medical Officers and Naval Medical Officers at the Royal Marine Infirmaries, in addition to their full pay, are allowed servants, or an allowance of one shilling a day for each, and the number of servants is fixed according to relative rank. They are also granted fuel and candles, or a money allowance instead, also barrack furniture (abroad 1*s.* 6*d.* for servants).

The Naval Medical Officers at hospitals above the rank of Assistant-surgeon have no allowances of any description whatsoever; they have only the full pay of their rank, but on foreign stations have allowances in lieu of provisions.

* In May 1865, Dr. Cogan, Surgeon of the 2nd Regiment, was specially selected for advancement to Surgeon-Major after only fourteen years' service, in consequence of meritorious service at Bermuda during the epidemic of yellow-fever in 1864-65.

6. The pecuniary travelling allowances for Army Officers are fixed according to relative rank.

The naval allowances are not fixed according to relative rank, but at a lower rate according to a classified scale (*see* Admiralty Instructions, pages 235-6).

7. By the Royal Warrant prize money in the Army is to be shared according to relative rank.

In the Navy the distribution of prize-money by Royal Proclamation is not classified in the same manner as in the Army, and is consequently not shared according to the principles of relative rank.

8. Military officers when serving in India, and also in some of our colonies, receive pecuniary allowances, of a local character.

The Naval officer, unless when serving on shore, does not benefit by these regulations.

9. The Senior Medical Officer serving on a foreign station has an allowance according to the number of the troops on the station (*see* Article 9, of Medical Warrant).

The Naval Medical Officer has no such advantage.

It has been stated to the Committee, in the course of the evidence given by Naval Medical Officers, that, independently of the differences which exist in allowances granted to Army Medical Officers from which Naval Medical Officers are excluded, there are several other causes for complaint on their part in respect to their position, which they consider should be remedied.

10. They consider that they are entitled from their relative rank to the choice of cabins, in the same manner that Army Officers are entitled to the choice of quarters, with the view of obtaining a cabin between decks for some period of their service instead being always in the cockpit.

11. That the claim of Assistant-surgeons to cabins should be more clearly acknowledged, as the existing Admiralty Order is sometimes not carried out or is evaded.

12. That Staff-surgeons from their rank are entitled to more consideration than at present, in respect to servants.

13. That in the Army, with nearly the same number of medical officers above the rank of Assistant-surgeon, there are 7 Inspectors-general, and 26 Deputy Inspectors-general on full pay, whilst in the Navy there are 7 Inspectors and only 15 Deputy Inspectors, 3 only of the former and 13 of the latter being on full pay, and they request consideration as to an increase of these few rewards for long and meritorious service, either by appointing Deputy Inspectors to flag-ships, in place of Surgeons, or otherwise as may be thought fit.

14. That the periods of retirement by age should more nearly correspond with the Army Regulations, in order to advance promotion.

15. That more opportunities for shore or home appointments should be open to Naval Medical Officers by limiting such appointments to five years.

16. That they should have equal consideration in the award of honorary distinctions under the statutes of the Order of the Bath as Army Medical Officers.

17. That extra pay, lodging money, and compensation for losses to Naval Medical Officers should be determined according to relative rank.

18. That Naval Medical Officers should participate in the advantages of Greenwich Hospital pensions.

19. That when Surgeons are required by the exigencies of the service to perform the duties of Assistant-surgeons they should enjoy all the advantages of the higher rank.

20. That from the difficulty of keeping up their professional knowledge when at sea, Assistant-surgeons should be allowed leave of absence to attend a medical school to enable them to qualify for their examinations.

21. That Staff-surgeons, in order that they may be placed in their proper position according to relative rank, should rank with Commanders by date of commission, and that the wording of Articles 3, 4, page 40, of the Admiralty Instructions, and the last clause paragraph 9, of the Circular of May 1859, require reconsideration as affects the position of Medical Officers.*

22. That the full pay should be increased, as an inducement for those qualified candidates to apply for admission into the service, who now seek other and what they consider to be more advantageous employment.

1. The Committee have given careful consideration to these various subjects of complaint with respect to the service itself and to the circumstances which appear to be efficient causes of the dearth of medical candidates, and, impressed with the reasonableness of some of the alleged complaints, and with the propriety and justice not only of placing the medical officers of the Navy in the same position in regard to all advantages as those of the Army, but in view of the circumstances which naturally render the naval the less popular service of the two to men who enter it at a mature age, they are of opinion that, so far as is practicable, such additional advantages should be held out to Naval Medical Officers as may in some degree compensate for the less favourable nature of the naval service; and particularly for the difference which exists between the two services in the matter of forced loss of time upon half-pay.

2. They are further of opinion that in order to meet the increased competition with other fields of employment open to medical men in civil life, it is necessary to increase the pay and prospective advantages of the service in order to obtain a due supply of well and liberally educated candidates.

In fulfilment of these objects they have resolved to submit the following recommendations to the consideration of the Lords Commissioners of the Admiralty.

Recommendations.

1. That Staff-surgeons be placed on a separate list, and considered as a distinct rank, and that promotion to that rank (although 20 years on full pay may not have been completed) should be open to officers for distinguished or special service.

2. That the whole time an Assistant-surgeon serves on full pay should be allowed to qualify for the rank of Staff-surgeon, provided he passes his examination for Surgeon before he completes 10 years' service.

* On the subject of relative rank, it appears that on the promulgation of the Order in Council of May 1859, the rank of naval medical officers became advanced, and they were placed in the same relative position as the army medical officers.

The naval surgeon, from being junior to all lieutenants in the navy, became equal in rank with commanders, in accordance with the dates of their respective commissions; and when he became a staff-surgeon, he ranked with, but junior to, a lieutenant-colonel in the army, or a captain of the navy under three years' standing, and senior to all commanders.

An Order in Council, in April 1861, defined the relative rank of naval officers with officers of the army; by which the commander of the navy was raised in rank from major to lieutenant-colonel, but junior—the rank then held by staff-surgeons.

In June 1863, a further Order in Council was obtained, defining the relative rank between naval officers of the military and civil branches of the service, etc.; in which the staff-surgeon was stated to rank with commanders, but junior of that rank.

It is this clause which is said to place the staff-surgeon in a subordinate position; for although his relative rank with the army officer is the same—namely, lieutenant-colonel, but junior—he considers himself, from his position in the naval service, to be below his proper rank with the army medical officer.

3. To compensate the Naval Surgeon for loss of time, by his being placed on half-pay and unable to obtain employment, the Surgeons' and Staff-surgeons' full pay should increase by periods of 4 years instead of 5 years as at present.

4. That Naval Medical Officers be granted the same allowances at hospitals at home and abroad as the Army Medical Officers, in respect to servants, fuel, furniture, or pecuniary allowances in lieu.

5. That the scale of travelling allowances, extra pay, lodging money, and compensation for losses, be fixed for Naval Medical Officers according to relative rank.

6. With respect to the question of prize money, the Committee, owing to the present principle on which the Prize Proclamation is drawn, are unable to agree upon a special recommendation, but are inclined to the opinion that the share of medical officers should, after the officer in command of the ship, be regulated by relative rank.

7. That in regard to cabins, while the requirements of the service renders it necessary that the Senior Executive Officer and the Staff-commander or Master should have the cabins placed most advantageously for their special duties, medical officers should after them have cabins more in accordance with their relative rank in the service, and that cabins for all Assistant-surgeons should be specially ordered, to prevent future difficulties or neglect of the existing Admiralty Order.

8. That a Staff-surgeon, ranking with Commander, be allowed a servant.

9. That a Staff-surgeon should be appointed to all flag-ships bearing the flag of a Commander-in-Chief on foreign stations, with an allowance of 5*s.* a day in addition to his established pay.

10. That the periods of retirement by age be fixed for

Staff-surgeon, Surgeon, or Assistant-surgeon, at - - - 55 years
Inspector General and Deputy Inspector General - - 65 ,,

but this regulation should only apply to new appointments.

11. That Naval Medical Officers be considered equally eligible to honorary distinctions as Army Medical Officers.

12. That they should have equal consideration for Greenwich Hospital pensions with other officers of the service.

13. That assistant-surgeons, after completing their time for examination for the rank of surgeons, be granted two months leave of absence on full pay, on the condition of their resuming their studies at a medical school or hospital.

14. That in order to place staff surgeons on an equality in rank with surgeons major in the army, they should rank with commanders by date of commission; but we are of opinion that officers in command of H.M. ships, must on all occasions be considered senior in rank and precedence to all officers placed under their command, and that a ship, as a regiment, must always be represented by an executive or combatant officer, after which all officers should take precedence according to the relative rank, conferred on them by Royal Authority.

15. That the Pay of the Naval Medical Officers be increased in accordance with the following Scale:

Scale of Pay proposed for Naval Medical Officers.

Rank.	Under 5 years' service.		Above 5 years' service.		Above 10 years' service.		Above 14 years' service.		Above 18 years' service.		Above 22 years' service.		Above 26 years' service.		Above 30 years' service.	
	Present rate.	Proposed rate.	Present rate.	Proposed rate.	Present rate.	Proposed rate.	Present rate.	Proposed rate.	Present rate.	Proposed rate.	Present rate.	Proposed rate.	Present rate.	Proposed rate.	Present rate.	Proposed rate.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Assistant-Surgeon	10 0	12 6	11 6	12 6	13 0	15 0	13 0	*17 6	—	—	—	—	—	—	—	—
Surgeons	..	..	..	..	15 0	17 6+	18 0	20 0	18 0	22 0	—	—	—	—	—	—
Staff-Surgeons	..	..	..	..	..	..	..	..	22 0	24 0+	25 0	27 0	25 0	27 0	—	—
*Deputy Inspector-General of Hospitals and Fleets	..	..	..	..	..	..	..	..	28 0	30 0+	30 0	32 0	30 0	35 0	34 0	37 0
*Inspector-General of Hospitals and Fleets	..	..	..	..	..	..	..	..	..	..	40 0+	45 0	45 0	47 0	45 0	50 0

* Provided he passes his examination before ten years' service. + Or promotion.

16. That, as the prospect of optional retirement at an earlier period than at present permitted would prove a further inducement to young medical men to enter Her Majesty's service, naval medical officers should be permitted to retire after twenty years' service on full pay; but at the same time, in order to guard the interests of Her Majesty's service, the rate of half-pay awarded to officers so retiring should not exceed five-tenths of their full pay, and that officers with this service should be permitted to retire on the half-pay of their rank, if, after one year on half-pay, they are found on medical survey to be permanently unfit for further service.

17. That as a special reward to officers of long and good service, who, owing to the comparatively small numbers of the inspectorial ranks, have not been promoted to any higher position than that of staff-surgeon, such officers of the rank of staff-surgeon as have served for twenty-five years on full pay should, on being compulsorily retired at fifty-five years of age or retired on medical survey, receive the half-pay of £1 a day.

We further recommend that competitive examination for admission of medical officers into the navy be established at Greenwich Hospital, after the plan adopted in the army, at Chelsea, and that professional instruction by a course of lectures and attendance at Haslar be given to medical officers on first entry, in some measure on the system adopted at Netley Hospital.

Some of the medical witnesses have stated that it is desirable that naval boards of survey should be made purely medical boards as they are in the army; on this question, however, the Committee are not agreed, and therefore offer no opinion.

Testimonial to Dr. J. S. Reid. A handsome address and a valuable presentation has been made to Dr. J. S. Reid, of Belfast, by a large number of his friends, including many of his professional brethren.

Association Intelligence.

SOUTH-EASTERN BRANCH: EAST SURREY DISTRICT MEDICAL MEETINGS.

The first meeting of this new district of the South-Eastern Branch was held at the Crystal Palace, on Thursday, February 22nd. The Chair was taken by Edward Westall, M.D., President of the Branch; and there were present, E. Berney, Esq., G. Bottomley, Esq., and A. Carpenter, M.D. (Croydon); C. Holman, M.D. (Reigate); H. T. Lanchester, M.D. (Croydon); J. R. Leake, Esq. (Norwood); E. Marshall, Esq. (Mitcham); J. H. Paul, M.D. (Camberwell); A. G. Roper, Esq. (Croydon); T. Heckstall Smith, Esq. (St. Mary Cray); G. Stilwell, Esq. (Epsom); and H. J. Strong, M.D. (Croydon).

Business. The proceedings commenced with an opening address by the President. All the gentlemen present were then enrolled as members, together with several others who had signified their intention of joining the Society, but were unavoidably absent on this occasion.

A list of General Rules, founded on those of the similar societies in East and West Kent, was submitted to the meeting, and, after some modifications, approved of.

The preliminary business concluded by electing Dr. Lanchester of Croydon to the office of Honorary Secretary.

Papers. The first paper was read by the Honorary Secretary, in the absence of the author, Dr. Walters of Reigate, who was unexpectedly prevented from attending. It was the report of a case of Rupture of the Cornea, and Traumatic Cataract, in which Removal of the Lens together with Iridectomy became necessary, and was followed by Recovery.

The next was by Dr. Carpenter of Croydon, and was a practical treatise on Common Defects in House-Drainage.

The thanks of the meeting were given to both gentlemen, with a request in each case that the papers might be published.

A specimen of Acute Atrophy of the Liver, obtained from Dr. Andrew of St. Bartholomew's Hospital, was exhibited by the Honorary Secretary, and a brief history of the case given.

Dinner. The members subsequently dined together, Mr. Heckstall Smith taking the Chair; and a pleasant social evening concluded the proceedings.

The Next Meeting of the Society, of which due notice will be given, will be held on Thursday, May 10th, at the Crystal Palace.

The Lepers in Jamaica. On Saturday, the 13th of January, the whole of the lepers located in Half Moon Bay appeared in the market-place of this town offering straw hats and baskets for sale. The attention of the police was directed to the fact; and the serjeant, corporals, and some privates, ordered the unfortunate creatures to return to their huts; but, instead of obeying the order, they went to the office of his honour the Custos, and stated that the food supplied them by the contractor is insufficient, therefore they have been compelled to make and offer for sale the above-named articles, for the purpose of getting money to procure ground provisions, salted fish, and meat. His honour directed them to return to the lazaretto, and promised that he would adopt measures to prevent any further cause of complaint. (*Falmouth* (West Indies) *Post.*)

Correspondence.

THE CHOLERA QUESTION.

Letter from George Johnson, M.D.

Sir,—Dr. Davey persists in his statement, that the account which he has given of the pathology of cholera is identical with mine, or nearly so. Although I fail, as I think others will, to find any real likeness between our theories, I am happy to be assured that Dr. Davey himself sees a close resemblance. Henceforth then, in any discussion on this important subject, I may reckon upon having the weight of Dr. Davey's authority on my side. I am, etc.,

George Johnson.

11, Savile Row, Feb. 26 h, 1866.

DR. RICHARDSON'S METHOD OF INDUCING LOCAL ANÆSTHESIA.

Letter from Francis R. Cruise, M.D.

Sir,—It will probably be not unpleasing to Dr. Richardson to learn that his elegant and ready method of producing local anæsthesia is now used and appreciated on this side of the Channel. I have availed myself of it, with marked advantage, on several occasions within the last ten days; and never more successfully than upon this day.

The patient to whose case I allude, is a young girl, at present under my care in the Mater Misericordiæ Hospital, who has suffered for the last two years from a series of sinuses in the left breast, all taking origin from a large cavity situated deeply in the substance of the gland, and originating, I believe, in a chronic abscess which followed a hurt.

I tried in vain to obliterate these fistulous canals, by pressure, caustic applications, injections of tincture of iodine, etc.; and it finally became obvious that the only resource left was to lay open the sinuses and cavity, dress from the bottom, and so accomplish the healing process.

The girl had a strong objection to chloroform; and, therefore, as I knew the operation would be tedious and painful, I resolved to try Dr. Richardson's method of congelation by the vapour of ether. I had previously used his apparatus with marked success in purely superficial operations; but I was not so sanguine in the present case, as I knew I should be obliged to cut to a depth of at least an inch and a quarter or more.

Having placed the girl sitting in a chair, I proceeded to freeze the parts in the line of my intended incision which ran from within the nipple towards the mesial line of the body for an extent of two inches. As soon as the skin was quite insensible (namely, in three minutes), I cut through it; the girl being perfectly unconscious of pain or uneasiness. I then leisurely dissected down through the soft parts, to a depth exceeding an inch and a half, freezing them as I proceeded. No pain whatever was felt, except when by accident the knife passed beyond the frozen portion at the extreme depth of the wound. Having satisfactorily laid open the parts, as I deemed requisite, I inserted a pledget of lint, dressed the breast in the usual way, and then sent the patient to bed.

The success which I attained in this operation has fully convinced me that at present it is quite impossible to set limits to the extent of the usefulness of Dr. Richardson's method of congelation. Of one thing I am convinced: that suffering humanity and

the medical profession are under boundless obligations to him for his persevering exertions in this matter.

We all want more practical information upon this most important operation of congelation. My own experience is at variance with Dr. Richardson's statements as regards the *time* required to produce insensibility. I have not succeeded in doing so under three minutes, and often have required even more time than that. Possibly my instrument (made by Krohne and Sesemann) is too small. As Dr. Richardson states in his interesting communication, purity of the ether is indispensable for success. I failed almost totally with the commercial rectified ether, but succeeded as soon as I used the article specially prepared by Robbins of Oxford Street. Since then I have obtained equally good specimens in Dublin from Mr. Emerson J. Reynolds, and also from Mr. Tichborne.

It is much to be desired that Dr. Richardson may soon give the profession the benefit of his extended experience in the use of his method of congelation.

I am, etc.,

FRANCIS RICHARD CRUISE, M.D. T.C.D.

37, Westland Row, Dublin, February 27th, 1866.

SUCTION-CURETTES.

LETTER FROM HENRY GREENWAY, ESQ.

SIR,—In the JOURNAL of January 13th, there appears a very interesting paper, by Mr. Matthew Adams, of Maidstone, on "The Modern Methods of dealing with Cataract". In his allusion to "suction-curettes", he is evidently under the impression, and also conveys it to the reader, that Mr. Teale, jun., was the first who devised an instrument whereby parts within the eyeball could be acted on by suction *through the medium of an India-rubber tube.*

In the *Medical Times and Gazette* of December 15th, 1860, will be found the description of an instrument I invented for forming artificial pupil in the centre of the iris, by the aid of suction. The tubular arrangement in this instrument is essentially the same as in that used by Mr. Teale for the removal of certain forms of cataract, which instrument he described and figured in the *Royal London Ophthalmic Hospital Reports,* vol. iv, part II, between three and four years after the first appearance of my invention. Both instruments were made by Weiss; and the same description, as far as it related to the suction apparatus, answers for either. The cannula, in each, is shaped according to its requirements; and although mine is intended to receive a knife for excising the portion of iris drawn in by means of suction, nevertheless, I could (I do not say I would) use the very same cannula for the removal of softened lens, a suggestion, by-the-by, made to me by Mr. Bowman in the summer of 1862. Had I entertained the idea of removing soft cataracts by the aid of suction, it is evident I should have provided a cannula suitable for the purpose. To prove that I foresaw the applicability of my invention to other purposes than the one originally intended, I stated in my description, before referred to, that "although this instrument was devised for producing artificial pupil, I intend applying it to other purposes, by merely altering the size and shape of the cannula and blade, according to the requirements of the case."

The employment of suction in my instrument was originally intended to act as a forceps only; but that circumstance does not preclude its use, with the same arrangement of tubes, for the common purpose of sucking up a fluid, whether it be a softened lens, or any other body of similar consistence.

I trust I have now said enough to show that I was the first to devise means whereby operations on the eye, requiring the aid of suction, can be conducted with ease and safety. I do not, for a moment, wish to detract from the credit due to Mr. Teale for the manner in which he has revived an old operation; my object in this communication is to speak of an *instrument,* not an operation.

I append an engraving, similar to that which appeared in the *Medical Times and Gazette,* in order that those of your readers who are unable to refer to that periodical may form a correct opinion respecting the claims set forth in this letter. Until lately, the India-rubber suction-tube of the "suction-curette", used by Mr. Teale, sprang from the side of the cylinder, as in my instrument. Its altered position, in my opinion, is not an improvement.

I am, etc., HENRY GREENWAY.

Plymouth, February 8th, 1866.

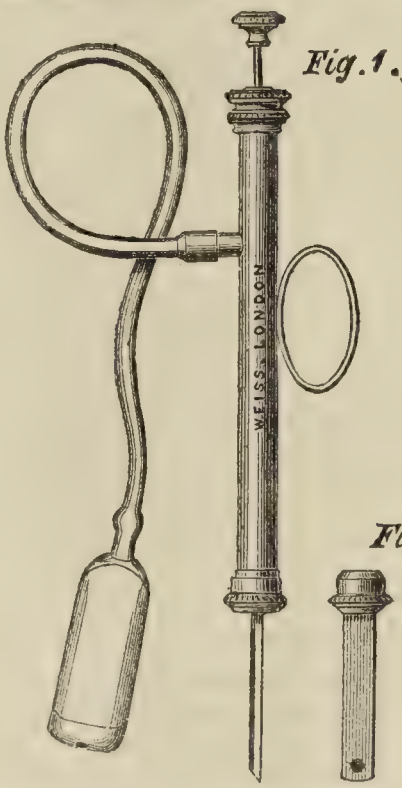


Fig. 1.

Fig. 2.

Fig. 1.—The instrument complete, shewing a side view of the plano-convex cannula. (The rod with its head, seen emerging from the upper end of the cylinder, is the handle of the knife which lies within the cannula.)

Fig. 2.—A view of the plane surface of the cannula, shewing the circular aperture for the admission of iris.

DESIDERATA IN MEDICINE.

LETTER FROM FREDERICK J. BROWN, M.D.

SIR,—I am desirous of pointing out some of the desiderata in medicine, to give the profession a scientific character. The art of healing, or clinical experience, is quite different from science; but every medical gentleman must desire to base his practice upon scientific researches as much as possible.

1. The physiological action of drugs, ascertained by repeated experiments, and published apart from the therapeutical action of the same. This subject should occupy the prolonged attention of physicians.

2. The therapeutical action of drugs in every known disease, detailing minute symptoms, and giving tables of the condition of the excretions, etc.

3. The natural history of every disease.

4. The classification of diseases, for therapeutic purposes, into the spontaneously curable and the spontaneously incurable.

5. The construction of a list of diseases that require prompt and powerful remedies to save life, such as congestive apoplexy.

Those physicians and surgeons that can conscientiously carry out the expectant treatment would do well to try it in suitable diseases (avoiding congestive apoplexy, inflammatory croup, etc.), and give to the profession detailed accounts of the cases. The treatment should be purely dietetic and regiminal, without the exhibition of drugs of any kind, save an aperient when the bowels will not act.

For my part, I have faith in the utility of drugs; but I should like to know the natural history of diseases. Still it must be ever held in mind that diseases change their type at different seasons and in different cycles of time; so that the experiments would require to be repeated once or twice in the lifetime of each generation.

Respecting change of type, I will give an instance from physiology that satisfies my mind. It was formerly customary for peasants in this part of Kent to be bled once or twice a year, and the quantity was usually sixteen ounces. Men bore the bleeding well some years ago, and walked home many miles. Of late years, the same men, and younger ones endeavouring to follow the usages of their fathers, have fainted from the loss of from four to eight ounces. Now this is a fact showing a change in healthy men as respects the endurance of bloodletting which is free from all objections.

My observations show that, for the last two years nearly (since the spring of 1864), the plethoric type is gaining upon the nervous type; and I find that patients can lose blood with benefit *now*, who could not do so a few years since. The nervous type became prevalent with the first epidemic of Asiatic cholera, and lasted one-third of a century.

I am, etc., FREDERICK J. BROWN.

Rochester, January 13th, 1866.

POOR-LAW MEDICAL REFORM.

LETTER FROM RICHARD GRIFFIN, ESQ.

SIR,—I shall feel obliged by your finding space for the names of the following gentlemen who have forwarded subscriptions to the Association during the past week. I am, etc.,

RICHARD GRIFFIN.

12, Royal Terrace, Weymouth, Feb. 24th, 1866.

List of Subscriptions received by Mr. Griffin. H. P. Olivey, Taunton, 4s.; W. Cooper, M.D., Thingoe, 10s.; K. J., 4s.; T. Westell, Cookham, 20s.; R. J., 11s.; G. Morris, Hereford, 5s.; R. Thomason, Hereford, 5s.; G. Hanbury, Hereford, 5s.; J. C. Lane, Hereford, 5s.; F. H. Sankey, Bridge, 10s.; G. B. Norman, Basford, 10s.; R. Simpson, Settle, 5s.; T. Dobson, Windermere, 5s.; W. Holme, Kendal, 5s.; Hope, 5s.

List of Subscriptions received by Mr. Prowse. Thompson and Felce, Launceston, 21s.; J. T. Marshal, York, 10s.; W. Williams and Son, Guilsborough, 10s. 6d.; C. I. Mann, Boxford, 5s.; T. Jones, Ross, 10s.; W. S. Rootes, Ross, 10s.; A. H. Dowson, Orford, 5s.; G. H. Furber, Maidstone, 5s.; R. L. Smith, Clare Suffolk, 5s.; T. Williams, Pontypool, 10s. 6d.; R. Hughes, Bala, 10s. 6d.; C. C. Cogan, Greenwich, 5s.; A. S. Kingdon, Combmartin, 5s.; J. Yeoman, Whitby, 10s.; A. B. Vise, Holbeach, 10s.

Mr. Griffin has forwarded to those members of the Association who have subscribed during the last twelve months a pamphlet of fifty-two pages and the following letter.

"12, Royal Terrace, Weymouth, March 1st, 1866.

"Dear Sirs,—The accompanying pamphlet is intended to be sent to each member of Parliament so soon as we can get some gentleman to undertake the introduction of a Bill into the House of Commons. It is possible the proposed Bill may not meet with the entire approval of all; but it must be borne in mind that it is almost impossible to meet the views of every one, and much will depend upon the member who introduces the Bill as to the exact clauses that shall be retained.

"I intend to apply to one or two members about bringing in the Bill; but as it is possible they may not accede to my request, I hope each of you will consider that it devolves upon you individually to find a member. By adopting this course, we shall be sure of success. Should any of you require a pamphlet to send to a member to whom you may write, I will supply you with it. I regret I can only send pamphlets to the medical officers who have subscribed within the last twelve months, as the present subscriptions will only about cover recent expenses. I therefore trust that if any of your colleagues intend to subscribe, they will do so without loss of time, in order that the printer may strike off the requisite number of copies, as the type of so large a pamphlet cannot be reset without great expense. It may possibly be said that much of the present pamphlet is merely a transcript of former ones—which I admit; indeed, I only view it as a re-arrangement, with some additions, of much that has been written before; but had I not adopted this course, a majority of the present House of Commons would know nothing of the matter, and would take it for granted that the late Select Committee on Poor Relief (England) had fully gone into the subject, and, from the evidence laid before them, had decided that there was no need of fresh legislation; whereas, now they will see that the subject was not fully gone into by the Select Committee and that the evidence of a Poor-law Inspector had grossly misled them.

"I am, dear sirs, sincerely yours,

"RICHARD GRIFFIN.

"To the Subscribing Poor-law Medical Officers of the last Twelve Months."

DISEASES OF INDIANS. The prevailing diathesis among the Indians of Washington Territory, writes Dr. Mack in the *Boston Medical and Surgical Journal*, is scrofulous; there are many chronic ulcerations and ophthalmia. The latter may be greatly owing to the constant smoke, which they keep in their lodges. Phthisis is rather common. Their diet is almost exclusively of fish, and they use large quantities of oil, of which they are very fond, liking castor oil, which they call "sweet medicine." Their nervous system is less active than with the whites, as shown by insensibility to pain, and the slight febrile symptoms that follow wounds, which heal readily. Childbirth, as with other uncivilised races, is easy, and the women soon after labour return to their ordinary duties. Venereal disease is rare; rheumatic pains are frequent. Mr. Swan, a teacher connected with the Indian agency, states that during a small-pox epidemic among them, the disease made great havoc at first, but as soon as they were kept cool in the first stage, and given sufficient nourishment in the secondary fever, no deaths were met with. In an epidemic, further north, the sufferers had been put out of doors by the rest, with only one blanket and a little nourishment, and had generally died in a short time. In treating Indians, he had made a practice of giving only half the usual doses, with satisfactory results.

Medical News.

APOTHECARIES' HALL. On February 22nd, 1866, the following Licentiates were admitted:—

Lloyd, Thomas Franklin, 42, Finsbury Circus
Owens, Edward Matthew, Sutton, Surrey
Smith, Christopher, Paris
Smith, Walter, Bognor, Sussex
Tarleton, John Haigh, Birmingham
Wyllie, Robert, Robin Hood's Bay, near Whitby

As Assistant:—

Laslett, Alfred Kent, Canterbury

ARMY MEDICAL SERVICE. The Director-General presents his compliments to the Editor of the BRITISH MEDICAL JOURNAL, and begs to enclose a list of the candidates for Commissions in Her Majesty's British Medical Service who were successful at the Competitive Examination in August last, and who have passed through a course at the Army Medical School; shewing the combined results of the examination.

Names.	Studied at	No. Marks.
O'Reilly, J. J.	Dublin	4485
McWalters, W.	Dublin	4310
Mally, R. N.	Dublin	4308
Catherwood, W. A.	Belfast	4260
Clarke, E. J.	Dublin	4183
Johnstone, W.	Aberdeen & Edinb.	3963
D'Arcy, E. F.	Dublin	3903
Mouat, G. B.	Edinburgh	3776
O'Brien, H. J.	Dublin	3680
Kilroy, P. Le F.	London & Dublin	3480
Alexander, W.	Belfast	3468
Lowe, R. W.	Edinburgh	3435
Purden, J. E.	Dublin	3423
Connellan, E.	Cork	3176
Machinnon, H. W. A.	London	3045
Brodie, J. F.	Galway & Dublin	2860

APPOINTMENT.

ROBERTS, Frederick T., M.B., B.Sc.Lond., appointed Lecturer on Botany at the Liverpool Royal Infirmary School of Medicine.

BIRTHS.

BROSTER. On February 17th, at Southampton, the wife of Edward B. Broster, Esq., Assistant-Surgeon Royal Navy, prematurely, of a daughter.

ELIN. On February 21st, at Hertford, the wife of George Elin, M.D., of a son.

RAWLINS. On February 24th, at Stoke Newington, the wife of Frederick W. A. Rawlins, M.D., of a son.

WOOD. On February 19th, at 54, Upper Harley Street, the wife of *William Wood, M.D., of a daughter.

MARRIAGES.

CURTIS, Albert, Esq., Surgeon, Staines, to Augusta, daughter of the late James ASHBY, Esq., of the same place, on February 20.

MOUNCEY, James A., Esq., Surgeon, to Emily Georgina, eldest daughter of Wm. WILSON, Esq., of Regent Street, at St. George's, Hanover Square, on February 13.

DEATHS.

DERMER. On February 20th, at Pembroke Crescent, Bayswater, Catherine Mary, wife of William Dermer, M.D.

GILLETT, William Edward, M.D., at Taunton, aged 67, on Feb. 24.

HEWETT, William, Esq., Surgeon, at Reading, aged 72, on Feb. 23.

ORMEROD. On February 23rd, at Brighton, aged 2½ years, Constance Marion, fourth daughter of *Edward L. Ormerod, M.D.

THWAITES. On February 19th, at Bishop Auckland, Thomas Walton, aged 13; and on the 21st, Henry Robert, aged 7, sons of *Thomas B. Thwaites, Esq.

CONVERSAZIONE OF THE OBSTETRICAL SOCIETY. The President and Fellows of the Royal College of Physicians have given permission to the President of the Obstetrical Society of London to hold a *Conversazione* for the exhibition of instruments used in Obstetric practice, at the College, on the 28th March inst., at eight P.M.

JOHN PERMEWAN, the surgeon at Redruth, who was charged with having forged transfers of shares in some Cornish mines, has been found guilty at the Central Criminal Court, and has been sentenced to seven years' penal servitude.

MORTALITY RETURNS. The rate of mortality ap pears to have risen last week. In the principal towns 3638 persons died, which is at the rate of 31 in the thousand. London is 28, but it stands third on the list this week, for Newcastle is marked 26, and Hull 27. Liverpool is 40, and Edinburgh is nearly as high. The total number of deaths in London was 1630, which is no fewer than 127 above the calculated average. The births in London were 2350, or about 200 above the average. The total number of births was 4170.

SHEEP POX AT LONG BUCKBY, NORTHAMPTON. The variola ovina, or sheep pox, has broken out on the farm of Mr. John Clarke, of Long Buckby. In the month of December last he bought about 80 sheep in the London market, and when they arrived at his farm he put them amongst a flock of about 120. Twenty-five of the sheep are now dead, and it is expected that a great many more of them will die, as there are now some 15 or 20 suffering from the disease. Professors Brown and Symonds have visited the farm, and have taken away some of the entrails for analysation.

THE SURREY COUNTY HOSPITAL. Some months since the Queen informed the committee of Surrey County Hospital that she had instructed Mr. Theed, the sculptor, to prepare a bust of the late Prince Consort, to be presented to the hospital. The bust arrived at the hospital last week, and was placed in the vestibule hall, directly opposite the door. The bust, which is of life size and of the purest Sicilian marble, is two feet six inches in height, and is mounted on an elegant coloured marble pedestal. The original from which the bust is taken is in Windsor Castle, but it is said that this last production is by far the more successful of the two, and that it is unrivalled as a work of art. On the pedestal is the following inscription: "This bust of his Royal Highness Prince Albert was graciously presented to the Surrey County Hospital by Her Majesty Queen Victoria, 1866." The bust will not be exposed to public view until the hospital is opened for the reception of patients. Mr. Theed has at the same time kindly presented to the hospital a tinted plaster cast of his "Good Samaritan," which is considered by competent judges to be one of the finest pieces of sculpture of the day. This mural piece is placed in a niche near the chief entrance to the hospital. It is an illustration of the parable of the Good Samaritan. Nearly the whole of the foreground is occupied by the prostrate figure of the unfortunate traveller, with the Good Samaritan bending over him, while in the background may be seen the haughty Levite hastening away from the spot. (*West Surrey Times.*)

ASSAULT ON A MEDICAL PUPIL. Dr. Kenny, of Stoke Newington, was some days ago charged with assaulting Mr. William Butler, one of his articled medical pupils. The complainant had been articled to the defendant about three years ago, paying a premium of £200, and resided in the defendant's house. Mr. Butler and another pupil named Spencer were attending Guy's Hospital, and studying for examination. They wished to sit up at night; but Dr. Kenny wished them to retire at eleven o'clock, and to get up at any hour they thought fit in the morning. A serious quarrel ensued. The defendant on the 23rd ult., met the complainant on the stairs coming down without his coat, and told him to go back. On the complainant resisting, he went to the umbrella-

stand, and, taking out a walking-cane, struck the complainant on the arm with it, raising two weals which were visible for a week. The complainant afterwards left the house and went home to his friends. Mr. Spencer apologised, and was now on good terms with the defendant. Mr. Taylor pleaded the great aggravation to which his client had been subjected by the unreasonable conduct of the complainant; and cited Blackstone and Hawkins's *Pleas of the Crown*, as perfectly justifying the defendant, under the circumstances, in inflicting a reasonable beating on the complainant, which he contended this was. Mr. Ellison (the magistrate) thought it not at all unreasonable that the defendant, as the father of a family should insist upon the lights being extinguished at eleven o'clock, even though the students were reading up for an examination, as they had full liberty to resume their studies at as early an hour as they chose. He could not say that the blows were a reasonable correction, considering the age—apparently about 19 or 20—of the complainant; but he could not help saying that the conduct of the young man was most objectionable, and that he had brought the assault upon himself. He should order the defendant to pay a fine of five shillings and costs, or undergo seven days' imprisonment in default.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....Metropolitan Free, 2 P.M.—St. Mark's for Fistula and other Diseases of the Rectum, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TUESDAY. .... Guy's, 1½ P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.

WEDNESDAY... St. Mary's, 1 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.

THURSDAY.....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Great Northern, 2 P.M.—London Surgical Home, 2 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.

FRIDAY..... Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

SATURDAY..... St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1·30 P.M.—Charing Cross, 2 P.M.—Lock, Clinical Demonstration and Operations, 1 P.M.—Royal Free, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY. Royal College of Surgeons of England, 4 P.M. Professor Huxley, "On the Classification and Structure of the Mammalia."—Epidemiological Society, 8 P.M. Dr. Thudichum, "On Epidemic Outbreaks of Trichiniasis (Spiral Flesh-worm Disease)."—Odontological Society.—Medical Society of London. 7 P.M., General Meeting for Election of Officers and Council. 8.30 P.M., Clinical Discussion; and a paper by Dr. Macpherson, "Case of Threatened Elephantiasis of Scrotum in an European."

TUESDAY. Pathological Society of London, 8 P.M.—Anthropological Society, 8 P.M. Mr. Higgins, "On the Orthographic Delineation of the Skull"; Mr. Wesley, "On the Iconography of the Skull"; Dr. Paul Broca, "On a New Goniometer, for the Measurement of the Facial Triangle"; Mr. C. Carter Blake, "On Certain Supposed Simious Skulls, Ancient and Modern, with Reference to a Skull from Louth in Ireland."

WEDNESDAY. Royal College of Physicians, 5 P.M. Dr. Sieveking. Croonian Lectures. "On the Localisation of Disease."—Royal College of Surgeons of England, 4 P.M. Professor Huxley, "On the Classification and Structure of the Mammalia."—Obstetrical Society, 8 P.M. Dr. Routh, "Case of Fibrocystic Disease of the Uterus"; Mr. Baker Brown, "Use of the Actual Cautery in Ovariotomy." Other papers.

THURSDAY. Medical Society of London. Anniversary will be kept at St. James's Hall. Oration, 5 P.M. Dinner, 6.30 P.M.

FRIDAY. Royal College of Physicians, 5 P.M. Dr. Fuller. Lumleian Lectures. "On Certain Derangements of the Digestive Organs, their Causes and Effects."—Royal College of Surgeons of England, 4 P.M. Professor Huxley, "On the Classification and Structure of the Mammalia."

TO CORRESPONDENTS.

*** *All letters and communications for the* JOURNAL, *to be addressed to the* EDITOR, 37, *Great Queen St., Lincoln's Inn Fields, W.C.*

COMMUNICATIONS.—To prevent a not uncommon misconception, we beg to inform our correspondents that, as a rule, all communications which are not returned to their authors, are retained for publication.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

THE insertion of several communications is unavoidably delayed on account of the length of the Report on the Army and Navy Medical Service.

DR. HUSBAND'S CAPILLARY GLASS-TUBES are excellent means of preserving vaccine lymph. They are only to be obtained, we believe, from 10, Spring Gardens, Stockbridge, Edinburgh.

THE GRIFFIN TESTIMONIAL FUND.—SIR: The following subscription has been further received on behalf of the above Fund:—Christopher Taylor, Esq. (Tunbridge), 5s.

Amount previously announced, £134 : 0 : 3. Received at the office of the *Lancet*, £10 : 19.

I am, etc., ROBERT FOWLER, M.D.,
Treasurer and Hon. Sec.

145, Bishopsgate Street Without, February 28th, 1866.

A CORRESPONDENT writes:—"I have lately been reading Kingsley's amusing book, *The Water Babies*, and there, amongst other interesting characters, I find a sketch of a very great naturalist, a worthy, kind, good-natured gentleman. The description reminded me so much of what one sometimes meets with in medical literature, that I hope you will give it a place in your pages.

"'Only one fault he had, which cock-robins have likewise, as you may see, if you look out of the nursery window—that, when any one else found a curious worm, he would hop round them, and peck them, and set up his tail, and bristle up his feathers, just as a cock-robin would; and declare that he found the worm, and that it was his worm; and if not, that then it was not a worm at all.'"

PROFESSIONAL ETIQUETTE.—SIR: You will much oblige by an answer in your next number of the JOURNAL, to the following question of medical etiquette.

A young woman receives a severe accident, and a messenger is immediately despatched for the doctor. No doctor is specified, but the nearest one, Dr. X., is called on; and, he being out in the country, Dr. Y. is called, and goes immediately and dresses the wound. An hour or two after this, Dr. X. comes home from the country, goes to the person who sent for him; takes off part of the dressings (the patient preventing him from undoing the whole), and orders some aperient medicine to be taken immediately; and also says that he disapproved of the treatment.

Dr. X. says that, because he had attended the family once or twice, he considered himself the family physician; and because he was first called, therefore Dr. Y. should have given up the patient to his treatment, and that he (Dr. X.) had, from the above reasons, full right and privilege, and it was his duty, to act as he did.

Query 1. Should Dr. Y. have given up the patient to Dr. X. on his return? Dr. Y. did not know that Dr. X. had been called, or that he had attended the family before.

Query 2. Was it right in Dr X. to act as he did (supposing the patient was his), before Dr. Y. gave up the case to his care?

I am, etc., A MEMBER.

[Taking the facts as stated by "A Member", there can be no doubt that Dr. X. was quite out of professional order. Dr. Y. was quite right in attending at once upon the patient. The subsequent attendance under the circumstances must, of course, be decided by the patient herself. EDITOR.]

COMMUNICATIONS have been received from:—Mr. J. HYDE HOUGHTON; Mr. T. NUNNELEY; Mr. HOLTHOUSE; Mr. RICHARD GRIFFIN; Dr. PHILIPSON; Dr. HUGH MACKINTOSH; Dr. JAMES RUSSELL; Dr. F. W. GIBSON; THE HONORARY SECRETARIES OF THE EPIDEMIOLOGICAL SOCIETY; Mr. R. HARRISON; Dr. JOHN BARCLAY; THE HON. SECRETARIES OF THE ANTHROPOLOGICAL SOCIETY; Dr. ALTHAUS; Dr. GEORGE JOHNSON; Mr. D. KENT JONES; Mr. R. FREEMAN; Mr. HAMILTON; THE HONORARY SECRETARIES OF THE HARVEIAN SOCIETY OF LONDON; Dr. ROBERT FOWLER; Dr. A. CARPENTER; Mr. WATKINS; Dr. CRISP; Mr. J. PARSONS; Mr. H. GREENWAY; Mr. BARTLEET; Dr. HUGHLINGS JACKSON; Dr. LANCHESTER; THE HONORARY SECRETARY OF THE OBSTETRICAL SOCIETY; Dr. DICK; Dr. PATERSON; Dr. GAMGEE; Dr. MURRAY; Mr. PRIDHAM; Mr. HUTCHINSON; THE DIRECTOR-GENERAL OF THE ARMY MEDICAL DEPARTMENT; Dr. CRUISE; and Mr. T. M. STONE.

A Lecture

ON THE

PATHOLOGY AND TREATMENT OF HYSTERIA.

Delivered at the Royal Infirmary for Diseases of the Chest.

BY

JULIUS ALTHAUS, M.D., M.R.C.P.Lond.,

PHYSICIAN TO THE INFIRMARY.

Gentlemen,—Hysteria, the subject of to-day's lecture, is a disease which has been known from the commencement of civilisation, and was so called by the physicians in Ancient Greece, who believed it to arise from the freaks and vagaries of a dissatisfied and ill-tempered uterus (ὑστέρα). Plato and his followers described this organ as an animal endowed with spontaneous sensation and motion, lodged in another being, and ardently desirous of procreating children. If it remained sterile long after puberty (these philosophers argued), it became indignant at its unnatural condition, travelled through the whole system, arrested respiration, and threw the body into extreme danger, until it became pregnant, whereby its wrath was appeased, and it behaved well ever afterwards.

Pressure of the uterus upon the various organs of the body was considered to be the mainspring of all the sufferings of hysterical patients. Where there was a feeling of suffocation, it must be due to the uterus compressing the throat and the bronchial tubes; coma and lethargy in hysterical women proceeded from the womb squeezing the blood-vessels travelling towards the brain; palpitations arose from the uterus worrying the heart; and if there were a feeling of pain and constriction in the epigastrium, it must again be the womb engaged in a relentless attack on the liver. Even so recent a writer as M. Landouzy has endeavoured to prove that the sick or dissatisfied uterus is the only source of hysteria.

A more accurate observation of facts, and a less prejudiced interpretation of the same, has gradually led us to different views on this subject. The credit of having upset the uterine theory of hysteria belongs chiefly to M. Briquet, the able and zealous physician of La Charité, who was the first to apply the numerical method to this branch of pathological inquiry, whilst at the same time carefully guarding against the dangers which beset the path of statistical investigation. Romberg, the Nestor of German pathologists, first directed attention to the fact that reflex excitability is largely increased in hysteria; but he did not lay sufficient stress on the emotional character of the disease.

And yet it is this emotional character which serves to explain, not only the infinite variety of symptoms, but also the causation and progress of hysteria. As regards the symptoms, we find that their multitude and apparent incongruity have perplexed and bewildered those observers who were without this clue to the comprehension of their nature. Rivière called hysteria not a simple, but a thousandfold disease. Sydenham asserted that the forms of Proteus and the colours of the chamelion were not more various than the divers aspects under which hysteria presented itself; and Hofmann said that hysteria was not a disease, but a host of diseases. Yet all the symptoms, such as convulsive attacks, fainting fits, pain, cough, difficulty of deglutition, vomiting, borborygmi, asthma, hiccough, palpitations of the heart, tenesmus of the bladder, general and partial loss of power, catalepsy, coma, delirium, etc., flow from the same source; and may be classified as functional spasms and paralysis, anæsthesia and hyperæsthesia, resulting from painful impressions, whether mental or physical, which act on the emotional portion of the encephalon.

Being guided by this fundamental principle, we find the transition from physiological to pathological manifestations easy and natural. All symptoms of hysteria have their prototype in those vital actions by which grief, terror, disappointment, and other painful emotions and affections, are manifested under ordinary circumstances, and which become signs of hysteria as soon as they attain a certain degree of intensity.

Take, for instance, the case of an impressionable woman, one who does not belong to the class of the strong-minded, and who has not, by long and laborious training, acquired that perfect control over herself and her demeanour which is now considered part of a young lady's education; or one, who may be possessed of perfect self-control when in good health, yet may have lost it to a great extent when debilitated by disease or anxiety. Tell this woman suddenly that the house is on fire, or that she has lost a near relation, and you may be sure to observe some of or all the following symptoms. She perceives a feeling of constriction in the epigastrium, oppression on the chest, and palpitations of the heart; a lump seems to rise in her throat and gives a feeling of suffocation; she loses the power over her legs, so that she is for the moment unable to move; and she wrings the hands in a spasmodic manner. Let these symptoms increase in degree of intensity, and you have the well known signs of hysteria, which I have just classified under the four heads of functional spasm and paralysis, anæsthesia and hyperæsthesia, and which result from painful impressions being transmitted to the emotional part of the brain.

I now go a step further to show you in what class of persons you may expect hysteria to be principally developed. Every day's experience will show you that, while there are girls and women in whom the most trifling cause gives rise to spasms and convulsive attacks, we meet, on the other hand, with not a few who have during the greater part of their lives been subjected to influences tending to produce hysteria, but who have yet never shown any signs of it. This fact has always been so apparent, that all observers are agreed about it; but the nature of the peculiar constitution predisposing to hysteria has to this day been a matter of controversy. Hippocrates said that women who had an abundance of seminal fluid, and who suffered from leucorrhœa—that is, the lymphatic and the pale—were predisposed to become hysterical; while Galen held that the strong, the fleshy, the sanguine women, had a greater tendency

to it. Subsequent writers have sided, sometimes with Hippocrates, sometimes with Galen, but mostly with the latter. The truth is, that there is no such thing as a peculiar constitution of the body predisposing to hysteria, since the disease indiscriminately invades women of all kinds of physical constitution. Nor has the intellect anything to do with it; for some hysterical women are very clever, while others are the reverse. It is rather the mental constitution which exercises an all-powerful influence in the production of this disease.

Women whose sensibility is blunt, never become hysterical; while those who are readily accessible to impressions coming from without, who feel acutely and are liable to strong emotions, are certain to become hysterical if made to suffer mental agony or prolonged physical pain. This high degree of sensibility is not confined to any particular rank of society; but may be found equally strong amongst the lower orders as with the upper ten thousand. For this reason, hysteria may occur, and actually does occur, in women of all ranks and orders. It is frequent in the higher classes of society, in ladies who lead an artificial life, who do nothing, whose every wish or whim is often gratified as soon as formed, and who are very apt to go into hysterics at the slightest provocation or contrariety. For them, real honest work, the pursuance of an object in life, such as the education of children or some charitable undertaking, is often the best cure. Again, we find plenty of irritable and impressionable women in the lower classes; and as want, grief, and anxiety, are common amongst them, they are very prone to hysteria. Such women are often cured by an improvement in their social position.

As emotion and anxiety on the one hand, and highly impressionable women on the other hand, are found in all inhabited quarters of the globe, hysteria is not confined to any particular climate or country. The common belief is that this disorder is more frequent in tropical than in temperate or cold climates. But such is not the case. We find hysteria not only in the South, but in the highest latitudes. The Russian ladies are uncommonly hysterical. The same is the case with the Swedish, Polish, and Swiss; and hysterical women are even found amongst the Esquimaux and Greenlanders, and in Iceland. On the other hand, there is no doubt that the circumstance whether women live in towns or in the country, is of considerable influence in the production of the disease. Although hysteria does occur amongst rustics, yet it is far more frequent in large towns, where everything tends to debilitate the nervous system, and where the struggle of life, and consequently painful emotions, are more intense than elsewhere.

The same considerations serve to explain the influence of sex in the production of hysteria. Those observers who believed the sick or dissatisfied uterus to be at the bottom of all the mischief, were obliged to maintain that hysteria occurred only in women. And it is certainly infinitely more frequent in women than in our sex, although not on account of the uterus, but by reason of the higher degree of sensibility possessed by women. Yet it does occur in males as well as in females, if they are highly sensitive and subject to painful emotions.

As some of you may not have seen a case of hysteria in a male patient, and may therefore feel inclined to disbelieve its occurrence in our sex, I will give you the following particulars of a case in point, which occurred some time ago in my practice.

In October 1861, I was called to see a young Frenchman recently arrived in London, who, I was informed, "was in a fit". On arriving at his residence, I found the patient just recovered from a severe convulsion, and in a violent paroxysm of crying and sobbing, complaining of a very bad headache and pains all over the body. He told me after a while that, having gone that day to a banker's to cash a cheque, he was, on his way home, robbed of his money; and that he now found himself without a farthing. He discovered his loss on arriving at home; and, after having well assured himself that the money was actually gone, he felt giddy, had the sensation of a lump rising from the stomach to the throat, fell down, and was seized by convulsions. He did not quite lose his consciousness, but felt all the time as in a trance. The convulsions lasted more than twenty minutes, after which the crying and sobbing commenced. He said he was ashamed of it, but he could not help it. He had on several previous occasions been seized by a convulsive attack, after having had some contrariety or annoyance, but never otherwise. He generally felt ill for twenty-four hours afterwards, and then recovered. He was, however, habitually subject to neuralgia in the left arm, and to a sensation of numbness in the left hand and fingers. He frequently suffered from headaches, pain in the stomach, indigestion, and flatulence. I ordered him some brandy and water, and a dose of quinine and morphine at bedtime. He called upon me the following morning, looking a little pale, but otherwise well; and I have not seen him since.

Now, the only convulsive disease with which this affection could have been confounded is epilepsy; but the circumstance that the attacks in this case only came after painful emotions, together with the feeling of the lump in the stomach and throat, the crying and sobbing after the attack, and finally the long duration of the convulsion, distinguish it sufficiently well from epilepsy.

The common belief is, that hysteria does not occur in childhood and advanced age; but this is erroneous, for, amongst 820 well-marked cases of hysteria which I have collected from medical literature, there were 71 patients under ten years, and 28 over the age of forty-five. Hysteria is, therefore, not confined to the period of puberty, as the advocates of the uterine theory would have it. During childhood, the female sexual organs are in a state of perfect repose, and do not give rise to sufferings; but nervous sensibility is high, and reason still dormant; so that, if painful emotions be frequently repeated or be unusually powerful, we have all the necessary conditions for the development of hysteria. In accordance with this view, we find that, when children are hysterical, the cause is almost always maltreatment by the parents (especially step-mothers) or nurses, and excessive sensibility inherited from their parents.

In September 1860, I was consulted about an intelligent-looking girl, aged 7, "who had fits". The mother showed many signs of hysteria, and said that she had had a fright when pregnant with this child. The little patient had always been delicate, nervous, and sensitive—prone to crying at the slightest provocation. She had her first convulsive attack when five years of age, and it occurred after having been scolded by the nurse. From that time she had well-marked hysterical attacks at least once a week. Moreover, she was liable to headaches, globus, pain

in the epigastrium, vomiting after the most trifling fault in the diet, and a great deal of flatulence. There was considerable numbness on the whole left side of the body. I ordered the child to be removed to the seaside, and prescribed full doses of the bromide of potassium, together with wine, cod-liver oil, and a general tonic regimen. After three months, her health was very much improved; and she had altogether only seven attacks more, the last occurring in 1863. In May 1865, she first menstruated; and since then she has been almost well, although even now the hysterical condition is not quite removed. Headache and the peculiar hysterical pain in the epigastrium are apt to occur after painful emotions; and globus and palpitations of the heart, although rare, have yet not entirely ceased to trouble her.

Between fifteen and twenty years of age, hysteria is most frequent, in consequence of the radical change which the nervous system undergoes during that period. Within those years girls begin, as it were, a new existence; they leave the nursery and its habits, and, imagination reigning supreme, they enter upon the world, with its passions, troubles, and disappointments; and, if painful emotions be frequently and powerfully experienced, hysteria is the inevitable result, provided the system is predisposed for it. After twenty, the disease becomes much more rare—a circumstance which cannot possibly be explained by the uterine theory; for at no other age are the female sexual organs subject to more considerable disturbances than after that time of life. The condition of the nervous centres, however, gives us a satisfactory clue to that circumstance. As imagination gives way to a more matter-of-fact view of life and the world, illusions vanish, and impressions and sensations are kept more under control than previously. As age advances further, hysteria becomes continually more rare, because the mind has become settled and critical, and little accessible to sudden impressions and emotions.

The progress of hysteria is powerfully influenced by the events of life. If these be happy, the prognosis is, generally speaking, favourable; if the reverse, the disease may continue unabated to an advanced period of existence. The duration of hysteria is, therefore, very variable; but, on the whole, it must be admitted that it is much longer than is commonly believed. Hysteria is a disease of the whole system, the symptoms of which may be very readily relieved, but the actual cure of which is most difficult, as it depends, to a very great extent, upon circumstances over which the physician has no control. In order to say that an hysterical woman has really been cured, we must observe her for at least four or five years after the cessation of the symptoms.

The prognosis of hysteria is, therefore, not nearly so favourable as is generally believed. It is true that we possess effectual remedies for nearly every symptom of hysteria, and that the disease is not dangerous to life. Yet, on the other hand, we find that many patients only get well as age advances and sensibility becomes blunt; while others do not recover at all, or are troubled throughout life by the consequences of the malady. During the best years of existence, they are worried with pain or convulsions, loss of voice or paralysis, unable to fulfil the duties which Providence has imposed upon them, and a burden to themselves and others.

Strong moral emotions, affecting the will and the imagination of the patients in a powerful manner, may cure hysteria temporarily or permanently, especially if they be of a sublime and exalting character. And here let me say a few words on those apparently miraculous cures, wrought by the agency of faith, which are disbelieved by many physicians, and which nevertheless are as real as any cures obtained by other more tangible remedial agents. Many cases of this kind have been recorded by French physicians, whose evidence is quite convincing. Amongst ourselves, Sir Benjamin Brodie has related the case of a patient affected with severe arthralgia, who had been in bed for several years, but who, at the command of her spiritual adviser, in the name of our Saviour, to get up and walk, actually did it. A striking instance of the same sort occurred in 1844 at Treves, in Germany, where a lady of high rank, who had been completely paralysed for a number of years, was carried to the cathedral, where the bishop had caused a sacred relic to be exhibited, at the sight of which she immediately regained the use of her limbs.

Time is already so far advanced that I regret I cannot enter, as I had intended to do, into the various forms of paralysis observed in hysterical women, and which may appear as hemiplegia, paraplegia, and general paralysis, and may affect not only the voluntary muscles of the extremities, but also the pharynx, the vocal cords, the diaphragm, the bladder, the rectum, and the heart. I must also forego to describe the differences between acute and chronic hysteria; nor can I say anything now about the epidemics of hysteria, and the phenomena of somnambulism, Mesmerism, etc., which appertain to the domain of this disease. I will only, before proceeding to consider the treatment, give you a few hints how you may be able to distinguish the hysterical from the epileptic attack, which is a matter of considerable importance.

Hysterical attacks occur almost always after a painful emotion, maltreatment of children by their parents, or of wives by their husbands, terror on seeing some disgusting object or witnessing a convulsive attack, fright, sudden suppression of the menstrual flow, etc.; while epileptic attacks almost always come on without any appreciable cause. The starting-point of the hysterical attack is generally in the epigastrium; while the epileptic attack occurs either without any warning, or with an aura of a different kind, which mostly starts from the limbs. In the hysterical attack, the loss of consciousness is preceded by globus and a feeling of suffocation; in the epileptic attack, it is sudden. The epileptic patient falls down as if struck by lightning, no matter where he may be; the hysterical patient has almost always the time to find a suitable place (a bed or sofa) where to fall down. The epileptic convulsion is a sort of tetanus which does not resemble physiological movements, and scarcely ever lasts more than five or ten minutes; the hysterical convulsions always mimic physiological movements, and last at least fifteen minutes, and often very much longer. At the end of the epileptic attack, the patient falls into a deep coma, or he recovers consciousness at once, and feels shaken and exhausted; at the end of the hysterical attack, there is generally a fit of crying and sobbing. Finally, we observe that, after the hysterical attack, urine of a peculiar character is passed, which is not the case after the epileptic attack. The chief pecu-

liarity of the urine after the hysterical attack is its great abundance, as it may amount to a pint or even more at one time. This urine is clear and devoid of colour, almost inodorous and tasteless; it has a specific gravity of very little over 1000, and consists of scarcely anything but urinary water. The cause of the large increase of the urinary water is a spasm of the capillary vessels of the skin, which consequently contain less blood than usual, and therefore throw additional work on the kidneys.

The treatment of hysteria is more difficult than that of any other disease, and demands all the resources of the art and all the individual skill of the physician. It may be considered under three different heads.

1. We must endeavour to remove the causes which we know to produce hysteria; viz., painful emotions.
2. We must modify the constitution; and
3. We must relieve symptoms.

As regards the first point, we often find all our efforts unavailing; yet we must never despair of success. We must try to rouse the will of the patient, to reconcile her to her position in life, and obtain for her the best possible conditions from those who surround her. Thus, even in apparently desperate cases, the physician may, by tact and perspicuity, yet to a certain extent be successful. Sometimes a total change of air and scene, a voyage to the Cape or Australia, does wonders.

Our second object must be to modify the constitution of the patient. If this be thoroughly wrong, we may hope for the best; while in cases where it does not seem to offer any irregularities, much less can be accomplished. Those hysterical patients whose constitution is at fault may be divided into three classes; viz., the anæmic, the plethoric, and the purely nervous.

In the *anæmic*, the restorative treatment must be pursued. We must make the patients eat, which it is often most difficult to do; recommending plain and nutritious fare, such as milk, Liebig's meat-extract (prepared with barley-water and a little brandy), chocolate, eggs, poultry, and joints. A liberal allowance of wine is often very useful; while we must prohibit water, for which most patients of this class have an inordinate craving, and which almost invariably disagrees with the stomach. Amongst the preparations of iron, the best for these cases is the reduced iron of the *British Pharmacopœia*, in doses of one or two grains, two or three times a day, with meals. A cold sponging-bath in the morning is also of great service. Where there is much emaciation, cod-liver oil, or the pancreatic emulsion of my colleague Dr. Dobell, may be given. Where the patient's means allow a journey abroad, the chalybeate waters of the continent, especially those of Spa, Schwalbach, Pyrmont, and St. Moritz, are admirable remedies. The best amongst them for these cases I believe to be those of St. Moritz, in the Engadin, where the highly rarified Alpine air, the carbonated baths, and the chalybeate mineral springs combined often produce marvellous results. St. Moritz is the highest inhabited valley in Europe, being more than 5000 feet above the level of the sea.

For the *plethoric*, the treatment has to be quite different. In these, a bland diet, long-continued warm baths, saline remedies, and occasionally local abstractions of blood, must be prescribed.

For the *purely nervous*, the antispasmodic remedies are suitable. Assafœtida, valerian (given as the valerianate of zinc), musk, and castor, take their proper place in these cases. All these remedies have lately fallen much into disuse, because they were indiscriminately employed for all forms of hysteria, and therefore often failed to do good; but if you restrict their use to the class of patients just alluded to, I have no doubt that you will be well satisfied with their effects.

In all cases of hysteria, we must take care that the ordinary functions of life, especially menstruation and alimentation, should be in proper order. Complications with tumours, chronic metritis, displacement of the womb, foreign bodies (such as intestinal worms), or an accumulation of fæces, must be treated according to general rules.

For the relief of hysterical *symptoms*, I know no more useful remedy than Faradisation, by which nearly all manifestations of hysteria may be arrested, and either temporarily or permanently cured. The effects of this agent may be easily understood, if we consider that hysteria is a functional, not a structural disease, and that its symptoms are, generally speaking, nothing but simple modifications of sensibility and contractility. By Faradisation, we may act powerfully on the organs of sensibility and contractility without injuring them, whatever may be the part of the body upon which we may desire to act, and whatever may be the degree of intensity it may be found necessary to use.

According to the nature of the symptom we intend to combat, the mode of application must be different. Hysterical hyperæsthesia is generally cured by two or three applications of a wire-brush, conveying a powerful current to the skin, for two or three minutes each time. This procedure is painful, and it may therefore be advisable, in women who are very sensitive, to place them previously under the influence of chloroform, or to inject morphia subcutaneously, which takes nothing away from the revulsive effects of Faradisation. For hysterical anæsthesia, the proceeding is the same, only it must be continued for ten or fifteen minutes. In such cases, no inconvenience attaches to the use of Faradisation, because as soon as the patient begins to feel pain, the anæsthesia is dispelled, and the operation may be discontinued.

For anæsthesia of the nerves of special sense, the continuous galvanic current is preferable to Faradisation; but the latter is again more useful in anæsthesia of the mucous membrane of the bladder, vagina, and rectum.

In hysterical attacks, I prefer a drenching with cold water in hospital, and an emetic in private practice. Faradisation is again useful in globus, spasmodic cough, and dysphagia.

If hysterical paralysis is accompanied by acute symptoms, the patient must first be treated according to general rules. Faradisation can only be safely employed after the acute stage has subsided, when it often proves curative. In these cases, it ranks in value immediately after those sublime and elevating emotions, of the curative influence of which I have already spoken. Partial paralysis is always more easily curable than the general form. Hysterical paraplegia is however obstinate; while hemiplegia, aphonia, and paralysis of the muscles of the pharynx, are often cured by a single application.

Original Communications.

ON THE USE OF THE THERMOMETER AS A GUIDE IN THE DIAGNOSIS OF PYREXIAL DISEASES.

By F. W. Gibson, B.A., M.D.London, late House-Surgeon of the Taunton and Somerset Hospital, Taunton.

The object of the following communication is to make the value of the thermometer, as an aid in the study of pyrexial diseases, which is recognised by comparatively few British practitioners, more generally known. Any historical details regarding the history of the progress of this branch of medical science would be out of place here. Those, therefore, who wish for information on this subject, I refer to the chapter on the "Range of Temperature in Disease", to be found in the first volume of Dr. Aitken's most excellent treatise on medicine. Suffice it to say that, although the origin of the employment of the thermometer as an aid in the diagnosis of pyrexial diseases dates back more than a hundred years, yet, until Professor Wunderlich of Vienna published the results of his elaborate researches in 1858, the real importance of daily records of the temperature of the body in such diseases was almost unknown. Drs. Parkes, Jenner, Ringer, and others, are labouring in the same field in this country; and the day is not, I think, very far distant when the physician will consider the thermometer not less indispensable to him than the stethoscope or microscope, and when the surgeon will not neglect the observation of the temperature, since Billroth has brought forward sufficient proofs of its great importance as an assistance in the diagnosis of surgical diseases.

Fluctuations of Temperature within the Limits of Health. The normal temperature in the axilla, the only locality in which the temperature is now habitually taken, is 98.5 deg.; but in certain circumstances it may vary a degree or two above or below this point. These variations are, however, not persistent. In a few hours—at most, twenty-four—the temperature becomes normal. The important deduction from this fact is, that a *persistent* rise above 99.5 deg., or depression below 97.3 deg., is a sure sign of disease.

Exposure of the body to the air, even in warm weather, lowers the temperature considerably. I have frequently observed a depression of the temperature, continuing for some hours, after slight operations in which there was no notable shock or hæmorrhage; *e. g.*, a boy, aged 11, admitted for phimosis and gonorrhœa, had a temperature of 100.4 deg. immediately *before* the performance of the operation of circumcision. For two hours *after* the operation, the temperature remained below the normal height, although he was in bed, carefully covered up.

The temperature is lowered after a full meal and the use of alcohol. It rises as digestion advances. Ingestion of improper articles of diet in typhoid (and other fevers?) may cause a remarkable rise in the temperature, as is shewn by the following case. A man, aged 21, in the third week of typhoid fever, becoming convalescent, with a temperature nearly normal, ate, at two in the afternoon, a considerable quantity of heavy currant-cake. At eight in the evening, his temperature had risen to 105.6 deg.

The temperature is lowered by sleep.

Correlation of the Pulse and Temperature. The rule, "that an increase of temperature of one degree above 98o corresponds with an increase of ten beats of the pulse per minute," though true in the main, is, as shown by the following cases, subject to many exceptions. In typhoid fever, I have known a pulse of 100 to exist with a temperature of 105.6 deg.; in jaundice, a pulse of 58 with a temperature of 103; in rheumatic fever, a pulse of 80 with a temperature of 103.5 deg.; in peritonitis, a pulse of 80 with a temperature of 102.2 deg.; in tetanus, a pulse of 72 with a temperature of 104 deg.; in shock following severe surgical injury, a pulse of 120 with a temperature of 98.5 deg.; in typhoid fever, a pulse of 120 with a temperature of 100.4 deg.

The temperature is, therefore, a much more certain guide than the pulse, since it is not liable to be affected by nervous debility or excitement. The temperature is, in fact, the only certain means of diagnosis between the frequency of pulse produced by weakness, and that caused by fever; and in those cases, also, in which extreme slowness of the pulse exists as an idiosyncrasy, the employment of the thermometer leads to the discovery of disease which would not otherwise be detected.

The objective temperature of the skin—that is, the sensation conveyed to the applied hand of the observer—is a most fallacious guide. I have known the skin to be objectively of normal warmth with a temperature of 105 deg., and cool with a temperature of 102 deg. The use of the thermometer is, therefore, the only reliable method of ascertaining the actual temperature of the body.

As the thermometer has been but little employed hitherto in the diagnosis of pyrexial diseases, a few remarks as to the construction of the instrument, and the proper method of applying it, are necessary before I proceed farther.

The instruments with which I have made most of my observations, I obtained from Mr. Griffin, of Garrick Street, Covent Garden. The scale ranges from 55 to 130 deg., each degree being divided into fifths. Some are covered near the bulb, so as to fit more easily into the armpit; but the advantage thence derived is not great; and I find that the instruments thus made are rather more apt to slip down out of the axilla than those which are straight. The accuracy of the thermometers must be thoroughly established before they are employed, by comparing them with a standard instrument. Dr. Aitken has arranged a maximum self-registering instrument, which does not require to be read *in situ*, but may be removed and inspected when convenient. Mr. Casella of Hatton Garden supplies this instrument in a box, with a second ordinary thermometer having a bent bulb. Negretti and Zambra also manufacture most excellent instruments. A thermometer, sufficiently accurate for all medical purposes, may be obtained for a moderate sum (seven shillings) of the first named maker (Griffin).

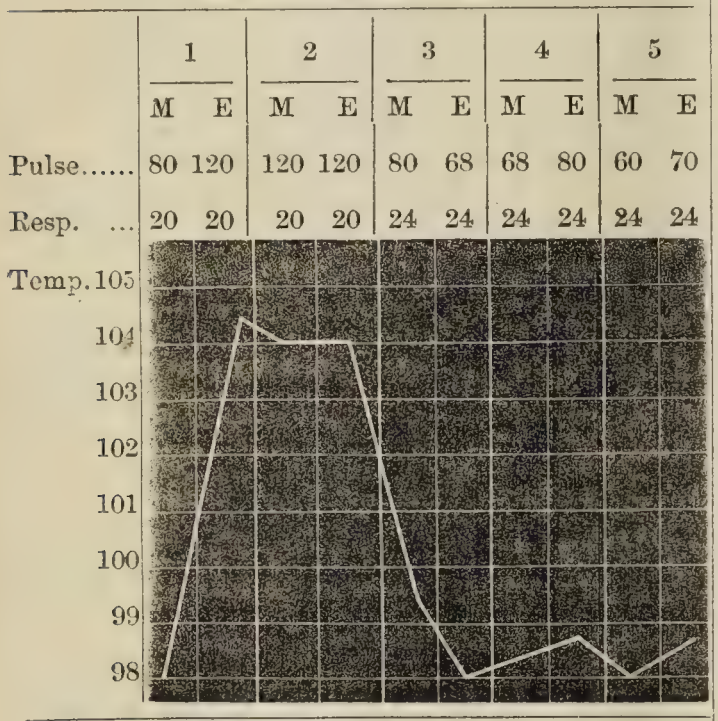
The patient must have been in bed, well covered up, an hour at least before the temperature is taken. If he have been lying on his side, he must be turned round, in order that the thermometer may be applied in the axilla which has been next the bed. He must be placed in a medium position between the side and back; the bulb of the thermometer passed well up into the top of the axilla; the arm laid across the chest; and especial care taken that the instru-

ment be thoroughly surrounded by the soft parts, that no clothes intervene, and that the patient keep his arm in place.

If an approximately accurate observation be all that is desired, the thermometer need not be retained *in situ* more than five minutes; but it is much better to allow it to remain for ten minutes. The plan which I usually adopt is to note the height to which the mercury has risen at the end of five minutes, and then wait for a minute or so; when, if I find that a rise has taken place, I allow the instrument to remain in three or four minutes longer. The rapidity of the rise of the mercury, the pulse, respirations, and state of the skin, should be simultaneously observed.

The daily thermometric changes, with the variations of the pulse and temperature, may be conveniently recorded by means of a diagram such as that here given.

Traumatic Erysipelas.



Two daily observations, sufficient in the majority of cases, should be made, as nearly as possible at the same time each day, between the hours of seven and nine in the morning and five and seven in the evening. If more frequent observations be deemed desirable, midnight and noon are considered the most advantageous hours.

Range of Temperature in Disease. The height of the temperature is usually a sure indication of the severity of the fever. If, in a case of typhoid, the temperature in the evening during the second week do not rise above 104 deg., the disease may be expected to run a mild course; whereas, if it amount to 105 deg. in the evening or 104 deg. in the morning, the patient is in considerable danger. In traumatic erysipelas, however, the temperature frequently rises with extreme rapidity to a very high degree, without the supervention of any alarming symptoms. For example, a man aged 60, under treatment for ulcer of the leg, was infected with erysipelas by a patient in the same ward. The attack began at eight in the morning with a fit of severe rigors; at nine, his temperature was 104 deg.; it remained high till the morning of the third day, when it had fallen to the normal standard. The disease was superficial, and did not spread above the groin. At no time were there any alarming symptoms. Again: a man aged 22, an epileptic, who had two or three small ulcers on his head, produced by tartar emetic ointment, contracted erysipelas. The attack was slight; no danger threatened; nevertheless, his temperature rose to 104.6 deg. In none of these cases, however, was the high temperature of long continuance.

When, however, the temperature in any febrile disease approaches 106 deg., the patient is in imminent danger. "A temperature of 108 and 109 deg. indicates most surely the near approach of death." (Wunderlich, who records a case of idiopathic tetanus in which, at the moment of death, the mercury stood at 112.5 deg.; after death, it rose to 113.8 deg.)

The highest temperature which I have observed occurred in a case of pyæmia, in a woman aged 40, who had her forearm amputated for cancerous disease of the wrist. At two in the afternoon of the ninth day after the operation, she had a severe attack of rigors. At half-past three, a temperature of 103.6 deg. was noted. It rose *continuously*—a sign of evil augury in very many cases of pyrexia—until death, which took place thirty-eight hours after the attack of rigors. An hour before death, it had reached 107 deg.

In pneumonia, the height of the temperature gives a much surer indication of the presence and amount of pyrexia than either the rate of the pulse and respirations, or the physical signs. The latter continue in *statu quo*, in many cases, long after the temperature has fallen to the normal standard. The physician, therefore, who judges from these symptoms alone, will be in danger of falling into the error of unnecessarily prolonging antiphlogistic treatment. On the other hand, the temperature is in some cases very high whilst the physical signs afford but slight evidence of the amount of impending disease.

For example, a man, aged 45, with signs of pneumonic consolidation extending as far upwards posteriorly as the sixth rib, had a respiration rate of 32 per minute, yet his temperature was perfectly normal. A woman, aged 19, having similar signs, with pulse 100 and respirations 32, had a perfectly normal temperature. A boy, aged 14, in whom the physical signs consisted merely of slight dulness with feeble bronchial respiration at the base, was found to have a temperature of 107 deg. How, in the first named cases, could the absence of pyrexia have been diagnosed—how, in the last, could the impending severity of the attack (for severe it became) have been prognosticated—without the aid of the thermometer?

Dr. Ringer (*Temperature of the Body in Phthisis and Tuberculosis*) has proved that there is a continuous elevation of temperature in all cases in which a deposit of tubercle is taking place; that the temperature is a more accurate indicator of the amount of disease than either the physical signs or symptoms; that, by means of the temperature, we can diagnose phthisis long before any physical signs or symptoms can be detected; that, by means of the thermometer, we can decide when the deposit of tubercle has ceased; and that, by means of that instrument, we can diagnose phthisis from diseases which more closely resemble it—for example, carcinoma of the lung, aortic aneurism, and dilated bronchi. By means of the thermometer, we can diagnose tubercular meningitis from cerebral tumour.

An abscess lying in front of a large artery sometimes so closely resembles aneurism that the diagnosis is excessively difficult. In every case of abscess which I have observed, the temperature has been above the normal standard—often considerably. An abnormally high temperature has, in not a few cases, led me to the diagnosis of impending abscess for some hours before fluctuation could be detected.

The temperature begins to rise at the commencement of the process of suppuration. It rises rapidly until the process is mature, when it begins to fall.

For example, a man, aged 39, was admitted for a severe bruise of his thigh. On the evening of the third day after the accident, his temperature was 103 deg. Hardness and intumescence of the soft parts was to be felt near the seat of the injury, but no fluctuation. A poultice was applied. The next evening, his temperature was 105 deg. The abscess became matured during the night. The temperature fell gradually next day.

In some cases of severe concussion of the brain, it is of extreme importance to establish with certainty the existence or non-existence of any inflammatory symptoms. Mere nervous shock will in not a few such cases cause the pulse and respirations to be very rapid. The following is a case in point. A boy, aged 14, admitted with severe cerebral concussion, had a pulse of 120 and respirations 36. The temperature, however, did not rise above 101 deg., which proved the absence of any severe inflammatory mischief.

In cases of intestinal hæmorrhage in typhoid fever, the temperature falls for some hours before the blood appears in the stools, the pulse continuing as rapid, or even more rapid, than before the hæmorrhage took place. The thermometer enables the physician to determine the occurrence of the hæmorrhage, and to adopt preventive treatment at once; whereas if, neglecting the use of that instrument, he wait until the blood appears in the motions, much valuable time will have been lost.

[*To be continued.*]

ON THE TREATMENT OF STRABISMUS WITHOUT OPERATION.

By C. Holthouse, Esq., Surgeon to the Westminster Hospital, and to the Surrey Ophthalmic Hospital, etc.

[*Continued from page* 174.]

Case II. *Double Convergent Strabismus from Paralysis of the External Rectus Muscle of the Left Eye, probably due to slight Capillary Apoplexy.* Eliz. W., aged 54, chairwoman, applied to me at the Surrey Ophthalmic Hospital on February 6th, 1860, for a slight convergent strabismus affecting both eyes, diplopia, and much confusion of vision. The movements of the right eye were perfect in every direction, the pupil acted normally, and the vision was good; but the left eye could not be moved outwards beyond a central position between the two canthi; and the upward and outward and downward and outward movements were likewise very limited. In other directions, this eye moved freely, and its pupil and vision were unaffected. On shading each eye alternately, the right or good eye was always more inverted than the left. The diplopia was lateral and homonymous; and the distance between the double images increased as the object gazed at was moved further to the patient's left side.

History. Three weeks previously, while the patient was in church, and during the sermon, her nose began to bleed. She succeeded, however, in stopping the hæmorrhage, but shortly afterwards became affected with a sudden "dizziness", and felt as if she "was going to fall off the seat". On leaving church, she had much pain in the head, which she endeavoured to relieve by tying a handkerchief tightly round her forehead and going to bed. She arose the following morning at her usual hour, and went to work, notwithstanding she felt very unwell, and suffered from much confusion of vision. The above symptoms continued to the time of application. She was ordered one grain of calomel and one of quinine three times a day.

Feb. 9th. The powders, having griped and purged her freely, were discontinued, and a mixture of three grains of iodide of potassium in an ounce of camphor mixture, to be taken three times a day, was substituted.

Feb. 13th. The paralysis remained without any appreciable diminution, but the patient's health had improved. The medicine was continued.

Feb. 20th. The strabismus and confusion of vision had diminished, and the cornea could be everted to within two and a half lines of the outer canthus. The treatment was continued.

Feb. 24th. The improvement continued; the cornea could be everted to within one line of the outer canthus; and scarcely any perceptible strabismus or confusion of vision remained. The medicine was continued.

The patient ceased to attend after the last note was taken, having considered herself well.

There may be some doubt as to the exact locality of the mischief in the above case; but less, probably, as to its cause. The preceding epistaxis pointed to congestion and rupture of the capillaries of the nose; and, had the hæmorrhage been encouraged, it might possibly have warded off the paralytic attack; but, being suppressed before the vessels had sufficiently relieved themselves, the preexisting congestion gave rise to rupture elsewhere; and this extravasation implicated, either at its origin or in some part of its course, the left abducens nerve. The dizziness, of which the patient complained on her first seizure, would not necessarily denote a cerebral lesion, inasmuch as any sudden distortion of one eye will give rise to much confusion of vision and giddiness; but, coupling the latter symptom with the pain in the head and with the absence of paralysis of any of the other ocular muscles, it seems more probable that the extravasation was intracranial than intraorbital.

As regards the influence of the treatment on the favourable result, I am unwilling to speculate. Suffice it that the patient recovered within three weeks of its commencement.

Case III. *Double Convergent Strabismus of the Left Eye to one Line, and of the Right to one Line and a half, from Paralysis of the Left External Rectus Muscle, probably of cerebral Origin.* Robert B., aged 35, bricklayer, and healthy looking, applied to me on January 9th, 1866, for a double convergent strabismus affecting the left eye to one line, and the right to one line and a half, when the head was straight; but, left to himself, he kept his head rotated on its axis to the left shoulder, thus making his eyes parallel, and so avoiding diplopia.

The attack came on without obvious cause, and unaccompanied with pain in the head or vertigo. He confessed, however, to having suffered from occasional giddiness and confusion, on stooping down, for the last two or three years.

On testing the movements of each eye separately, those of the right were found to be normal; but the cornea of the left could not be moved beyond the centre of the palpebral aperture. In all other directions, not influenced by the external rectus, the movements of the eye were perfect. The vision of each eye was good, but the accommodation of the left rather less perfect than the right, being in the right eye $\frac{1}{4}$, and in the left $\frac{1}{5}$. After some trials and shifting of the head, he was able to see stereoscopically through the ordinary refracting stereoscope; proving, as will be shown hereafter, that he had the power of keeping the eyes parallel. When first seized with the paralysis, and for some time afterwards, he was much annoyed with the diplopia; but

he had now learnt to correct it by the position of his head. It is worthy of remark, in connexion with this symptom, that the double images were invariably parallel and of the same height, in whatever direction the object (a paper-knife) was held. Now, theoretically, the left hand image ought to have been slanting; because the left eye not being everted, owing to the paralysis of its abductor, its vertical meridian would remain nearly vertical, while that of its fellow would be inclined to the left; and thus the parallelism of the two meridians would be destroyed. I shall have occasion to revert to this anomaly in another case. As regards the range of the diplopia, it occupied not only the centre and left of the visual field, but extended more than two feet into the right half.

Feb. 19th. He had had counterirritation kept up by means of sinapisms in the cervical and upper dorsal regions of the spine, and had been taking a tonic mixture. To-day it was found that he could evert the cornea to three lines beyond the point at which it rested five weeks ago. Notwithstanding this gain, the diplopia still extended into the right field of vision. This phenomenon was due to the action of the adductor of the paralysed eye not being sufficiently controlled by its weakened antagonist. Thus the visual axis of that eye, instead of being in a line with the object, passed beyond it, as was proved by shading the sound eye, when the paralysed one immediately made a slight movement outwards.

This patient is now being treated by galvanism twice a week, according to the method recommended by Benedikt of Vienna; and, although not yet perfectly well, he is steadily advancing towards complete recovery.

[*To be continued.*]

ON THE DISCOVERY OF TRICHINÆ IN THE HUMAN SUBJECT.

By Thomas Nunneley, F.R.C.S.E., Leeds.

From the repeated references which from time to time have appeared in the British Medical Journal and other publications, as to who first discovered trichinæ in the human body, and the date of the discovery, it would appear that much interest attaches to the questions.

Some time ago, I observed that it was stated, in this Journal and also in others, that Owen first noticed the parasite in 1835. Then it was asserted that it had been discovered by a German anatomist; and now I find in the Journal of February 24th, a statement, made on the authority of the present curator of Guy's Museum, to the effect that Mr. Hilton was entitled to the honour of having first called attention to the subject in 1832. As the last date so nearly corresponds with the time when I dissected a subject in which I found trichinæ in enormous numbers, and it is hardly likely that two subjects affected with so uncommon a disease should have been seen so nearly together in the same dissecting-room, I cannot but suspect this latter statement refers to the subject in which I first noticed the existence of these entozoa, and that it may help to settle the question of priority of discovery if I relate what then took place; and put in such claim as may fairly attach to the person who first noticed the presence of the trichinæ. It is by no means improbable, that some who were then students at Guy's may, on reading this communication, have their memory recalled to an occurrence which, at the time, excited considerable interest. I made a full memorandum of the facts in my note-book; and have a firm conviction of the correctness of what I now state.

Towards the close of my student-life at Guy's Hospital, I think at the end of April or in May 1832, when subjects were not greatly in demand, I had the major part of a male subject to dissect and use for operations. On exposing the muscles of the neck, I at once observed that they were unusually pale, and presented a most peculiar spotted greyish appearance, which, on close inspection, was seen to be caused by innumerable minute semi-opaque, white ovoid-shaped cysts, deposited in rows in the cellular membrane connecting the muscular fasciculi. These cysts were so numerous as nearly to touch each other. They all lay in single rows with the long axis parallel with the muscular fibre. Though so plentiful in the connecting tissue, not one could be seen entering into the substance of the smaller fasciculi; and all lay, so far as could be noticed, with the long axis as stated—not a single one could be found lying in a transverse direction.

The whole body was carefully dissected, to ascertain the extent to which the muscles and various organs were pervaded by these cysts. There was not a single voluntary muscle but was thickly and apparently uniformly studded with them. They pervaded equally the small muscles of the glottis and orbit, as the large pectoral and abdominal muscles, the thin platysma myoides, and the entire substance of the thick deltoid; but I could not find a single cyst in any of the non-striated involuntary muscles. The muscles of respiration were full of them; but not a solitary individual could be detected in the heart, nor in the muscular walls of any of the hollow viscera. None were discovered in any of the solid viscera; and, if any existed, they must have been few in number, and were not observed.

So remarkable a morbid condition could not but excite much attention; and, doubtless, the matter would be brought under the notice of Mr. Cock and Mr. Hilton, who were the demonstrators of anatomy. Mr. Key, whose dresser I had for some time been, and others of the medical staff, amongst whom were Mr. Cooper, the anatomical lecturer, Dr. Bright, and Dr. Addison, I know, visited the dissecting-room and saw the muscles. I well remember that the attention of Dr. Hodgkin, who was then Teacher of Pathology and Curator of the Museum, was especially called to the matter. He had never seen anything of the kind, and was at a loss to account for it. The microscope was only just beginning to be used in pathological investigations, and very few persons knew much of its management; Dr. Hodgkin suggested the name of his friend, the late Mr. Lister, who was then perhaps the most expert microscopist in London, as a proper person to be referred to; and I removed a portion of muscle for his examination. For a similar reason, the name of Dr. Marshall Hall, who had lately come from Nottingham to reside in London, and who was known to have used the microscope, was mentioned. He had portions of muscles sent to him; and he afterwards came to the dissecting-room, where I shewed him the subject. After various speculations, as to the nature of these cysts—whether they should be regarded as ova, larvæ, or perfectly developed parasites—in the end, by one or other of the three gentlemen last named—I believe by Mr. Lister, though of this I am not certain (possibly Dr. Hodgkin may recollect)—these bodies were determined to be the *cysticercus cellulosæ*, by which name for many years they were called. How they entered the body, or why they were located in the striated muscles of voluntary motion alone, no reasonable explanation was attempted. Indeed, in the then imperfect state of knowledge of the natural history of these entozoa, such would have been impossible.

I took a great deal of pains to ascertain if anything in the man's career before death would throw any light upon the subject; but could learn nothing that did so. Of the man himself little was known; he was of middle age, rather thin, and was supposed to have been an irregular liver, and to have suffered from long continued syphilis. He had not been long in the hospital. Shortly before his death, he had had feverish symptoms of no very marked character, or at least such as then had been recognised as peculiar. The body, being unclaimed, was sent to the dissecting-room.

I removed both sterno-cleido-mastoid muscles, which seemed to contain as many of the parasites as any of the muscles, to have them preserved as specimens—one for myself, the other for Guy's Museum. The one intended for the museum was so badly cared for, that I had the impression it was spoiled before being deposited in the museum; but if, as I gather from the paragraph in the JOURNAL, the curator declares that he has it in his custody, in this I must have been misinformed. The other specimen was well put up, and for many years shewed the pathological condition with great distinctness; and year by year for at least twenty years I used to exhibit it to my class at the Leeds School of Medicine, as what I supposed to be an unique specimen of a most unusual pathological condition of muscles. When I was transferred from the Lectureship on Anatomy and Pathology to that on Surgery, I lost sight of the preparation, which I believed to be safe in the museum, until, three or four years ago, when attention was so much directed to the affection from the discoveries in Germany, and the natural history of the parasite was so much elucidated, I looked for it, with the intention of relating what I now do, and, to my great vexation, could not find it. It had followed the fate of several other important preparations, which the carelessness of the curator had allowed to be stolen or destroyed. In confirmation of this part of my statement, I insert a note from my colleague, Mr. Wheelhouse, who, in 1845 and subsequent years, was a student at the Leeds School.

"My dear Mr. Nunneley,—I have a perfect recollection of the specimen of the trichinous muscle, of which you were speaking to me on Thursday last.

"It was in the museum of our school, to my knowledge, from the year 1846 to 1849; and I am exceedingly sorry to hear that it has been lost.

"It was a small piece of voluntary muscle thickly filled with what I now know to have been the *Trichina spiralis*; although it was at that time labelled, and always spoken of by you in your lectures, as a specimen of *Cysticercus cellulosæ*.

"Believe me to be, yours very sincerely,

"C. G. WHEELHOUSE.

"Leeds, Feb. 24th, 1866."

I should mention that, soon after the discovery of trichinæ at Guy's, there was a rumour in our dissecting-room, of there being a body presenting a like condition at St. Bartholomew's Hospital. I at once went there; but could not learn much. No such subject was then in the dissecting-room; but there was some talk, though by no means a very definite assertion, of there having been, some time previously, a body dissected, which was afterwards thought to have been similarly affected, but which at the time of dissection had not excited more than some passing curiosity as to the peculiar condition of the muscles. No one appeared to be able to identify the appearances in that body with what had been found in the one at Guy's; and it seemed more probable than not, that the two conditions were not similar.

Progress of Medical Science.

SURGERY.

LARGE RENAL CYST: SUPPOSED OVARIAN TUMOUR: ATTEMPTED EXTIRPATION: DEATH. Dr. W. Krause, of Göttingen, relates the following interesting case as having occurred in the practice of Herr Baum. The patient, a young woman, aged 23, had always enjoyed good health; menstruation had been perfectly regular. In the beginning of 1863 she perceived that, without any known cause, her abdomen gradually enlarged. She consulted several medical men, and lastly a very skilful and well-known operator in Hanover, who diagnosed an ovarian cyst. The tumour was punctured in May 1863, with relief to the patient, who was enabled to undertake a journey at the end of ten days; soon, however, the fluid again collected. No information could be obtained as to the examination of the fluid removed.

On October 27, 1864, the patient came under Dr. Baum's care. She was a large strongly built woman, of healthy appearance. The abdomen was enormously distended, giving the following measurements: circumference from the upper end of the sacrum over the iliac crests and the umbilicus, 47.6 inches; horizontal circumference over the iliac crests, 44 inches; distance of umbilicus from symphysis pubis, 9 inches; height of swelling above symphysis, 21.25 inches; distance of xiphoid process from symphysis pubis, 28.75 inches. The swelling occupied the whole breadth of the abdomen from the left to right; it gave a dull percussion sound, fluctuated distinctly, and could not be pushed aside. Nothing peculiar could be detected by vaginal examination; no hardness could be felt, nor had the surgeon who previously punctured the tumour, been able to detect any tumour in the abdomen. Herr Baum considered the case to be one of ovarian cyst.

On November 28, the patient's health having been improved by appropriate treatment, she was placed under the influence of chloroform, and an incision between three and four inches long, ending about four inches and a third above the symphysis, was made in the linea alba. The abdominal parietes and peritoneum were successively divided, and the cyst was exposed; it was of a reddish blue colour, with many vessels on its surface. A hook was inserted into the cyst, and with a trocar there were removed more than twenty-five pints of fluid, at first clear, afterwards having a muddy purulent appearance. When nearly all the fluid had been removed, an attempt was made to draw the cyst forward by means of the hook; but this was found to be impossible, on account of numerous and very close adhesions of the cyst to the intestines, especially the transverse and descending colon. All thought of extirpation was therefore necessarily abandoned. The anterior wall of the cyst was divided, and fastened to the abdominal wall by six points of suture, including the peritoneum; the wound was covered with cotton-wadding, and the abdomen was bandaged. The patient was much exhausted by the operation, and had at noon a glass of wine, after which she was given milk and water. In the evening she felt tolerably well; the abdomen was not very tender, but pressure was rather disagreeable. The patient's temperature was 102° Fahr.; pulse 10. Ten drops of tincture of opium were given in the evening. On the 29th, she had slept but little, and was rather restless; the abdomen, however, was not tender. Towards noon she vomited. Two drops of tincture of opium were given, and afterwards five

drops every three hours. In the afternoon she again vomited once. The temperature of the body was now 102.5°; the pulse could scarcely be counted. On the 30th, she had been very restless in the night, and had slept little. Since 5 a.m. she had been vomiting constantly; and at 9 a.m. had a dose of tincture of opium. The pulse was extraordinarily frequent. Her thirst could not be appeased by ice-water. Towards noon the vomiting diminished, but commenced anew in the afternoon. The pulse could no longer be counted; the patient gradually sank, and died at 7 p.m.

At the autopsy, made twenty-four hours after death, nothing remarkable was found in the cranial cavity. The pericardium contained little serum; on the surface of the ventricles were several small dark subpericardial extravasations. The free border of the mitral valve was rather thickened. The borders of the lungs touched each other in front; the bronchial glands were strongly infiltrated with cheesy matter; the bronchial mucous membrane was somewhat red; the substance of the lungs was anæmic and infiltrated with serum. The stomach was much distended with gas, and empty; the mucous membrane was pale. The spleen was soft, but very rich in blood. The anterior surface of the liver was of a deep yellow colour in spots, and studded with particles glistening like fat. Microscopic examinations shewed an advanced stage of fatty degeneration in the yellow spots; the remaining portions of the organ also contained much fat in the hepatic cells. The serous coats of the intestines were throughout hyperæmic, rough, and partly covered with flocculi of fibrine. The pelvis contained much purulent fluid. The cyst had become entirely united with the neighbouring tissues where sewn to the abdominal wall. The right kidney was large; the pelvis very wide, and the cortical substance of a somewhat yellow colour. The right ureter was dilated. In the cortical substance, the urinary tubules were dilated, and the Malpighian bodies enlarged; in the medullary substance the looped tubules of Henle were filled partly with fibrinous cylinders, partly with calcareous deposits, and much widened. The left ureter was also wide, and full of purulent fluid; it sprang from the cyst. The pancreas and suprarenal bodies were unchanged. The mucous membrane of the bladder was beset with small red excrescences. Both ovaries were very large, studded with numerous small cysts, and rich in blood. The mucous membrane of the uterus was hyperæmic. A small cyst was found at the free end of the left Fallopian tube.

A chemical examination of a portion of the removed fluid was made by Herr Bödeker. Its specific gravity was that of water; it had a very weak alkaline reaction, and contained chloride of sodium, urea, and albumen. No sugar, inosite, biliary colouring matter, or uric acid could be detected.

On further examination, it was found that there had been an enormous widening of the pelvis of the left kidney, by which the kidney itself had been atrophied. The ureter passed rather tortuously and obliquely from the cyst, and then pursued its normal course. Its diameter, both in its course and at its point of connection with the cyst, was greater than normal; where it entered the bladder, it was somewhat narrowed by the hypertrophy of and excrescences on the mucous membrane of the latter organ, but was not impermeable. The pelvis of the kidney formed a cavity larger than a man's head, with tolerably thick walls, perfectly smooth internally, and surrounded on the outside by connective tissue. In front, the connective tissue corresponding to that which normally lies between the descending colon and the kidney, was in many places thickened. There were many arteries and veins, some of large size, in this connective tissue, and in the wall of the cyst. They were connected with the renal vessels, which were of normal diameter, but, especially the left renal vein, somewhat elongated, and lay behind the cyst. The walls of the cyst consisted of firm fibrous connective tissue, with numerous nuclei and vessels; on the inner surface it was lined, at least in parts, with ciliated epithelium. The cyst formed a longish, nearly oval sac, about 16.75 inches long, and 12.5 inches broad. The point of the oval was directed downwards and forwards, and was the part into which the incision had been made. A little more than three inches from the incision, on the left side, in a direction backwards and upwards (the cyst being considered in the normal position) was the orifice of the ureter; which, when viewed from the cyst, was seen to be closed by a semilunar valve, about four-tenths of an inch in width, closing it forwards and downwards, so that no flow could take place through it. The opening, however, was permeable to a sound passed from the ureter. The cyst was thickened on the left side over an extent of about 14.75 inches by 5, by the remains of the kidney; in this part the wall was from one and a half to two inches thick, while in other parts its thickness was only four or six-tenths of an inch. The thickening, however, was not equal, the atrophied kidney having disappeared in some parts more than in others. The kidney extended at both ends and laterally somewhat beyond the cyst; the borders were flattened, and lay free of the cyst, being united to it by loose connective tissue. In the cyst were here seen depressions of very various forms, some round, others oval; some were shallow, others, especially the larger ones, formed irregularly arranged cavities in the cyst wall; they were the dilated calices, at the base of which, especially the shallow ones, the flattened papillæ of the kidney could be seen. Traces of the renal tissue could be detected by examination only in the portions of kidney which lay free from the cyst, and represented the cortical substance; here the Malpighian glomeruli and tortuous urinary tubes were found, with epithelium which had partly undergone fatty degeneration; in the other parts no kidney structure could be discovered.

The cyst extended from the left lumbar portion of the diaphragm, along the spine, down to the upper opening of the pelvis proper; in the front it extended from right to left through the whole peritoneal cavity. The stomach and duodenum, as well as the left lobe of the liver, and the spleen, were pushed to the right by it. Above, the cyst came into contact with the stomach, (of which the great curvature was directly almost horizontally forward) the pancreas, and the left suprarenal body; in front, with the transverse and descending colon, and with the peritoneal lining of the abdominal walls, to which it was adherent only at the place of incision. Behind, the cyst lay on the lumbar portion of the diaphragm, and on the left quadratus lumborum and psoas muscles. On the left it touched the spleen and the descending colon; on the right the duodenum; and below the sigmoid flexure, uterus, and bladder. There were firm adhesions between the cyst and most of the organs; it could be easily drawn away only from the fundus uteri, the left ovary, stomach, spleen, and diaphragm. (*Archiv für Klinische Chirurgie*, Band vii, 1865.)

Treatment of Ununited and Oblique Fracture. Dr. E. S. Gaillard describes an instrument which, he believes, will fulfil all indications in the treatment of ununited and oblique fractures. It is composed of four pieces; a handle, a screw, a shaft,

a sheath, a nut. For fractured femur, the shaft or screw is six inches long, the lower part being cut with a screw similar to that of an ordinary gimlet, and the upper part being furnished with an ordinary male-screw, on which works the nut; the shaft being of steel and the nut of brass. The sheath is made of silver and the handle of the instrument of rosewood, or some material equally hard. The sheath is three inches long, and the male-screw, cut in the upper part of the shaft, extends from the handle to a point about two and one-half inches below it. The instrument is thus applied—it being supposed that the femur is the bone fractured, and the fragments in apposition. Through an enlargement of the orifice, caused by the injury sustained, or through an artificial opening immediately over the site of the fracture, the silver sheath, detached for this purpose, is passed down to the bone. The shaft, with the nut immediately under the handle, is then passed through the sheath, until the point of the shaft rests upon the bone. The operator, seizing the sheath with the left hand, one finger of this hand being under the fragments of bone, slowly turns the handle of the shaft with his right; the sheath should be held firmly to prevent a slipping of the point of the shaft upon the surface of the bone. The process of turning or boring is then continued, until the shaft shall have descended an inch and a half, or until it has pierced both fragments of the bone. The shaft and sheath being then grasped with the left hand, the nut is turned until it reaches the superior extremity of the sheath, and until the resistance offered is greater than the operator can overcome, without using undue force. The forcing down of the nut brings the fragments of bone in apposition, and retains them thus so long as the instrument is allowed to remain—the duration of this period being from three to four weeks for the femur, and a proportionally shorter period in fractures of the smaller bones. The instrument being *in situ*, all extending and counter-extending forces are removed; light, lateral splints, as a precautionary measure, are then applied, with an ordinary roller-bandage, and the process of adjustment is complete. The instrument is allowed to remain until there is satisfactory evidence of bony union, when it is withdrawn. Its presence will have been found to cause but little local irritation and no perceptible constitutional disturbance. (*New York Jour. of Med., Nov.* 1865.)

Amputation at the Hip-joint. Dr. J. H. Packard, of Philadelphia, relates the following case, which came under his notice at the hospital at Beverley, New Jersey. The patient was a private in the Maine Volunteers, aged 19, and was brought to Beverly, August 22nd, 1864, by steamer, having been wounded on the 16th. The ball had passed through the head of the tibia from before backward. On Sept. 12th, secondary hæmorrhage having occurred, chloroform was given, and after a careful examination it was thought proper to amputate, which operation was performed through the lower third of the thigh, by the circular method. No untoward symptom was observed until October 17th, when bleeding was again set up, and the femoral artery was cut down upon and tied in Scarpa's space. The ligature came away in ten days. On November 5th, the end of the femur protruding through the retracted soft parts, about four inches of the bone were removed by means of the chain-saw. Shortly after this, the stump, became enormously swollen and painful, and abscesses formed here and there in it. On January 19th, 1865, the bone was exposed, and found to be greatly enlarged, and in a state of necrosis, as high up as trochanters. The patient being already under chloroform, the femoral artery was at once exposed and tied in the groin, and the disarticulation of the hip performed by antero-posterior flaps. Some slight difficulty was experienced in controlling the artery accompanying the sciatic nerve, but the quantity of blood lost in the operation was not large. Extreme depression was exhibited, the patient being of necessity kept on the amputating table for two or three days, lest the effort at removal should prove fatal. Large quantities of stimulants and concentrated food were administered, and the surface temperature artificially maintained. On January 27th, bleeding again occurred, and the external iliac artery was tied. The ligature came away in twenty-one days. On February 19th, two days afterwards, the lower end of the divided artery poured forth blood furiously, and was only controlled with great difficulty by direct pressure, which was kept up for about two weeks. After this, recovery progressed steadily, and by the end of March the man was well.

In commenting on this case, Dr. Packard says that, if we consider the cases in which the surgeon may be called upon to undertake the coxo-femoral disarticulation, we find them divisable into four classes, according to the degree of probability of success. 1. Those in which the same thigh has been previously amputated for injury or disease. 2. Those of chronic disease. It would scarcely be fair to place cases of hip-joint disease in this class, although the first successful case in Philadelphia was of this character. It so often happens that the acetabulum is seriously involved, that in many cases no operation could be of benefit. 3. Those in which an attempt has been made to save the limb after injury, and this operation becomes the only hope of the patient. 4. Those in which the desperate character of an injury recently inflicted renders death inevitable, unless this slender chance is afforded. Even in the most favourable cases of the first of the above mentioned classes, amputation at the hip-joint is not to be lightly undertaken. The necessity should be stringent, the weighing of the chances careful, the decision conscientiously arrived at. But the degree of success attained in the recorded cases is such as to make it the imperative duty of the surgeon to perform the operation under the circumstances indicated. In other words, it is not a matter of choice for him whether he will seek to exhibit his prowess with the knife or avoid the risk of failure. He is not only justifiable in operating, but he would be unjustifiable in not doing so. (*New York Med. Jour.*, Dec. 1865.)

Amputation for Encephaloid Disease of Femur. Mr. Erichsen, in the *Lancet* (March 3rd) gives a successful case of Amputation at the Hip-Joint for Encephaloid Disease of the Femur. He says of these operations: "I have little to say about the general result of these amputations; but that little is favourable. Statistics incontestably prove that since the introduction of anæsthetics the per-centage of recoveries after amputation at the hip-joint has materially increased, This is what we might *à priori* have expected in an operation of so severe a character that the shock of its performance might of itself be sufficient to destroy life. Whatever lessens that shock must proportionately tend to the preservation of the patient. But though the mortality has materially lessened after disarticulation at the hip-joint of late years, this diminution of fatality is confined to certain classes of cases, and does not extend uniformly over all for which the operation is practised. It is especially after the amputation of thigh-stumps, and the removal of the whole limb for tumour of the femur, that a more successful result has been obtained of late years. The amputation at the hip-joint for

injury of the thigh still preserves its high rate of mortality, uninfluenced apparently by the employment of anæsthetics. It would appear as if in these cases the double shock of the injury and the dismemberment was too great for the endurance of the patient."

We are requested to remind members of the Association that the Annual Subscriptions became due on the 1st of January. They can be paid either to the Secretaries of the Branches; or to the General Secretary, T. Watkin Williams, Esq., 13, Newhall Street, Birmingham.

British Medical Journal.

SATURDAY, MARCH 10TH, 1866.

THE PURSUIT OF HEALTH UNDER DIFFICULTIES.

Revenons à nos moutons; in other words, let us revert to our nuisances. Our theme is a salutary, if not a savoury one. Yet it is possible that some of our readers, like that wicked wag Sterne, when he preached for the third time on the words, "And the dirt came out," may feel disposed to exclaim, "What! more dirt still!" And why not, when, after nearly twenty years spent in talking and making laws, the work of cleansing the Augean stable can scarcely be said to have been begun? Within the last week, we were startled, not to say horrified, to find in an article by Dr. Williamson of Leith (*Edinburgh Medical Journal* for February), a picture of a state of matters which, in our last article on this subject, we described as historical—so entirely did we imagine it to belong to the past. For not only do we see there depicted as in full force the great domestic institution of "the common pail", in which all the *excreta* of the family are allowed to accumulate until it is full or unbearably offensive, when it is stealthily discharged in a savoury cascade into the street; but we see also, in the very centre of twenty thousand human beings, a graveyard chock-full of corpses—so gorged with human carrion that, in the heats of last summer, the stench came steaming up through the three or four feet of intervening soil, till people stopped their noses as they passed along, and the means and appliances which gravedigging ingenuity well knows how to employ seem to have been put in requisition—as in London some fifteen years ago—to make away with the carcases on which the earth lay so lightly, and to make way for fresh cargoes of rotting mortality. We request our readers to believe—for it is only too true—that not more than a few weeks or months have elapsed since these horrors, thanks to the official recommendation of three members of our own profession, were at length put an end to. And all this in the Piræus of the Modern Athens—under the very nose of Scotland's capital! Little wonder, if matters are in half as foul a condition within its own precincts, that Auld Reekie is now agog about a praiseworthy sanitary movement proposed by her chief magistrate. So much for dirt and corruption in our own boastful times of sanitary reform.

From such sickening details it is satisfactory to revert to our sanitary laws, and to learn from them that a stink (in honest Saxon) is really a stink, and not a perfume; and that anything which causes stinks, such as an accumulation of offal and refuse, or, in the words of the Act, "any filthy and unwholesome dwelling-house, any foul and offensive ditch, gutter, drain, privy, cesspool, or ashpit," or the keeping of "swine, or any accumulation of dung, manure, offal, filth, refuse, or other matter or thing, so as to be a nuisance to, or injurious to the health of, any persons," is a fit ground of complaint to, and of interference by, the local authority. So that, in the eye of the law, it is necessary to establish, not an injury to health, which might be difficult, but a nuisance, which is a much simpler affair, in order to justify a demand for its abatement or removal. Such is the great principle laid down so long ago as 1848, in the Nuisances Removal and Diseases Prevention Act, which also provided that this demand might be made in a notice signed "by *two* or more inhabitant *householders* of the parish or place to which the notice relates." By the Act of 1855, which defines the word "nuisance" as including "any premises in such a state as to be a nuisance or injurious to health; any pool, ditch, gutter, watercourse, privy, urinal, cesspool, drain, or ashpit, so foul as to be a nuisance or injurious to health; any animal so kept as to be a nuisance or injurious to health; any accumulation or deposit which is a nuisance or injurious to health;"—"notice of nuisance may be given to the local authority by *any person aggrieved thereby*," or by the sanitary inspector or any paid officer under the said local authority, the relieving-officer of the union or parish, any constable of the district or place, and any inspector of common lodging-houses." Finally, whereas by the previous Acts the complainant could only apply to the local authorities, and, in the event of their declining to act, had no appeal from their decision, it was provided by the Act 1860 that *any inhabitant of any parish or place* might complain of any nuisance on any private premises in the same parish or place, *before a justice of the peace*, who should issue a summons requiring the alleged delinquent to appear before two justices in petty sessions, who again are directed to *act* in the matter "*as if the person making the complaint were the local authority.*" We see, therefore, that, as regards facilities for making complaints, the provisions of the statutes have been

steadily progressive. They, at all events, recognise in the fullest manner every Englishman's right of unlimited grumbling.

But, in respect to the machinery for searching out nuisances, and obtaining prompt, systematic, and accurate information on sanitary matters throughout the country generally, the legislative provisions have of late years been decidedly retrograde. Throughout the earlier Acts, we find frequent mention made of "Officers of Health", "Sanitary Inspectors", and "Inspectors of Nuisances". The Towns' Improvement Clauses Act, passed in 1847, in some of its earliest sections, makes *imperative* the appointment of surveyors and inspectors of nuisances, to superintend and enforce the due execution of all duties to be performed by scavengers, etc.; to keep a book in which shall be entered all reasonable complaints made by any householder of the district; and to report to the local authority, between whom and the inhabitants he should be the medium of communication. By the same Act, power is given to appoint "'officers of health', whose duty it shall be to ascertain the existence of diseases, ... especially epidemics and contagious diseases; and to point out any nuisances or other local causes likely to cause and continue such diseases, or otherwise injure the health of the inhabitants; and to point out the best means for checking or preventing the spread of such diseases, and also the best means for the ventilation of churches, chapels, schools, registered lodging-houses, and other public buildings," etc. So that in 1847 the appointment of inspectors of nuisances was *compulsory*, and that of officers of health *permissive*. This arrangement was a very fair beginning of our sanitary operations, and was recognised and adhered to in the Public Health Act of 1848, and the Nuisances Removal Act of the same year; while, in the Nuisances Removal Amendment Act of 1849, guardians of the poor, etc., are directed, "upon the receipt of a certificate *of any medical or relieving officer* of the union or parish for which they act", to proceed as if notice in writing had been given by two inhabitant householders. At length, in 1855, when the Act to Consolidate and Amend the Nuisances Removal and Diseases Prevention Acts, 1848 and 1849, became law, it was provided by Section IX that "the local authority *shall*, for the purposes of this Act, appoint or employ, or join with other local authorities in appointing or employing, a sanitary inspector or inspectors." But, in 1860, this step in advance was retraced; and not only on the forefront of the Act is Section IX of the Act 1855 repealed, but by Section IX of the Act 1860, the appointment or employment of inspectors of nuisances is made permissive; while, by Section XIV of the same Act, "the guardians of any union or parish not within a union *may*, at any time, employ one of their medical officers to make inquiry and report upon the sanitary state of their union or parish, or any part thereof, and pay a reasonable compensation for the same out of their common fund." The strict legal interpretation whereof we take to be that, while it would *not* be optional to the medical officer to decline compliance with the injunction of the guardians, it *is* optional to the guardians to grant him reasonable compensation. They *may* do so, but who is to compel them?

But, as regards London, all sanitary arrangements beyond the limits of the City are, by the Metropolis Management Acts, entrusted to the different vestries and district boards of works, who are bound by Sections CXXXII and CXXXIII of the Act 1855 to appoint medical officers of health and inspectors of nuisances; while by Section XLIII of the Act 1862, each officer of health is bound to make to his vestry or district board an annual report of the sanitary condition of the parish or district. So that, under the Metropolis Management Act, the appointment both of officers of health and inspectors of nuisances is compulsory, except in the city of London, where it seems to be permissive; while, under the Towns Improvement and Public Health Acts, the appointment of inspectors of nuisances is compulsory and that of officers of health permissive; and yet again, under the Nuisances Removal and Diseases Prevention Acts, the appointment of both is permissive, except in the case of those highway boards or nuisances removal committees, which were appointed under the provisions of the Act 1855, and are required, under pain of extinction, to employ sanitary inspectors!

Leaving our readers to think over and unravel, if they can, this singular *imbroglio*, and earnestly requesting information as to the working of the sanitary laws throughout the country, we postpone till next week any further remarks.

PAUPER INFIRMARIES.

A MOST important public meeting was held, on the 3rd instant, at Willis's Rooms. It may be regarded as a distinct expression, on the part of the community, of a determination to alter fundamentally the present system under which the sick paupers of this country receive medical relief. We have much pleasure in acknowledging the fact, that the profession, as well as the country, are greatly indebted to the *Lancet* for the impulse which it has given to this great movement. The revelations of the internal ways and doings in workhouse hospitals, made through the commissioners of that journal, have happily attracted public notice, and they may be, therefore, said to be at the bottom of this most honest agitation. We gladly also acknowledge that to members of our own profession, and in an especial manner to Mr. Ernest Hart as director of the movement, are thanks due in this matter. The

action taken, whilst pregnant with good to the sick paupers of the country, must necessarily influence greatly the medical profession; and it is, therefore, most advisable that any measures which may be taken in the matter should receive a direction from the profession. The declaration that proper medical attention should be given to the pauper sick, would necessarily involve, as one of its terms, that the medical men who do the work be properly remunerated for their services. Our readers well know that for many years we have stoutly maintained the proposition, that gratuitous medical services are vicious in principle, and, above all, that they operate most seriously to the injury of the general medical practitioner. We trust we may see in this proceeding some rising hope, that a new system will be inaugurated; and that the anomaly, sanctioned alone by our profession of all professions, of workmen working without pay for their work, may receive a fatal blow.

Very powerful influence guides the movement. The meeting was called by the Association for the Improvement of the Infirmaries of Workhouses, established for the purpose of securing legislative action to redress the existing evils from which the sick poor now suffer; Lord Carnarvon in the chair. There were also present: the Archbishop of York, the Earl of Ducie, Mr. Hughes, M.P., Lord Ebury, Lord Harrowby, Lord Burghley, Sir J. Kay Shuttleworth, Lord H. Scott, Sir W. Fergusson, Bart., Mr. H. Smith, Mr. Pope Hennessy, Rev. F. D. Maurice, and Dr. Watson.

Letters of warm support were received from Mr. Charles Dickens, Mr. J. Stuart Mill, M.P., Dr. Jenner, Sir James Clark, the Bishops of London and Chichester, Lord Houghton, Lord Eustace Cecil, Sir H. Verney, Mr. W. R. Crawford, M.P., Mr. Charles Waring, M.P., and Baron Rothschild.

Details were given by Lord Carnarvon, showing that the management of our workhouse infirmaries is in too many cases a disgrace to our civilisation. These details it would be superfluous to repeat to our medical brethren. The deepest thanks of the community are due to those gentlemen who had the moral courage thus boldly to speak out.

The Archbishop of York spoke without reservation; and we are not surprised that some of the so-called guardians of the poor attempted to interrupt him. Happily the Archbishop spoke by the book. He had the facts before him, the proofs of the statements he made; and his speech made a very deep and powerful impression upon his audience, and will doubtless, through the press, be reflected widely through the country. His resolution was eventually carried with one dissentient. It was:

"That the present management of the sick in the metropolitan workhouse infirmaries is highly unsatisactory; that the buildings are inadequate and unhealthy, the medical attendance insufficient, the nursing merely nominal, and the general system of administration radically defective."

Mr. Ernest Hart moved:

"That, with a view to the humane and efficient treatment of the sick paupers, it is desirable to consolidate the infirmaries of the metropolitan workhouses; to support them by a general metropolitan rate; and to place them under uniform management in connection with the Poor-law Board."

Having detailed the state of things as he had witnessed them, and as other gentlemen had already described, the speaker proposed to erect six hospitals, to hold 1000 each, in different parts of London. The guardians of each of the six divisions should nominate two of their number to manage the hospital; one inspector appointed by the Poor-law Board to attend the board meetings, and take part in the control of the infirmaries.

Mr. Smith seconded the motion.

Mr. D. Bromley then proposed, and Sir J. K. Shuttleworth seconded, a resolution to the effect:

"That, in order to give effect to the foregoing resolutions, it is necessary that immediate steps should be taken to introduce a fitting measure into the House of Commons; and that a deputation be appointed to wait on the President of the Poor-law Board, to ascertain whether he will be willing to bring in a bill for the purpose. That, in the event of the President of the Poor-law Board declining to take charge of this question, the committee of this association is requested to take independent means to bring forward an appropriate measure in Parliament during the present session."

We are satisfied that the profession will not allow Dr. Richardson to be deprived of any of the very great merit due to him for the introduction into surgery of his method of local anæsthesia. It may be expected that people will be found to say, "Oh, there's nothing new in this. Cold has been long ago recommended and used as an agent for the purpose of removing pain." But the answer to all these suggestive attempts is stamped on the page of history. It is this. None of the methods recommended are of practical use; none are in use; all are admitted to be perfect failures. To speak, for example, at such a moment as this, of the recommendation (seven years ago!) of the use of solid carbonic acid, is very much out of place. The thing, on the face of it, has been shown to be worthless by the simple fact that it has never been heard of since it was first spoken of. There is no mistake about the matter. The whole credit of this practical fact belongs to Dr. Richardson, and to him alone. We are not going now to ask what merit is due to him for the same, but wish only to deal with it as a great fact. From this point of view, and inasmuch as the object of medicine is to cure disease and prevent human suffering, we affirm without hesitation that it is the greatest boon given to our art since the discovery of ether as an anæs-

thetic agent. In many respects the discovery is more important than that of ether and chloroform; for this reason, that its application is completely free from danger to life. No one can deny that it will most certainly save many a life. At this present time we have no means of saying, *à priori*, whether or not chloroform may not be fatal. We can give it in no case with the positive certainty that death will not follow its administration. Again, it has been thought that the effect on the general system of chloroform is often prejudicial; and certainly we cannot affirm that it may not be so in certain cases. But here we have an instrument which enables us to shun all these terrible risks in the very larger number of operations performed on man—shun them perfectly, *tuto*, *citè*, *et jucunde*. Besides this, let it be understood that we know not yet to what extent the benefits of this method may be enlarged; nor do we yet know to what other beneficial ends it may be employed as a local agent—in, for example, the destruction of malignant surfaces by congelation of the affected parts. We must be excused for expressing our surprise that such an immense boon to suffering mankind as is this, given by Dr. Richardson, should have been so coldly received by our medical cotemporaries. When we see pages devoted to the recommendation of impossible cures of epilepsy, for example, or other incurable diseases, by the aid of some vegetable fresh from the backwoods of Canada, we really are astonished that such a *positive* remedy for the dreadful evils of chloroform should be so little acknowledged. It is, however, very gratifying to us to see that our efforts to spread the blessings of this great good have had their effects not only here, but also in Scotland and in Ireland. We have written so often and so strongly on this matter, not assuredly for the mere sake of doing justice to Dr. Richardson, but mainly, and above all, for the purpose of enforcing upon the attention of the profession a knowledge of what may truly be called a great national blessing.

It was only to be expected that a certain number of army and navy medical men will be found to grumble at the terms of the recommendations made in the Reports of the Army and Navy Admiralty Committee. We verily believe that a very small minority would never be satisfied unless they could fix their own terms of service and dip their hands at their pleasure into the Exchequer-bags for payment. There is, however, a misfortune in this public expression of dissatisfaction; it operates very injuriously on those sensible men, doubtless the immense majority, who see things from a reasonable point of view. When authorities find their very best efforts received publicly with these marks of unthankfulness and disapprobation, they are not unnaturally led to suppose that the opinion is the general opinion. Thus it is an undoubted fact that the folly of one or two army and navy doctors in reference to relative rank, some years ago, deeply prejudiced the interests of the whole medical service; and we cannot but fear lest that the complaints of which we now speak may operate in a similar manner. We have, we are glad to say, reason to know from men of the highest position in the medical services, and from men who have taken an active part in the late movement, that the terms of these Reports contain all that can be fairly expected. It is a fact, *that the removal of every grievance complained of by army and navy medical officers has been recommended.* Is this nothing gained? And, in addition, it is a fact that a very substantial increase of pay is recommended to be made in both services. Great liberality, we may truly say, has, under the circumstances, been shown by the authorities in reference to the army medical officers. The heads of the Army Medical Department have again and again insisted that the supply of army medical officers was equal to the demand; that the department obtained as many and as good men as were required for the service. We say without hesitation, that if the Secretary of War had not taken a very generous view of the case and been guided by better counsel, he would have been perfectly justified, upon the strength of the above statements, in refusing any increase of pay to army medical officers. We believe that the Reports have not yet been settled by the army and navy authorities; and we must say that we think it may be a very great misfortune to the medical services, if it should happen that these expressions of discontent should come under the notice of the Admiralty and the War Office (as they very probably may do) before the Reports are finally discussed. We ask any man of common sense if such expressions are not very likely to discourage the heads of departments in carrying out the recommendations of the Reports. "What use attempting to satisfy men whom nothing seems to satisfy?" is what they may naturally say; and thus, for an insignificant minority, a whole body will suffer! We would ask our cotemporaries to look back to the *causes* of discontent, as told in their pages during the past years; and they will find that the removal of every one of those causes has been recommended, so far as it is possible to remove them. The whole profession is, indeed, bound to back the authorities who have met their wishes so liberally.

Dr. Spencer Thomson, in a letter to the *Burton and Tamworth Weekly Times*, points out the advantages of village hospitals. He was the first person, as he tells us, who, in 1854, in the British Medical Journal, advocated these establishments. He advises the instituting of one in the Tamworth district; and we are most pleased to note that he holds strong opinions as to the propriety of properly re-

munerating the medical men who do the work. His views as to the general principle which should guide such hospitals are excellent.

"First, in a district where the people are in the receipt of good wages, the hospital should not be on a purely charitable basis; but ought to be, partly at least, self-supporting. Secondly, every patient should be allowed to select his own medical attendant. Thirdly, the medical men attending should receive an adequate remuneration for their services. Care should be taken that the interests of the medical men are not overlooked in the anxiety to economise, or to appear to economise, the funds. If this is duly considered, the medical officers will render their services cheerfully, knowing them to be justly recompensed, and must feel at the same time that those who manage the establishment have a right to demand from them their best attention and skill. It is a crying evil in dispensaries, friendly societies, and many sick clubs, that, from the desire to make a flourishing balance-sheet, justice to their medical attendants, upon whom devolve the most arduous duties, is continually overlooked; their remuneration fixed ridiculously low; and numerous members admitted whose circumstances ought to render them above such adventitious assistance."

It is very refreshing to find a man in Dr. Thomson's position who speaks out thus against the folly and wrongness of medical men working without due remuneration. On this score, also, we may mention with pleasure that, at the annual meeting of the Royal Medical and Chirurgical Society, Dr. Alderson, in his excellent presidential address, spoke in no measured terms against the cruel system of gratuitous medical services. We sincerely hope that the eyes of the profession are becoming opened at last to this monster evil; that they are beginning to see the matter in its true light—in fact, to acknowledge that gratuitous medical services are only another term for medical competition.

The election of Dr. Guy as Coroner for the Doncaster District must be regarded as a very marked tribute of respect paid to him as an honourable citizen and a devoted member of our profession. It is gratifying to the whole profession to see private worth thus publicly acknowledged.

We are very glad to note that Dr. E. Smith is engaged as Poor-law Inspector of Workhouses. Last week he visited the Doncaster Workhouse. This is certainly a great advance of the age of reason, to find medical men (instead of, as heretofore, men of law) visiting and inspecting infirmaries.

Mr. Chambers, Deputy Recorder of London, found it impossible, as it appears, to decide the case of Mr. Sothern *v.* the "spiritual" gentry without expressing his own opinion on the subject. It happily rarely occurs that a man on the Bench writes himself down so completely as this gentleman does in giving his opinion of spiritualism. "Upon that," he said, "I don't offer an opinion; but I confess I am rather disposed to be a believer in spiritualism, though I never saw any of it." What a curious psychological study is the mental cosmogony of a man who, while he says he knows nothing about the matter, is still inclined to be a believer in it! Did it not occur to him that such an expression of contradiction must weaken the value of his judgments in the eyes of all sensible people?

We regret to have to announce the death, on Monday, the 5th instant, after a short illness, at the age of 71, of John Conolly, M.D., D.C.L., one of the oldest members of the Association. Dr. Conolly was on Sunday attacked, for the third time, with insensibility; from this he rallied, and his state gave no uneasiness to his friends or to himself. On the morning of the next day, however, he was seized with convulsions of an epileptic character, and paralysis of the right side, and was not again conscious. So unexpected was his death, that on the very day when it took place, he was elected a member of the Royal Institution. A biographical sketch of Dr. Conolly's life will appear in an early number of the Journal.

The French Legislative Body have passed a law the purport of which is to decree a prize, in five years, of 50,000 *francs* (£2000), to the author who shall have applied the voltaic pile economically to manufactures as a source of heat, or to chemistry, mechanics, or practical medicine. If the prize be not adjudged at the end of this term, the period may be prolonged by the Imperial decree.

Dr. Noble lately read before the Manchester Statistical Society a paper entitled "Thoughts on the Value and Significance of Statistics". The object of the paper was "to bring out the true function of statistics in thoughtful inquiry; to indicate the processes whereby they may advantageously aid research; and to point out the abuses to which, by neglect of these processes, they are liable."

Nature had endowed Malgaigne, says one of his critics, with the highest intelligence, and with an incomparable power of speech and gesture; but had refused him the common gift, often associated with minds of the third or fourth order, manual dexterity. His wonderful intellect seemed to know not how to use a hand. Malgaigne had not a surgical hand; and, indeed, often treated with disdain and irony that second-rate faculty, which nevertheless, and not without reason, has been regarded as an essential quality in a surgeon; inasmuch as that more than one surgical notability has been indebted to his hand for his fortune. In Malgaigne, what a contrast between the professor and the operator!

THE LATE W. E. GILLETT, M.R.C.P.Edin.

The West Somerset Branch of the Association, by the death of Dr. Gillett, loses a most valuable member. He not only was instrumental in founding the Branch originally, but its existence now is mainly due to him; for when, six years ago, it was so languishing that its continued life was almost despaired of, he came to its aid, and by taking the office of Honorary Secretary rallied its flagging powers and recruited its scattered ranks.

His lamented decease is mourned not less by this Branch than by the town and neighbourhood generally, in which he was well known and valued. He was esteemed by his professional brethren as a man of skill and of sound judgment; and of so kind a disposition, that his opinion was constantly sought in cases of difficulty—and it was always readily and cheerfully given. His punctuality and aptitude for business enabled him to accomplish an amount of work which few men could have got through. He was looked up to as a leader in most public matters; and he was ever foremost where the public good was in question. He took especial interest in the Taunton and Somerset Hospital; and the last act of his life, on the day when he was seized with the illness which proved fatal, was attending a subcommittee at that institution. For many years he was chairman of the Board of Health. Under his presidency, the drainage of the town and other improvements were carried out. He was a leading director of the Taunton Water Company; chairman of the Gas Company; a commissioner of taxes; trustee of the Taunton markets, of the savings' bank, and of almost all the town charities (besides holding numerous private trusts). As a justice of the peace, he was noticeable for impartiality and for prompt and just decisions. In politics he was liberal, and not illiberal to those whose views were opposed to his own. He was warm and constant in his friendships; fond of social intercourse; and, when younger, enjoyed field sports.

The deceased entered the profession as a pupil at the Devon and Exeter Hospital. At the age of 19, he went to sea, and served as a naval surgeon during several voyages to India. He then commenced general practice; and undertook the charge of a private lunatic asylum at Fifehead, on the Blackdown Hills, near Taunton. After living at this place some years, he removed to a more commodious residence, Fairwater House, one mile from Taunton; and, abandoning general practice, he there for thirty years carried on the care and treatment of the insane with great success. In 1858, he retired, and took up his abode in the town, devoting his time and talents to the public welfare.

He usually enjoyed excellent health; but had of late years occasionally felt severe paroxysms of pain in the cardiac region; and more recently he showed symptoms of fatty degeneration of the heart and dilatation of the left ventricle. On the 6th ultimo, he first had a complete attack of angina pectoris; another followed. Gout subsequently appearing in his feet, hopes were entertained that he might recover; but he felt himself he had no rallying power. Retaining perfect consciousness to the last, a paroxysm of three hours' duration carried him off on the 24th ultimo, in his 67th year.

LOCAL ANÆSTHESIA.

We have received the following notes of the first amputation performed under Dr. Richardson's method for producing local anæsthesia. The operator was Dr. Tubbs, of Upwell Isle, near Wisbeach; and the notes are by him.

"Mr. S. D., a small farmer at Upwell, met with a machine-accident about two years since. Under chloroform, I removed two of the fingers. Another finger, which had undergone compound fracture, I wished to save; but it ultimately became useless; and, as the patient wished to have it removed at the second joint before leaving England, it was agreed that the operation should be performed under Dr. Richardson's anæsthetic method.

"Having requested my friend Mr. Thorns to undertake the management of the spray, I amputated at the joint on Friday, the 23rd of February of the present year. Although the parts were quickly blanched, there was some degree of feeling, and the patient said there was intense heat. Not having at the time received full directions for the use of the spray, and having nearly exhausted all the ether (two ounces), I proceeded to operate; Mr. Thorns conducting the spray into the divided tissues until I had separated the bone by the forceps. The patient evinced no pain. The flaps were secured by passing four small sewing-needles through them with twisted silk, as in harelip); the ends of the needles were cut off with the cutting-pliers; and the stump was dressed with lint dipped in old iodised collodion. From the time of the operation up to this day (March 3rd), he has been free from pain, and the stump is nearly well. There were six of us inhaling the impregnated atmosphere for nearly twenty minutes, but none of us felt the worse. Perhaps this note may be useful."

The United States Army Medical Staff. Senator Wilson has introduced into the Senate a bill for the reorganisation of the army. Section 14 provides that the medical department of the army shall hereafter consist of one surgeon-general, with rank, pay, and emoluments of a brigadier-general; one assistant surgeon-general, with the rank, pay, and emoluments of a colonel of cavalry; five medical inspectors, with rank, pay, and emoluments of a lieutenant-colonel of cavalry; sixty-five surgeons, with rank, pay, and emoluments of majors of cavalry; one hundred and forty assistant-surgeons, with the rank, pay, and emoluments of captains of cavalry, after three years' service, and with the rank, pay, and emoluments of first lieutenants of cavalry for the first three years of service; and five medical storekeepers, with the same compensation as is now provided by law; and the vacancies hereby created in the grade of surgeon and assistant-surgeon shall be filled by selection from among the staff and regimental surgeons and assistant-surgeons of volunteers, who have served two years during the war; and assistant-surgeons who have served three years in the volunteer service, shall be eligible for promotion to the grade of captain.

Association Intelligence.

WEST SOMERSET BRANCH.

A MEETING of this Branch will be held at Clarke's Castle Hotel, Taunton, on Wednesday, March 28th. Dinner at 5 o'clock, after which papers or cases will be communicated.

Gentlemen intending to be present at the dinner, or to read papers after, are requested to give notice to the Honorary Secretary.

W. M. KELLY, M.D., *Hon. Secretary.*

Taunton, March 6th, 1866.

BATH AND BRISTOL BRANCH: ORDINARY MEETING.

THE fourth ordinary meeting of the session was held at the Victoria Rooms, Clifton, on Thursday evening, March 1st, at 7.15 o'clock; F. BRITTAN, M.D., President, in the Chair. There were also present forty-five members and visitors.

New Members. The following new members were elected:—William Smith, Esq., Weston-super-Mare; Stephen W. Fisher, Esq., Marburgh Villa, Cotham; Alfred Burleigh, Esq., Hillside, Cotham; William Lucy, Esq., Cotham.

The Discussion on Cattle-Plague was resumed by Dr. W. BUDD, who exhibited very excellent paintings, photographs, and transparencies, by means of a large magic lantern, of the parts affected in the disease, showing the progress in various stages.

Dr. BEDDOE stated that, when he was at Scutari during the Crimean war, cattle-plague devastated whole villages in Turkey of their cattle, but did not affect buffaloes; also that the disease did not travel inland, probably owing to the cattle not being moved in that direction.

Mr. SWETE described an attack of cattle-plague in Wrington during the last ten days. He had previously urged vaccination on all the farmers. Two hundred having attended a meeting called for the purpose, all the cattle in the neighbourhood had been satisfactorily vaccinated. The cattle-plague had been preceded by a few cases of pleuropneumonia. He considered the diphtheritic patches on the trachea as most important. He observed pustules in the stomach and intestines, and that the skin was not in any way affected. The blood was either acid or neutral, and coagulated like size. Vaccination had utterly failed. He was trying the prophylactic treatment—hyposulphite and chloride of sodium.

Mr. GREGORY, veterinary surgeon, observed that the urine was frequently acid. He had never seen the disease affect any tissue but mucous membrane. The blood of the cow was neutral in other diseases; and, when drawn, appeared different from the blood of other animals, and presented the same appearance in both health and disease. He used, in his district, a mixture of lime and chloride of lime. He thoroughly disinfected sheds, clothing of men, hides, dung, etc. When appointed inspector for Bitton District, he found the disease in six farms. The district was now free. He believed the disease to be propagated by direct contact; if by atmosphere, it must be within a very small radius. A wall between diseased and healthy animals saved the healthy.

Mr. FREEMAN considered the state of Peyer's patches in disease and health to be alike; and that a reticulated appearance was owing to the state of digestion.

The following communications were also made.

1. Dr. BRITTAN exhibited very large specimens of Cancerous Disease of the Ovaries. A very remarkable fact in the course of the disease, and one very interesting in a physiological point of view, was that the young woman, the subject of the disease, continued to menstruate throughout the complaint.

2. Mr. STEELE read a case of Puerperal Cardiac Embolism. (The paper has been received for publication.)

Dr. SWAYNE considered that the formation of the clot was caused by the condition of blood set up by disintegration and absorption of the extravasation in the back of the pelvis.

Dr. HERAPATH considered that, if the clot had been formed before death, great disturbance to the respiration and circulation would have been observed.

Mr. W. M. CLARKE described the case of a maid-servant whom he had been called to attend for colic, but whom he found to be in labour, with the infant's arm projecting from the vagina. After the administration of chloroform, turning was performed, and delivery effected. After a week, the patient experienced a fainting attack, and after a fortnight a second, which proved fatal. At the *post mortem* examination, tubercular clots of some standing, formed during the first fainting attack, were found in the aorta and in the innominate and subclavian veins, and a recent formation in the heart.

Mr. T. E. CLARK remarked, that two cases which came under his notice, and others which he had heard of, occurred after the administration of chloroform; but he could not say he considered it to be owing to the chloroform.

Other papers were postponed to a future meeting, owing to the lateness of the hour.

NORTH WALES BRANCH: INTERMEDIATE MEETING.

THE Intermediate General Meeting of the members of this Branch was held on Friday, Feb. 23rd, 1866, at the residence of Dr. Turnour of Denbigh, who received his fellow Associates in the most hospitable and courteous manner. After partaking of luncheon, the business of the day was proceeded with, the President for the year, JOHN R. HUGHES, M.D., of Denbigh, as is usual, taking the chair. Nineteen members were present, and paid their annual subscriptions to the Branch. Dr. Edward Waters of Chester, President-elect of the British Medical Association, was also present as a visitor.

The Secretary's and Treasurer's Accounts were examined and found correct, particulars of which are annexed herewith.

Receipts.

Balance in hand on Dec. 31st, 1864	1	12	10
Amount of half-crown subscriptions and arrears received from Jan. 1st, 1865, to Dec. 31st, 1865	5	19	0
	7	11	10

Disbursements.

The Secretary's official expenses, as per account made up to Dec. 31st, 1865	6	1	3
Balance in favour of the Branch on January 1st, 1866.....	£1	10	7

Secretary's Expenses. A resolution was unanimously adopted by the Council of the Branch, to the effect

that the Secretary be repaid all expenses incurred by him in the performance of his office.

The Next Intermediate Meeting. Mr. Griffith having invited the members of this Branch to Wrexham on the occasion of holding the next intermediate meeting, it was cordially agreed to accept his kind invitation and proffered hospitality, and that of Dr. Edward Williams, expressed, in his unavoidable absence from attendance at this meeting, by Mr. Griffith.

Papers and Cases. The following communications were made.

1. Case of Polypus Uteri (with the diseased mass). By O. Roberts, M.D., St. Asaph. Dr. Roberts met with the case about two months ago in a married female who had never had children. It consisted of dense fibrinous substance, and was of considerable size.

Dr. Turnour made some observations on the above case, and related one similar to it.

2. Transverse Fractures, more particularly one of the Femur. By T. T. Griffith, Esq., Wrexham. Mr. Griffith related some interesting points in this class of fractures, and detailed at length the diagnosis and treatment. It is to be hoped that he will publish it in the JOURNAL.

In the discussion which followed, Dr. Turnour, Mr. T. F. Edwards, Dr. Harvey Williams, and Dr. Jenkins, took part; and mentioned cases which occurred to them in their practice.

3. Case of Birth of an Acephalous Monster. By T. Eyton Jones, Esq., Wrexham.

Dr. Turnour, Mr. Griffith, Dr. Lodge, and Dr. Maugham, took part in the discussion which ensued; each gentleman relating a case or two in his practice.

4. Case of Perforation of Stomach (with the Preparation). By G. Turner Jones, L.R.C.P.Edin., Denbigh. This case occurred in a female inmate of the North Wales Asylum, aged 62. During life, there were no particular symptoms indicating the disease; and two hours before the fatal termination, she had been walking about for some time in the grounds of the Asylum, apparently quite free from pain or any urgent symptom.

Dr. Waters of Chester related interesting cases of Perforation of the Stomach in the Horse and Cow; and Dr. Turnour also mentioned a similar case in a horse.

5. Preparation of a Fibrous Tumour of the Uterus. From the Anatomical Museum of the Denbigh Infirmary. This was brought to the meeting by the directions of Dr. Turnour. It occurred to a patient in the practice of the President of the Branch (Dr. John R. Hughes of Denbigh), who had previously, at the annual meeting of the Branch held at Mold on July 5th, 1864, read an interesting paper on Embolism and Apoplexy, which, along with the above fibrous tumour of the uterus, existed in the same subject.

New Member. Dr. DAVIES of Holywell proposed, the PRESIDENT seconded, and it was carried—

"That Robert Hughes, Esq. (Conway), be elected member of this Branch of the British Medical Association."

Visits. At the conclusion of the meeting, the members proceeded to view the different objects of interest in the quaint old town of Denbigh. Some gentlemen inspected Howell's School for Girls, which is a noble, palatial building, and is stated to have cost £16,000. Mr. Griffith of Wrexham pleaded for a holiday for the young ladies, which was immediately granted. Some members walked to the Asylum, and were conducted through that large handsome structure by the Medical Superintendent, Dr. Turner Jones; and, whilst some inspected the Denbighshire Infirmary, others preferred a stroll to the old Castle, from the summit of which a magnificent view of the Vale of Clwyd was presented.

Dinner. A very pleasant and successful meeting was crowned by an elegant dinner given by Dr. Turnour at his residence, which was partaken of by all the gentlemen who had attended the meeting in the morning. The reception accorded to the members by the worthy host and his amiable wife was extremely kind and hospitable.

Reports of Societies.

LIVERPOOL MEDICAL INSTITUTION.

THURSDAY, FEB. 8TH, 1866.

W. H. MANIFOLD, Esq., Vice-President, in the Chair.

Malignant Disease of the Larynx. In bringing the case before the Society, Mr. BICKERTON said that it was one of the most interesting, anxious, and fatal of organic diseases affecting the larynx. The subject of the disease was a gentleman, otherwise perfectly healthy, who first complained of uneasiness in his throat and weakness of voice in 1854, and who continued to suffer more or less in this way till 1862, when he placed himself under Mr. Bickerton's care. He appeared to be in good health, and there was no appearance of any organic disease. There was, however, a general congestion of the mucous membrane of the throat and fauces. He improved under treatment; being, with the exception of the throat, in good health. The local treatment adopted was nitrate of silver, iodine, and astringents. In 1864, Mr. Bickerton advised the patient to go to London for change of air, and to consult a medical friend. The opinion given was, that there was a tumour growing from one of the chordæ vocales, and so interfering with the proper closure of the glottis. He returned from London, after six weeks' residence, decidedly worse; the respiratory process having become involved, and his general health consequently interfered with. On his return, Mr. Bickerton called in Mr. Bickersteth to meet him in consultation. Spasm soon occurred to such an extent as to threaten immediate death; and tracheotomy was at once performed, which gave him perfect relief. The patient continued in good health (breathing through the tube), enjoying his food, until early in November 1865, when he first complained of difficulty in swallowing. This increased, the food going down the gullet for about three inches and then returning. Beef-tea enemata were tried, as little food passed into the stomach through the œsophagus. As he was becoming thinner, Mr. Bickerton passed a No. 12 catheter into the stomach, and fed him with nourishing soup, etc., until January 25th, 1866 (forty-nine days). During this period, he never swallowed a single drop of food in any shape. He rapidly improved under this plan of feeding, and was surprised at finding that he was becoming fat. As he required feeding three times a day, Dr. Johnson, who lived next door, kindly assisted. On two or three occasions in January, Dr. Johnson sent for Mr. Bickerton, as he experienced difficulty in introducing the catheter; but, by a little alteration in the direction, it was introduced. Three weeks before his death, the patient told Mr. Bickerton that some wine and water which he had taken into his mouth oozed out from about the tracheotomy tube. In a few days, Dr. Johnson observed this, which indicated an opening between the gullet and larynx. On Jan. 25th, he was as well as usual all

day; but in the evening, when Dr. Johnson visited him for the purpose of feeding him, he suddenly signified that something was trickling down his throat, interfering with breathing. Mr. Bickerton was immediately sent for; and found him prostrate and almost asphyxiated. It was evident that blood had trickled down the trachea. Death occurred in a few minutes.

The *post mortem* examination revealed cancerous disorganisation of the larynx, cancerous deposit in the thyroid gland, and ulceration of the epiglottis and the mucous membrane lining the larynx. The disease did not extend on the posterior surface of the œsophagus to any great extent. There was a communication between the larynx and œsophagus about an inch and a half below the epiglottis. The opening was of about the size of a crow-quill. The ulceration severed a small artery, from which the fatal hæmorrhage had taken place. There was a clot of blood situated like a saddle on the bifurcation of the trachea, acting as a complete plug, and entirely preventing respiration. Perhaps, in looking at this case generally, and considering whether anything more could have been done, it is fortunate that we abstained from further operative proceedings. At one time it was supposed that the pomum Adami might be slit, and the little tumour growing on the vocal cord removed. Mr. Bickerton did not, however, entertain this proposition, as he felt convinced, from the commencement of the case, that the disease had a greater basis. It was remarkable that the patient did not suffer pain in the throat during the course of the disease. He felt uneasy from the constriction and pressure on parts so sensitive, but not pain. He could not bear the injections *per rectum*, and would not use them unless positively insisted on when difficulty arose in the introduction of the œsophageal tube. He could not retain the injections longer than a few minutes.

Cancer of the Pancreas. Dr. Gee exhibited a specimen of cancer of the pancreas, which was observed in a female who had died of puerperal peritonitis. The patient had been but two days in his wards at the Workhouse Hospital; and there was no suspicion of her being affected with malignant disease previous to the *post mortem* examination. The principal points of interest in the case seemed to him to be, the previous good health of the patient; her age (29); and the absence of cancerous deposit in every other organ.

Art in Medicine. It is true that the sick are sometimes cured without the aid of a physician, but not therefore without physic. They have done certain things; they have avoided others; if they have regulated themselves by certain rules, these rules have been the rules of art; if they have blindly trusted themselves to chance, it has only been in so far as they have by chance approximated to the procedure of good medicine that they have been rescued from their danger. In dietetics, as in the use of medicaments, useful or dangerous methods may be followed. Both prove the stability of art; the one injures by its improper employment, the other succeeds by a proper use; but what is proper and what is improper being quite distinct, art must exist; for, if it did not, the destructive and the useful would be confounded. But the necessary existence of art in medicine is of itself a proof that nature is not all-powerful in the cure of disease; she can cure, but only under certain conditions and in certain circumstances; while art can change the latter, and modify or fulfil the former, and so enable nature to fulfil her part. (*Dr. G. W. Balfour.*)

Correspondence.

SUCTION-CURETTES.

Letter from T. P. Teale, jun., Esq.

Sir,—In your Journal of March 3rd there is a letter from Mr. H. Greenway of Plymouth, complaining that Mr. Adams of Maidstone, in his paper of January 13th, "is evidently under the impression, and also conveys it to the reader, that Mr. Teale, jun., was the first who devised an instrument whereby parts within the eyeball could be acted on by suction *through the medium of an India-rubber tube.*" How far this conclusion is justified by Mr. Adams's words, I leave your readers to judge. He then refers to a paper of his own in the *Medical Times and Gazette* of December 15th, 1860, giving a description and drawing of a suction-instrument for forming artificial pupil, in which my idea of the India-rubber tube is anticipated. I am glad that he has again brought forward his ingenious instrument and published a drawing of it.

Lest, however, any of your readers should suppose that I have any where claimed what did not belong to me, or failed to do justice to Mr. Greenway, I will quote from my paper in the *Ophthalmic Hospital Reports* (vol. iv, part 2), in which I first published my ideas of extraction by suction, and described my suction-curette. This paper was published in May 1864, three and a half years after Mr. Greenway's paper. In answer to the question, Is the idea new? after referring to previous attempts to employ suction as far as I knew them, I *concluded* the paper as follows. "Recently, in one of the medical journals, an instrument was described by which it was proposed to punch out, by aid of suction, a portion of the iris. I regret that, after careful search, I have not succeeded in finding the article; and that I am, therefore, unable to record the author's name." The editor, in a note, added, "H. Greenway, Esq., Plymouth."

Again, in my paper in the *Lancet*, September 24th, 1864, there is the following note. "The idea of the flexible tube was probably suggested to me by reading an article by Mr. Greenway of Plymouth, in which he describes a suction-instrument for making artificial pupil."

It matters to me little what instrument gains most credit—whether my own, or Mr. Adams's improvement upon it, or Mr. Bowman's elegant suction-syringe. All I wish is, that the one which works best shall be adopted. All I claim is, that I have proved to be practicable, and have introduced into ophthalmic practice, the extraction of cataract by suction, which, after lying dormant for centuries, had several times in recent days been attempted and abandoned. I am, etc.,

T. Pridgin Teale, jun.

Leeds, March 3rd, 1866.

ROTATION OF THE SPINE.

Letter from Henry Dick, M.D.

Sir,—I must ask your kind indulgence for troubling you again in answering some scientific objections of Mr. Barwell to my last letter of February 10th. When I specially instanced the rotation of the spine following inflammatory retraction, I instanced it as an illustration of the law by which rotation is produced (which law I explained at the Cambridge meeting of the British Medical Associa-

tion); and that law applies to all kinds of pathological rotation of the spine.

Speaking of the physiological rotation, I still believe (based on my own experiments, and repeated on the living), with my friend Mr. William Adams, that the spine *rotates en bloc*, depending, as stated in my first letter, on the articulations of the pelvis and head (or rather, to be more correct, on the first and second vertebræ). The shape and anatomical construction of the articulations of the oblique processes (surfaces, ligaments, etc.) are opposed to isolated rotatory movements of the spine. I stated, in my first letter, that there is a rotatory movement of the whole spine in walking; but the movement is made *en bloc*, and the muscles Mr. Barwell mentions in his letter assist less or more to produce that movement *en bloc*. Some writers say that there is an isolated rotatory movement of the cervical portion of the spine; but even then I have found in my experiments that it depends upon the articulations of the first and second vertebræ.

I must leave the question as it stands, Mr. Barwell declining any further controversy; and I must wait until that gentleman will do me the pleasure of opening the arena again, when giving the details of his scientific researches. I am, etc.,

HENRY DICK.

February 1866.

POOR-LAW MEDICAL RELIEF AND VACCINATION.

LETTER FROM RICHARD GRIFFIN, ESQ.

SIR,—I shall feel obliged by your allowing me space to inform the Poor-law medical officers that a Bill has been introduced into the House of Commons by Mr. Bruce and Mr. Baring, entitled "A Bill to Consolidate and Amend the Statutes relating to Vaccination in England." I wrote to Mr. Bruce a few days since, enclosing a copy of the plan proposed by us in 1861, which will be found in the pamphlet entitled *Evidence on Poor-law Medical Relief*, 1861, page 112. A few copies of this pamphlet I have still in hand; and shall be happy to send one to any gentleman on the receipt of twelve postage stamps.

Mr. Bruce's Bill is a great improvement upon the Acts now in existence, and contains penalties in sufficient abundance; but the rewards to the medical officers stand as they are in the present Acts. The 1s. 6d. and 2s. 6d. ought to be altered to 2s. 6d. and 3s. 6d. for the first three hundred cases vaccinated by an individual medical officer in any one year; and for all above that number the 1s. 6d. and 2s. 6d. may remain. The Act expressly provides for the granting of certificates by medical men, whether public vaccinators or not, but there is to be no payment. Thus, a medical man may vaccinate a child half a dozen times unsuccessfully, and be compelled to give as many certificates; but he is to have no payment either for vaccination or certificates. I recommend that certificates should be paid for at sixpence each; which would give the profession about £13,000 *per annum*.

The Act should be perused by the Poor-law medical officers, who are for the most part public vaccinators. It can be procured through the medium of a bookseller or a member of Parliament. In order, however, to save time, I have drawn up an epitome; which is at your service, should you be able to find space for it.

I should strongly recommend every public vaccinator to write to his member of Parliament, and endeavour to get some of the clauses amended, particularly those relating to payment; for, as they now stand, it is not worth a district medical officer in a small and thinly populated district taking the trouble to carry out the provisions of the Act; and, as a consequence, small-pox in this kingdom will never be eradicated. I am, etc.,

RICHARD GRIFFIN.

12, Royal Terrace, Weymouth, March 3rd, 1866.

List of Subscriptions received during the last week for the Poor-law Medical Reform Association.

By Mr. Griffin: S. Burrows, South Molton, 5s.; J. Hinton, Bath, 10s.; T. Boyle, St. Columb Major, 5s.; R. Ransom, Cambridge, 10s. 6d.; G. Cordwent, Taunton, 5s.; C. H. Carter, Pewsey, 10s. 6d.; J. E. Moreton, Great Boughton, 10s.; G. D. Brown, Ealing, 5s.; H. B. Goold, Portsea Island, 5s.; T. B. Simpson, Portsea Island, 5s.; R. Fowler, London, 5s.; A. D. Harold, Islington, 5s.

By Mr. Prowse, Amersham: F. F. Jay, Deepwade, 20s.; D. de Berdt Hovell, Hackney, 21s.; T. S. Hewitt, East Hampstead, 10s.; W. R. Hill, Lymington, 5s.; E. Chinery, Lymington, 5s.; A. Barrett, Freebridge, Lynn, 5s.; J. Hutchinson, Prestwich, 10s. 6d.; C. V. Hitchins, Axbridge, 5s.

Vaccination Bill 1861—*Epitome.*

Clause 1—Repeal of former Acts *Clauses* 2 and 3—Guardians to have power to divide unions or parishes into districts, subject to the approval of Poor-law Board. *Clause* 4—Qualification of public vaccinator to be prescribed by the lords of Her Majesty's Council, who are to make regulations to secure efficient performance of vaccination, or the provision and supply of vaccine lymph by public vaccinator. *Clause* 5—For every successful vaccination, at an appointed station situated at or within two miles of the residence of the vaccinator, or in the workhouse of the union or parish, not less than 1s. 6d., and beyond that distance not less than 2s. 6d. (It should be altered to 2s. 6d. and 3s. 6d. for the first 300 cases in any one year, and above that number to 1s. 6d. and 2s. 6d.—R. G.) *Clause* 6—Conditions may be imposed in contracts to secure the fulfilment of the provisions of this Act on the part of the vaccinator; and guardians shall provide all stations at which the vaccination shall be appointed to be performed other than the surgery or residence of the public vaccinator. *Clause* 7—No payment for re-vaccination, if previously successfully vaccinated, unless Lords of Council issue regulations on the subject, and then only two-thirds of the fee allowed for primary vaccination. *Clause* 8—Contract not valid unless approved by the Poor-law Board, and even then may at any time be determined by them. *Clause* 9—No payment to be made unless contract approved of by Poor-law Board. *Clause* 10—No public vaccinator to be paid for vaccination out of his district. *Clause* 11—In districts with scanty population, guardians may provide for the attendance of public vaccinator after intervals exceeding three months. Between the periods, parents of child exempt from penalties. (Under this provision, how is the inspection to be made or the supply of lymph to be kept up?—R. G.) *Clause* 12—Guardians to give notice of alteration of districts. *Clause* 13—Registrar-General to provide forms. *Clause* 14—Registrar of Births to give notice to parents or others where and when a child may be vaccinated. *Clause* 15—Child to be vaccinated within three months after its birth, unless death, etc., of parent, then four months allowed. *Clause* 16—Child to be taken on the seventh day following vaccination to public vaccinator for inspection, and, if he see fit, he has power to take from such child

lymph; if vaccination have been unsuccessful, vaccinator may direct child to be forthwith re-vaccinated. *Clauses* 17 and 18 make provision if the child is not fit for vaccination; and the delivery of a certificate by the public vaccinator or medical practitioner, which shall remain in force for two months, and be renewable every two months. (No fee for this.—R. G.) *Clause* 19 determines the continuance of the two months' certificate, by saying if a child has been more than once unsuccessfully vaccinated, and the vaccinator shall find he is insusceptible of vaccination, then a certificate to that effect shall be granted, and the parent shall thenceforth not be required to cause the child to be vaccinated. (No fee for this.—R. G.) *Clause* 20 provides for the furnishing of a certificate to be forwarded to the registrar where the birth was registered (if known to him), or else to the registrar of the district where child was vaccinated, within twenty-one days of its successful vaccination, and duplicate certificate to the parent of the child. (No fee for this.—R. G.) *Clause* 21 provides that no fee shall be paid the public vaccinator for these certificates. (This should be reversed.—R. G.) *Clause* 22 provides that the parent of the child shall transmit the certificate if the medical practitioner be not a public vaccinator. *Clause* 23 provides that the registrar shall keep a book wherein to enter vaccinations; and for every search therein 1s. shall be paid, and for every copy 6d.; but no fee shall be paid for a search by a public vaccinator, or any officer of the guardians authorised by them to make such search, or any inspector appointed by the Poor-law Board or Lords of Her Majesty's Council. The registrar shall also receive one penny for every notice to vaccinate, when he registers a birth, and 3d. for every certificate of vaccination he shall have registered and a penny for every certificate of vaccination where he has not registered the birth. *Clause* 24—Registrar to make out in duplicate quarterly accounts, and to be paid fees by boards of guardians. *Clause* 25—Vaccination declared to be not parochial relief. *Clause* 26—Guardians to be paid all reasonable expenses for notices to be printed and circulated, and to compensate any officer appointed by them to prosecute persons charged with offences against this Act, or otherwise to enforce its provisions. *Clause* 27—Parents or others neglecting to take child to be vaccinated, or after vaccination to be inspected or re-vaccinated and re-inspected, shall be guilty of an offence, and be liable to be proceeded against summarily, and upon conviction to pay a penalty not exceeding 20s. *Clause* 28—Vaccinator and parent neglecting to transmit certificate liable to a penalty not exceeding 20s.; and, in the case of false certificates, to be guilty of a misdemeanour and punishable accordingly. *Clause* 29—Justices may make an order for the vaccination of any child under 13 years of age within a given time; and if, at the expiration of the time, the child has not been successfully vaccinated, or is unfit, etc., the parent or other person shall be liable to a penalty not exceeding 20s., and it shall be no answer to the making of such order that he shall have been previously convicted of an offence under this or any other Act relating to vaccination. *Clause* 30—Penalties upon persons inoculating with small-pox. *Clause* 31—Penalty not exceeding £5 for wilfully exposing small-pox patients, or carelessly conveying them in public conveyances. *Clauses* 32, 33, 34, and 35, relate to the statutes now in force; notices and interpretation-clauses; and titles, followed by forms A, B, C, and D; which will require altering, especially the medical titles, which are only M.D., L.A.C., or F.R.C.S.

LOCAL ANÆSTHESIA BY ETHER-SPRAY.

Letter from Henry Day, M.D.

Sir,—The attention which you have thought proper, for some weeks past, to direct to Dr. Richardson's plan of producing local anæsthesia in minor operations, induces me to think that you will not be averse to receive some little additional information as to the success of the proceeding. This I now offer to you, and hope that none of your readers will consider that by so doing I am occupying your columns with unimportant matter. You, of course, will not think so; or otherwise your remarks upon this invention (if I may be permitted so to call it) would naturally have been very different from the eulogistic observations you have made upon what I believe to be one of the most practically serviceable improvements the profession (or rather a member of it) has given to the public for very many years past.

On Friday last, Mr. Hughes, the senior surgeon to the Stafford General Infirmary, had occasion to lay open a most intensely painful and suppurating housemaid's knee. The young woman was very nervous, and so exquisitely sensitive was the part, that she fairly dreaded the performance of the operation. In consequence of this, it was in contemplation to put her under the influence of chloroform. Fortunately, on the Friday morning I had received from Messrs. Krohne and Sesemann one of Dr. Richardson's "anæsthetic spray-producers"; and Mr. Hughes expressed a wish to have it tried in this case. It was done, and with the *most perfect success*. The part was laid open to the extent of not less than three inches; and the incision was made in the most slow and deliberate manner, to test to the utmost the effect produced. The girl looked calmly on at the proceeding, and experienced no suffering whatever.

On Saturday morning, tooth-extraction was performed by Mr. Bull, the surgeon-dentist to the infirmary; and the result was of the most satisfactory character.

I can scarcely bring myself to believe that the plan can ever be made applicable to major operations (excision of the knee-joint, for instance); but, even if it fail in these, enough can be done with it to render both patients and surgeons under an everlasting obligation to Dr. Richardson.

I am etc., Henry Day, M.D.,
Physician to the Stafford General Infirmary.
Stafford, March 6th, 1866.

Letter from Robert Farquharson, M.D.

Sir,—The merits of Dr. Richardson's method of producing local anæsthesia are now fully recognised by the profession, and experience of its use must convince every one of the great services which it will render to surgery. Having today, through the kindness of that gentleman, had the opportunity of testing its powers at our regimental hospital, I am induced to forward a few brief notes in corroborative evidence of its efficiency.

Case I. A small sebaceous tumour was removed from the temple. After a very short application of the ether-spray, intense blanching of the skin was suddenly produced, and the further steps of the operation caused not the least pain. In fact, the patient stated that he felt nothing beyond a slight "scraping" when the walls of the cyst were being turned out.

Case II. A large and very acute abscess in the upper part of the thigh was freely laid open. The bistoury was carried through the skin to the extent of nearly an inch and a half; and, as in the former instance, sensation was found to be totally abolished.

Case iii. A sinus in the fold of the left groin was slit up on a grooved director. The operation was performed in the usual way; but, as the line of incision passed through thickened textures, and as the anæsthesia was, perhaps, somewhat superficially produced, the patient was conscious of a very trifling degree of pain. This, however, he described rather to resemble the pricking of a needle than the keen sharpness usually following the transit of the knife. On the occurrence of a similar case, it might be advisable, as suggested by Professor Longmore, who was present, to incise from without inwards, so that the deeper structures might be rendered insensible, after the primary division of the skin.

Case iv. A small bubo was punctured; and, as the man was unusually nervous and apprehensive of suffering, he was greatly relieved to find that no uneasy sensation was the result.

In no instance was the freezing process attended by inconvenience. The skin became white, brawny, and intensely cold; but the action of the cutting instrument was not thereby impeded in any degree. Nor was there any painful reaction as in the older process by ice and salt; on the contrary, the subsequent smarting of the divided integument seemed materially lessened.

Trifling though they are in themselves, the above cases serve very well to show the success of this valuable discovery, and to prove that pain need no longer under any circumstances attend the manipulations of the surgeon. For, while medical men, warned by experience, become chary of the use of chloroform in minor operations, they are now provided with means by which they may restrict its use to the graver exigencies of the profession.

In conclusion, I have to thank Dr. Richardson for his very kind and cordial cooperation; and to state that the following gentlemen were also present on the occasion: Professor Longmore, Dr. Way, Dr. Sedgwick, and Assistant-Surgeon Trotter Coldstream Guards. I am, etc.,

Robert Farquharson, M.D.Ed., L.R.C.S.Ed.,
Assistant-Surgeon Coldstream Guards.

Coldstream Guards' Hospital, Vincent Square, March 6th.

Letter from John Way, M.D.

Sir,—Will you favour me with space for a few words touching a recent experience of mine of the efficacy of Dr. B. W. Richardson's plan for producing local anæsthesia; than which, since chloroform, surely no greater boon has been vouchsafed to suffering humanity.

On Tuesday last, a carbuncle, of the size of half a walnut, on the back of my left hand (from which I had suffered acutely during the preceding ten days), was submitted to the influence of Dr. Richardson's ether-jet, he himself kindly directing this. Speedily there ensued, in the carbuncle itself and a narrow margin of surrounding skin, a sense—very bearable—of aching numbness, followed by a sudden and somewhat startling blanching of the tissues—a kind of negative blush, extending over a space coverable by a five shilling piece. The part so blanched was now in a state of complete insensibility; and I saw the knife glide through the diseased tissues without experience of the slightest pain from the incision itself. A diffused uneasiness (quite insufficient to elicit a wince), due to the inevitable dragging on neighbouring inflamed and hyperæsthetic structures, was all of *malaise* that I suffered.

Complete local anæsthesia was produced in about forty seconds; about a like space of time was occupied in the complete division, by means of a tenotomy-knife, of my carbuncle from base to summit; and certainly, within the space of five minutes from the commencement of the freezing process, my disease, previously very painful, had become painless and on the high road to complete recovery.

I am, etc., John Way.

Eaton Square, March 8th, 1866.

THE PRESCRIPTION OF NOSTRUMS.

Letter from Wm. J. Church, Esq.

Sir,—In a recent address delivered at one of the Branch meetings of the British Medical Association, the President of the year mentioned that he hoped that the new *Pharmacopœia*, which was then about to make its appearance, would be so extended in its list of preparations, that there would be no further need for medical men to have recourse to the nostrums (I may say the quack medicines) of the druggist. This hope is not realised; and we, consequently, find that some of the leading physicians of London adhere to the now old practice of prescribing medicines, with the composition of which they are unacquainted. For instance, a patient of mine, who was in London for some little time, was recommended by me to consult Dr. ——. He gave her a prescription with "liq. ferri superacetatis", and told her it was only to be had at "Drew and Hargraves." Again, another patient consulted a leading physician, and was prescribed a nostrum which could only be procured at "Bullock's." I cannot but think that this savours of quackery; and that the sooner the first-rate authorities leave off this practice, the better they will be able, and with more consistency, to raise their voices against the uneducated pretender of the present day. We all like to keep patients in our own hands; but let this be done by judgment and skill in the case, and not in an illegitimate mode of prescribing for it. When a country practitioner sends his patient to London for an opinion, it can be hardly right that he should come back with a prescription for a seven shilling bottle of drops, to be procured only at one place in London. This is carrying centralisation rather too far. I am, etc.,

William J. Church, F.R.C.S.,
Ex-President of the Bath and Bristol Branch of the British Medical Association.

Circus, Bath, March 5th, 1866.

[We cordially agree with every word stated by our correspondent. Editor.]

Prevention of Cholera. Dr. Salisbury, of Tolono, Illinois, says, in the *Chicago Medical Journal*, persons whose excreting organs are impaired, are more susceptible to the influence of poisons, and this class are more easily affected by cholera and all epidemic and infectious diseases. On the other hand, those whose excretory organs are in active operation, more effectually resist the action of these poisons. There are some articles, dietetic and medicinal, he says, which have been observed, to a certain extent, to be preventives of epidemic cholera, such as cider and certain classes of ripe fruits and vegetables. During the last epidemic in a small town in Kentucky, nine young men employed themselves in nursing the sick and burying the dead; it was a season when melons were abundant, of which these young men all ate freely the whole time; none of them suffered with any symptom of the disease, although a large proportion of the inhabitants were attacked. Dr. Salisbury draws the general conclusion, that, as all the articles are diuretic, producing at least free action of the kidneys, the use of mild diluent diuretics, which are neither emetic nor cathartic, might during an epidemic season prevent or mitigate the disease.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND. The following members of the College, having undergone the necessary examinations, were admitted Licentiates in Midwifery at a meeting of the Board, on February 28th.

Moxey, David Anderson, M.D.Edin., Turnham Green; diploma of membership dated November 16, 1865
Pugh, Richard, Llandovery, South Wales; July 25, 1865
Rickard, Frederick Martyn, Stoke, Plymouth; May 9, 1865
Rickard, Henry, L.R.C.P.Ed., H.M.S. *Wellesley*, Chatham; December 6, 1859
Sarjant, Josiah, L.R.C.P.Edin., Limehouse; February 23, 1859

APOTHECARIES' HALL. On March 1st, 1866, the following Licentiates were admitted:—

Body, Henry Marten, Cheriton Fitz Pain, Devon
Dalley, Charles Thomas, Leicester
Fennings, Allen, St. Ann's Road, Notting Hill
Rogers, Charles Arthur, 32, Queen Square
Smith, William, Gorton, near Manchester
Verity, Abraham Robert, Bridgend, Glamorganshire

At the same Court, the following passed the first examination:—

Adams, George E. D'Arcy, King's College
Wilkins, John Canning, University College

APPOINTMENTS.

*HUMPHRY, George M., M.D., F.R.S., elected Professor of Human Anatomy and Physiology in the University of Cambridge.
NEWTON, Alfred, Esq., M.A., elected Professor of Comparative Anatomy and Zoology in the University of Cambridge.

ROYAL NAVY.

CAMPBELL, J. M., Esq., Acting Assistant-Surgeon, to the *Icarus*.
DOBBIN, John W., Esq., Surgeon, to the *Icarus*.
HASTINGS, Robert, M.D., Staff-Surgeon, to the *Castor*.
M'MORRIS, Robert J., Esq., Assistant-Surgeon (additional), to the *Victory*, for the Royal Marine Artillery.
WILSON, William T., Esq., Surgeon, to the *Duke of Wellington*.

MILITIA.

BRYANT, J. H., Esq., to be Assistant-Surgeon 3rd Surrey Militia.

VOLUNTEERS, (A.V.=Artillery Volunteers; R.V.=Rifle Volunteers):—

ELY, J. J., Esq., to be Assistant-Surgeon 3rd Administrative Battalion Kent R.V.
FRASER, J., M.D., to be Assistant-Surgeon 5th Staffordshire R.V.
HOLMAN, C., M.D., to be Surgeon 3rd Administrative Battalion Surrey R.V.
SANKEY, G., Esq., to be Assistant-Surgeon 3rd Administrative Battalion Kent R.V.
SPRATLY, S., M.D., to be Honorary Assistant-Surgeon 1st Cheshire Engineer Volunteers.
STUART, R., Esq., to be Honorary Assistant-Surgeon 4th Kent R.V.

BIRTHS.

ANNESLEY. On March 3rd, at Devonport, the wife of F. C. Annesley, Esq., Deputy Inspector-General of Hospitals, of a son.
BLAGDEN. On March 4th, at Stroud, the wife of Robert Blagden, L.R.C.P., of a son.
BOND. On February 25th, at Southampton, the wife of Francis T. Bond, M.D., of a daughter.
CADDY. On March 4th, at Watcombe, near Torquay, the wife of John T. Caddy, M.D., R.N., of a son.
COWELL. On February 25th, at 112, Piccadilly, the wife of Thomas W. Cowell, Esq., Surgeon, of a daughter.
JONES. On February 24th, at Dalston, the wife of John D. Jones, M.D., of a son.
MACLEAN. On February 9th, at St. Martin's, Guernsey, the wife of Lachan H. J. Maclean, M.D., Bengal Medical Service, of twin sons.
MADGE. On February 26th, at 32, Fitzroy Square, the wife of Henry M. Madge, M.D., of a son.
SANDERS. On March 4th, at Chigwell, Essex, the wife of *Charles Sanders, L.R.C.P.Ed., of a son.
SARELL. On February 17th, at Pera, Constantinople, the wife of *Richard Sarell, M.D., of a son.

MARRIAGES.

HOLMES, Frank, Esq., of West Gorton, Lancashire, to Annie Elizabeth, second daughter of the late Henry ARROW, Esq. of Sevenoaks, Kent, at Manchester, on March 3.
LYALL, David, M.D., Staff-Surgeon R.N., H.M. Dockyard, Pembroke, to Fanny Anne, only daughter of George ROWE, Esq., at Haverfordwest, on February 22.
*PRICE, William P., M.D., of Margate, to Annie Eliza, eldest daughter of J. P. HAVERSON, Esq., of Anerley Park, Surrey, on March 1.
RING, John, M.D., of Kilburn, to Louisa, youngest daughter of the late Reader MILLER, Esq., of Eyhurst, Kent, at Willesden, on March 3.
RYVES, Edmund W. L., Esq., to Eliza Mary, eldest daughter of James SHARP, Esq., Surgeon, Grosvenor Street West, Eaton Square, at St. George's, Hanover Square, on March 1.
TAYLOR, John, Esq., Surgeon, Ticehurst, Sussex, to Elizabeth, elder daughter of H. T. SWANN, Esq., of Witherenden, Ticehurst, at St. Leonards-on-Sea, on March 1.

DEATHS.

BIGGS. On February 25th, at Springfield, Tooting, aged 13 months, Catherine Mary, daughter of J. Strange Biggs, M.D.
BIRCH. On March 4th, at St. Helier's, Jersey, Elizabeth, wife of George Birch, M.D., R.N.
CLARKE. On March 3rd, aged 54, Emma Julia, wife of Joseph Clarke, M.D., of Guilford Street, Russell Square.
CLIFTON. On February 17th, at Hamilton, Canada West, aged 41, William Gordon, youngest son of the late *Nathaniel Clifton, Esq., Surgeon, of Islington.
*CONOLLY, John, M.D., D.C.L., of Hanwell, aged 71, on March 5.
CRELLIN. On February 27th, aged 59, Esther Maria, widow of the late William Crellin, M.D., of Gloucester Place, Portman Square.
LUCAS, William Owen, Esq., Surgeon, at Taunton Place, Regent's Park, aged 77, on February 25.
M'WHINNIE, Andrew Melville, Esq., formerly Assistant-Surgeon of St. Bartholomew's Hospital, at the Crescent, Blackfriars, aged 58, on February 27.
ORMEROD. On March 3rd, at Brighton, aged 8, Mary Olivia, eldest daughter; and on February 23rd, aged 2, Constance Marion, fourth daughter of *Edward L. Ormerod, M.D.
PITT. On March 4th, at Wellesbourne, Warwick, aged 62, Elizabeth, wife of *Richard Pitt, Esq.
*SANKEY, William, Esq., at Dover, aged 76, on March 5.
TERRY. On March 6th, at Northampton, aged 42, Louisa, wife of *Henry Terry, jun., Esq.
WATTERS, Henry B., L.R.C.P.Ed., at Liverpool, of typhus fever, aged 31, on March 1.
WILLAN. On February 18th, at Edinburgh, Jessie Madeline, wife of Reginald M. Willan, Esq., Surgeon, of Newton-on-Trent, Lincolnshire.
WILLIAMS, John Morgan, Esq., Surgeon, at Bridgend, Glamorganshire, aged 89, on March 1.

CENSURE OF MEDICAL MEN. At a numerously attended meeting of the Islington Medical Society, specially convened to consider the subject, the following resolutions were carried unanimously: "That it is the opinion of this meeting that, when a charge is made against a medical man before the Coroner, it is unjust that any vote of censure should be passed by the jury without the accused having an opportunity of defending himself. It is therefore a matter of regret that the Coroner for Central Middlesex should not have borne this principle in mind in certain recent cases. 2. That the preceding resolution be published in the following medical journals; the *Lancet*, *Medical Times and Gazette*, and BRITISH MEDICAL JOURNAL. Signed on behalf of the Meeting, W. B. KESTEVEN, *Chairman*."

ROYAL MEDICAL AND CHIRURGICAL SOCETY. The Annual General Meeting of this Society for the Election of Officers and other Members of the Council for the ensuing year, and to receive the Auditors' Report and the Report of the Council, was held at 53, Berners Street, on the 1st inst. The following gentlemen were elected Officers and Members of Council for 1866-7. *President*—James Alderson, M.D., F.R.S. *Vice-Presidents*—Patrick Black, M.D.; Henry Bence Jones, M.D., F.R.S.; Prescott G. Hewett; C. Hewitt Moore. *Treasurers*—Henry A. Pitman, M.D.; George Busk, F.R.S. *Secretaries*—H. Hyde Salter, M.D., F.R.S.; George G. Gascoyen. *Librarians*—A. P. Stewart, M.D.; Charles Brooke, F.R.S. *Other Members of Council*—A. Whyte Barclay, M.D.; E. L. Birkett, M.D.; John Clarke, M.D.; Patrick Fraser, M.D.; Richard Quain, M.D.; James Dixon; Edwin Humby; John A. Kingdon; John Marshall, F.R.S.; Alfred Poland.

Dr. J. Braxton Hicks, F.R.S., has been elected Honorary Fellow of the Berlin Obstetrical Society.

The Medical Council, we hear, is to meet this year on May 17th, for the despatch of business.

Acute Rheumatism. In a leader the British Medical Journal refers to a paper in the new number of *Guy's Hospital Reports* on the treatment of Rheumatic Fever with mint-water. It will be at once observed that the administration of the mint was but a cloak under which the disease was treated without drugs. The astounding fact is now, after a lapse of years, again forced upon us, that in this, as in many other acute diseases, our treatment is as futile and inefficacious as it was twenty years ago. We were always inclined to agree with the aphorism, that there was only one cure for acute rheumatism, namely, six weeks. (*Medical Press.*)

A Surgeon killed on a Railway. On Tuesday week, Mr. Featherstone, surgeon, was driving across the branch line which leads from the Midland Railway Company's works at Codnor Park to the warehouses at Ripley. The vehicle in which he was driving was covered with a tilt; and as it was crossing the rail, two empty coal-waggons, which were being shunted off a pick-up train from Chesterfield to Nottingham, ran into and smashed the conveyance to pieces, killing Mr. Featherstone on the spot. The horse and Mr. Featherstone's servant (who was driving) escaped unhurt, although the servant was so terrified that he was for a time insensible. Directly after the accident, one of the railway porters ran off to Mr. Featherstone's for assistance, being then ignorant of the fact that it was Mr. Featherstone himself who was killed.

Contest for a Coronership. On the 3rd inst., the Under-Sheriff for Yorkshire made the official declaration of the poll for the Doncaster District, for which there had been a severe contest between Dr. Guy, the deputy-coroner for the borough of Doncaster, and Mr. Nicholson, the clerk of the peace. The numbers were—for Dr. Guy, 582; for Mr. Nicholson, 377; majority for Dr. Guy, 205. The coronership is worth about £60 per annum, and something like £900 has been spent by both candidates. Voters were brought from a distance of seventeen miles, as far as from Crowle, on the borders of Lincolnshire. The freeholders of Thorne, 110 in number, voted unanimously for Dr. Guy; and those of Bentley and Arksey, in the centre of the district, were disqualified, owing to the name of the township not having been included in the list of other townships furnished by a former coroner at the request of Government. Mr. Walker, in proposing Dr. Guy, said: "I am not going to say that a medical man is especially qualified over a gentleman of the legal profession. But I say this: that on all occasions of this kind, when you have only two candidates before you—one a member of the legal profession, and the other a medical gentleman—you must make your choice, not because the one may be a lawyer and the other a physician, but simply on the ground of character and general qualification for the office. Now let us look at the two candidates. One has raised himself by his own industry and his own exertions; that is Dr. Guy. The one has raised himself by his own industry to the highest branch of his profession; the other is a clientlesss attorney. Dr. Guy is a man not only of irreproached, but of irreproachable, character. I have now known him for something like a quarter of a century; and during that time I have never heard one word said in his disparagement—[*applause*]—and I know that he has followed his profession with great professional skill and perseverance. [*Cheers.*] I therefore, gentlemen, place Dr. Guy before you as a most eligible man to fulfil the duties of this office." Mr. Shirley, in seconding the nomination, said: "I am going to second the nomination of Dr. Guy. For many years Dr. Guy practised in Thorne. There are gentlemen here from that town to-day; and there is not a freeholder in the parish of Thorne who will not come here on Thursday to vote for Dr. Guy. If you want to know the estimate of a man, you should go to the place where he has resided. It happened to Dr. Guy that he was for fourteen years a medical officer of the Thorne Union. What do you think happened to Dr. Guy when he gave up his practice there? The bells were not set ringing to ring him out of the town; the poor whom he had attented collected their pence, and what was obtained was sufficient to purchase a very handsome silver testimonial."

Uniformity of Type in Disease. A prevalent uniformity of type, more or less faint in the disorders of the human body, is observed to rule for some considerable period, and gradually to change. This type has of late years been steadily assuming as its seat the mysterious branches of the nervous system. There are many indications that this type will become more marked. It might seem perhaps fanciful to trace this very directly to such subordinate causes as increased immorality, injudicious marriages, increased drunkenness, or diminished or more fitful generation of that elementary substance ozone, as severally fixing their results in poverty of blood, which too easily establishes itself as hereditary; but there can be no doubt that the immensely accelerated rapidity of life in all its departments; the innumerable streams of duty, business, and thought, hastened by facilities of locomotion, by the intense competition and emulation in all spheres, and by the dense living of increased populations; all create a painful increase of brain-tax, which must shew itself in the spread of all hues of nervous affection, and of insanity in particular. (Dr. Kirkman, *Twenty-eighth Annual Report of the Suffolk Lunatic Asylum.*)

Educational Tests of the College of Surgeons. The commercial value of the diploma of the College of Surgeons is no doubt still considerable, but its scientfiic worth continues to be depreciated in public and professional estimation. It will not bear comparison with that of other bodies. Of all examinations in the world, that of the College of Surgeons of England, which should be one of the most honest and respectable, in the sense of its intrinsic significance, is one of the least so. It is a diploma which legally qualifies to practise, and which is required by several of the public bodies, and by the various hospital boards, but it affords an easy avenue to practice to men who need not to be even half educated. It is truly a scandal that a diploma giving a legal title to practise should be granted after an examination which includes neither medicine, midwifery, materia medica, botany, nor chemistry. The examination is, in fact, a mere farce. The Council of the College of Surgeons are sadly put to the blush by the examinations of the College of Physicians, which they affect to disregard. At these examinations not only are the candidates examined in the whole range of professional subjects, but they are taken into the wards, and tested practically in their knowledge. At the last examination they were taken to four different hospitals, and each candidate passed through a clinical examination in medical cases on one day, and in surgical on the next. The licence of the College of Physicians for general practice is an admirable and honourable diploma; it is one of which the full value is being generally recognised by the profession,

and the attitude of the College of Surgeons cannot be much longer maintained without a great loss of profit as well as of reputation. It is hardly to be believed that the chief surgical corporation of this country should continue to issue diplomas to practise on an examination which not only is limited to a fraction of the subjects necessary to every practitioner, whether surgical or medical, but does not apply any bedside tests of knowledge or practical trials of skill. (*Lancet.*)

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....Metropolitan Free, 2 P.M.—St. Mark's for Fistula and other Diseases of the Rectum, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TUESDAY. .... Guy's, 1½ P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.

WEDNESDAY... St. Mary's, 1 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.

THURSDAY.....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Great Northern, 2 P.M.—London Surgical Home, 2 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.

FRIDAY..... Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

SATURDAY..... St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1·30 P.M.—Charing Cross, 2 P.M.—Lock, Clinical Demonstration and Operations, 1 P.M.—Royal Free, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY. Royal College of Surgeons of England, 4 P.M. Professor Huxley, "On the Classification and Structure of the Mammalia."

WEDNESDAY. Royal College of Physicians, 5 P.M. Dr. Fuller. Lumleian Lectures. "On Certain Derangements of Digestive Organs, their Causes and Effects."—Royal College of Surgeons of England, 4 P.M. Professor Huxley, "On the Classification and Structure of the Mammalia."

THURSDAY. Harveian Society of London, 8 P.M. Dr. Meredith, "On the Duality of Venereal Ulcers."

FRIDAY. Royal College of Physicians, 5 P.M. Dr. Fuller. Lumleian Lectures. "On Certain Derangements of the Digestive Organs, their Causes and Effects."—Royal College of Surgeons of England, 4 P.M. Professor Huxley, "On the Classification and Structure of the Mammalia."

TO CORRESPONDENTS.

*** *All letters and communications for the* JOURNAL, *to be addressed to the* EDITOR, 37, *Great Queen St., Lincoln's Inn Fields, W.C.*

COMMUNICATIONS.—To prevent a not uncommon misconception, we beg to inform our correspondents that, as a rule, all communications which are not returned to their authors, are retained for publication.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

UNDERSELLING IN CLUB PRACTICE.—SIR: For upwards of twenty years past, my father and myself have been surgeons to a large benefit-club in this town. About four or five years since, it was deemed advisable by some *reformers* in the club to increase the medical staff; and two more were added to it. The club is one of very few in the district, who pay a moderate but fixed sum for medicine as supplied, which to me is more satisfactory than the prevalent custom of contracting at so much per head. The other day, a deputation from the club waited on me to ask me to lower my charges to those of Mr. ———, hinting, that in case of my refusal, I should probably lose the club. My charges for upwards of twenty years have been:—mixture, 2s.; liniment or lotion, 1s. 6d.; box of more than two pills, 1s. 6d.; two pills, 1s. The charges of Mr. ——— were:—mixture, 1s. 6d.; liniment or lotion, 1s.; box, twelve or more pills, 1s.; two pills (or less than twelve), *nil*. There were also numerous smaller and less important differences. Of course I was obliged to consent; and indeed I was inclined to offer to attend the whole number gratuitously.

Now, sir, I consider that this gentleman, on joining himself to the medical staff, should, in courtesy to me as the senior, have inquired what my charges were and always had been, and have followed them strictly—which he plainly did not do.

March 1866. I am, etc., A CLUB SURGEON.

HOSPITAL-CARRIAGES.—A correspondent says: "When Sir Macdonald Stephenson brought forward his scheme for special hospital carriages, I ventured in your JOURNAL to point out the extreme unfitness of the vehicle suggested for the purpose. You will remember that a *coupe* for the friends, patent India-rubber tires, and several other equally absurd novelties, were to be adopted. To-day the secretary for the carriage fund, in a letter to the *Times*, adopts all my suggestions, and gives my reasons, without one word of acknowledgment, either public or private. The carriage is to be in form like an ordinary long-bodied carriage, so that when drawn up at the houses of even the wealthier classes, it may not attract attention as an undoubted fever conveyance; it being often a matter of serious importance to give no unnecessary alarm in a respectable house or street where fever may have occurred."

PUBLIC ROADS.—SIR: The enclosed letter has appeared in our local paper, and been widely circulated by me in this neighbourhood. No class of men can be more largely concerned in the matter than ourselves, and none are better endowed with the means of carrying it to a successful issue. From the temper of the Government, and the universal feeling that some radical alteration in road legislation is required, I feel convinced that if one medical man in each place or district would get up and forward a petition to Parliament, founded on the enclosed scheme, a system which disgraces our nineteenth century civilisation would soon be abolished for ever. I am, etc.,

Frome, February 26th, 1866. JOSHUA PARSONS.

The following is the scheme proposed by Mr. Parsons for abolishing turnpike trusts in England and Wales.

1. Public roads, of all descriptions, to become highways, be placed under the control of highway boards, and repaired at the expense of the county rate.

2. Every union to be divided into the requisite number of districts, over each of which a surveyor is to be appointed, who, like the Poor-law district officers, should have the sole responsibility of his own district, and be accountable to the board.

3. The salaries of such surveyors, with that of clerks and other (if any) necessary officers, to be paid by Government from the Consolidated Fund.

4. Government to reimburse itself by an extra tax on private horses and carriages, apportioned as the wisdom of Parliament may see fit, so as to impose no burden upon occupiers of land, or others who may be fairly excused.

5. Government to pay off at once, at fair valuation, the whole existing debts of turnpike trusts.

6. The existing tolls and trust property to become the property of the Government. The tolls to be farmed to lessees, and collected or received by excise or tax officers, until the debt has been so far reduced that the sale of toll-houses and other trust property complete the re-payment of the money advanced.

COMMUNICATIONS have been received from:—Mr. RICHARD GRIFFIN; Dr. F. W. GIBSON; Dr. MACKINDER; Mr. T. PRIDGIN TEALE, JUN.; Dr. SAMELSON; Dr. GUY; Dr. DREW; Mr. WILLIAM EDDOWES; Mr. C. HOLTHOUSE; Dr. J. B. HICKS; Mr. THOMAS NUNNELEY; Dr. C. STEELE; Dr. RICHARDSON; Dr. SPENCER THOMSON; Dr. TUBBS; Mr. C. JOHNSON, JUN.; Mr. W. B. KESTEVEN; Mr. T. MARTIN; Dr. H. DAY; Mr. W. J. CHURCH; THE HON. SECRETARY OF THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY; Dr. W. M. KELLY; Dr. JAMES RUSSELL; A CLUB SURGEON; Dr. J. F. ANDERSON; Mr. R. V. BLYTHMAN; Dr. JOHN WADE; and Dv. J. BULLAR.

BOOKS RECEIVED.

1. On a New Method of applying Remedial Agents to the Cavity of the Tympanum. By E. Bishop, M.D. London: 1866.
2. On the Cattle-Disease. By Surgeon-Major Logie. London: 1866.

ADVERTISEMENTS.

Chester General Infirmary.—WANTED, a HOUSE-SURGEON, who must have a double qualification, Medical and Surgical, and be duly registered. Unexceptionable testimonials will be required of moral conduct. Salary to commence at £80 a year, with residence and maintenance in the House.

Also, an ASSISTANT HOUSE-SURGEON, whose qualification and testimonials must be the same as those above stated. Salary to commence at £60 a year, with residence and maintenance in the House.

Testimonials to be addressed to the "Chairman of the Board of Management," not later than the 26th March.

By order of the Board,

Board Room, March 6, 1866. J. JONES, Secretary.

Notes

ON THE

PATHOLOGY AND TREATMENT OF CHOLERA.

BY

GEORGE JOHNSON, M.D., F.R.C.P.,

PHYSICIAN TO KING'S COLLEGE HOSPITAL; PROFESSOR OF MEDICINE IN KING'S COLLEGE; ETC.

The Relationship between Choleraic Collapse and the Gastro-intestinal Symptoms.—Why is not Dyspnœa a more Common and Urgent Symptom during Collapse?—What is the Cause of the Peculiar Feebleness of the Voice during Collapse?—Why is Syncope so Rare an Occurrence in Cholera?

The Relationship between Choleraic Collapse and the Gastro-intestinal Symptoms. There are few subjects which have given rise to greater difference of opinion or to greater discrepancy of statement, than the question as to the relationship which exists between that condition which we recognise as choleraic collapse and the gastro-intestinal symptoms — the vomiting and purging. Those who adopt the theory that collapse is a result of the drain of fluid from the blood, have boldly asserted that there is a direct and constant relation between the degree of collapse and the drain of fluid from the blood. Others, with more candour and caution, admit that, while there is some general relationship between the degree of collapse and the amount of fluid which passes away by the stomach and bowels, there are yet very striking exceptions to this rule. Most of the best writers on cholera, both in India and in Europe, refer to cases in which, to use the words of Dr. Parkes, "there is absolutely no ratio between these two classes of symptoms" (*i.e.*, the gastro-intestinal symptoms and collapse), "or they appear even to observe an inverse ratio to each other."

It is to cases of this kind that Scot refers, when he says, "A frequent variety, the worst of all, is that which is noted for the very slight commotion in the system; in which there is no vomiting, hardly any purging, perhaps only one or two loose stools, no perceptible spasm, no pain of any kind; a mortal coldness, with arrest of the circulation, comes on from the beginning, and the patient dies without a struggle. This has frequently manifested itself as the prevailing type; and almost all die who are attacked by it." (*Report on the Epidemic Cholera, Madras*, p. 21.)

We are now, I think, in a position to give a rational and intelligible explanation of the relationship which exists between the gastro-intestinal and the other symptoms of cholera. In giving what appears to be the true interpretation of these phenomena, I shall be enabled very much to condense what I have to say, if I assume that my readers are already familiar with the account which I have given of the pathology of collapse.

1. First, then, during an epidemic of cholera, there occur many cases of what are commonly called choleraic diarrhœa, characterised by the occurrence of vomiting, bilious purging, and cramps. These cases are more or less severe, according to the dose or virulence of the poison or the peculiar susceptibility of the individual; but they do not pass into collapse. It is probable, however, that this disease is of essentially the same nature as cholera with collapse. The difference is one of degree. In these milder cases, the morbid condition of blood has not been sufficient to induce that arrest of the pulmonary circulation which is the immediate and essential cause of collapse. One of the most conclusive proofs that choleraic diarrhœa is essentially the same disease as cholera with collapse, is the undoubted fact that, when opium has been given in sufficient quantity to arrest suddenly and completely the bilious purging, the disease has often passed immediately into the stage of collapse. The explanation of this sudden transition is that, the escape of the poison and its products having been prevented by the opium, they have accumulated in the blood, the pulmonary circulation has become obstructed, and so the state of collapse has occurred.

2. In a second class of cases, an attack which commences with bilious vomiting and purging passes on, with more or less rapidity, into the stage of collapse, even though the course of the disease has not been interfered with by treatment. Coincidently with collapse, there is suppression of bile and, in most cases, a marked diminution in the amount of intestinal excretion. In cases of recovery, however, the purging continues more or less during the stage of collapse, during reaction, and for some time after reaction has been fully established. In this class of cases, the morbid change in the blood has been sufficient for a time to obstruct the pulmonary circulation, and so to cause collapse; then the pulmonary obstruction has been gradually removed by the elimination of the poison through the gastro-intestinal canal.

3. In a third class of cases, the attack commences, as in the preceding class, with vomiting and purging; but extreme collapse supervenes with great rapidity. Soon there is an entire cessation of vomiting and purging; and the patient quickly dies. In these cases, the elimination of the morbid poison by the stomach and bowels is suspended in consequence of the high degree of obstruction to the pulmonary circulation. It is manifest that, for the continuance of the process of excretion from the mucous membrane of the stomach and bowels, there must be a certain blood supply to these organs. A ligature on the arteries which supply the stomach and bowels would obviously stop all secretion from the mucous membrane; and, in cases of extreme collapse, so nearly complete is the arrest in the lungs, that the supply of blood sent to the stomach and bowels is insufficient for the continuance of the secretory process. The elimination of the morbid poison is, therefore, more or less completely stopped; there is a "dead-lock"; and the patient's condition is henceforth one of hopeless collapse.

4. Lastly, there is a class of cases in which collapse comes on at the very commencement of the disease, robust sailors falling down on deck "as if they had drunk the concentrated poison of the upas tree." (Sir Wm. Burnett's *Report on Cholera in the Black Sea Fleet.*) This is the class of cases referred to in the extract which I have before given from Scot; and his statement that there is "arrest of the circulation from the beginning" is the exact and literal truth. The poison is so virulent, or the patient so susceptible, that the pulmonary circulation is quickly arrested, and there is scarcely any attempt at elimination. It may be that after death the rice-water secretion is found in the small intestines, and healthy fæces in the colon; but the process of excretion has been speedily arrested by the fatal obstruction in the

lungs. In this class of cases the disease is more malignant, more unmanageable, and more rapidly fatal, than in any of the others.

We see, then, that when the disease stops short of collapse, the abundance of the gastro-intestinal excretion is a pretty accurate measure of the severity of the attack; just as, in the case of small-pox, the gravity of the disease is measured by the copiousness of the eruption. But when choleraic diarrhœa passes into the stage of collapse, the gravity of the disease often bears an inverse ratio to the vomiting and purging; and no cases are more hopeless than those in which not only is there a cessation of the vomiting and purging, but an almost complete arrest of the process of excretion from the gastro-intestinal canal. The cause of this suspended excretion is the extreme degree of obstruction to the pulmonary circulation; and there is no hope of relief except from the use of means which tend to increase the flow of blood through the lungs. I have before shown that the hot saline injections into the veins act in this way. The injections have, in most instances, been followed by an increase of the intestinal discharges; and it is likely that the number of recoveries after this operation would have been greater than it has actually been, were it not for the fact that the good effect of the injections in giving temporary freedom to the circulation has generally been counteracted by the simultaneous administration of opium and brandy.

Another remedy, which affords some hope of relief in these all but desperate cases, is *venesection*. I have before shown that the symptom which appears especially to call for venesection, and which has most commonly been relieved by it, is rapid breathing with an oppressive sense of suffocation. When, with these symptoms, there is a cessation of vomiting and purging, which is probably a result of the almost complete arrest of blood in the lungs, the patient will speedily die if he be not relieved; and venesection affords some hope of benefit. The only rational interpretation of the speedy relief which has often followed the operation is that, by lessening the over-distension of the right cavities of the heart, it increases the contractile power of their walls, and consequently more blood is propelled through the lungs. The following description of the effects of venesection is given by a medical man who was himself the patient. "There was a sensation which I am at a loss to describe, as if my heart was ceasing to beat, and a dread of suffocation; this sensation was instantly relieved by bleeding, and I recovered immediately." (*Reports on Asiatic Cholera on Regiments of the Madras Army*, by Samuel Rogers, p. 259.) Venesection in these cases will act as a purgative, by increasing the freedom of the pulmonary circulation, and thus sending a larger supply of blood to the intestines.

It would manifestly be useless, and worse than useless, to administer either emetic or purgative drugs to a patient in whom the process of intestinal excretion has been suspended in consequence of a nearly complete arrest of the circulation. The use of emetics and purgatives in cholera is to assist in the speedy expulsion of the morbid secretions which have been poured into the digestive canal. A careful examination of the abdomen will assist in determining the important practical question, whether the cessation of the purging be a result of arrested excretion, or whether it be due to an excessive accumulation of excreta in an over-distended and torpid bowel. In the one case there is suppression, in the other retention, of the excretions. In the latter case, a purgative, by stimulating the bowel to unload itself, may be the means of saving life.

Before concluding this communication, I will reply to some questions which have been put to me from time to time.

Why is it that, with so great an impediment to the pulmonary circulation, Dyspnœa is not more common and more urgent during Collapse? The absence of urgent dyspnœa in most cases of collapse affords conclusive evidence that the obstruction does not exist in the *capillaries* of the lung. With the capillary engorgement which often occurs after reaction is established, there is always hurried and rapid breathing. During collapse, the obstruction occurs in the minute arteries, so that the balance between the stream of blood through the capillaries and the supply of air in the cells is maintained; and there is usually no urgent dyspnœa until the obstruction has reached an extreme degree and death is imminent.

What is the cause of the peculiar Feebleness of the Voice during Collapse? Is it a result of muscular weakness? Certainly not; for, if so, it would continue more or less during the stage of reaction from collapse, and the voice would not be immediately restored to its full power by the hot injections into the veins. The feebleness of voice is one of the phenomena which are always exactly coincident with collapse, and it is a result of the small volume of tidal air. During collapse, the volume of air which is breathed is greatly reduced. This is proved by Twining's observations before referred to (British Medical Journal, Jan. 27th, p. 87). It is confirmed, too, by the incompleteness of the respiratory movements during collapse, the imperfect expansion of the chest, and the feebleness and even sometimes the complete absence of the vesicular respiratory murmur. The explanation of the diminished current of tidal air during collapse is to be found in the fact that, owing to the arrest of blood in the pulmonary artery, and the reduced volume of blood which in consequence passes through the capillaries of the lungs, there is less demand for air. There appears to be a mutual attraction between the blood in the pulmonary capillaries and the air in the cells; so that, when the access of one is prevented or limited, the supply of the other is lessened in a corresponding degree. With the first rush of air into the lungs at the moment of birth, the blood is drawn into the lungs through the pulmonary artery, and ceases to flow through the ductus arteriosus. During a paroxysm of spasmodic asthma, defective respiration is associated with extreme feebleness of the voice and smallness of the pulse in proportion to the intensity of the dyspnœa. The explanation of the small and feeble pulse in these cases I give in the words of Dr. Salter (*On Asthma*, p. 71). "The imperfect supply of air produces capillary arrest—partial stasis—of the pulmonary circulation; only a small quantity of blood is, therefore, allowed to pass on to the left side of the heart.....That the small pulse is due to pulmonary capillary arrest, itself due to shutting off of air from the lungs, is proved by the fact that, immediately the paroxysm yields, the pulse resumes its normal volume." In the case of spasmodic asthma, the flow of blood through the lungs is diminished in consequence of a limited supply of air. On the other hand, when, during the collapse of cholera, the blood is largely arrested before it reaches the pulmonary capillaries, the respiratory current of air is lessened in the same degree, and the voice is consequently enfeebled. And, again, when the free movement of blood through the lungs has been restored by injecting a hot saline solution into the veins, the respiratory movements simultaneously become free, the full volume of air is breathed, and the voice recovers its original tone and strength. Dr. Watson refers to one patient in collapse on whom the opera-

ion of injecting the veins was performed. The ulse had almost if not quite disappeared from the rist, and "the voice was faint and husky". Immediately after the injection, the pulse became distinct and full, and he "spoke in a strong voice." *Lectures on the Principles and Practice of Physic*, 4th d., vol. ii, p. 528.)

Here we find that circulation, respiration, and oice, are restored simultaneously by the same means. f we now compare and contrast the phenomena of pasmodic asthma with those of spasmodic cholera, ve see that, while in the case of asthma-spasm of the ronchial tubes causes a limited supply of air, and in onsequence an impeded flow of blood through the ungs, in the case of choleraic collapse, spasm of the ninute arteries first lessens the blood-stream through he lungs, and then, in a corresponding degree, the olume of respired air.

In both diseases, spasm is the immediate cause of he morbid phenomena. In the one, the spasm is ronchial; in the other, it is arterial. In both diseases, there are defective respiration and impeded circulation: in one, the defective respiration is primary, nd the impeded circulation is a secondary result of his; in the other, the phenomena occur in the reverse order. In both diseases, there is evidence of he close and intimate relationship which exists beween the function of respiration aud the circulation hrough the lungs. In both diseases, there is feebleess of voice, and in both this is mainly due to the mall volume and force of the respired current of air; ut, in the case of asthma, the difficulty of speaking s still further increased by the inordinate action of he respiratory muscles.

Why is it that Syncope is so rare an Occurrence in Cholera? Why is it that a cold and pulseless Patient is often able to stand, and even to walk about? These henomena prove that the state of collapse is essenially different from that of mere exhaustion. The eart appears not to be materially weakened by the isease, so that the left ventricle sends on to the rain and other parts the small supply of blood which it receives, as regularly when the patient is in the erect as when he is in the recumbent posture. This is probably the main cause of the absence of syncope. There is another circumstance which may, perhaps, have some influence. During collapse, in consequence of the arrest in the lungs, there is a great accumulation of blood, not only in the pulmonary artery and in the right cavities of the heart, but also in the systemic veins; and it seems probable that this venous turgescence, by checking the return of blood from the brain, may tend to prevent syncope, as the recumbent posture with the head low prevents or removes syncope by allowing the blood to gravitate towards the brain.

CATTLE-PLAGUE SPREAD BY MANURES. The *Farmer* of 17th January last noticed that great alarm had been created in the north of Scotland by the landing of cargoes of bones at Invergordon and Findhorn, the bones being the remains of animals which had died of Rinderpest, or been carried from districts where the cattle-plague prevailed. Since that time, the attention of the authorities at various other ports has been called to the subject of the importance of manures generally, and in many cases their absolute prohibition has been enforced, guano (as in the case of the Isle of Man) being exempted. In the west of Scotland, the prohibition extends to all kinds of manures, the notice issued by the justices of Kintyre being as follows: "That no blood manure, bones, or manufactured manures of any description, be imported." (*The Farmer.*)

Illustrations OF HOSPITAL PRACTICE:

METROPOLITAN AND PROVINCIAL.

THE LONDON HOSPITAL.

POPLITEAL ANEURISM: DISTAL OCCLUSION: LIGATURE OF THE FEMORAL ARTERY: DEATH FROM DISEASE OF THE HEART.

Under the care of Mr. HUTCHINSON.

[*Reported by* Mr. WAREN TAY.]

JAMES DRISCOLL, an Irish labourer, aged 20, was transferred from a physician's ward on Friday, June 16th. He had been admitted on account of rheumatism; but was found to have also an aneurism in the right popliteal space. The latter was of the size of an orange, pulsating very freely, and at some parts very close to the surface. He was a thin cachectic man, and nervous in the highest degree. He had a jerking irritable pulse; and there was a rough murmur heard over the base of the heart in connection with the aortic valves.

Mr. Hutchinson found, on examination, that the arteries below the aneurism appeared to be occluded; no pulsation could be detected in either anterior or posterior tibial. The man stated that he had only known of the beating behind his knee for about a week; but, in all probability, the aneurism had existed much longer. He gave the history that one night, about three weeks before admission, he awoke suddenly, and found his leg numbed, cold, and cramped, which occurrence possibly marked the date of the occlusion.

With regard to treatment, Mr. Hutchinson remarked that the aneurism was too large and its coats too thin to permit of the trial of Mr. Hart's flexion plan; whilst the man's extreme irritability of constitution made him an unfavourable subject for compression treatment. The occlusion of the vessels below the sac favoured the latter plan; since, by ponding a considerable quantity of blood in the sac, there was better chance of the formation of coagulum. Several surgeons had recently recommended in compression treatment that the pressure should first be made below the sac, so as to keep the latter full of blood.

Compression treatment was commenced on June 17th, by means of two clamp tourniquets applied to the upper third of the femoral artery and used alternately. The man was allowed a meat diet, with as small a quantity of fluid as possible.

The man could not be persuaded to bear the compression at all well. He undid the instruments, and was miserably restless and desponding; constantly shedding tears like a child. This peculiar state was probably induced to some extent by the disease of the heart which was subsequently discovered. It soon became clear that there was no hope of success from compression.

On the 23rd, the tumour was found increased in size, and its walls so thin that there was great danger of its becoming diffused at any time. The pulse for several days had been 120. Mr. Hutchinson determined at once to ligature the femoral artery. The operation was done under chloroform.

After the operation, all went on well for some days. The tumour contracted, and its contents became

more solid; the wound was quite healthy. On the 29th (the sixth after the operation), the lad suddenly became collapsed, and had much distress of breath. All his extremities became cold, and in the course of an hour he died.

At the autopsy, the aneurismal sac was found to contain a considerable quantity of solid fibrine and some fluid blood; it was not more than half the size which it had been. The trunk below the sac was impervious. The aortic semilunar valves were found to be extensively destroyed by recent and acute ulceration; being thickened, ragged, and vascular.

COMPOUND AND DEPRESSED FRACTURE OF THE SKULL WITHOUT SYMPTOMS: TREPHINING: PRECAUTIONARY USE OF MERCURY: RECOVERY.

Under the care of Mr. HUTCHINSON.

[*Reported by* Mr. WARREN TAY.]

James J., aged 46, a farm-labourer, was admitted October 10th, 1865, about seven o'clock P.M. He stated that a horse had kicked him on the side of his head about twelve o'clock.

On examination of the wound, a depressed fracture was found about an inch and a half above and behind the right frontal eminence. While he was being examined, he had a sort of fit. Stertorous breathing came on as he was sitting in a chair; but ceased as soon as he was laid on his back, and he was apparently as well as ever. There was another wound, also communicating with bare bone, about four inches behind the former one. As he was lying down, a little blood which had trickled into the large wound was distinctly seen to move up and down synchronously with the pulsations. The pupils were equal, and somewhat dilated. Pulse 84 in the minute. No paralysis could be detected. From the time the accident happened till the time he came in, he had had no cerebral symptoms whatever. He was stunned at first, but soon recovered himself.

At 8.20 P.M., Mr. Hutchinson saw him. The trephine was used just behind the principal line of fracture. When the piece included by the trephine was removed, it was found that a very delicate lamella remained, protecting the dura mater. Sufficient room had, however, been obtained to get the end of the elevator beneath the depressed part. The depressed fragment was as large as a crown-piece, and of irregularly triangular shape. It was rather firmly fixed, and was with difficulty lifted into position. When the instrument was removed, it again sank a little. Excepting the portion included by the trephine, no bone was taken away. The dura mater was not injured, and was only exposed to a very small extent. A small artery in the dura mater bled, and required ligature. The ligature, however, slipped off, and hæmorrhage did not recur. The wound was closed with sutures excepting at the middle.

Mr. Hutchinson remarked, at the conclusion of the operation, that he had performed it, not on account of the presence of any cerebral symptoms, but in the hope of diminishing the risk of the inflammation of the dura mater which so frequently follows compound fractures of the skull. He intended now, with the same object in view, to administer mercury. If inflammation of the dura mater should follow such an injury, its symptoms would probably be apparent at from three days to a week after the accident. They would consist of pain in the head, febrile disturbance, and partial paralysis of the limbs and face on the opposite side; and they would denote implication of the arachnoid as well as of the dura mater. When such symptoms had once shown themselves, there was but little to be hoped from treatment. The surgeon's duty was, therefore, to anticipate them, and, if possible, to prevent them. This was to be done first by putting the wound into the most favourable condition, removing impacted fragments of bone, and allowing for the free escape of the pus which must necessarily form. Then, also, as to the administration of mercury, it must be in anticipation if it was to be of any good. No benefit is usually observable from mercury until the gums are touched; and to do this, we usually take two or three days. In the case of arachnitis, these two or three days are of the utmost consequence.

The next day, a grain of calomel was ordered three times a day.

On the 12th, slight puffiness of the right eyelid was noticed.

On the 13th, his pulse was 76 in the minute, and the puffiness of the eyelids was less marked. He had had a good night.

On the 15th, his pulse was 72 in the minute. He had not slept quite so well. His tongue was furred, his lips and mouth were dry. The gums were now slightly spongy. The pills were to be discontinued.

On the 17th, his pulse was 84. He had had no rigor. His tongue was whiter. The whole right half of the scalp was puffy from the erysipelatous inflammation. The discharge from the two wounds was healthy. The part of the wound closed by sutures had united. Silk sutures had been used, and they caused no irritation whatever.

On the 19th, the discharge of pus was quite healthy. The fragment of bone which was loose was now quite bare and white at the bottom of the wound. The erysipelas was subsiding around the wound and spreading towards the other side. He ate heartily and felt quite comfortable. His skin was cool; pulse 84.

On the 23rd, the pulse was 76, soft. He said he felt very well. His tongue was clean. The erysipelas was still spreading on his face.

Nov. 18th. The pulse was 84. Tongue clean; appetite good; and he slept well.

On Nov. 11th, he was made an out-patient. A thin lamella of bone was then in process of exfoliation. It was seen to be vascular beneath the surface. His colour was good. He looked quite healthy, and felt quite strong.

Mr. Hutchinson directed attention to the fact that the mercurial course did not appear to have in the least damaged the man's health. The progress of the wound had been much more favourable than he had expected. He had been prepared for the death of the whole fragment of the loose bone which had for some time remained white and bare. Instead of that, however, vessels had gradually made their appearance in its substance, giving it a pink tint in place of the opaque white. The result would be that a mere scale of bone not thicker than paper would be all that would come away.

Dec. 14th. He came to the receiving-room. The wound was healing over.

A fortnight later, the man again presented himself. The wound was soundly healed. He was stout and well, and said he felt as strong as ever he had done in his life.

DR. BARKER'S ESSAY. An interesting practical fact, enunciated in the late Hastings Prize Essay, seems to be of more or less importance in these days of "Health of Towns" dissertation, viz., that sulphate of zinc and sawdust is the best combination as a deodoriser, especially where it is necessary to make *post mortems* or preserve bodies in private houses. (*Medical Press.*)

Original Communications.

ON THE USE OF THE SPHYGMOGRAPH IN THE INVESTIGATION OF DISEASE.

By Balthazar W. Foster, M.D., M.R.C.P.Lond., Licentiate of King and Queen's College of Physicians; Physician to the Queen's Hospital, and Professor of Clinical Medicine in Queen's College, Birmingham; etc.

[*Read before the Midland Medical Society, February 6th*, 1866.]

The advances made of late in the diagnosis of disease by means of instrumental contrivances, have been so many and so great, that they will hereafter doubtless be considered as forming the chief characteristic of the medicine of this age. The stethoscope has for years past been rendering our knowledge of certain diseases more exact, by enabling us to detect and follow changes in the condition of the thoracic viscera, that were, before its invention, hidden from us. The microscope has not only aided us in the diagnosis and prognosis of disease, but has wonderfully assisted in the elucidation of pathological change. Diseases of the eye, hitherto obscure, are now illuminated by the ophthalmoscope; and certain intracranial conditions promise to reveal themselves by the same means. The laryngoscope has thrown its light upon a region whose morbid conditions were before but vaguely understood, and has enabled us to treat locally the maladies of a tract into which, a few years back, it was doubted if an instrument could be passed.

The introduction of all these appliances has been followed, not only by a much more perfect knowledge of disease, but has also heralded a no less considerable advance in its treatment. Any new aid, then, that ingenuity can devise to enable us to recognise with precision conditions that escape our unaided senses, we should gladly hail with no small hope that by its means we may be able to extend the limits of our knowledge.

To-night I have to bring before this society an instrument invented originally for physiological research, but which has since been applied to pathological investigation with no small advantage. Its inventor (M. Marey), impressed with the idea that a sound knowledge of the laws which preside over a function in health, must precede any improved knowledge of the disorders of that function, has first carefully investigated experimentally the physiology of the circulation of the blood, and then applied the information thus obtained to its pathology. (*Physiologie Médicale de la Circulation du Sang.* Par le Dr. E. J. Marey. Paris: 1863.) In such inquiry, the arterial pulse presented a prominence that could scarcely fail to attract much attention; and, to assist in its investigation, the sphygmograph has been invented, or rather modified.

The value of the indications afforded by the pulse in disease has been much neglected of late years, probably on account of the many and more accurate means at our disposal for obtaining information as to the state of the circulation. Our knowledge of its physiology also has not been sufficiently advanced to render the attentive study of its morbid characters a fruitful subject; and, moreover, our means of appreciating its finer differences have been very imperfect. The finger placed on an artery perceives only the grosser peculiarities of the arterial movement, such as force, frequency, and regularity; the more subtle differences, from the fleeting character of the sensation experienced, escape our notice, or, when observed, convey no distinct or explicable impression to our minds. In order, therefore, that the pulse should yield valuable evidence in disease, we must first understand thoroughly its nature and causes; and secondly, we must so improve our means of investigating it, that we may recognise and retain a knowledge of its finer features.

The sensation of hardening and elevation felt by the finger placed over an artery, at each contraction of the heart, has been termed the arterial pulse. At each systole of the ventricle, we know that the blood driven into the arteries produces a varying amount of dilatation of the vessels. The arteries, distended by each new blood-wave, tend, by virtue of their elasticity, to contract upon their contents, and, while modifying by their recoil the ventricular force, they nevertheless drive the blood on in its course. The greater the distension of the vessels, the stronger will be this elastic recoil, or, in other words, the arterial tension. The phenomena of the pulse are thus intimately connected with the tension of the arteries, and may be said to be "a direct result of the changes which the arterial tension experiences under cardiac action." Whenever we place the finger on an artery situated in a position favourable to compression (*e.g.*, over an osseous plane), the alternations of elevation and depression of the vessel tell us the variations in the tension of the arterial wall. The hardness of the pulse is, to some extent, a measure of the arterial tension; a soft full pulse, on the other hand, points to feeble pressure within the vessels. The movement of the blood through its channels gives, according to its character, many variations to the pulse form, which escape our unaided senses, and can only be collected and appreciated by an improved method of investigation.

The sphygmograph of Marey* affords us the necessary aid; and by it we can gain not only a knowledge of the finer differences which escape our touch, but we can also preserve for inspection a distinct trace of these delicate peculiarities. The accompanying cut (Fig. 1), copied from Marey, shews us in the interior of the frame (Q R) the essential part of the instrument, which consists of a flexible steel spring (I), and which is covered on its under surface at its free extremity with a convex plate of ivory (K). This plate rests upon the artery to be examined, and, by virtue of the elasticity of the spring (I), exerts a certain pressure upon it. Each pulsation of the vessel raises the spring slightly at K, and the multiplication of this movement is obtained by means of a very light lever (A), which moves upon a pivot (C). The elevation of the spring is transmitted to the lever, very near to its centre of movement, by means of a bar of metal (B E), which moves round the point (E); this bar terminates by a vertical plate (B D), and is pierced by a screw (T). When the screw acts upon the spring, the connection is established between the spring and the bar, and the movements of the spring are transmitted to the bar, and through its vertical plate to the lever. In order to insure the transmission of the movement, the plate (B N) must be in contact with the under surface of the lever; by means of the screw (T) we can arrange this, and regulate the interval between the point of the plate (B D) and the

* To the kindness of Dr. Anstie, I owe my first acquaintance with the instrument; and to him we are, I believe, indebted for its first introduction to a medical society in this country.

under surface of the lever. In order that the lever should not be projected too much upwards by sudden movement, and also that it should overcome any slight friction experienced in the paper at its terminal point (A'), a small spring (Y) rests upon its fixed extremity, and presides over its descent. The screw (P) enables us to regulate the amount of pressure exercised upon the artery by the spring (I). The

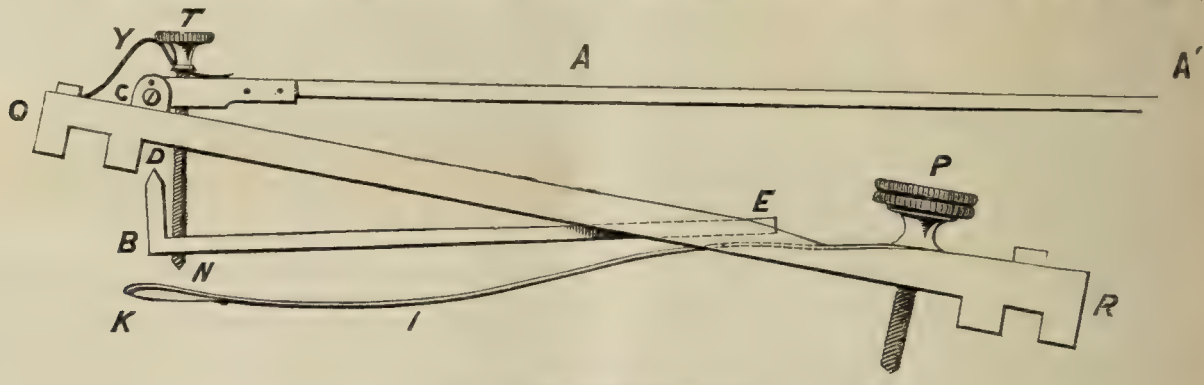


Fig. 1.—Marey's Sphygmograph.

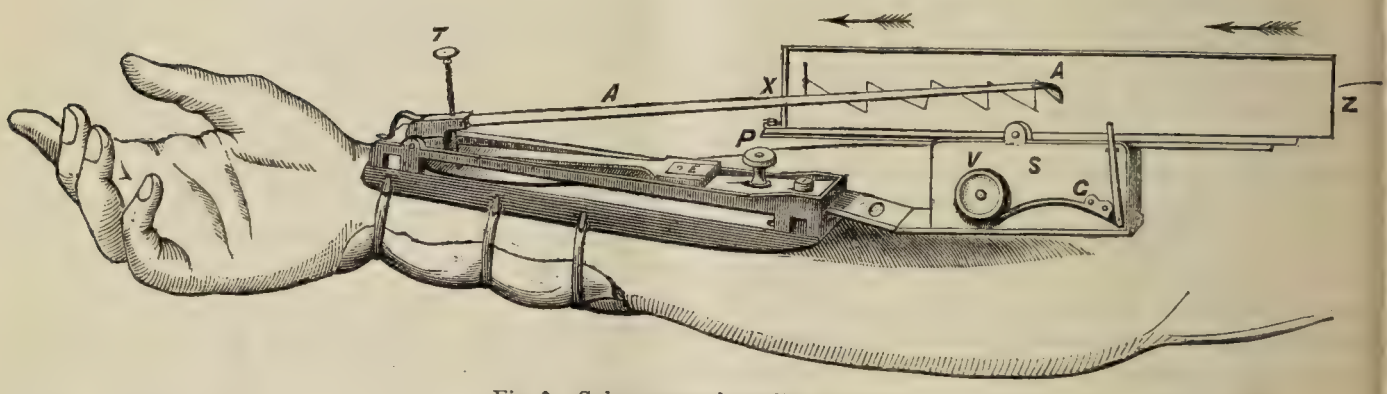


Fig. 2.—Sphygmograph applied to Arm.

woodcut (Fig. 2), modified from Marey, shews the instrument placed upon the arm over the radial artery in the position for use. The lever (A) is here seen to carry at its free extremity a little pen, which, filled with ink, registers its movements upon the paper which covers the plate (x z); this plate is moved at an uniform rate in the direction indicated by the arrows, by means of watch-work placed beneath in the case (S). Ten seconds are occupied by the passage of the plate. The button (V) enables us to wind up the watch-work; and the small regulator (G) starts or stops the motion of the plate, as desired. The application of the instrument I have found much facilitated by the use of elastic bands, instead of a silk lace, as recommended by Marey. These bands embrace the arm, and are hooked on to the small projecting points on the metal framework, as seen in the diagram. The addition of a pad* to the under surface of the arm renders the instrument more comfortable to the patient, and prevents any pressure from the bands.

The instrument, when in action, enables us to obtain an exact representation on paper of the pulse form; it also tells us the frequency of the pulsations and their regularity. It enables us, in addition, to see at a glance any peculiarity in the entire series, or in any single pulsation. A trace, as seen below (Fig. 3), is com-

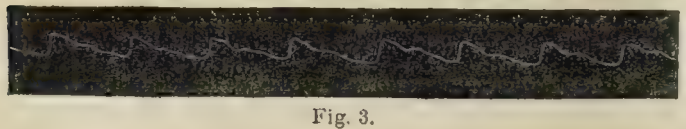


Fig. 3.

posed of a series of curves, each of which corresponds to a complete revolution of the heart, and is called a *pulsation*. On analysis, each pulsation is evidently composed of three parts: the line of *ascent*, the *summit*, and the line of *descent*. The line of *ascent* is caused by the flow of blood into the arterial system after each cardiac systole; and tells us, by its form, the manner in which the blood enters the vessels. The more rapid the afflux, the more quickly the pressure in the arteries will be elevated, and the more vertical will be the ascent of the lever. When the entry of the blood is slow, the line of ascent will be traced by the lever obliquely, or rather in a curved form. The line of ascent, in certain morbid conditions, exhibits a mixed form—the first part of the trace being vertical, the latter part curved. The *summit* of the pulsation corresponds to the duration of the arrival of blood in the artery, and designates the period during which the entrance balances the onward flow—in other words, the afflux and efflux are exactly equal. This period varies in length; it may be so short, that the summit becomes a mere mathematical point between the lines of ascent and descent, or it may have sufficient duration to render the summit a horizontal line of some length. In the latter case, the lever traces the horizontal line so long as the entry of blood into the vessel and its passage onwards mutually balance one another, and this line indicates the duration of the cardiac systole. The summit of the pulsation, when of any length, is not always horizontal; it may be formed by an ascending or descending plane, according as the afflux predominates over the onward flow, and *vice versâ*. In some cases a little hooked point may precede the summit; and this proves a very valuable diagnostic element in the trace, as we shall see further on. The line of *descent* corresponds to the fall of the pressure in the arterial system, and is synchronous to the interval between the closure of the sigmoid valves and the next ventricular contraction. This line, by its obliquity, marks the celerity of the fall of the pressure within the vessels, and indicates the facility with which the blood passes on in its

* I am indebted to my clinical clerk, Mr. Waters, for the suggestion of the pad.

course. The frequency and amplitude of the pulse are pointed out by the obliquity of this line. The form may vary very much; sometimes it is purely oblique, at others a curve convex upwards, and occasionally one or more undulations may be seen in it. This last peculiarity is often very marked, and in some cases is perceptible to the finger; it has been termed *dicrotism*. By this term, we should only understand undulations occurring in the line of descent. Similar peculiarities have been pointed out in organic diseases of the heart; but these refer to the period of ascent, and are due to very different causes. The sphygmograph here gives us valuable aid; for it enables us to recognise to which period the peculiarity belongs.

Marey, from a series of remarkable experiments, concludes that this phenomenon is due to purely physical causes, and depends on the quickness of the entrance of the blood into the vessels and the elasticity of the arterial walls, whence results an oscillation of the column of liquid in a direction alternately centrifugal and centripetal.* The dicrotism will bear, then, a close relation to the rapidity of the ventricular contraction and to the elasticity of the arteries. Thus, in certain cases in which the blood enters the aorta slowly and the line of ascent is curved, the dicrotism is absent. When the heart contracts suddenly and forcibly, the blood enters the vessels with much speed, then the rebounds are plainly seen.

The occurrence of dicrotism is favoured by whatever increases the elasticity of the arteries, and is opposed to whatever diminishes it. Thus, conditions which are associated with great elasticity of the arterial walls, as dilatation of the vessels and easy passage of blood through the capillaries, are marked by evident dicrotism in the line of descent. The trace (Fig. 4), taken during the perspiration of hectic,

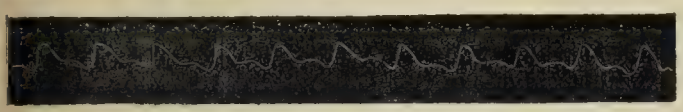


Fig. 4.

shows this characteristic. In the following trace (Fig. 5), the senile change in the vessels, and consequent loss of elasticity, is indicated by the absence of dicrotism—as well as by other characters to which we will hereafter refer.

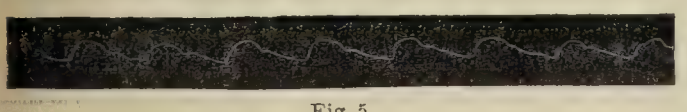


Fig. 5.

In examining a pulse-trace, one should note, in addition to the form of each pulsation, whether the summits of all of them can be joined by a horizontal line, and whether the bases can be also connected by a similar line parallel to the former. In some cases, this ceases to be the case, and a series of pulsations cannot be contained between such imaginary lines. The pulsations become irregular, and the line to join their summits or bases must cease to be horizontal.

The line joining the summits of a series of pulsations is the line of the maxima of *arterial tension*, and to it we will now confine ourselves. Its value as an indication is not absolute; it only tells us the variations that the arterial tension may undergo during the period of the observation; and it enables us to judge of the relative pressure within the vessels during any of the cardiac contractions registered. In the trace below (Fig. 6), by compressing the femoral artery during the first part of the trace, the tension was increased; and, on the compression being withdrawn during the latter half, the tension fell.



Fig. 6.

This line of greatest tension is of much value, and, with the corresponding line of least tension, should be observed in all cases, as these lines undergo generally parallel deviations, and a glance at either usually suffices to inform us of any change. Many influences act upon the pressure of the blood in the arteries; and of these, respiration is probably the most interesting, and will, when further investigated, yield much useful information to the physician.

The *frequency* of the pulse may be also studied by means of the sphygmograph; for, as the plate moves at an uniform rate and occupies exactly ten seconds in its passage, we can with ease calculate the pulse-rate. By this means, too, slight variations in frequency and irregularities are revealed to notice that would most probably escape the unaided touch. The frequency of the heart's action, according to the French physiologist, depends very much upon the state of the circulation in the vessels of the periphery; an easy passage of blood favouring the increased action, a difficult passage, by reason of the greater arterial tension, causing diminished frequency of the ventricular systole.

The law is laid down, that, in the majority of cases, "the frequency of the pulse is in inverse proportion to the arterial tension." (Marey, *op. cit.*, p. 209.) M. Marey has made a series of experiments in reference to this point, and some of them I have been able myself to confirm. By the compression of any of the large arterial trunks, we can easily elevate the tension of the other vessels, and so diminish the frequency of the pulsations. This is seen in a trace already figured (6), in which the femoral was compressed. With the fall of arterial tension, on the removal of the compression, we can notice the increased frequency of the beats. In the trace below (Fig. 7) also, during



Fig. 7.

the first four pulsations, the arm and leg of the opposite side were elevated, and thus the arterial tension (as pointed out by Marey) increased; and, on the restoration of the limbs to the horizontal posture, during the remainder of the trace, increased frequency of the pulse, as registered, took place.

Of the following traces, the first (Fig. 8) was taken

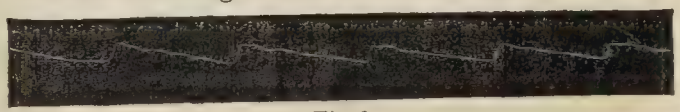


Fig. 8.

with the skin rather colder than usual; and the second (Fig. 9), twenty minutes afterwards, when,



Fig. 9.

* Naumann has explained the dicrotism by the impact of the blood against the closed aortic valves, which, like the sudden stoppages of the flow through any set of tubes, produces a jarring impulse through the blood column. (*Vide* Carpenter's *Human Physiology*, 1864, p. 240.) I was inclined to prefer this explanation at one time to Marey's; but my observations on the occurrence of the dicrotism in certain diseases of the arteries and in cases of aortic insufficiency, have led me to accept the explanation given above.

from increased warmth, the vessels on the surface were relaxed. A comparison of the pulsations of each trace points to the greater rapidity of the circulation under influences which facilitate the passage of the blood.

The *force* of the pulse is indicated by the height of the pulsations. The greater the elevation of the lever, the greater the energy of the pulse-beat; and we may say that, in many cases, the strength of the ventricular contraction is expressed by the force of the pulse. This law, however, has many exceptions; and we find that the altitude of the pulse-trace depends on several other conditions.

I. The volume of the artery influences much the amplitude of the trace. This can be well seen in traces collected from old persons. In senile changes, the volume of the vessels is increased considerably, and the trace betrays great fulness. Marey believes this to be due, not solely to the hypertrophy of the ventricle which exists in the old, but also to the dilatation of the artery. (*Vide* trace, Fig. 5.)

II. The state of arterial tension modifies greatly the force of the pulse; and, as the tension is dependent on the state of the capillary circulation, it may be said that in most cases "the force of the pulse is not in relation with the energy of the ventricular systole, but that it is regulated by the state of the circulation in the ultimate ramifications of the vascular system." (Marey, *op. cit.*, p. 235.) By means of the manometer, in a great number of experiments, this law has been found to hold good; a feeble state of arterial tension giving to the finger and the instrument the sensation of increased amplitude. Marey, by means of the following diagrams (Figs. 10 and 11), illustrates this very well.

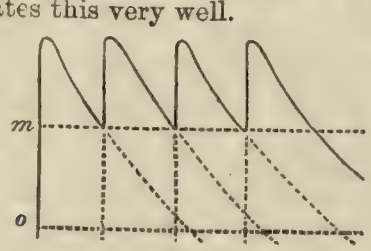


Fig. 10.

The first shows the form of pulsation in a state of feeble tension; the second, under a state of strong tension. The difference in the amplitude of the traces is very distinct. In the state of feeble tension, or easy passage of the blood onwards, the lever falls quickly to the point of least tension, and is elevated considerably at each pulsation. In the case of difficult passage of the blood through the capillaries, and consequently of great arterial tension, the lever descends slowly by a line convex upwards; and, long before it has reached a minimum tension equal to that in the former case, the lever is raised slightly by the next pulsation. While the lines of the maxima of arterial tension are the same in both cases, the lines of the minima are very different. On this depends the amplitude of the pulse-trace.

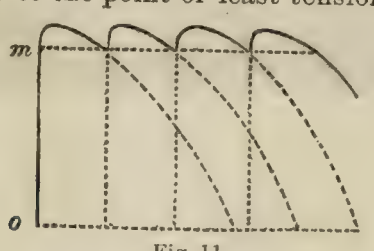


Fig. 11.

III. The duration of the interval which separates the pulsations has also a distinct influence on the amplitude of the trace. This is due to the fact that, during a long interval, the blood flowing continually onward lessens the pressure in the vessels, and thus favours the greater amplitude of the next pulsation. This is well seen in a trace (Fig. 12) taken from a patient of mine in the Queen's Hospital.

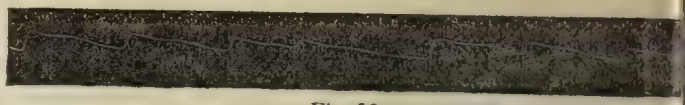


Fig. 12.

The condition of the vessel itself, as to permeability below the point observed, influences the force of the pulsation by altering the pressure within the artery. Marey has also pointed out that in some cases, where the pulse-beat is almost imperceptible to the finger, the sphygmograph records a considerable amplitude of trace; and *vice versâ*. I have been struck with this peculiarity in several instances, and the explanation appears to be, that we perceive changes in the artery more distinctly in proportion as they occur more suddenly. The cases in which the pulse has been almost imperceptible to the touch, but has nevertheless yielded a distinct trace, have been associated with a very slow distension of the vessels.

The foregoing remarks, based upon the work of the French author, will, I trust, by pointing out the meaning of the many forms of pulse-trace, and by setting before us the causes to which they are due, enable us to understand more clearly the changes exhibited by the arterial pulse-form in disease. The remainder of the paper I shall, with the permission of the Society, devote to a consideration of some few of the many pathological conditions in the detection of which the use of the sphygmograph renders us invaluable aid.

[*To be continued.*]

ON THE USE OF THE THERMOMETER AS A GUIDE IN THE DIAGNOSIS OF PYREXIAL DISEASES.

By F. W. Gibson, B.A., M.D.London, late House-Surgeon of the Taunton and Somerset Hospital, Taunton.

[*Concluded from page* 251.]

Typical Range of Temperature in different Diseases.

A knowledge of the range of temperature peculiar to each disease enables the observer, when he perceives any marked departure from the type, to pronounce either that his diagnosis is wrong, and that the disease is not what it appeared to be, or that some secondary lesion has supervened.

For example, the typical range or temperature in typhoid (Peyerian) fever, as established by Wunderlich, is as follows.

	Morning.	Evening.
First day	98.5 deg.	100.5 deg.
Second day	99.5	101.5
Third day	100.5	102.5
Fourth day	101.5	104
Second half of week	102	104

At the commencement of the second week, in mild cases, the temperature begins to decrease; for, although the evening temperature may be 104 deg., the morning is only 102 deg. In severe cases, on the other hand, the morning temperature is above 103 deg.; the evening above 104.5 deg., and may reach 106 deg. In the third week, remarkable vacillations of four to six degrees between the morning and evening temperature occur. The fever terminates

by a gradual defervescence (*lysis*), not by a sudden crisis, as in typhus. In mild cases, the fever lasts from three to four weeks; in severe, from four and a half to ten weeks.

Typhoid fever is not present, if, on the evening of the first or second day of the disease, the temperature be 104 deg.; if the evening temperature do not rise to 103.3 deg. between the fourth and sixth days; if, in the second half of the first week, the evening temperature decrease considerably; lastly, if, between the eighth and eleventh days, the temperature be below 103 deg.

As an illustration of the truth of the first proposition, I cite the succeeding case. A woman, in a ward of the hospital in which there were two or three cases of typhoid fever, had one evening an attack of rigors. Her temperature was 102 deg.; on the morning of the next day, 103 deg.; in the evening, 105 deg. The symptoms in all other respects resembled those of incipient typhoid. The woman was much alarmed, for a patient had just died of typhoid fever. The existence of a temperature of 105 deg. in the evening of the second day enabled her to be assured that she was not threatened with that disease. This prognosis was proved to be correct by the symptoms developing shortly into those of erysipelas.

The next case is an example of the value of the second and third propositions. A girl, aged 21, was admitted on January 15th, 1866, with symptoms of impending typhoid. The attack began with rigors on the evening of the 11th. She had great abdominal tenderness, a hot dry skin, pains in the limbs, muscular tremors, and one or two suspicious specks on the skin of the chest. Nevertheless, because the temperature did not on any evening rise to 103 deg., and a marked decrease of temperature occurred on the evening of the 18th, the disease was pronounced not to be typhoid. On the 20th, she was quite well.

The next case illustrates the last proposition. A man, aged 40, living in a locality in which typhoid had lately been rife, who had had rigors, followed by diarrhœa and pains in the limbs, a week previous to his admission, was found to have a typhoid tongue, frontal headache, diarrhœa, and numerous specks on his abdomen and chest, very closely resembling the eruption peculiar to typhoid fever. On the tenth evening of the disease, his temperature was 101.8 deg. This temperature forbad the diagnosis of typhoid. In three days after, the man was well.

The effect of hæmorrhage in reducing the temperature was seen in the case of a woman with typhoid fever, whose temperature fell suddenly from a high degree to 98 deg. This led to an inquiry after intestinal hæmorrhage; and it was discovered that she had lost a considerable quantity of blood from the intestines, which accident the nurse omitted to mention until she was questioned.

Range of Temperature in Traumatic Erysipelas. In all of the cases of traumatic erysipelas which I have observed thermometrically, the attack began with a fit of rigors more or less severe. The *fastigium*, or highest point of the temperature, was attained in a short time. The fall, or defervescence of temperature, nearly coincident with the decline of the eruption, and accompanied in the majority of the cases by sweating, was rapid. In some of the cases, relapse occurred.

If the temperature remain high for any considerable number of hours after the disappearance of the eruption, some secondary complication—abscess, pneumonia, pleurisy, pericarditis, or pyæmia—has undoubtedly supervened.

Case I. On February 8th, 1866, the operation for ectropium was performed on a man aged 33. At 3.30 P.M. on Feb. 9th, he had an attack of rigors. At 4.10 P.M., his temperature was 103.6 deg.; pulse 120; respirations 20. There was slight redness round the wound. At 6 P.M., the temperature was 104 deg.; pulse 100; respirations 24. He was then sweating. Feb. 10th, 9 A.M. Temperature 100.8 deg.; pulse 84; respirations 20. The erysipelas was much less. At 6 P.M., the temperature was 102 deg.; pulse 100. Feb. 11th, 9 A.M. Temperature 100.8 deg.; pulse 84; respirations 24. The erysipelas was gone. 6 P.M. Temperature 101 deg.; pulse 84; respirations 24. Feb. 12th, A.M. Temperature 99.8 deg.; pulse 72; respirations 20. There was no relapse.

Case II. This case was one of erysipelas of the leg in a man aged 40. On Feb. 16th, 1866, he had rigors at 1 P.M. At 5.50 P.M., the temperature was 103.8 deg.; pulse 68; respirations 20. There was a slight erysipelatous blush on the leg, and angina faucium. 8.46 P.M. Temperature 102.6 deg.; pulse 80; respirations 20. He was then sweating. Feb. 17th, 12.30 A.M. Temperature 101.2 deg.; pulse 64; respirations 20. 6 A.M. Temperature 99.6 deg.; pulse 48; respirations 20. 9.30 A.M. Temperature 99 deg.; pulse 64; respirations 24. The erysipelas had nearly disappeared. 6 P.M. Temperature 99 deg.; pulse 68; respirations 24. Feb. 18th, 6 P.M. Temperature 99.8 deg.; pulse 58; respirations 24. Feb. 19th. The patient had a fit of rigors at 12 A.M., denoting another attack of erysipelas. At 6 P.M., the temperature was 103.4 deg.; pulse 80; respirations 24.

The usefulness of the thermometer in the diagnosis of pyrexia is well shown in this case; for, although the temperature on February 19th, P.M., was 103.4 deg., yet the pulse was only 80, the respirations but 24, and the skin was objectively cool.

Case III. A woman, aged 49, was operated on for cancer of the breast on January 22nd, 1866. The wound being nearly healed, she had, at 4 A.M. on February 12th, an attack of rigors. At 9 A.M., the temperature was 103 deg.; pulse 120; and there was an erysipelatous blush around the wound. At 10.30 A.M., she had another attack of rigors. 11.35 A.M. Temperature 105.4 deg.; pulse 120; respirations 24. 6 P.M. Temperature 105 deg.; pulse 108; respirations 24. Feb. 13th, 9 A.M. Temperature 105. deg.; pulse 120; respirations 20. The erysipelas was extending. 6 P.M. Temperature 104.6 deg.; pulse 108; respiratiions 24. Feb. 14th, 6 P.M. Temperature 104 deg.; pulse 120; respirations 24. The erysipelas was subsiding. Feb. 16th, 6 P.M. Temperature 104 deg.; pulse 120; respirations 24. The erysipelas was nearly gone. She had no ccugh; no pain in the chest. There was dulness at the base of the left lung; no crepitation. The respiration-sound was rather feeble. Feb. 17th, 9 A.M. Temperature 103 deg.; pulse 120; respirations 28. There was dulness over the left lung as high as the inferior angle of the scapula; no crepitation.

In this case, the fact that the temperature remained, on February 16th, at so high a degree after the subsidence of the erysipelatous eruption, led to the diagnosis of the secondary complication; for no other signs of the lung-disease save the continuance of the high temperature existed. There was no cough; no pain in the chest; the respirations were not accelerated; the pulse was feeble, so that its rapidity might have been due to weakness; and, lastly, the skin felt abnormally cool.

Erratum. In Dr. Gibson's paper published in last week's Journal, page 249, column 2, line 28 from bottom, for "*covered* near the bulb", read "*curved* near the bulb".

Progress of Medical Science.

MIDWIFERY AND DISEASES OF WOMEN.

CRURAL HERNIA FORMED BY AN OVARIAN CYST. M. Casati relates the case of a young woman who, five years after a normal delivery, perceived a small tumour in the left crural region, with shooting pains in the part. In the course of nine months, the tumour had increased, especially from below upwards, to the size of the head of a fœtus. M. Casati found the swelling large and fluctuating: the abdomen was enlarged, and in the corresponding iliac fossa he found a tumour twice as large as that in the crural region. The fluctuation in the crural swelling was communicated to the other. The diagnosis arrived at was, that there was a crural hernia formed by an ovarian cyst. The patient being held in the erect position, the swelling was punctured, and there escaped nearly two quarts of a thick inodorous fluid, of a chocolate colour. Immediately after the operation, there was a sinking in of the crural and iliac swellings; but, in the iliac region, a third cyst was still felt. The trocar was therefore introduced again into the wound and directed towards the tumour, and another quart of similar fluid was evacuated. In a week, the symptoms of strangulation had disappeared. The fluid, however, collected again in greater abundance, and, at the end of two months, the tapping was repeated, and iodine was injected. Three months after this operation, the patient was cured. (*L'Ippocratico;* and *Gaz. Méd. de Paris,* 27th January, 1866.)

SUPPOSED EXTRAUTERINE PREGNANCY: NATURAL DELIVERY. M. Consolini was consulted by a woman aged 27, at the end of the fifth month of pregnancy, and found, on palpation in the space between the xiphoid appendage and the umbilicus, a hard round body, which moved laterally. The woman was conscious of the movements, which caused her much suffering. The hypogastric region was depressed, and the sacrum could be easily felt through the abdominal wall. It was supposed, that the case was one of extrauterine pregnancy; but towards the end of the sixth month the tumour descended into the hypogastric region; the further progress of the pregnancy was normal, and the delivery was normally completed after a labour of three hours' duration. The child was alive and healthy. M. Consolini supposes that there was a partial development of the fundus uteri up to the sixth month. It was to be regretted that there was no vaginal examination at any period of the pregnancy, and that M. Consolini did not employ auscultation. (*L'Ippocratico;* and *Gaz. Méd. de Paris,* 27 January, 1866.)

CAUSES OF THE POSITION OF THE FŒTUS. Professor von Scanzoni of Würzburg sums up a paper on the causes of the frequency of head-presentation in the human fœtus, with the following conclusions. 1. The frequency of the cranial position of the embryo during pregnancy is not explained by Simpson's theory of reflex movements of the fœtus; nor, as alleged by Dubois, by its instinctive movements; nor by the hypothesis of Carus, according to which the fœtus lives a mere vegetable life within the uterus. 2. The position of the fœtus is dependent on the operation of various circumstances; viz., *a*, the force of gravitation; *b*, the form of the uterine cavity; *c*, the form of the fœtus; *d*, the quantity of amniotic fluid; *e*, the contractions of the uterus during pregnancy and the first stage of labour; and *f*, the active movements of the fœtus. 3. Up to the tim when the placenta is developed, the embryo ma assume any position, vertical or horizontal, in th cavity. 4. Immediately after the formation of th placenta, the fœtus is suspended at its lower end b a very short umbilical cord to the upper part of th uterus, and the large heavy head hangs downward 5. This position may, in favourable circumstances, b maintained during the whole of pregnancy; bu much more frequently it undergoes changes int other positions, from which, as a rule, a return i finally made to the head-presentation. 6. The firs of the causes influencing the position of the fœtus i the rapid growth of the umbilical cord, which be comes even longer than the uterus, and thus is n longer capable of retaining the lower part of the bod of the fœtus in the upper part of the uterus. 7. Th fœtus may nevertheless constantly retain a vertica position with the head directed downwards, since th centre of gravity falls within the large head, and th relatively large quantity of amniotic fluid keeps th fœtus floating until the middle of pregnancy, so tha the heaviest part gravitates towards the lowest par of the circumference of the uterus. 8. About th middle of pregnancy, in consequence of the rapi development of the body of the fœtus, the centre o gravity falls from the head to the upper part of th thorax, and changes the gravitative relations of th fœtus. 9. If at the same time, as usually is the case the uterus grows more in its longitudinal than in its transverse diameter, its walls retain the fœtus in the vertical position; since it has become too long for its long diameter to find room in the transverse diameter of the uterus. 10. But if the uterine cavity become more roomy, the head may be inclined to either side, so that an oblique or even a transverse position may be assumed. 11. As the fœtus increases further in growth, the quantity of amniotic fluid diminishes in proportion to the size of the fœtus, and, if the lateral walls of the uterus be not unusually yielding, the fœtus is compelled to resume a vertical position. 12. If the head have hitherto remained the deepest part, it will be the point which in the perpendicular portion of the uterus comes most readily over the os uteri. 13. When the fœtus lies transversely, the manner in which the child presents depends partly on the resistance of the uterine walls, partly on the active movements of the fœtus induced by this resistance, but especially on the occurrence of contractions in the uterus. 14. In the transverse position, the head generally lies lower than the breech: this, and the circumstance that the centre of gravity of the fœtus lies nearer to the head than to the pelvic extremity, render it plain how, when the pressure exercised by the sides of the uterus on the head and breech of the fœtus becomes troublesome, the head is directed downwards more readily than upwards when the fœtus assumes the perpendicular position. 15. The action of the uterine contractions on the transversely lying fœtus varies, according as the contractions originate in single parts of the uterus or over the whole organ. 16. Partial contractions, as a rule, set in most strongly at the points of the uterine wall which are in immediate contact with the head and breech of the fœtus; they act directly on the fœtus, and, if it be only moderately moveable, very readily bring it into the vertical position; and the head, generally lying lower, enters the strait of the pelvis more readily than the breech, the expulsion of which requires a more complicated mechanism than that of the head. 17. The contractions extending over the whole uterus act most directly on the pelvic end of the fœtus, which is usually directed upwards, even in the oblique and transverse positions. If the lower

section of the uterus contract powerfully, this circumstance may, in spite of the downward pressure exerted on the breech by the fundus uteri, succeed in bringing the head nearer to the middle line of the uterus and thus establishing a cranial presentation; and this action is essentially supported and favoured by the greater firmness and power of resistance on the part of the fœtal body. 18. If the contraction of the lower section of the uterus be less energetic, and the fœtus be at the same time young, soft and compressible, the breech, under the simultaneous angular bending of the fœtus, is pressed still more deeply into the abdominal region, the head is pressed still further from the axis of the uterus, and the transverse presentation is thus finally converted into one of the breech or feet. 19. Hence the breech and foot presentations met with in such disproportionate frequency in abortion and premature labour are not primary positions, but are, as a rule, secondary, brought about by the contractions of the fundus uteri. 20. From the observations already made, it appears that the most various influences occurring during pregnancy may give rise to manifold changes of the position of the fœtus, but that nature generally succeeds in bringing the head over the os uteri, where it is usually found lying during the last six or eight weeks of pregnancy. 21. Nevertheless, changes of position are not especially rare even at this late period of pregnancy; and their occurrence is favoured if the quantity of amniotic fluid be great, if the embryonic cavity be roomy, if the uterine walls be yielding, and the active movements of the fœtus be energetic. The partial contractions of the uterus, which set in more frequently and with greater intensity in the last weeks of pregnancy, also exercise a powerful influence on the position of the fœtus. 22. In entirely normal relations, the deviation of the head after having once entered the pelvis, during the last weeks of pregnancy, is hindered when the quantity of amniotic fluid be remarkably diminished in proportion to the size of the fœtus, so that the size of the amniotic cavity and the mobility of the fœtus is diminished; and also when there is an arrest of the development of the uterine walls, so that the organ is distended by the growing fœtus. But this stretching of the walls of the uterus diminished its yielding power, and, by causing it to envelope the body of the fœtus more closely, renders difficult the occurrence of any important change of position. (*Wiener Med. Wochenschrift*, Jan. 20th, 1866.)

SURGERY.

Lipoma of the Spermatic Cord: Diagnosis from Diffuse Hydrocele. A young man, aged twenty-one, of lymphatic temperament, had had from the age of thirteen an inguinal hernia on the right side. At the age of eighteen, he first perceived on the same side a soft painless tumour, extending in the course of the spermatic cord from the fold of the groin to the testicle; the latter organ retained its normal size. Three years after the first appearance of this tumour, Dr. G. Marzattini examined it. It was elongated, and had the form of a pyramid with the base downwards corresponding with the posterior part of the testicle, and the apex connected with the spermatic cord in the inguinal canal. The spermatic cord appeared very large; it was elastic, painless on pressure, uniform throughout, and without fluctuation or transparency. The shape of the swelling was not affected by change of position. Its circumference at the base was ten inches. Several surgeons, including Dr. Marzattini, arrived at the conclusion that the case was one of diffuse hydrocele of the cord. On operating, however, there was found to be a reddish yellow fatty mass, consisting of very small round fat-globules. This mass was surrounded by a capsule of very vascular connective tissue. The operation was continued; the tumour was completely removed; and the patient soon recovered.

The following are the points of diagnosis, according to Dr. Marzattini, between lipoma of the cord and diffuse hydrocele. 1. Lipoma is developed much more slowly than diffuse hydrocele. 2. It is not attended with inflammation. 3. Its form is very variable, while that of diffuse hydrocele is generally the same, cylindrical at first, then pyramidal. 4. In hydrocele, there is fluctuation, which may be caused to vary with the position of the patient. 5. Diffuse hydrocele occurs especially in weak subjects at an advanced age; lipomata, on the contrary, are met with in persons of good health. (*L'Ippocratico*; and *Gazette Méd. de Paris*, Jan. 27th, 1866.)

Wound of both Carotids: Death on the Seventh Day. At a meeting of the New York Pathological Society, Dr. Post presented the atlas and axis removed from a soldier who died from hæmorrhage seven days after a gun-shot wound which he had received during the month of February last. The ball which was a Minié, entered the mouth, passed through the tongue, and was lost. The patient did very well for six days, but on the seventh the fatal hæmorrhage referred to occurred. At the autopsy the bullet was found lodged upon the upper surface of the transverse process of the atlas, having perforated in its course the external and internal carotid arteries. Dr. Post stated that it was certainly remarkable that two such large vessels should be thus wounded, and yet not bleed for so long a time as six days. (*New York Medical Journal*, Dec. 1865.)

MEDICINE.

Paracentesis Thoracis in an Infant. Dr. Guinier of Montpellier publishes in full detail the history of a case which he believes to be without an analogue in the history of medicine. No case, he says, has been published in which paracentesis thoracis has been unsuccessfully performed on a child under the age of three years; but, in Dr. Guinier's case, the child on whom the operation was performed was only twelve months old, and recovered. The child was seized with febrile symptoms on March 3rd, 1863. On the 15th, there was, for the first time, distinct evidence of pleural effusion; and on the 28th, it being evident that no other remedy was of avail, tapping was performed, with relief to the patient. A subcutaneous abscess afterwards formed, and was opened by a lancet; and a plug of charpie covered with cerate was introduced into the pleural cavity so as to close the cutaneous opening. This was done on April 13th, and, on May 4th, the child was considered well. The respiration was more extensive in the affected lung; the spine was pushed to the left, and the left side of the chest was narrowed. After several further notes of the state of the child's health, it is stated on March 30th, 1864, that the child had had excellent health through the winter; that the deviation of the spine and the narrowing of the chest no longer existed, that the breathing was normal, there being very slight obscurity of the breath-sound behind. In November 1865, the child was still in excellent health. (*Bull. Génér. de Thérap.*, January 30th, 1865.)

Treatment of Cholera. Professor Maclean, in a lecture on cholera, delivered at Netley Hospital,

thus describes his personal experience of the disease. "What I recommend to others I followed in my own case. When struck down by this disease, I took no drugs. I experienced the burning thirst I have described; but instead of tormenting myself by abstaining from fluids, I drank freely of iced soda-water, to my infinite comfort and refreshment. When I vomited, which I did often, I drank again. A faithful servant, my only doctor, sat by me, and, when too feeble to do more than express my wants by a gesture, replenished my cup again and yet again. I vividly remember the resolution then formed, and never since departed from—to do unto others as had been done unto me; never to withhold a cup of cold water from a cholera patient. With daylight came a kind and judicious medical friend, who, instead of goading me with physic, sustained me with food, much in the manner I have advised in this lecture. With the result I had and have every reason to be satisfied and thankful. Dangerous reaction, *i. e.*, high fever, with cerebral symptoms and coma, I have seen; but only when Art, coming not to aid but to thwart Nature, has interfered with her eliminatory processes by the too free use of opium, astringents, and such like remedies. In such cases we must have recourse to free purgation by calomel, apply ice to the head, and restore the action of the skin by the wet-sheet, cold sponging, and the like. When the secretion of urine is long delayed, I have seen good result from the free use of chlorate of potash, and the application of turpentine stupes over the region of the kidneys."

Digitalis in Acute Mania. Dr. S. W. D. Williams, late superintendent of the Northampton Lunatic Asylum, draws the following conclusions as to the use of digitalis in acute mania. 1. Digitalis is a valuable sedative in the treatment alike of recent and chronic mania, and when those forms of disease are complicated with general paresis and with epilepsy. 2. The average dose of the tincture is from half a drachm to a drachm, and this quantity may be certainly given for several days with impunity, and subsequently, adjusted to the state of the pulse, may be advantageously used for many months. 3. The indication by which the use of this drug is regulated, is the state of the pulse, any marked intermittence requiring its immediate discontinuance. 4. The weakness of the circulation is no indication against its employment; on the contrary, experience shows that the most enfeebled subjects bear its administration as well as the most robust. 5. When sickness and a tendency to syncope follow the use of digitalis, without at the same time a corresponding abatement of the excitement, a combination of the drug with chloric æther, morphia, and hydrocyanic acid, in some such proportions as those above given, often produce the desired results, which the digitalis alone has failed to obtain.

ANATOMY, PHYSIOLOGY, & PATHOLOGY.

Inoculability of Tuberculosis. In a note communicated to the Academy of Sciences, M. Villemin says, that tuberculosis is the effect of a specific cause, a virus; which, like its congeners, may be propagated in the morbid products to the formation of which it leads by its direct action on the normal elements of the affected tissues. M. Villemin states further that he has established by experiment the fact that this virus, when introduced into a susceptible body, may reproduce itself, and at the same time reproduce the disease of which it is the essential principle.

On March 6th, M. Villemin placed two young rabbits, about three weeks old, in a cage; and inserted behind the ear of one of them two small fragments of tubercle and some puriform fluid taken from a cavern in a man who had died of phthisis thirty-three hours previously. On March 30th and April 4th, tubercle was again inoculated. At each operation, local symptoms were produced. On June 20th, both rabbits were killed. In the animal which had been inoculated, tubercle was found scattered along the greater curvature of the stomach; there were also tuberculous deposits in the small intestine and in the kidney; and the lungs were full of large tuberculous masses. The other rabbits, which had not been inoculated, but had in other respects been subjected to the same conditions, presented no signs of tubercle.

On July 15th, three healthy rabbits, living in an airy situation and supplied with abundant and varied food, were inoculated with tubercle. The operation was repeated on them on July 22nd, and at the same time another healthy rabbit, living with the others in the same conditions, was inoculated. In the middle of September, the animals were killed. In one, there were abundant patches of tubercle of the size of a lentil, projecting on the surface of the lungs; and some miliary granulations. In a second and third, there were similar appearances; and one animal had yellowish white tubercles in the ileo-cæcal appendix. In the fourth rabbit (the last which had been inoculated) there were, chiefly in the left lung, tubercular deposits of the size of a pea, projecting on the surface. There was also a large number of granulations surrounded by a reddish areola of congestion; several tubercles were in the peritoneal covering of the liver and in the upper portion of the small intestine. While these experiments were being carried on, two other rabbits living in precisely the same conditions as those which were inoculated, were killed for other purposes, and presented no trace of tubercle. A third rabbit, whose sciatic nerve was divided on July 14th, was killed on November 21st. There had been prolonged suppuration, with swelling of the tibio-tarsal joint with caries of the os calcis; and the animal had become extremely thin; but there was no tubercle.

In a third series of experiments, commenced on October 2nd, M. Villemin procured three pairs of rabbits about three months old. Each pair was from the same litter, and from a separate mother. One animal of each pair was inoculated, and each pair was placed in a compartment of a cage. A large vigorous adult rabbit was also inoculated. On November 23rd, the inoculated rabbit of one pair was found dead. The posterior part of both lungs was congested; and in the congested tissue, principally under the pleura, were very small greyish granulations. The cortical substance of the kidneys contained a large number of cysts filled with transparent fluid. In the other two pairs, killed on November 29th, the inoculated rabbits both presented tubercles beneath the pleura; the three rabbits which had not been inoculated presented no trace of tubercle. In the large adult rabbit, both lungs were covered with subpleural granulations, the smallest of which were surrounded by areolæ of congestion. There were two or three tubercles projecting on the surface; and the tissue of the lungs contained granulations. Tubercle was also found on the surface and in the tissue of the spleen.

From these experiments, M. Villemin arrives at the following conclusions: 1. Tuberculosis is a specific disease. 2. Its cause lies in an inoculable agent. 3. Tubercle is readily inoculable from man to the rabbit. 4. Tuberculosis belongs to the class of toxæmic diseases. (*Gazette Médicale de Paris*, Dec. 16th, 1865.)

We are requested to remind members of the Association that the Annual Subscriptions became due on the 1st of January. They can be paid either to the Secretaries of the Branches; or to the General Secretary, T. Watkin Williams, Esq., 13, Newhall Street, Birmingham.

British Medical Journal.

SATURDAY, MARCH 17TH, 1866.

PROFESSOR GAMGEE ON THE CATTLE-PLAGUE.

MANY months have now elapsed since the time when the attention of the country was roused by the dangers which had long menaced it, but which, to our cost, had been so long unheeded—since the first cases of Cattle-Plague occurred in the London dairies, and proved the forerunners of one of the most terrible epizootics which has ever swept over Great Britain. Coming amongst us with a suddenness and a virulence which have scarcely a counterpart in the epidemic diseases which we are accustomed to battle with, the epizootic of Cattle-Plague of 1865 found us totally unprepared to meet the impending evil, to check and to crush it at its commencement; yet, with a sagacity and a prescience which we must now admit to have been remarkable—with a candour and earnestness which, whilst they now attract our respect, only called forth groundless imputations—Professor Gamgee had again and again warned the country of the dangers to which our extensive cattle-importing trade exposes us, uncontrolled as it has always been by a thorough and efficient system of inspection. Experience has, forsooth, long since informed us, although, unfortunately, its dictates have in this matter been rarely listened to, that it is wiser to prevent the development and spread of epidemic diseases, than merely to rely on the powers of our art to cure them when fully developed. Time has shown how much truth was contained in the unheeded warnings of Mr. Gamgee, and experience has only too late convinced all, that the repressive measures which he advised whilst the evil was yet in the bud, would, if adopted, almost certainly have succeeded in their object.

Within the last few weeks, Professor Gamgee has supplemented his previous labours by the publication of a work* on the cattle-plague, which, whilst it contains by far the most complete history of the disease on record, testifies to the powers of its author as an original observer. It is truly to the credit of the man who first drew attention to the threatening danger, and who, in spite of obloquy and abuse, boldly and steadfastly pointed out the measures, distasteful and repulsive though they appeared to be, which were required to arrest the progess of the advancing disease, that, when it spread widely amongst us, he applied himself with zeal to its scientific investigation; and that he has been amongst the first in this country to add in a very notable manner to the knowledge which had elsewhere been collected on the subject.

A work on the cattle-plague by Professor Gamgee must of necessity contain much relating to its author; for so intimately has he been connected with many important points in the history of the present epizootic, that to have omitted all mention of these would have been at once unfair to his readers and himself. In drawing attention to these, as he has done most fully in the introduction to his work, the author has, however, accomplished a task of great delicacy with a success which is really remarkable.

Professor Gamgee's work consists of three parts and an appendix. The first of these is assuredly that which presents the greatest interest; for it comprises the description of Rinderpest, details the results of researches undertaken to throw light upon its nature, considers the various methods of treatment, and enters into the fullest consideration of the various methods of prevention. It concludes by giving the measures adopted by the Government for the prevention of Cattle-Plague, the various Orders in Council, and the Reports of Her Majesty's Commissioners. Part II contains a most complete history of the ravages of Cattle-Plague in Great Britain and on the continent of Europe; and, starting from the history of the famous Revel cargo, which has been the cause of so much dispute, it gives a complete account of the ravages of the Cattle-Plague in each county of Great Britain. Part III contains a *verbatim* translation of the Reports of the Veterinary Congresses held in Hamburg in 1863 and in Vienna in 1865—congresses in which the chief questions relating to Cattle-Plague were discussed by the ablest veterinarians in Europe. Lastly, the appendix of the work contains reprints of papers, published elsewhere, on the Entozoa affecting the Muscles of Animals, by Dr. Lionel Beale and Dr. Cobbold.

To attempt to give even a short *resumé* of a work which sums up nearly the whole of our knowledge of Cattle-Plague, would be as distasteful as it would be useless. The personal opinions of the author on all the general questions discussed have been so frequently and so fully published in the journals of the day, that they are well known to all who have taken any interest in the matter. There are, however, in the first part of the volume, certain contributions to the scientific history of Cattle-Plague which we deem specially interesting to our readers.

* The Cattle-Plague, etc. By John Gamgee. Pp. 859.

Next in order of importance to a knowledge of the method of curing and preventing a disease, stands most assuredly such a knowledge of its characters as will enable us, from the earliest moments, to recognise it with certainty. In the case of diseases affecting the lower animals, and which, we are now convinced, can only be checked by a thorough system of inspection, such knowledge is in the highest degree desirable, but unfortunately in many cases absent. The general appearance of an animal may be such as to satisfy an over-worked inspector that it is healthy, and yet it may be in the first stage of Cattle-Plague, and not present any of the symptoms which guide our inspectors in the detection of the disease.

As a result of his observations, Professor Gamgee concludes that the first symptom which is developed is a rise in the animal heat, and thus affords another instance of the use to which the thermometer may be put in the diagnosis of disease.

The temperature appears in Cattle-Plague to be exalted, before the pulse indicates any variation from the normal standard. The temperature seems to attain considerable elevation during the progress of the disease; in those cases in which death occurs, it sinks for some considerable time before death. Where recovery takes place, the temperature gradually decreases till it reaches the normal standard. The occurrence of convalescence does not, therefore, seem to be marked by any very well marked period of defervescence. It is obvious that the thermometer will henceforward be as useful an instrument in the detection of the febrile disorders of animals, as it has already been shown to be in the diagnosis of those affecting man.

Amongst the most interesting, because the most original, of the chapters in the first part of the work, is one detailing the researches carried on by Dr. Arthur Gamgee, on the changes which the blood, the milk, and the urine, undergo in Cattle-Plague. As a result of Dr. Gamgee's observations on the changes in the blood, it would appear that, in Cattle-Plague—1. The amount of serum is remarkably diminished; 2. In some cases, there is a very decided increase in fibrine; 3. The amount of corpuscles is decidedly increased.

The changes which the milk undergoes appear to consist in the amount of sugar of milk being remarkably diminished, whilst the amount of butter is enormously increased. The salts and casein of the milk appear to be decidedly increased.

The urine, Dr. Gamgee appears to have found frequently albuminous; of a specific gravity varying from 1019 to 1035. The amount of urea has not been observed to be diminished. In some fatal cases, bile-pigment was detected in the urine.

THE FAILURES OF THE INFALLIBLE.

The *Times* has given up Mr. Worms and the garlic cure; but Mr. Worms, like most other inventors of cures, retires from the scene only still more than ever convinced by his failures of the infallibility of his remedy. Mr. Worms, indeed, retires from the operating-boards with a bad grace, unlike our homœopathic Rinderpest-curers, who made a graceful exit. Mr. Worms cannot leave the stage where he has won so much celebrity, and therefore stands convicted of so great a failure, without throwing a few stones at Professors Simonds and Gamgee.

"I do not profess to have found the *elixir vitæ*: but, notwithstanding the 'sincere regret' of Professor Simonds 'that another supposed means of arresting cattle-plague by medical treatment should have proved abortive', and despite the learned dissertation in Professor Gamgee's interesting book, in which he proves the Rinderpest to be incurable, I still venture to hold my opinion, based upon twenty-five years' practical experience, that, if my system be fairly tried, it will prove as efficacious here as it did in Ceylon."

Lord Spencer, however, held that the special arena wherein Mr. Worms had played his part afforded anything but a satisfactory display.

"He might express his belief that, if Baron Rothschild had adopted the 'stamping out' system instead of Mr. Worms's method of treatment, he would not have lost so many animals as he had."

And if, indeed, we could get at Mr. Worms, we should suggest for explanation, as arising out of the above remarks of his, two points—1. What proof have we that you, Mr. Worms, have ever had any experience at all in the cure of the cattle-plague? What proof is there to show that the cattle-plague has ever visited Ceylon? And 2. Supposing the cattle-plague has been there, how comes it that, with such a specific cure as you tell us you possess, you could have the misfortune of getting twenty-five years' experience of its employment in Ceylon? Why, in twenty-five weeks, with such a *killing* remedy, the disease ought to have been eradicated—wormed, if we may use the term, out of the community. If Mr. Worms, however, retires before the poleaxe, Surgeon-Major Logie appears with a pamphlet. In it we are not surprised that the author recommends what he (and no one else, by the way, in this country) found so capital a remedy for small-pox; viz., sarracenea. Mr. Logie's pamphlet comes rather late in the day; and we expect that even the *Times*, like Japhet in search of a father, has at last become somewhat choked off in its hunt for an impossible remedy. There is still, however, some balm left for the "curers", so long as my Lord Ellenborough graces the boards with his wisdom.

"The Earl of Ellenborough asked what was the use of talking of Mr. Worms's medicine or any other medicine, if Parliament declared that all cattle, when once attacked, must be slaughtered? It was our duty to endeavour to cure it and overcome the cala-

mity. We had a letter from the consul at Warsaw, which distinctly declared that the disease had been cured; and only the other day we heard of this remarkable occurrence:—Three-fourths of a herd were slaughtered because they had the disease; and, as well as he remembered, seven more were condemned. For some time these seven would not drink; but, having been turned to water in which lime had been slaked, they did drink, and were well in a few days. With such facts before us, were we to say the disease was incurable? We should be guided by experience, and not by learned disquisitions which required that a man must have read extensively before he could understand them. We never should get rid of this cattle-plague, till we had got rid of the plague of trusting to professors rather than to common sense."

The English of this is, that there is no hope for the cattle of the country until common sense, as represented by Lord Ellenborough, takes the medical direction of cattle-diseases. His lordship would be more at home, we fancy, in dealing with the gates of Somnauth.

A Marylebone guardian is very angry. He affirms that his Workhouse Infirmary and medical system have been grievously traduced at Willis's Rooms; and he says so through the *Times*.

"The noble chairman stated, that 'the salary of a parish doctor ranged from £40 to £120.' The Marylebone medical officer receives £950. Instead of 'the dismal piles' painted by the speakers, the Marylebone Infirmary is a light, cheerful building, looking upon a garden and a playground, and with as good classification as any hospital. Instead of the 'nursing being merely nominal', there is a paid head nurse, a midwife, four superintendents of idiots and lunatics, and ten paid nurses. It can hardly, then, be said truly of Marylebone, 'that the nursing department was most disgraceful. There were no paid nurses, and no trained nurses'."

But this guardian gets his answer from the Honorary Secretaries of the Workhouse Infirmaries Association.

"The £950 is not a salary, but a sum at which the whole medical service of the house, including upwards of 326 sick and 500 to 600 infirm, is farmed out to its medical officer, whose contract includes the whole of the drugs, etc., needed for that large number of patients, and the salaries of another surgeon and dispenser as well as his own. Although the guardians are fortunate in having the services of a medical officer of high character, nothing can be more objectionable than to give a direct profit to a medical officer out of the medicines and service of a hospital, or so to place him that every bottle of medicine that can be saved from a patient should be a direct profit to the physician. Marylebone Infirmary had once a full staff of distinguished medical and surgical attendants; it is now farmed out to one medical officer, who provides one assistant. So much for the medical service. As to the building that your correspondent describes as light and cheerful, a recent report to the French Government by an eminent authority speaks of it justly as typically bad, resembling a prison rather than an asylum for the unfortunate. As to the nursing, the guardians deserve the full credit of having provided ten paid nurses for 800 sick and infirm, besides lunatics, lying-in women, etc.; the rest of the staff are pauper nurses, and there is no staff of night nurses at all. With all this, Marylebone is a sort of Paradise compared with the worst class of workhouses reported on by the *Lancet* commission, and of which a summary account is given in the pamphlet sold for the association by Messrs. Chapman and Hall."

The Academy of Sciences has distributed some prizes. To Dr. Chenu has been given its prize of 1865, for his Report on the Results of the Medico-Chirurgical Service of the Army during the Eastern Campaign. A recompense of 1500 *francs* has been given to M. Janssen, and one of 1000 *francs* to M. Soleil, on behalf of the Bordin prize—touching the Theory of Optical Phenomena. M. Baudelot takes 2000 *francs*, and M. Holland 1000 *francs*, of the prize on the Comparative Anatomy of the Nervous System of Fishes. To M. Alphonse Milne-Edwards has been given 3000 *francs*, for his Researches, Anatomical and Palæontological, touching French Ornithology of the Tertiary and Quaternary Periods. To M. Vanzetti of Padua is given the 2500 *francs* prize for his Treatment of Aneurism by Digital Pressure. To MM. Chauveau, Viennois, and P. Meynet, 2500 *francs*, for Determining the Nature of the Relations of Vaccine to Variola. To M. Luys 2500 *francs*, for Researches into the Cerebro-spinal Nervous System: its Structure, Functions, and Diseases. To M. Sucquet 1500 *francs*, for his paper "On a Derivative Circulation in the Limbs and Head of Man." M. Legrand de Saulle is honourably mentioned for his work, "Lunacy as Tried by the Law." The Prize Bréant (100,000 *francs*) is not adjudged; but from it has been accorded to M. Davaine 2500 *francs* for his work on Bacteriæ; also, an indemnity of 4000 *francs* to M. Grimaud, for "a spontaneous act of devotion in going to Marseilles to study the cholera whilst at its height." M. Helié takes the Godard prize of 1000 *francs*, for his Researches into the Muscular Structure of the Uterus.

What is the use of medical officers of health and inspectors of nuisances, if an ingenious counsel can upset them by definitions? Livers, it appears, may, so far as Mr. Woolrych can see, be legally manufactured into "pure unadulterated Leicestershire catsup", because catsup is not food. Did it never occur to Mr. Woolrych that, on such a definition as this, any beastly filth might be sold as beer, ale, or wine; that, in fact, he is unable to condemn any adulteration of these articles? Why, who can or has yet proved that any of these things are food? Surely plenty of doctors may be found to enter the witness-box and swear that wine is no more food than is catsup made of putrid livers. Happily, however, the Queen's Bench may relieve us from the horrors of this quibbling. Really, it is something beyond a joke to know that, with all our extensive apparatus and endless Acts of Parliament providing

for the health of the people, we are, so far as the magistrature is concerned, condemned to swallow the essence of pig's liver; that men are allowed, out of filthy livers, to make and sell a condiment under the name of catsup. The tale is worth recording.

Mr. Hope, of the firm of Hope and Co., ketchup, jam, and pickle manufacturers, Bermondsey, appeared before Mr. Woolrych, under the Amended Nuisances Removal Act, for having in his possession a quantity of putrid livers for the manufacture of "Leicestershire Ketchup", such being unfit for human food, and a nuisance to the neighbourhood. Dr. Parker, the medical officer, and Mr. Rushton, the inspector, found ketchup in the course of manufacture, and a tub containing a large quantity of salted pigs' livers. He seized some that were putrid; and, ascertaining that they were to be used in the manufacture of ketchup, took them before Mr. Woolrych, who at once condemned them, and they were destroyed. Mr. Sheil said that, according to the evidence of the medical officer, the ketchup clearly came within the meaning of 26th and 27th Victoria, cap. 117, sec. 2. Although the livers were not exposed for sale, they were intended for human food. It was the same with diseased or tainted meat boiled for soup. This ketchup was extensively distributed all over the kingdom and used by the poor. Mr. Edwin denied that the livers were to be used like soup. They were boiled, and the liquor merely used as a portion of the ingredients prepared in the manufacture of ketchup. The ketchup could not come under the denomination of food. No man could exist on that alone. It was a mere condiment, used at pleasure. He contended, also, that none of the livers used were tainted in the least degree. If they had been the whole must have been spoiled. Dr. Parker was recalled, and, in answer to his Worship, he stated that his opinion was that the ketchup came within the meaning of the Act of Parliament. It was a condiment to be used with the food of man. Mr. Woolrych then said that he had carefully gone into the evidence, and examined all the bearings of the case in relation to the Act of Parliament, and his opinion was that it did not come within the meaning of that Act. When the livers were brought before him, he found them very filthy; and, considering them to be unwholesome and a nuisance, he ordered them to be destroyed, but he gave no opinion as to the intended use of the livers remaining. As the case did not come within the meaning of the Act under which the defendant was charged, he dismissed the summons. Mr. Sheil said that it was a matter of such vast importance to the public, he was instructed to ask for a case for the decision of the Court of Queen's Bench. Mr. Woolrych was of the same opinion, and granted the case; when the usual recognisances were entered into, and the parties left the court.

Dr. Richardson's plan of producing local anæsthesia continues to gain ground. On Wednesday last, Mr. Spencer Wells successfully employed it in a case of ovariotomy. The tumour was so large, that the liver on the right side, and the apex of the heart on the left, were on a level with the nipples. The uterus, with the inverted vagina and part of the bladder and rectum, were prolapsed between the patient's thighs, and irreducible. Fearing chloroform, under these circumstances, Mr. Wells used the spray-jet of ether over the skin, and made the first incision without the patient feeling the least pain. A large cyst was tapped and emptied; and, as extensive adhesions then required separation, a little chloroform was given; but the patient was under its influence for a very few minutes only. If there had been no adhesions, the operation would probably have been performed painlessly by the influence of local anæsthesia alone. The fluid removed in this case weighed sixty-four pounds, and the cyst-walls nearly five pounds, so that it would be difficult to imagine a more complete test of the value of the new method.

It will be remembered that, at a meeting of the Metropolitan Counties Branch held on January 26th, a resolution was passed, requesting the Council of the Branch to consider what steps should be taken for the purpose of securing a consolidation and amendment of the sanitary laws. The Council have, with the aid of the members of the Committee on Parliamentary Bills, given the matter a careful examination, and have agreed on the following recommendations, which will be submitted to the Branch at its general meeting on the 23rd instant.

"1. That a speedy and inexpensive appeal should be provided from the decisions of local authorities; and that the body best fitted for a Court of Appeal is the Health Department of the Privy Council.

"2. That the appointment of Medical Officers of Health and of Inspectors of Nuisances should be made, as in the metropolis, compulsory instead of permissive.

"3. That the appointment and dismissal of Medical Officers of Health should be subject to the approval of the Health Department of the Privy Council.

"4. That, in counties, the appointment of Medical Officers of Health should be vested in the Justices; and that they should be paid out of the county rates.

"5. That the provision of local refuges for those labouring under contagious diseases should be rendered compulsory on parishes, etc.

"6. That the early removal of persons labouring under such diseases should also be made compulsory.

"7. That local authorities should be required to provide carriages for the removal of such patients."

The remarks which have been made in recent numbers of the Journal will have gone far to shew the necessity of making such provisions as are recommended by the Council of the Metropolitan Counties Branch. We trust that the meeting to be holden in Soho Square next Friday will be largely attended. The subject which the Branch has at present under consideration is one of such vital and universal importance, that every member should feel it a duty to give force, by his presence, to such an expression of opinion as will be recommended to the notice of the meeting on Friday next; and thus give the Council ample justification and encouragement to take such further steps as may be required for obtaining the amendments represented to be necessary.

At the first meeting of the Surrey District Meetings of the South-Eastern Branch of the British Medical Association, at the Crystal Palace, last month, a very interesting paper, entitled "Hints on House-Drainage", was read by Dr. Alfred Carpenter. In it he says:

"The injury likely to arise from the ignorance of the many upon the subject of house-drainage has induced me to throw together the result of my own observations, and also to explain more in detail the object of the resolutions proposed to, and approved by, the Croydon Local Board of Health, on December 6th, 1865.

"The town of Croydon has been for some sixteen years under the management of a Local Board: a general system of drainage has been carried out, by means of earthenware pipes, *impermeable* in theory to air and water; all public nuisances of every kind either have been or are about to be abated; pure water has been supplied; and everything done to make the town perfectly healthy. Within the last ten years, the number of new houses built has enabled the population to be doubled, rising from 19,000 to nearly 40,000 persons. Typhoid and other fevers seemed banished, and acute diseases rendered decidedly less dangerous. Yet, notwithstanding every precaution, a few cases of fever would now and then arise. The fatal cases occurred nearly all together in point of time, and principally in new houses. On inquiry, I found that all the earlier fatal cases dated the commencement of illness from two distinct periods. Now these periods were preceded by a very heavy rainfall. To what cause could those isolated cases of fever be attributed? Unfortunately for myself, an experiment was performed before my eyes, which enabled me distinctly to point to cause and effect. My own house is connected with one of the main sewers, and has for many years been protected by a ventilating-pipe, which, ascending from the soil-pipe of the closet, was made to terminate for convenience near a cistern of large size outside the top of the house. On the night of October 17th, I was aroused by a loud noise proceeding from the closet; it continued at intervals throughout the next day. Unable at first to account for it, I eventually found that it was caused by the ventilating-pipe, doing duty as waste-pipe to the overflowing cistern, There was no room for exit of foul air from the sewer, which therefore was forced through the trap of the water-closet, with at times the force of steam through the safety-valve of a steam-engine. The escaped air did not smell offensively, a faint odour alone being recognised; it was, therefore, thoughtlessly tolerated. Two or three days afterwards, one of the occupants of a room the farthest in the house from the closet fell ill with symptoms of typhoid fever, and in a few days the other person sleeping in that room also shewed signs of the disease. Simultaneously with the origin of these cases appeared many others in various parts of the town; and, in every case in my own practice in which enteric or typhoid fever occurred, I distinctly traced local causes for the disease in some defective house-work. It generally happened that the smell was not enough to lead to the discovery of the defect, a faint odour alone being perceived.

"The pipe-system of impermeable sewers is the best system, provided it is constructed on safe and really scientific principles; otherwise it is a delusion and a snare. In all places, a large number of new houses, as at present constructed, are not safe. They are like bell-glasses over the sewers; and in wet weather, when foul air is most developed—when it happens that every window is closed, and every care is ignorantly taken to keep out the healthy invigorating fresh air—the top rooms become receivers of a subtle poison, which, acting upon the sleeping inmates, sets up an attack of the disease called enteric or typhoid fever. The very impermeability of the pipes becomes, in the cases referred to, an additional danger. It is absolutely necessary that provision be made in every case against the possibility of such escapes: by no accident should the circulation of air be possible from a sewer into a house, and simple means may always be taken to avoid such a chance. It has been sometimes argued that the escape of foul air is not likely to happen, because sewage does not remain in the pipes long enough for decomposition to take place. Such may be the case in theory, but it is not so in practice; and, unless a considerable fall can be obtained, with an abundant supply of water, it never will be. In every place nearly upon a level, much more care will be required than in those parts having a good fall; but in every case, without exception, protection ought to be supplied, for the sewer may be flooded, or stoppages may occur, in the best regulated. It is requisite that the opening for the escape of confined air should be as near to the top of the pipe as possible, and as close to the trap on the sewer side of it as circumstances will admit."

Dr. Carpenter then gives some excellent advice as to the arrangement and management of the pipes, cisterns, and water-closets connected with houses. The necessity for a careful supervision of all the details of these arrangements is clearly shown in Dr. Carpenter's paper. He gives abundant proof to show the carelessness which is so frequently exhibited in carrying out the works in question.

The official reports show that during the frightful trichina epidemic at Hedersleben, no less than 398 persons, most of them strong working men, were attacked, and that of these 102 died with the severest symptoms. Professor Klob states, that Hedersleben previously contained about 2000 inhabitants; that he found the place almost deserted, the manufactory closed, and that ninety orphans were weeping over the graves of their parents. Upwards of 200 convalescents were wandering about without work, and bearing in their features traces of the fearful malady.

M. Hérard has repeated the experiments of Dr. Villemin; and agrees with him that tubercle may be inoculated from man into the rabbit.

Professors Jäger, Arlt, and Dr. Gulz, as Presidents of the Ophthalmological Congress, invite all the oculists of Europe and of all other countries to the meeting, which will this year take place at Vienna, on August 25th. This Congress meets every four years. The last meeting was held in Paris.

Experiments lately made by M. Marey, by means of his sphygmograph, show that the beat of the heart is similar in all classes of animals, consisting of a short systole and a long diastole—the systole presenting one-third, and the diastole two-thirds, of one revolution.

THE LATE JOHN CONOLLY, M.D., D.C.L.

On the 5th of March, 1866, died at his residence, the Lawn, Hanwell, John Conolly, Consulting-Physician of that County Asylum, which, under his direction, became a familiar name to his professional brethren and throughout the civilised world. Dr. Conolly had long been in feeble health; but his end was sudden. He had a paralytic seizure with convulsions in 1862, and another in 1864. A recurrence of his former attacks was fatal after a few hours' illness. His grave, at his own request, is next to that of a loved grandchild in the cemetery of the village of Hanwell.

To the members of the Association, the announcement of the death of Dr. Conolly is as that of a loved and valued friend. Although attaining a high position in metropolitan practice, Dr. Conolly was ever proud to count himself amongst the physicians of the provinces; and his annual holidays, which for many years were confined to the meetings of our Association, he has often described as the happiest of his life. Among its original members, nearly, except Sir Charles Hastings, the last of those by whom the Association was founded, Dr. Conolly was next to our President the man most revered and loved; he was eminently qualified to endear himself to all with whom he came in contact, and it was without one dissentient voice that at the meeting last held at Oxford, he was elected by the Association, with his friends, Sir Charles Hastings and Sir John Forbes, a recipient of the honorary D.C.L. degree, given by the University to the three men whom the Association might designate among its members as most worthy of that honour.

The life of John Conolly may almost be said to be identified with the speciality in medicine of which he was the acknowledged leader; although not undistinguished in general practice, the reputation he obtained in his maturer years was entirely founded on his success in the treatment of mental disease. The remarks we have made upon his character speak the secret of the success; conjoined with much judgment, and high attainments, there was in Dr. Conolly a spirit of loving-kindness, and a large-minded philanthropy, which led to the formation of that school of specialists in lunacy, which not only holds mechanical restraint in abhorrence, but considers even the slightest harshness incompatible with the rational treatment of the insane.

Dr. Conolly was born at Market Rasen in Lincolnshire, on May 27th, 1794. While he was yet a child, his father died, and he was indebted entirely to his mother, a woman of much talent and energy, for his early education. Through his mother, who had been a Tennyson, Dr. Conolly was connected with the family of the D'Eyncourts, and with that of the Poet-laureate. He had little school education. Although in later years a fair Latin scholar, he was self-taught. At an early age, Dr. Conolly joined a militia regiment. His after life of untiring industry and the natural gaiety and geniality of his disposition made this part of his career one to which he loved to recur. He was delighted to entertain any of the old officers of his regiment; and was pleased to recall the hours which, with his wonted mental activity, he seriously devoted to the study of military tactics.

But his dreams of military distinction were dissipated by an early marriage and the cares of a family; and in 1818, Dr. Conolly entered himself as a student at the University of Edinburgh. In his student years, he gained many of the friends of his after life. He was even then distinguished for his talent as a speaker—a gift so prized in the North; and the future bias of his studies was marked by his selection of Insanity as the subject of his thesis on his graduation as Doctor of Medicine.

Dr. Conolly commenced actual practice as a physician at Chichester. Here his rival, and afterwards bosom friend, Dr. Forbes, was already established; and so, after a short stay, Dr. Conolly went to Stratford-on-Avon, where he became well known as a consulting physician, and had an extensive practice. In 1827, he removed to London. His provincial reputation, his graceful and easy elocution, and a charm of manner that distinguished him to the last, gained for him many influential friends, among them Lord Brougham and Lord Auckland. In 1828, on the formation of the London University, Dr. Conolly was appointed the Professor of Medicine, and held the chair till his resignation about three years afterwards.

Dr. Conolly did not succeed in London; and in 1830 he removed to Warwick. His talents had been so generally acknowledged, that it may seem strange, with so many advantages, he did not make his way. We think the explanation not difficult. Dr. Conolly's education as a physician was essentially deficient. He began the study of medicine too late in life ever thoroughly to love it as a profession or appreciate it as a science. It was fortunate for himself and for humanity, that Dr. Conolly, soon after his return to Warwickshire, was appointed Visiting Inspector to the Asylums for the Insane in that county. His early inclination to the study of mental disease was again aroused. His literary labours before this date may show that he had not neglected that branch of medicine, with which his name was destined to be for ever associated.

Dr. Conolly's earlier literary efforts are to be found in the *Medico-Chirurgical Review* and in other periodicals. His first articles of importance are in the *Cyclopædia of Practical Medicine*, of which he was, with Dr. Tweedie and Dr. Forbes, a joint editor. It may illustrate the facility with which Dr. Conolly wrote, and the knowledge he really possessed of the subject he had more immediately made his own, to mention that the article on Hysteria was written by him in the course of a single evening, in the presence of his brother editors. His other writings are almost entirely upon nervous and analogous diseases. In 1830 appeared Dr. Conolly's first and best work, the *Indications of Insanity*. There are many opinions in

that work which are not applicable to the treatment of the insane in the present day; but it is impossible not to recognise in its pages the result of much philosophic reflection, and the application of his great reasoning power. It is remarkable for its precision and elegance of style, and its popular yet learned treatment of a difficult subject. No recent writer has nearly attained a similar mastery in the treatment of the same subject, except, perhaps, Sir Henry Holland, whose elegant essays forcibly recall to us Dr. Conolly's diction and happy power of illustration.

Dr. Conolly's other published works were of less importance. They include his small book on the *Government of Asylums;* his volume on the *Treatment of the Insane by Mechanical Restraints;* his lectures on Insanity, published in the *Lancet,* which we hope to see in a separate form; and his *Essay on Hamlet,* published only two years ago. This last we have no space now to criticise; it received a generous appreciation in a review in the January number of this year's *Westminster Review.* Apart from their merits as literary compositions, Dr. Conolly's reputation as a practical physician is best vindicated in his series of *Reports of the Hanwell Asylum;* in his *Croonian Lectures,* delivered in 1849 before the College of Physicians of London; and in his papers in the *Transactions* of the British Medical Association.

The real medical life of Dr. Conolly may be said to commence at the Hanwell Asylum, and his introduction there of the principle of non-restraint. His loss is yet too recent to allow us to enter fully into any analysis of his character. He has left a name honoured and beloved. His loss is one not soon to be replaced. Take him for all in all, there are few alienist physicians—there is not one in actual practice—worthy to pronounce the funeral oration of John Conolly.

The following succinct account of Dr. Conolly's connection with the Association we have received from Sir Charles Hastings.

Dr. Conolly was one of the founders of the Provincial Medical and Surgical Association, and took an active part in framing its laws when it was first instituted at Worcester in 1832. He was also a contributor to the first volume of the *Transactions,* which contained a valuable paper by him "On the Formation of County Natural History Societies". He attended the first meeting of the Association at Worcester, and was also present at the second meeting, held at Bristol, and took a prominent part in the proceedings. At the third meeting, held in Birmingham, he was chosen to deliver the anniversary address—a task which he performed most admirably, reading an essay which may be considered as a model for such productions. It was published in the third volume of the Provincial *Transactions.*

At that time, Dr. Conolly was residing at Warwick; and, as the business of the Association was conducted at Worcester, he was sufficiently near to give his aid and advice in any important matter which might arise, and to which his position as a member of the Council might render his attention necessary.

Dr. Conolly was very rarely absent from the anniversary meetings of the Association; and he was always listened to by the members with that attention which his touching and unaffected eloquence was so well qualified to evoke. Within the last few years, his declining health necessitated a less frequent attendance; but he always continued to express great interest in all that was proposed or effected by the Association.

THE LATE WILLIAM SANKEY, ESQ., OF DOVER.

The town of Dover, with a large circle of friends, have to regret the passing away, though in timely length of days, of one who has been known as a kind friend, a valued neighbour, and a thoroughly esteemed medical man, among all classes, for upwards of fifty years.

William Sankey was born in 1789, at Eythorne in Kent, where his father held a considerable practice up to the year 1804, when he removed to Wingham in the same county. William Sankey, his eldest son, was early sent to St. Bartholomew's Hospital for his medical education, where the late Mr. Abernethy held office. At the age of twenty-one, he was admitted a member of the Royal College of Surgeons, and was then appointed on the medical staff of the army serving in Sicily and Spain. After four years of this service he was invalided home, and ordered to join the Rifle Brigade at Shorncliff in 1814. At the close of that year he quitted the army, and entered into general practice; and, having been advised a sea coast residence, commenced his professional career at Dover.

In the course of this career, he became personally and professionally endeared to half a century's succession of inhabitants, visitors, and neighbouring families, whose recollections will long supply the testimony of which it is almost an impertinence otherwise to speak, to the value of his professional services, the unfailing care, sympathy, and kindness of heart, whenever and wherever required. His attentive help was continually ready for his poorer neighbours; and for some not outwardly reckoned among that number to whom such help is often the greatest kindness of all, the opportunity and goodwill (one of the special honours of the medical profession) were never lost. He was elected one of the earliest honorary fellows of the Royal College of Surgeons in 1844, recording the general esteem in which he was held by the members of the profession at large. Devoted to his profession, a man of great mental, and of untiring physical powers, he gained a position of eminence which those only can hope for whose talents can be supported by the most unflagging assiduity. A disease of the heart at length disabled him; and he was compelled to withdraw himself from practice. He died on the 5th of March, in the seventy-seventh year of his age.

Association Intelligence.

WEST SOMERSET BRANCH.

A MEETING of this Branch will be held at Clarke's Castle Hotel, Taunton, on Wednesday, March 28th. Dinner at 5 o'clock, after which papers or cases will be communicated.

Gentlemen intending to be present at the dinner, or to read papers after, are requested to give notice to the Honorary Secretary.

W. M. KELLY, M.D., *Hon. Secretary.*

Taunton, March 6th, 1866.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT MEDICAL MEETINGS.

THE next meeting of this Branch will be held at the Saracen's Head, Ashford, on Thursday, March 29th, at 3 P.M.

Dinner will be provided at 5 P.M. Charge 5s., exclusive of wine.

R. L. BOWLES, L.R.C.P., *Honorary Secretary.*

Folkestone, March 14th, 1866.

SOUTH EASTERN BRANCH: WEST KENT DISTRICT MEETINGS.

THE meeting that is usually held at Gravesend on the last Friday in March, will take place (D.V) on Friday, April 6th, because of Holy Week.

Due notice of the meeting will be given.

FREDERICK J. BROWN, M.D., *Hon. Sec.*

Rochester, March 12th, 1866.

Reports of Societies.

HARVEIAN SOCIETY OF LONDON.

THURSDAY, FEBRUARY 1ST, 1866.

W. TYLER SMITH, M.D., President, in the Chair.

A Case of Syphilitic Iritis, treated without specifics, was exhibited by C. DRYSDALE, M.D. The patient, a young man aged 20, had come to the Farringdon Dispensary on January 1st, with a bad attack of iritis in the right eye. He was covered from head to foot with a papular syphilitic eruption. There was at that time circumorbital pain, a pink zone around the pupil, great effusion of lymph and irregularity of the pupil, with complete absence of vision. A drop of solution of sulphate of atropia (one grain to the ounce) was directed to be dropped into the eye twice a day, and he was told to take a purge in the morning. No shade for the eye, nor any other specific treatment was ordered. In about a week the lymph was absorbed, and at the end of the third week (although contrary to Dr. Drysdale's orders) the patient worked at his occupation as a printer. This case was one of several successfully treated in a similar manner.

Mr. DE MÉRIC said that many persons who treated syphilis without mercury had observed that the eye-disease bore a great resemblance to the skin-eruption, and was, therefore, they thought, likely to do as well as the latter without the mineral. He thought that the experience of the past as to the value of mercury in iritis ought not to be disregarded.

Mr. JAMES LANE thought that each particular case of syphilitic iritis should be treated on its own merits. Thus in some cases mercury was not required, whilst in others it was a valuable agent.

ON SYPHILISATION. BY VICTOR DE MÉRIC.

The chief aim of the author was to show that the rationale of the numerous inoculations to cure syphilis was defective, and that this peculiar method of treatment was not superior to those already known, and was fraught with extreme inconvenience. He attempted a historical sketch of the rise and progress of the practice, dwelling especially on Auzias Turenne, the originator, and Sperino and Boeck, the warm promoters. He then contended that the term syphilisation was erroneous, as the patients were already syphilised by the constitutional complaint, and endeavoured to show that the improvement noticed was quite independent of the inoculations, which latter he considered cruel and useless. After alluding to the unfavourable effects of the practice upon the moral tone of the girls experimented upon, he agreed that the trials lately made at the Lock Hospital were quite in the spirit of fair play, and regretted that Auzias Turenne had met with denial at Paris when he wished to try his method in the hospital for female delinquents. Mr. de Méric concluded by complimenting all those concerned on the tone of moderation and forbearance that had hitherto marked the discussions on the subject.

Mr. GASKOIN said that the intention of the paper was an attack on syphilisation. Although the time since its introduction into this country was too short for an opinion as to the success of the method, yet an opinion might be formed as to the amount of reliance to be accorded to the teaching of the French school on syphilis, and especially syphilisation. It was fifteen years and more since the latter subject had been mooted in Paris, and the most recent productions of the French press still contained a repetition of misstatements and caricature. It was asserted that matter from soft chancres was inoculable *ad infinitum.* At the Lock Hospital, the soft chancre was very commonly carried through a series of eight to twelve generations, more rarely as many as twenty, and only once had a series of thirty been obtained. At Christiania, Dr. Boeck once got eighty-three from matter of an uncommon character and quality. Opposed to this experience, every modern French treatise on syphilis repeated the fabulous tale of a German physician who inoculated himself with two thousand two hundred chancres, and went on inoculating: his body was seamed with scars, and his syphilis was unrelieved. There was good reason for believing that, when Ricord framed this dogma of the perpetual inoculability of the soft chancre, he only knew of a series of eight having been obtained; but subsequently, as he affirmed, he inoculated one thousand chancres on the body of one of his students, without witnessing any change in the character of the inoculations or condition of the patient. This story was only possible if, as was stated to have been the case, Ricord blotted out the inoculations with caustic soon or immediately after they had been made. In discussing Dr. Boeck's practice, M. Rollet, restricting the practice of Boeck to the use of matter from soft chancre, said that such treatment was not isopathic, but in a high degree antagonistic. If it were really antagonistic, there was a rationale of treatment; but no advocate of syphilisation ever ventured on so bold an explanation. There was no more disgraceful page in the history of science or of society, than the treatment of Messrs. Auzias Turenne and Sperino by the Academies of Paris and Turin. In both instances, the most violent persecution was brought to bear against the pursuit and development

of science, originally in Paris, and afterwards at Turin. No one had accused Dr. Boeck of not being a decent man. Dr. Boeck's visit to England was not, perhaps, strictly voluntary and extemporised. In London his success had not been great. After he had resided here for three or four months, two or three assistant-surgeons of hospitals began to have a little faith in the treatment and some inkling as to the merit of the introducer; but as this feeling was not supported by any amount of attentive observation or strengthened by reflection and inquiry, the thing broke down upon the very first difficulty, and now in only one small hospital in the suburbs the treatment is continued. Essential fevers, erysipelas, scarlatina, and small-pox, he (Mr. Gaskoin) had rightly taught, were incurable, but by helping the patients through them he had saved many lives. So with syphilis, what was pretended was to help the patient through with it. A man having syphilis more of it was given to him. That was also true; he was found a perplexed and suffering man; he was left a healthy and confident man. Mr. de Méric denied the fact of syphilisation on the ground that the eruption would extend and increase under the inoculations. The eruption did so behave in a large proportion of cases before beginning to fade away. It had also been objected that syphilisation was painful. There was some pain. This depended much on the selection of the matter. It was objected that the immunity obtained was not perfect, and then again that immunity was highly improper.

Mr. James Lane thought it must be evident that Mr. de Méric spoke in the character of a determined opponent of syphilisation, rather than of a calm inquirer into its real merits. Mr. de Méric had expressed regret that individuals should have been found in this country ready to "march under the banner of Professor Boeck," and to afford a footing here to the practice of syphilisation. He (Mr. Lane) speaking for himself and his colleagues at the Lock Hospital, wished to say they were not marching under anybody's banner; they had initiated the present inquiry, and had followed it up as far as their limited opportunities permitted, because they could not help seeing that syphilisation had attained such a degree of importance in other countries that it was high time the profession in England had an opportunity of forming an impartial judgment about it. It was important that the Society should not be led to lose sight of the real question at issue respecting syphilisation. The method had been practised abroad to a large extent, and in Norway, more especially, very important results, were alleged to have been obtained by men of high scientific attainments, whose good faith no one ventured to call in question. They told us that inoculation would cure constitutional syphilis with greater certainty than any method hitherto known, and would be attended not only with a smaller number of relapses, but that the relapses which did occur would be only of a trivial character, and would usually disappear of themselves without further treatment. Now, was the treatment of syphilis ordinarily pursued, whether mercurial or non-mercurial, altogether satisfactory? Was it so satisfactory that we could afford to ignore other means when they were offered to us? If syphilisation would do what its advocates professed it would, we should have a remedy which, though undoubtedly severe in its operation, would do its work without any injurious effect upon the system, and we should escape in a very great measure, if not entirely, from all the more serious effects of the disease. Whether it really possessed this curative value was the question to be decided. Sufficient time had not yet elapsed to enable him to express any opinion on this point from his own observation; he was, however, able to say in favour of syphilisation, that hitherto, as far as he had seen, it had effected everything which had been promised for it. The progress of the cases in the Lock Hospital had, in almost every detail, corresponded to the predictions of Professor Boeck respecting them. The question of immunity, however, though of great scientific interest, was quite subordinate to the main issue, respecting the curative powers of syphilisation. On this part of the inquiry he (Mr. Lane) still maintained a neutral position.

Dr. C. Drysdale said that, for his own part, before conversing with Dr. Boeck, and witnessing his Lock Hospital practice, he had, like Mr. de Méric and others, thought that syphilisation was only one of the whims into which enthusiasm will sometimes drive great men. But in the Lock Hospital he had seen remarkable phenomena resulting from inoculations made on persons suffering from secondary syphilis. It was an undoubted fact that, in almost every case the inoculations began to fail to become ulcers after ten or fifteen generations; and, again, in two cases of old and severe tertiary syphilis, which had been inoculated by Dr. Boeck, there had been no result until the inoculations had been repeated perhaps a dozen times, with fresh matter each time, and then—but not till then—they began to take, and ulcers arose. Such facts contradicted Mr. de Méric's opinion that a person with ordinary secondary disease becomes saturated with the virus. After seeing this practice and Ricord's plan, he must say that he would infinitely rather submit to be inoculated twice a week for the cure of syphilis than to undergo a long, perhaps a six months' course of slow poisoning by mercury, even under the auspices of such eminent mercurialists as Ricord, de Méric or Acton. At the same time, he would say that, in almost every case of syphilis he had himself treated, or seen treated, without mercury, and by sound principles of good rational therapeutics, he had not seen any necessity for resorting to syphilisation. Patients in almost every case did admirably with care, good diet, external appliances when required, and vapour-baths for the eruptions. It was only in *extremely rare* cases, when the disease is from nearly the outset of a rupial character, that he had much desire to see syphilisation tried. Were such a case to come under his notice soon, he thought he would recommend syphilisation to be tried. He congratulated Mr. de Méric on the way in which he had spoken of the non-mercurial treatment of syphilis. From the rapid progress recently made by Mr. de Méric, Mr. J. Lane, and other eminent mercurialists, towards abandoning mercury, he hoped to see the majority of the profession converts to the sound doctrines of antimercurialists.

Dr. Cleveland had hoped that Mr. de Méric would have brought forward some facts to oppose to the practice of syphilisation. As to the arguments used, he protested against them. To say that a mode of treatment was disgusting and immoral was not saying anything to the purpose. He wanted to hear reasons derived from observation, not from appeals to prejudices.

Mr. Gascoyen, for the present withholding any opinion as to the merits of syphilisation as a curative treatment, yet thought it was a practice which ought to be tested in consequence of the very high evidence in its favour adduced by its advocates, and more especially by Dr. Boeck, whose statements must be received until they were disproved. Dr. Boeck's statistics showed that syphilisation possesses a great superiority over all other therapeutical measures in the permanency of its cure, and such being the case it was a duty to the profession and to the public to make trial of it, and more particularly so when the

advantages of Dr. Boeck's superintendence and experience were offered. Although much prejudiced against the practice before seeing it, he (Mr. Gascoyen) must admit that the process, though by no means pleasant, was not nearly so painful or objectionable as he had expected. Mr. de Méric had alluded to a very brief paper on this subject by Mr. Holmes Coote, in a recent number of the *Lancet*, as substantiating his own objections to the practice; but Mr. Gascoyen did not think that much support, whether *pro* or *con*, can be derived from a communication based upon the observations of only three incomplete cases. Mr. de Méric's paper seemed somewhat inconsequent, since the truth of Professor Boeck's statements was admitted by the author; for whilst urging us to adopt the method of treatment which offered the best results, he condemned *in toto* that by syphilisation. The cases in the Lock Hospital proved that attacks of constitutional syphilis would get well either in consequence of, or in spite of, syphilisation; but this could be claimed for various other modes of treatment. The advantage which this method was said to possess over all others consisted in its power of effecting a permanent cure; but this time alone could prove.

Mr. DE MÉRIC replied to the remarks of the preceding speakers.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, FEBRUARY 27TH, 1866.

JAMES ALDERSON, M.D., F.R.S., President, in the Chair.

ON GRANULAR DEGENERATION OF THE VOLUNTARY MUSCLES. BY E. MERYON, M.D., F.R.C.P.

SINCE 1851, when Dr. MERYON communicated to the above-named society an account of this disease, the details of which were published in its *Transactions* in 1852, four more cases had fallen under his observation. In one, which terminated fatally in 1859, the *post mortem* examination was carefully conducted by Mr. Savory, who, during a searching microscopical investigation, failed to detect a vestige of disease in any part of the nervous system. The disease appeared to consist in a gradual but progressive breaking up of the amorphous membrane enveloping the primitive muscular fibres, and of a dispersion of the contained granular matter. After these preliminary observations, Dr. Meryon proceeded to describe the case of a gentleman, aged 22, who was present at the meeting, so that the Fellows had an opportunity of examining his present condition. At the age of five years, he began to show symptoms of weakness in the loins by a waddling gait; and, in the course of two or three years, he had difficulty in bending the thighs on the body, as in the act of getting up stairs; next, he gradually lost the power of bending the legs on the thighs; and eventually the voluntary motions of the feet and toes were lost also. The morbid action then began to manifest itself in the upper extremities, and the patient had no longer the power of raising his arms to his head; but he could bend the forearms on the arms, and he still retained a firm grasp with the hands. The tendency of the disease, however, was to extend itself from the proximal to the distal portions of the extremities, and then to attack the muscles of respiration; but in no case were the involuntary muscles or muscles of organic life affected. The history of one case was the history of all; and on the uniformity of the symptoms and the order of their appearance, etc., Dr. Meryon attempted to distinguish this form of paralysis from all others dependent on lesions of the peripheral nerves or nervous centres—1, by the centrifugal course of the disease, irrespective of the course and distribution of nerves; 2, by the entire absence of any symptoms of nervous disturbance during life; and 3, by the absence of any trace of lesion in any part of the nervous system after death—at least, so far as the most careful investigations have extended up to the present time. There was another difference observed in the muscles thus affected, as compared with paralysed muscles dependent on nervous lesion: it was in the disruption of the sarcolemma and the segregation of the granules which constitute the sarcous matter in the former case; whereas, in the latter, the primitive fibres gradually wasted, the transverse striæ gradually disappeared, and oil-globules by degrees filled the interspaces of the fibres, and occupied the space which the healthy muscular tissue formerly occupied. Dr. Meryon's patient affirmed, that both he and his sister, who was also a subject of the disease, had retained the condition in which they were when they began to take arsenic. The gentleman had been under the influence of that medicine a little more than a year. In conclusion, Dr. Meryon adverted to the question of priority of description of this peculiar form of disease. He quoted passages from several of the French medical periodicals in relation to this matter.

A TRANCE. A petition has been presented to the French senate "pointing out the danger of hasty interments, and suggesting the measures requisite to avoid terrible consequences." The petitioner demands a space of twenty-four hours. A debate followed, in which Cardinal Donnet, Archbishop of Bordeaux, took a leading part. He said he had the very best reasons for believing that the victims of hasty interments were more numerous than people supposed. In the village where he was stationed as assistant-curate in the first period of his sacerdotal life he saved two persons from being buried alive. He gave other cases, and then related the following one, which made a "sensation": "In 1826, on a sultry day, in a church excessively crowded, a young priest in the act of preaching, was seized with giddiness. His words became indistinct, he lost the power of speech, and sank down on the floor. He was carried home. All was thought to be over. Some hours afterwards preparations were made for the interment. His eyesight was gone; but he could hear, and what reached his ears was not calculated to reassure him. The doctor came, examined him, pronounced him dead; and after the usual inquiries as to his age and the place of his birth, etc., gave permission for his interment next morning. The venerable bishop in whose cathedral the young priest was preaching when he was seized with the fit came to his bedside to recite the *De Profundis*. The body was measured for the coffin. Night came on, and inexpressible was the anguish of the living being in such a situation. At last, amid the voices murmuring around him, he distinguished that of one whom he had known from infancy. That voice produced a marvellous effect and a superhuman effort. Of what followed I need say no more than that the seemingly dead man stood next day in the same pulpit. That young priest, gentlemen, is the same young man who is now speaking before you, and who, forty years after that event, implores those in authority, not merely to watch vigilantly over the careful execution of the legal prescriptions with regard to interments, but to enact fresh ones in order to prevent the recurrence of of irreparable misfortunes."

Correspondence.

LOCAL ANÆSTHESIA BY ETHER-SPRAY.

LETTER FROM T. HECKSTALL SMITH, ESQ.

SIR,—There is no doubt that, at all events, many minor operations may be performed without pain by the employment of Dr. Richardson's valuable apparatus.

A boy, from an accident at the paper mill, required to-day the removal of the first phalanx of two fingers. The white leathery appearance and numbness were speedily produced by the spray in one finger. The first incision (disarticulating the joint) gave no pain; but, on bringing out the knife to make the under flap, pain was felt.

In the other finger, the first part of the operation was, as before, without pain; then, resting for an instant, the jet was passed into the incised part, and the operation was finished with very trifling pain. A little more patience with the spray, and there would have been no pain whatever. I am, etc.,

T. HECKSTALL SMITH, F.R.C.S.

Rowlands, St. Mary Cray, March 13th, 1866.

LETTER FROM JOHN ST. S. WILDERS, ESQ.

SIR,—Having seen in the BRITISH MEDICAL JOURNAL an account of Dr. Richardson's method of producing anæsthesia by means of the vapour of ether, I at once procured one of his spray-producers from Messrs. Krohne and Sesemann; and its use has proved so efficient and valuable, that I feel bound to record a few cases in which it has been employed.

Whatever may be the result of its employment in major operations, the following cases to my mind clearly prove that, in minor operations, such as removing small tumours, opening abscesses, applying escharotics, and tooth-drawing, it is most valuable. Among its advantages, I may specially mention the rapidity of its action, and the safety with which it may be used.

W. R., aged 26, suffered from serpiginous ulcer in the groin, the result of syphilis. The vapour of ether was used, and the part frozen in thirty seconds. Nitric acid was applied freely without any pain. This patient had had nitric acid used about a fortnight before this; and the application caused him so much pain, that he refused to have it applied again unless some anæsthetic were used.

I. B., aged 44, was suffering from abscesses in the hand, the result of a crush. I opened a large abscess in the back of the hand without any pain. The vapour was applied for forty seconds, and the part thoroughly frozen.

In the case of M. S., aged 18, I removed a small sebaceous tumour from the head. The vapour was applied for fifty-five seconds. The incision across the tumour was about an inch and a quarter in length; this, and the subsequent pulling out of the cyst, were accomplished without any pain. The patient, a nervous, sensitive, young lady, expressed herself as much pleased with the process, having a great dread of inhaling chloroform.

E. G., aged 18, had a very painful whitlow on the left index finger. It was opened by Dr. Jolly, the house-surgeon, without pain. Anæsthesia in this case was produced in about sixty seconds.

S. M., aged 50, had a deep abscess external to the knee-joint. Anæsthesia was produced in forty seconds; and the abscess was opened without pain.

Mr. S. A. Parker removed a right lower molar tooth from a lady, after I had applied the anæsthetic for thirty-five seconds, without any pain.

I have also applied it in many instances at the hospital, with a like success.

That its use will supersede that of chloroform in large operations, I do not for one moment imagine; nevertheless, I think few surgeons will for the future subject their patients to the dangers contingent on its administration in such cases as those which I have just related. I am, etc.,

J. ST. S. WILDERS,

Assistant-Surgeon to the Queen's Hospital, Birmingham.

Medical News.

APOTHECARIES' HALL. On March 8th, 1866, the following Licentiates were admitted:—

Bush, Richard Hake, York Terrace, Regent's Park
Pugh, Richard, Llandovery, South Wales
Rickard, Frederick Martyn, Stoke, Devonport
Rugg, Robert, Dispensary, Stepney
Wadd, Frederick John, Priory Road, Kilburn

At the same Court, the following passed the first examination:—

Duke, Benjamin, Guy's Hospital

APPOINTMENTS.

ALTHAUS, Julius, M.D., M.R.C.P., appointed Physician to the London Infirmary for Epilepsy and Paralysis.

WOODHOUSE, Thomas J., M.D., appointed Physician to the Royal Hospital for Incurables, Wandsworth.

ARMY.

DOCKER, Staff-Surgeon-Major E. S., retiring on half-pay, to have the honorary rank of Deputy Inspector-General of Hospitals.

HATCHELL, Staff-Assistant-Surgeon E. J., to be Assistant-Surgeon 21st Hussars, *vice* W. Haward.

HAWARD, Assistant-Surgeon W., 21st Hussars, to be Staff-Surgeon, *vice* Staff-Surgeon-Major E. S. Docker.

MACKENZIE, Staff-Surgeon W. O., retiring on half-pay, to have the honorary rank of Deputy Inspector-General of Hospitals.

INDIAN ARMY. To be Assistant-Surgeons, Bengal Army:—

CENTER, W., M.B.
DEACON, R.
DUNCAN, W.
HEFFERNAN, P. J.
JAMESON, R., M.D.
KING, G., M.B.
KNOX, J.
MASSY, D. G.
MASSY, G.
MATHEW, R. G.
MILNE, R. M., M.B.
ORTON, T.
POWER, R.
PURVES, H. B.
ROSS, G. C.
THOMSON, G., M.B.
WALSH, D. J.
WILSON, H. O.

To be Assistant-Surgeon, Madras Army:—

THOMAS, J. D.

ROYAL NAVY.

CREIGHTON, Robert, Esq., Surgeon, to the *Pallas*.

LEET, Edward W., Esq., Acting Assistant-Surgeon, to the *Pallas*.

ROBERTSON, Adam, M.D., Assistant-Surgeon, to the *Cambridge*.

BIRTHS.

CARTER. On February 27th, at Budleigh Salterton, Devon, the wife of H. J. Carter, Esq., Surgeon-Major (retired), H.M.'s Bombay Army, of a daughter.

CHAMPNEYS. On March 8th, at Battle, Sussex, the wife of Montagu Champneys, Esq., Surgeon, of a daughter.

DATE. On March 8th, at Ilkeston, the wife of William Date, Esq., Surgeon, of a son.

MACKINNON. At Campbellpore, East Indies, the wife of Assistant-Surgeon Charles Mackinnon, 20th Hussars, of a daughter.

MOXON. On March 8th, at Northampton, the wife of *William Moxon, Esq., of a daughter.

PRALL. On March 11th, at West Malling, the wife of Samuel Prall, M.D., of a daughter.

RANDELL. On February 7th, at St. Thomas's Mount, Madras, the wife of Assistant-Surgeon Henry L. Randall, Royal Artillery, of a daughter.

MARRIAGES.

COVEY, Charles E., Esq., Surgeon, Basingstoke, to Harriet, second daughter of *T. R. HEMSTED, Esq., of Whitchurch, on March 8.

PEACOCKE, George, M.A., M.D., Army Medical Department, to Rose Emily Wilkinson, only daughter of George SMITH, Esq., of Cambridge Terrace, at All Souls' Church, Langham Place, on March 7.

DEATHS.

BOTTOMLEY. On March 8th, at Croydon, aged 74, Catherine Mary, wife of *George Bottomley, Esq.
DEMPSEY. On February 27th, at Charterhouse Square, aged 44, Augusta Maria, wife of Joseph Meldon Dempsey, M.D.
DUNN. On March 6th, at Doncaster, Gertrude, daughter of George Dunn, M.D.
HALL, Stephen, M.D., late of Exeter, and formerly of Dulwich, aged 63, on March 5.
JACKSON. On March 8th, at Southsea, aged 10, Alice Ellen, only child of A. Jackson, Esq., Surgeon.
JONES. On March 8th, at Surbiton, aged 15 months, Louisa, daughter of W. Price Jones, M.D.
PAUL, James J., M.D., at Putney, on March 11.
PEARSON, Henry W., Esq., Surgeon, at Hastings, aged 29, on March 6.
TABRUM, Wm., M.D., at Upminster, Essex, aged 81, on March 12.
THWAITES. On March 11th, at Bishop Auckland, aged 9, Ada Mary, only daughter of *Thomas B. Thwaites, Esq.

PARLIAMENTARY VOTE. The following vote has been agreed to in the House of Commons: £246,500 for the army hospital establishment.

CONTAGIOUS DISEASES. In the House of Commons, on Monday last, Lord C. Paget gave notice that he would ask leave to bring in a bill for the better prevention of infectious diseases in certain military and naval stations.

THE CHOLERA still hangs about the coast district of France. We also read that the disease has broken out with great virulence in some swampy villages of the Grand Duchy of Luxembourg and the adjacent district of Rhineland.

INFIRMARIES IN IRELAND. In the House of Commons on Wednesday last Mr. P. Urquhart moved the second reading of the County Infirmaries (Ireland) Bill, but, after some discussion, the motion was negatived without a division.

A NEW AMERICAN MEDICAL JOURNAL. January 1st, 1866 produces No. 1 of the *Richmond Medical Journal*, printed in Richmond. A happy change, this conflict of science in the place of the late bloody struggle!

ODONTOLOGICAL SOCIETY. At the ordinary monthly meeting held at 32, Soho Square, on the 5th inst. Mr. Mummery read a paper on Certain Forms of Irregularity of the Teeth, exhibiting models of cases where great success had followed his efforts to reduce the deformity.

A NEW DECORATION. The *Gazette* announces that the Queen has been pleased to institute a new decoration, to be styled the Albert Medal, to be awarded to persons who shall have endangered their own lives in endeavouring to save persons from shipwreck or other perils of the sea.

UNIVERSITY OF CAMBRIDGE. Mr. Edmund Carver of St. John's College, M.A., F.R.C.S., has been appointed by Professor Humphry to the recently created office of Demonstrator of Anatomy. Mr. Carver has shewn himself well qualified for it by his diligent and efficient superintendence of the students in the dissecting room during the present winter.

THE PUBLIC HEALTH. The mortality last week rose to an extraordinary height, the deaths almost equalling the births, or 4155 of the former against 4586 of the latter. This is at the rate of thirty-five in the 1000. London is four below the average, but the lowest of all is Hull, with twenty-six; the highest Liverpool, with fifty-five. The deaths for London were 1829, which is 331 above the average. The births were 2272, which was also above the average.

VACCINATION AND CATTLE-PLAGUE. M. Bouley states that all the vaccinated cows which had been sent to England, in order to be placed in contact with diseased cattle, so as to test the amount of immunity acquired by vaccination, had taken the complaint.

MR. WEBBER. At the Maidstone Assizes on Wednesday there came on an action brought by Mr. William Webber against some tradesmen of Tunbridge Wells for trespass. The case arose out of some proceedings which have been previously before the public with respect to the drainage of Tunbridge Wells. At length an arrangemement was come to at the suggestion of the Chief Justice, and a verdict was entered for the plaintiff in one case, and for the defendants in others.

THE SMOKE NUISANCE. In the House of Commons, on Friday week, Sir R. Peel drew attention to the nuisance arising from the smoke of furnaces in towns and country districts, and animadverted upon the great waste of coal, and the destructive effects arising therefrom to human life and health and to the vegetation in the neighbourhoods of large centres of manufacturing industry. Sir G. Grey said he had directed an inquiry to be made in the principal towns as to the means taken to enforce the law, and he had no doubt that the result would throw light upon the defects in the law and point the way to improvements, in which case he should be prepared to bring in a measure embodying such amendments as might seem to be advisable.

CLARE COUNTY ASYLUM. This building, in common with the majority of those in Ireland the purpose of which is similar, has been erected on a site selected for its salubrity. The site consists of about forty acres of land within a mile of Ennis, at the northern side of the town. The building faces the south, towards which the ground slopes gently. The whole number of patients for which accommodation is provided is 260; and twenty-five feet superficial are provided in the day-rooms for each patient, and fifty feet superficial in the dormitories, the ceilings being twelve feet in height. The amount of the present contract, exclusive of boundary-wall, gate and other lodges, farm offices, baths, water-closets, and engineering works, is about £29,000; but it is estimated that when these additional works are completed, the total cost will amount to £35,000. It is expected that the whole will be completed within a year from the present date. (*Builder.*)

EFFECT OF COLD. The sudden accession of cold weather is proving fatal to the aged. The obituary of the *Times* of Friday and Saturday last gives illustrations of this fact, as on the first-named day the deaths of five ladies and four gentlemen were recorded whose united ages amounted to 757 years, giving an average of eighty-four and one month to each. The oldest lady was ninety-two, and the youngest eighty. The oldest gentleman was ninety, and the youngest eighty-three. The illustrations of prolonged existence were still more remarkable on the following day, when the average of each of the deceased amounted to eighty-four years and exactly ten months; the united ages of three ladies and the same number of gentlemen amounting to 509 years; in this case the gentlemen took the lead, the oldest having reached ninety-five years, and the youngest eighty-four; the oldest lady was eighty-five, and the youngest eighty years of age.

THE BUXTON BATH HOSPITAL. The annual report for 1865 states, that two of the medical officers of the hospital, one, Dr. Robertson, who had been its physician from 1836 to 1865; the other, Mr. Shipton,

who had been its surgeon from 1852 to 1865, have withdrawn during the year from the number of its acting medical staff; and been duly appointed to the honourable but less arduous positions of consulting physician and consulting surgeon. Testimonials to their long and meritorious services to the institution, in the form of documents on vellum, duly signed on behalf of the trustees, are in preparation for presentation to these gentlemen respectively. The vacancies thus occasioned, and also a vacancy caused by the resignation of E. Duke Moore, Esq., L.R.C.P.Edin., after three years' service, owing to failing health, which was duly responded to by thanks for his services, and the offer of an honorary seat at the board of management, have been satisfactorily filled by the appointment of F. Turner, Esq., F. K. Dickson, Esq., and M. M. Moore, Esq.

The Doncaster Workhouse. Dr. Smith, one of the medical officers of the Poor-Law Board, lately visited the Doncaster Workhouse at ten o'clock at night, went through the various wards, and made a most minute inspection, as well as ascertained the ventilation of the various buildings. Dr. Smith, we are glad to hear, expressed an opinion that the wards, as well as the ventilation, were most satisfactory; but he pointed out that the dormitories, in two or three instances, might be improved by perforated ventilators. The vagrant ward was empty. Dr. Smith attended the meeting of the Board of Guardians at the Town-hall on Saturday last. We understand that he has made a report as to the state of the house, but that it contains no material recommendations, nor proposes any important changes. Dr. Smith, who has had great experience in dietary, and is the author of a very excellent work on that subject, has suggested a slight alteration in this respect, which will probably be agreed to by the visiting committee.

Unqualified Midwives. Mr. Humphreys, coroner for East Middlesex, lately held an inquest on a poor woman who had lost her life through the incompetence of two midwives. The evidence showed that the women had engaged to attend the deceased in her confinement for six shillings; that they regularly practised as midwives, but had gone through no course of instruction. They left the deceased in the midst of her trouble, though she called out to them pitifully that "she knew she was going to die." Finding the deceased was getting low, one of them gave her a powder, though she confessed she did not know what was in it. The husband considered both his wife and newborn child had been sacrificed through the neglect of the midwives, and medical evidence showed that with proper skill and attendance both might have lived. The Coroner severely commented on the case, and said the stupidity of the midwives had caused the deceased to lose her life. He wished he had the power to send them to the treadmill for their conduct. The jury returned a special verdict, echoing this opinion, and regretting that the law did not allow them to send the women to trial for manslaughter. (*Globe.*)

The Cholera Conference at Constantinople. At a second meeting of this conference considerable discussion took place on the proposal of the French delegates to suspend communication by sea between Egypt and the shores of Hedjaz in the event of another epidemic outbreak during the sittings of the conference. The Porte, it appears, is not disposed to accede to this suggestion, and by several of the other delegates it has also been regarded as an undue anticipation by one of the governments represented of the general judgment of the conference, and is opposed accordingly. At a third meeting the report of the committee named to consider the proposal in its details was received and somewhat warmly discussed. No result, however, was arrived at, and the debate, as it may be called, was adjourned till yesterday, when both advocates and opponents of the suggestion made some good speaking in favour of and against its adoption. The sitting, however, broke up without any result, to be resumed to-morrow, when it is to be hoped a decision will be come to, and the proper business of the conference will be proceeded with without further loss of time. (*Levant Herald*, Feb. 28.) A proposal made by the French representative at the Cholera Conference to stop the sea-communication between Hedjaz and Egypt in the event of another epidemic has been adopted. The Porte, however, will not accept or enforce the measure, fearing an insurrection among the pilgrims.

Cattle-Plague among Sheep. In the House of Commons, on the 12th inst., Mr. W. Bruce said that credible information had been received which left no doubt of the existence of the disease in Forfarshire and county of Fife. As to England he regretted to say that there was no doubt from an inspection of sheep said to have died from the rinderpest, made by Professors Simonds and Brown, on the part of the Veterinary Department, the result of the examination was to establish in their minds beyond all doubt that the rinderpest had existed in ten different cases, and had been accompanied by very serious loss. Professor Simonds also stated that in every case where he had traced the loss of sheep to its source, the sheep had been in contact with diseased cattle.—On Tuesday, in reply to a question from Mr. Long, Mr. Bruce said that during the last six months the attention of the veterinary department of the Privy Council had been especially directed to the subject; twenty-six different cases of outbreak of supposed rinderpest in sheep had occurred in eleven different counties, and as many as nine in Norfolk alone. The conclusion at which the veterinary surgeons had arrived was, that the disease was identical with the rinderpest in cattle. He knew that very grave doubts existed in Scotland as to the identity of the two diseases, and perhaps the house would like to hear the grounds on which the surgeons had arrived at the conclusion. The first experiment was confined to sheep in a pen in which a cow had died of rinderpest; the sheep that were admitted died. The next experiment was more conclusive. Several sheep were inoculated in the Veterinary College with the rinderpest virus. They were invariably attacked, and all but two of them died; these two were immediately afterwards inoculated with the small-pox virus. They took it, and it was clear therefore that the disease with which they were previously attacked was not small-pox. The appearance of the stomach was singularly similar to that which was presented in the case of cattle. The local inspectors in consequence gave strict directions to deal with suspected sheep in the same way as suspected cattle. The disease did not appear to spread from sheep to sheep so rapidly as from cattle to cattle. In some cases where the experiment was tried of putting sound sheep with diseased ones, they had not taken it, and in many cases tried in Scotland the disease had not been communicated, and hence the strong impression prevailing in Scotland was, that the disease was not the rinderpest. But in his opinion, the statements made by the surgeons afforded strong reasons for supposing that it was the identical disease. The steps taken by the government to check the spread of the disease were identical with those which had been taken with regard to cattle.

THE ICE-BAG TREATMENT OF CHOLERA. Dr. Maclean, in a lecture at Netley, thus speaks of the ice treatment of Cholera. "I had the pleasure of meeting Dr. Chapman in Southampton when he came down to put his ice treatment to the test of experience, and I had the advantage of hearing him expound his views at a meeting of one of the Southampton Medical Societies. I took the liberty on that occasion to say that, although I differed materially from Dr. Chapman as to the mode in which the disease is propagated, I would gladly give his method a fair trial; and had the disease appeared in the Royal Victoria Hospital, I was prepared to do so. I do not think that the result of the trials of this method at Southampton were sufficiently extensive to warrant any confident opinion one way or the other. I have had too much to do with cholera to rush into large conclusions as to the effects of remedies in ten or a dozen cases. Every person smitten with cholera does not, as a matter of course, die; but judging from recent cholera literature, in every case where death does not occur, the fortunate issue is, without hesitation, put down to the remedies used; and if we have regard to the variety and number of these remedies, to say nothing of their opposite qualities, the result is very puzzling to those who do not reflect on the fact, that a certain number of people recover under every variety of treatment not positively hurtful, and, I may add, quite as many where no 'treatment' in the shape of drugs has been used at all. Dr. Chapman has since, I understand, had an opportunity of trying his method on a larger scale in Paris. I am quite prepared to hear that this more full experience has tended to lessen the confidence with which Dr. Chapman was inspired when I had the pleasure of meeting him here. The powerful action of ice to the spine on the uterus has been pointed out by Dr. Chapman. It was well illustrated in one of the cases of cholera at Southampton. The application of ice to the spine of a woman profoundly collapsed brought on the menstrual discharge, which had ceased for ten or twelve days. This, as Dr. Chapman has himself shown, should be kept in mind, as otherwise in pregnant women unpleasant consequences might result from the application of the ice-bag low down on the spine."

COMMUNICATIONS have been received from:—Mr. JONATHAN HUTCHINSON; Dr. ALTHAUS; Mr. F. EDMONDS; Dr. FREDERICK J. BROWN; Dr. F. W. GIBSON; Dr. GAMGEE; Dr. SIBSON; THE HONORARY SECRETARY OF THE ODONTOLOGICAL SOCIETY; Mr. J. WINDSOR; Mr. W. F. MORGAN; Mr. W. DATE; Mr. RICHARD GRIFFIN; Dr. J. H. JACKSON; Dr. G. H. PHILIPSON; Dr. GEORGE JOHNSON; Dr. A. SAMELSON; Dr. B. W. FOSTER; Dr. JAMES RUSSELL; Dr. SIEVEKING: Dr. MACKINDER; Mr. T. HECKSTALL SMITH; Mr. NOOTT; Mr. DAYMAN; Dr. TUBBS; FORTIS EST VERITAS; Mr. J. ST. S. WILDERS; and Mr. M. A. ADAMS.

BOOKS RECEIVED.

1. On Diseases of the Veins, Hæmorrhoidal Tumours, and other Affections of the Rectum. Entirely re-written. By Henry Lee. Second Edition. London: 1866.
2. Hints on House Drainage. By Alfred Carpenter, M.D. Croydon: 1866.
3. The Active Principles of Cod-Liver Oil. By C. C. J. Guffroy. London: 1866.
4. The Year-Book of Pharmacy. Edited by C. H. Wood, and C. Sharp. London: 1866.
5. Report of the Richmond District Lunatic Asylum, Dublin. 1866.
6. Explanatory Statement of Defendant in Millett *versus* Edmonds. 1866.
7. On Inhalation. By H. Beigel, M.D. London: 1866.
8. Successful Removal of the Uterus and Both Ovaries by Abdominal Section. By H. R. Storer, M.D. Boston: 1866.
9. A Few Comments on the Remarks on Homœopathy made by Dr. C. Handfield Jones. By David Scott-Smith. London: 1866.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....Metropolitan Free, 2 P.M.—St. Mark's for Fistula and other Diseases of the Rectum, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TUESDAY. .... Guy's, 1½ P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.

WEDNESDAY... St. Mary's, 1 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.

THURSDAY.....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Great Northern, 2 P.M.—London Surgical Home, 2 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.

FRIDAY..... Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

SATURDAY..... St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1·30 P.M.—Charing Cross, 2 P.M.—Lock, Clinical Demonstration and Operations, 1 P.M.—Royal Free, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY. Royal College of Surgeons of England, 4 P.M. Professor Huxley, "On the Classification and Structure of the Mammalia."—Medical Society of London, 8 P.M. Clinical Discussion. Cases by the President and others. Paper by Mr. De Méric, "On the Use of Mercury in Syphilis."

TUESDAY. Pathological Society of London, 8 P.M.—Anthropological Society, 8 P.M.

WEDNESDAY. Royal College of Surgeons of England, 4 P.M. Professor Huxley, "On the Classification and Structure of the Mammalia."

FRIDAY. Royal College of Surgeons of England, 4 P.M. Professor Huxley, "On the Classification and Structure of the Mammalia."

TO CORRESPONDENTS.

*** *All letters and communications for the* JOURNAL, *to be addressed to the* EDITOR, 37, *Great Queen St., Lincoln's Inn Fields, W.C.*

COMMUNICATIONS.—To prevent a not uncommon misconception, we beg to inform our correspondents that, as a rule, all communications which are not returned to their authors, are retained for publication.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

WE cannot insert Mr. F. Edmonds' letter.

RESTORATION OF BONE.—In volume I of *St. Bartholomew's Hospital Reports*, Mr. T. Smith relates a case of restoration of the lower jaw after its entire removal.

THE DEMAND FOR GARLIC.—If Mr. Worms has been of little use as a curer of rinderpest, he has, nevertheless, done the garlic-merchants of Covent Garden a useful turn. We are informed that—thanks to his *specific* cure—there has been such a run on the garlic market, as to send up the price of that article from 3d. to 2s. per pound.

SOCIAL SCIENCE.—We now possess a *Journal of Social Science* as well as a *Social Science Review*—both monthly periodicals, and both edited by well known members of our Association. Surely we might be allowed to suggest the idea of an amalgamation. The objects of the two publications must be very similar; and their concentration would, we should think, necessarily tend to the improvement of both. "Union is force."

THE DICTIONARY OF SCIENCE, LITERATURE, AND ART, has reached its eighth part, bringing the work as far as the word Poles. It would be well if the authors were to appoint a special editor for matters medical and surgical, for we see here and there a few slips which are worse than blunders. For example, it is inexcusable, indeed to be regretted, that in so excellent a work as this we should read that [pharyngotomy is the "making of an opening into the windpipe."

E LATE MR. FEATHERSTONE.—This gentlemen (a correspondent writes) was once a distinguished pupil at the Bristol Royal Infirmary; and he was also, what I rejoice to know is not an unusual occurrence in the present day, a Christian student. What he was then, so he remained; and, as a practitioner, he won the confidence and esteem of all around him. He was, in truth, one who united the graces of an earnest Christian with the zeal and industry of an accomplished surgeon. In speaking of death, he had often remarked, that if it were God's will, he would prefer being taken suddenly; and, not many minutes before he was killed, he was conversing with his servant on the blessedness of feeling prepared, in the midst of health, for sudden death. That such was the case with himself, and that he speedily realised that blessedness in all its fulness, there cannot be a doubt. May we be likewise ready.

E VENEREAL COMMISSION.—SIR: From the tenour of your remarks on the Venereal Diseases Commission, your readers may anticipate that the result of the evidence of the high authorities which they have taken, will lead them to the same conclusion as that contained in the following scene, from the pen of a living member of our profession. I am, etc.,

January 28th, 1866. OBSERVER.

AD ADOLESCENTES.

Quâ morbus ille, tot malorum auctor malus,
Valdè timendus, arte sit vitabilis,
Sermone juvenem in hoc brevi senex docet.

Loquuntur Pamphilus juvenis et Chremes senex.

P.—Salvere Chremetem plurimum jubeo.

C.—Salve Pamphile: quid tu? rectén' atque ut vis vales? Jœnastin'? age; poculum exple: ecce Falernum præstantissimum: sume: me ipse quidem sentio jam vino benevolentiâque abundantem. Quid vis amicissime? dic quomodo benè de te mereri possim.

P.—Gratias ago: de valetudine meâ magnoperè cupio tecum confabulari.

C.—Ædepol! Tu florentis ætatis juvenis, tanquam heri modo cognate, virtute et viribus prædite; ten' de valetudine tuâ mecum consulere!

P.—Imo, amice. Ita Dii te ament, ut mihi exponas quâ ratione ille morbus, quo tot amicorum affectos video (quod ad nos viros pertineat), evitandus sit.

C.—Hem! rogas? Sum animi dubius: nescio an arcanum tanti pretii liceat mihi enunciatum facere.

P.—Cur hoc? an lucri caussâ vulgatum nonvis? Verere ne ara perdas? nonne ita'st? Vah!

C.—Certissimè: satis video te, licet adhuc adolescens sis, et Thermas et Forum frequentare. Ita Dii me adjuvent, si is modus, quem equidem mihi cognitum habeo, omnibus divulgatus fiat, morbus ipse perpaucos afficiat.

P.—Amice, amicissime, validissimam rationem mihi protulisti, quare id, quod ad salutem publicam tantoperè pertineat, universè cognitum esse debeat, nec tantum medicis sed etiam omnibus. Nonne officii tui est hoc vulgare?

C.—Certè quidem officii est; sed meâ interest potius celatum habere. De ære suprà dixisti: mehercule, si mali origo abscindatur, lucri fons abundans exscisus erit.

P.—Abscinde, abscinde. Video te nobis tam ex animo factum velle, ut hodie nihil mihi recusaturus sis.

C—Hem! sentio me vino plenum. Ain' tu "abscinde" an "circumscinde?" Heus! jam caput meum vertigine agitatur; cor palpitat—Ægrotatne *Passerculus* tuus?

P.—Bene habet, ut fit; vereor tamen ne, nidum petens, morbo afficiatur. Pater, si me amas, mihi aperi rationes, si qua sint, per quas malum tantoperè timendum evitare possim. Oro, obsecro, ut hoc mihi pandas, optime hominum.

C.—Hei mihi! vitam longam egi, et plurima vidi quæ referre pigeat, vel etiam animadvertere; quæ mala, quo pauciora in hoc vivo fiant; et propter amicitiam quam erga patrem tuum et teipsum, et amicos nostros habeo; et liberorum etiam qui futuri sint, caussâ, id quod tu prudenter rogavisti, prædicabo. Tu te dictis præbeas volo—atque imprimis te præmoneo perfacile esse plerasque illum morbum evitare.

P.—Ab ore tuo totus pendeo: dic tandem.

C.—Inter Judæos et omnes alios, quibus abscisum præputium, hoc malum rarissimè invenies: nempe illis, cutis adeo indurata, ut abrasio non facile fiat, quapropter morbus rarò concipitur; ergo illis ætas integra permanet: contra, cutis tenera Christianis cultorum malorum caussa est.

P.—Hei mihi! vi'n' omnes "Curtos Judæos"* imitemur?

C.—Forsitan paucos, verùm non omnes circumcisionem pati vebere puto. Altera est et multò facilior ratio, quæ penè parem immunitatem præbet. Vin' tibi explicem?

P.—Næ—perge, quæso.

C.—Et simplex et secura est: quotidie matutino tempore quum e lecto surrexeris, præputium retrahere, ac glandem nudare: itaque indurata cutis morbum rejiciet. Hoc munditiæ perindè ac valetudinis caussâ facere oportet. Permagni refert Pupillos, Pupillites, denique omnes adolescentes hoc scire et continuò exsequi; neque amplius celari rem tantæ utilitatis. Abi: fac certos omnes familiares tuos, ut tibi pro tanto beneficio gratias habeant.

P.—Tu, quantus, quantus, nihil nisi sapientia es. Dii me perdant ni tibi ex imo corde gratias habeo ob tantum meritum: et ipse utar, et amicos uti admonebo; quæ res bene vortat nobis! Vale. [*Exit Pamphilus exultans: dormit Chremes.*

* *Vide* Horatium, *Sat.*, lib. I, ix, 70.

SUCTION-CURETTES.—The letters of Mr. Adams and Mr. Greenway shall appear next week.

HOSPITAL STATISTICS.—SIR: I am obliged to your reviewer for pointing out an omission in my work *On the Climate of Italy*. He says, with respect to the conclusions I have drawn from hospital statistics, that I do not record "to what extent selection has been carried out in the admission of cases." Such a notice would have strengthened—it is impossible to calculate exactly how much—more or less the conclusions; so hasten to supply it. At St. Mary's, acute cases are admitted at all hours without tickets of admission; chronic cases are postponed till Fridays, have to obtain a letter from a subscriber, and then are often rejected from want of room. The Ospetale Maggiore at Milan, being a Government institution, admits all equally free. Yet still the chronic cases are in excess in the former, the acute in the latter. This, of course, can only arise from the causes to which I have assigned it. I am, etc., THOMAS KING CHAMBERS.

22B, Brook Street, Grosvenor Square, March 5th, 1866.

POOR-LAW MEDICAL REFORM AND VACCINATION.—Mr. Griffin begs us to inform the Poor-law medical officers that the following subscriptions have been received by him towards the funds of the association:—R. Fendick, Bristol, 5s.; C. Wotton, Hemel Hempstead, 21s.; A. Thom, Brampton, 5s.; G. M. Phillips, Hitchin, 10s. 6d.; H. Stear, Saffron Walden, 5s.; A. N. Jones, Saffron Walden, 5s.; F. F. Walsh, Saffron Walden, 5s.; B. Rake, Fordingbridge, 5s.; C. Mott, Chertsey, 10s.—By Mr. Prowse: E. Davies, Wrexham, 5s.; J. Foster, Chorlton, 10s. 6d.; J. S. Waller, Flegg Burgh, 5s.; S. T. Huke, Tunstead and Happing, 5s.; A. Ingham, Haworth, 10s.; P. N., 5.; N. P. Lisle, Cardiff, 10s. 6d.; J. Wardlesworth, Bury, 10s. 6d.

Mr. Griffin also sends us a letter, which he has sent to each member of the House of Commons, recommending alterations in the Vaccination Bill. This Bill was read a second time on the 8th of this month; therefore, those medical men who wish the Bill to be amended in Committee, should lose no time in writing to their members.

ADVERTISEMENTS.

ESTABLISHED 1848.

Mr. J. Baxter Langley, M.R.C.S. Eng., F.L.S., (late of King's College, London), PROFESSIONAL AGENCY, 50, Lincoln's Inn Fields, W.C.

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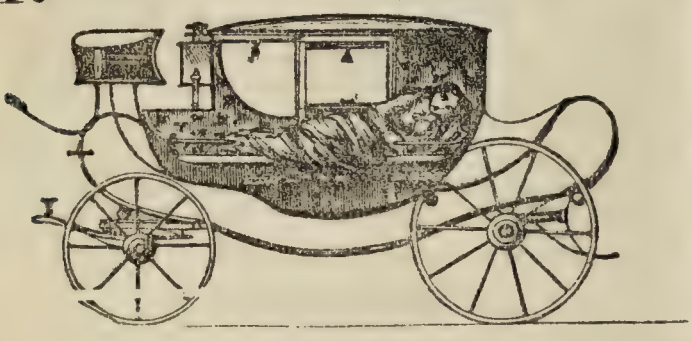
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"NewYork, Dec. 29th, 1836."

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"HENRY VAN HOEVENBERGH, Resident Physician, Bellevue Hospital.
GEORGE F. ALLEN, Assistant-Physician.
"Bellevue, New York, Feb. 19th, 1837."

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Croonian Lectures

ON THE

LOCALISATION OF DISEASE.

DELIVERED BEFORE THE

ROYAL COLLEGE OF PHYSICIANS.

BY

EDWARD H. SIEVEKING, M.D.,

PHYSICIAN TO H.R.H. THE PRINCE OF WALES, AND TO ST. MARY'S HOSPITAL; PRESIDENT OF THE METROPOLITAN COUNTIES BRANCH OF THE BRITISH MEDICAL ASSOCIATION; ETC.

LECTURE I.

Mr. President,—It is no disparagement to the unity of medical science, that its cultivation has always been carried on under two divergent aspects. Two *kinds* of the human intellect have at all times worked at the many problems that Nature places before us in morbid action; and while, in their extremes, both have often erred and will continue to err, both have, singly and conjointly, solved many questions of import to the advancement and benefit of mankind. At one time in the history of medicine we see the one, and at another period the other, prevailing. At the same time, the careful observer will discover in different countries tendencies belonging more to one or the other phase—tendencies that we may, with Mr. Buckle, attribute to climatic and other physical accidents of locality, but which, however accounted for, modify largely the practical conclusions of the healing art. In the language of the logician, the one phase would be termed the *à priori*, the other the *à posteriori*, method. The realist and the transcendental frame of mind might be the designation preferred by another school of metaphysicians; the distinction between the practical and the theoretical bias might convey my meaning better to another; but I shall probably be best understood if I state without circumlocution, that I allude to the types of mind displayed respectively among the cultivators of the two great branches of medicine, external and internal medicine, or surgery and physic. The one professes to deal essentially with what may be called direct, the other with circumstantial, evidence. The one is engaged with what is subjected to ocular demonstration and manual interference; the other seeks to unravel recondite processes *apparently* beyond the reach of physical investigation.

But, from the time of the great man from whose works the motto is taken that surrounds our coat of arms, to the present period, the most distinguished among our brethren have sought to realise the intimate relations that bind the two together; and it is not the least of the benefits conferred upon the science of medicine by the College of Physicians within the last few years, that it has officially recognised them by appointing, though not from its own body, examiners in surgery. It is, however, an error to suppose that this is an innovation. If an abuse or neglect have been perpetrated at any time, it was committed when the College refused to have aught to do with surgery; for it was not so of old. Our great Fellow, Harvey, lectured on anatomy, in accordance with the directions of the will of Dr. Caldwell, who founded the Lumleian Lectures, *in usum lectoris artis seu scientiæ chirurgicæ*. Harvey styles himself, on the title-page of his *Exercitatio Anatomica de Motu Cordis et Sanguinis*, "Professor of Anatomy and Surgery to the College". Not a hundred years after the establishment of the Lumleian Lectures, property was devised to the College by Lady Sadlier to found, under the name of her first husband, Dr. Croone, a surgery lecture. It appears, then, that, so far from this College formerly ignoring surgery, it was willing to be the acknowledged promoter and teacher of this essential member of the healing art.

Little worthy as I deem myself to accept the office of Croonian lecturer, and to offer to so distinguished an assembly of the representatives of our profession any results of my own humble efforts in the cause of science, I conceive that I shall best meet the intentions of the founder of the Croonian Lectures by discussing one or more of those topics where the surgeon and the physician meet as on neutral ground. In fact, if we study the modern works of some of our most distinguished surgeons, from the *Principles of Surgery* by John Hunter to the *Lectures on Repair and Nutrition* or those on *Rest and Pain* by our cotemporaries, we find every where evidence to prove how completely surgery and physic dovetail into one another—how they supplement each other in all scientific aspects—how they offer mutual aid and explanation in matters of a directly practical character. It would seem almost at times as if the surgeon and physician changed places; the former looking for general constitutional states and constitutional means of treatment only to explain and remove local disorder; the latter seeking to localise all morbid action, to the exclusion of systemic disorder, and regarding the individual cell as the entity in which health or disease resides, without considering the source from which that cell draws its pabulum, and the controlling power under which it manifests its various actions. The reproach which Abernethy (*Surgical Observations*, p. 1) made to the profession, that "the effects of local disorder upon the constitution had been too little attended to," and that "the reciprocal operation of constitutional disorders upon local diseases had obtained still less attention," can scarcely be said to apply to a generation that has heard or read the lectures delivered of late years before the College of Surgeons. There is no longer, I apprehend, any question among the various sections of the profession as to the existence of a very intimate relation between local and general morbid phenomena, and the imperative necessity of attending to it. But what we all want now is a fuller and more precise development of the nature of the relation. As Mr. Grove has shown, with equal beauty and force, the correlation of the physical forces; as Dr. Carpenter, following in his footsteps, has sought, I think with much success, to display the relation of reciprocity existing between the forces concerned in the growth, development, and maintenance of the individual organism and those which are employed in the generative act (Mutual Relations of Vital and Physical Forces, *Phil. Trans.*, 1850); so the medical

man longs ardently to arrive at a satisfactory solution of the many enigmas presented to him when he examines the relation of the various phenomena resulting from the disturbance of the normal physico-vital conditions. Complicated as are the relations of the forces in health, their connexion and mutual action, when a disturbance takes place, becomes yet more intricate, because their manifestations are determined by influences as varied as the physical phenomena that are exhibited in the whole surrounding world. Nay, they are more varied; for we have not to lose sight of that hidden mystery which connects us with an invisible world, and which, in our religious life, our art-aspirations, our poetic imaginings, gives us the assurance that our existence is not altogether made up of material elements.

The preceding remarks are intended to indicate both the subject to which I propose to invite your attention, and the complicated difficulties with which it is surrounded. The question which I propose to examine, as to *the localisation of disease*, may be said to embrace the entire range of medicine; and, if I should be accused of presumption in dealing with materials so vast, I trust that my excuse may be found in the desire to promote the interests of our common profession, and to suggest for your consideration, rather than myself to develope, a topic worthy of the place and of the audience.

The reciprocal relation existing between local and general disorders is one that constantly obtrudes itself upon the student of disease; but though, since the times of Abernethy, whose remarks I have previously quoted to show that he fully appreciated it, many eminent writers have ventilated the remote, predisposing, and proximate causes of morbid action, and though our chemical, microscopical, and other modes of analysis have put our knowledge on a more precise basis than it ever yet rested upon, still I am not acquainted with any treatise specially devoted to the consideration of the question now before us. The different points of view from which different men regard the same subject, the difficulties surrounding many of the statistical data required, the ambiguity of language, are some of the impediments not actually inherent in the subject, and still materially obstructing the inquirer in his search.

Let me give an illustration of my meaning. A distinguished surgeon and author has recently published the results of his studies on the antecedents of cancer; and arrives at the conclusion that, so far from this disease being traceable to a morbid taint in the body, it is essentially one of a purely local origin, and, if anything, evidence in the first instance rather of an unusually robust and vigorous constitution, than of one bearing in it the seeds of a terrific and fatal malady. He regards the formation of cancer as due "to a capability of action beyond that which suffices, and is usually employed for the perfect construction" of the textures of those persons who are attacked with cancer. The author states, that "a theory which should attempt to account for the growth of disease out of health must, from the nature of the case, render the acceptance of the fact itself precarious." He is clearly in the right, if his premises justify the conclusions at which he arrives. The mere fact of their being in opposition to the previous teaching of schools would probably be an additional motive for promulgating them. With his facts and statements it is not my object to deal. I quote his conclusions with a view to demonstrating that the difference between himself and his opponents may be resolved more readily into one of words than at first sight appears. It is not shown that external irritation, traumatic or otherwise, causes what is called a local disorder; but the morbid product is referred to a constitutional influence. This, however, the author does not regard as a morbid taint, but as an excess of strength and health, which results in well-marked local disease; and whether we term that a hyperplasia, or whether we regard it as a heterologous product, signifies nothing in the argument. After all, the author admits a constitutional predisposition; but he is unable to reconcile his experience of the progress of the disease with the ordinary terminology of science, which would term it morbid, though it disguise itself under the semblance of health.*

The illustration which I have given of the difficulties involved in language alone almost necessarily leads us to the question as to what may be termed the local and what the general phenomena of disease. Is the distinction a just one? Must one necessarily lead to the other? or may we have in the human body either a purely local or a purely general disease?

While, on the one hand, "specialisation of function" is a characteristic of higher organisms, on the other we find that, as we mount in the scale of creation, the links which bind the various elements of the body into one become more numerous, and their mutual relations and affinities more intimate. Though the simple cell is equally the basis of all organisation, the differentiation of structure and function accompanying development is so great that it is not surprising to observe how late in the history of science the discovery of cell-growth was made. This differentiation establishes a new order of things; and we must be careful not to confound, as there sometimes appears a danger of our doing, phenomena occurring in and produced by the primordial cell, with processes occurring in the complicated arrangements resulting from many successive stages of growth and development. It is well said by the most eminent of living pathologists (Virchow, *Cellular Pathology*, Lect. 1), that "every animal presents itself as a sum of vital unities;" but these unities have no existence except in their combination into one whole, which constitutes the individual, and which is ruled and guided by the principle of Life.

Earlier in the lecture, I alluded to the possibility of physicians erring in the direction of localising or limiting too much the operations of morbid action.

* I may mention incidentally, that the interesting paper of Dr. Fenwick, in the last volume of the *Medico-Chirurgical Transactions*, promises a solution of the difficulties involved in the apparent contradictions between different writers on cancer. Dr. Fenwick investigates the morbid changes in the stomach and villi in persons who have died of cancer, and finds the former to be seriously diseased in 37 per cent.; while "in nineteen cases in which the intestines were examined, and in which the gastric tubes were normal, morbid changes were detected in eighteen, so that we have reason to suppose that few cases of cancer die in which serious anatomical change of a non-malignant nature is not present in some part of the digestive canal." If I understand Dr. Fenwick aright, he holds that the morbid condition of the gastro-intestinal mucous membrane is antecedent to the cancerous affection; and if this view should be confirmed by further observation, it may assist in reducing the phenomena of cancer to the simpler denomination of a definite nutritive disorder. At all events, Dr. Fenwick's researches indicate the direction which our labours must take in order to get some further clue to the ultimate cause of cancerous disease.

This would appear to be the tendency of at all events that school of pathology and physiology which lays overgreat stress upon the phenomena occurring in certain cells, or, as Virchow terms their congeries, cell-territories. The error in the opposite direction, and one characterising the transcendental schools of medicine, consists in overlooking and ignoring the operations of disease as manifested in individual parts of the economy, and seeking for them only in the system at large or in those functions and tissues which appear to be claimed as common property by all individual organs.

In order to obtain a correct reply to the inquiry as to the relation of local and general disease, we cannot do better than to examine what occurs in the healthy body. If we desire to understand the phenomena of respiration, we are compelled to take the lungs of the human being in their perfect development and examine their anatomical structure; and then, by analysis and experiment, ascertain the manner in which the air is received into them and how the interchanges are effected in the air-cells. A mere examination of the early embryonic stages of the lung-tissue would be useless for this purpose, though it might serve to elucidate points of obscurity left after the former exploration. In the same way, if we seek to know the uses of the liver, we do not first go to embryology to determine the manner in which bile is secreted, or how bile aids in the digestive process; but we examine the various phases of the viable human being, and employ the vivisections of animals of a high organisation to explain the anatomy and functions of that organ. In making these inquiries into the functions of individual organs, we are necessarily careful to include in them the relations of the vascular and nervous systems, and the bonds of union between them and the general organism.

In a similar manner, our researches into the perversions from the normal condition, the diseases of individual parts of the human body commencing with the site of injury, compel us to regard each individual organ, not so much in its elementary parts and in its earliest or embryonic conformation, but as a whole, capable of performing the duties assigned to it in the independent being. We have then to trace back the processes to the vascular and nervous system; and thus in both instances we may frequently, if not invariably, arrive at the conclusion that however much "cell-territories" or individual organs are at fault, we have an earlier fault of nutrition to deal with, not necessarily or primarily involving the particular organ in question.

This is in direct opposition to the tenor of Virchow's teaching, if I understand him aright; for he denies that the real seat of any dyscrasia can be in the blood, and holds that every dyscrasia is dependent upon a permanent supply of noxious ingredients from certain sources, which he places in definite diseased organs. I have not so read the phenomena of disease; and shall try in the short space of time at my command to give the reasons for the belief that is in me. Nor should I wish to be supposed to enter upon a controversy with Virchow, for whose views and researches I entertain the profoundest regard. I quote them, merely because among the scientific medical men of the age he holds perhaps the highest rank; and because they appear to me in the most stringent manner to put before us that special tendency to localise morbid action that I have alluded to.

It is not improbable that this desire, which is but an expression in a new form of the ancient bias of all "practical" men as distinguished from "theorists", resulted from the antagonism brought about by a different school, which made dyscrasia their shibboleth. Dr. White of Newcastle, in a recent address, reminds us that medical men have a great tendency to bestow all their attentions upon individual organs, and that there is generally a sort of epidemic attachment for one or the other organ of the body to the exclusion of the rest.

"How strange," he says, "is the tendency that medicine has at certain periods to throw on special organs every good or every evil. One time the brain, at others the spine, the stomach, the liver, the womb in females, and even the teeth! Latterly, the skin has been gaining an ascendancy, and its habitual stimulation by temperatures unknown to Nature in her hottest moods has been deemed advisable." (British Medical Journal, Dec. 2nd, 1865.)

The fault that Dr. White points out, is one that an enlarged capacity for estimating the varied conditions of the body and the multiple influences to which it is subjected will obviate and correct. Only we must be careful, in our estimation of the importance of a physical basis for our conclusions, not to be led into ignoring the fact that there are many things which we never shall be able to demonstrate to the eye, which are yet proved to exist by evidence that we dare not reject. Mr. Simon, for instance, in his lucid and suggestive *Lectures on General Pathology*, details his experience with regard to the influence of nerve-lesions bringing on lesions at a distance from the seat of injury. Although it would be probably impossible in these cases to show the actual lesion of the intervening nerve-tissue, it would be unreasonable to refuse to admit the justice of the conclusion, borne out, as it is, both by previous physiological experiment and frequent experience of the clinical observer.

"Several years ago," he says, "I was consulted at King's College Hospital by a man who, some months previously, had torn his ulnar nerve at the inner condyle. His two fingers had become swollen and livid from vascular injection. Two years ago," he continues, "I had a female patient here, with disease in a large portion of the lumbar and sciatic plexus of nerves on one side, causing paralysis and anæsthesia of the limb; neuralgia was referred specially to the vicinity of the knee, and at this spot ulceration had occurred."

I forbear from continuing the quotation, which bears upon the occurrence of pneumonia as a consequence of nerve-lesion, because I shall go more fully into this subject at a later period; but I give the preceding extract from a surgical author, because it offers an analogue to what, I apprehend, is constantly occurring within the body, only not so readily appreciable. A lesion is observed in a certain locality or "cell-territory", which, taken by itself, is unintelligible, but, if viewed as a change of nutrition dependent upon the propagation of a morbid condition from elsewhere, is brought into harmony with our general knowledge of the functions of the body. Many years ago, a case fell under my observation, which I may mention as a still more striking illustration of a morbid influence propa-

gated to a great distance, though probably no amount of microscopical or other analysis would have been able to demonstrate an actual change either in the blood or in any tissue intervening between the original site of injury and the more recent lesion. A cooper had, many years before coming under observation, severely cut his right hand, in consequence of which the ring and little finger became permanently bent and contracted. In order to restore the symmetry of the parts, but certainly, as we may fairly say, from a morbid irritation propagated from the right hand, after a time the corresponding fingers of the left hand became fixed and contracted similarly to their fellows. Here was certainly no congestion or ulceration, as in Simon's cases; but there was not the less a serious injury, for which no legitimate mode of reasoning could have assigned a ground in the parts themselves.

[*To be continued.*]

Discovery of Trichina. Dr. Cobbold thus sums up his views on this disputed point: "1. Professor Owen first described and named the flesh-worm (*Trichina spiralis*). He first interpreted the true nematoid nature of the parasite. From a zoological point of view, he is the discoverer of trichina. 2. Mr. Paget, according to the testimony of Owen, 'at the same time satisfactorily determined the existence of the entozoon, with the assistance of Mr. Brown and Mr. John Bennett, at the British Museum.' Probably, they actually saw the worm before Owen. The Professor's candid statement not having been repeated in the subsequently written article 'Entozoa' in Todd's Cyclopædia, has called forth the remark by Pagenstecher (*loc. cit.*, p. 6), 'Hier nennt sich Owen als Entdecker und verschweigt Paget ganz.' 3. Mr. Wormald had 'more than once' previously noticed the characteristic specks 'in subjects dissected at St. Bartholomew's Hospital. He transmitted the individual specimens by which Owen made the discovery. 4. Mr. Hilton was the first to suggest the parasitic and animal nature of the specks observed in human muscle. He anticipated Wormald in his observation of the 'gritty' particles in dissecting-room subjects, and described the bodies as 'probably depending upon the formation of very small cysticerci.' 5. According to Dr. Hodgkin 'the first observation of these little bodies was made in 1828' by Mr. H. Peacock. The latter made a dried preparation of the *sterno-hyoideus* muscle to display the specks. That preparation is the oldest in existence, and may be seen in Guy's museum. 6. Henle, Diesing, Küchenmeister, Davaine, and Thudichum have pointed to a notice by Tiedemann as probably, or possibly, indicating a prior observation of the specks. Leuckart rejects the evidence. Pagenstecher appears to be in doubt as to the nature of the bodies in question. I entertain a persuasion that they were calcified trichina-capsules. 7. Herbst was the first to rear muscle-fleshworms, or encapsuled trichinæ in animals by experiment (1850); and Virchow was probably the first to rear and recognise sexually mature intestinal trichinæ by experimenting upon a dog. (*Deutsche Klinik*, 1859, s. 430.) 8. Leuckart was the first to offer a full and correct solution as to the source and mode of genesis of the fleshworm (1860). He disproved the erroneous views of Küchenmeister. 9. Zenker opened up a new epoch in the history of trichinal discoveries. He first observed the young in the act of migration, and was the first to demonstrate that these parasites were capable of giving rise to a violent disease in the human body."

Illustrations
OF
HOSPITAL PRACTICE:
METROPOLITAN AND PROVINCIAL.

BIRMINGHAM GENERAL HOSPITAL.

CASE OF PNEUMOTHORAX OCCURRING AT THE VERY COMMENCEMENT OF TUBERCULAR DEPOSIT IN THE LUNG.

Under the care of James Russell, M.D.

The case which I am about to relate illustrates in a very interesting manner the accidents of disease. It exhibits a malady which ordinarily belongs to advanced disease of the lungs, presenting itself in the very earliest stage, and hurrying on a fatal termination, which would have been postponed, perhaps, for years under ordinary circumstances.

Excluding the exceptional cases wherein pneumothorax occurs in connexion with a perfectly healthy lung—an occurrence most remarkably exemplified by Dr. Gairdner in the opening of his article on this subject (*Clinical Medicine*)—the rupture of the pleura occasioning the pneumothorax is usually deferred until at least the second stage of phthisis, with which disease it is associated in the immense majority of cases; Dr. Walshe (*Diseases of the Lungs*, 1860, p. 307) says, probably in 90 per cent. Instances, however, are by no means wanting in which, as in the present case, from the accident of position in the pulmonary disease, and from absence of adhesion between the lung and the wall of the chest, rupture has coincided with the very commencement of tubercular or other disease. Thus Dr. Gull has related a case in the *Medico-Chirurgical Transactions*, in which two very small secondary abscesses, situated at the surface of the lungs, burst into the pleural sac and occasioned pneumothorax; and Dr. Gairdner (p. 406, note) mentions a similar case, in which a number of very small bronchial abscesses had formed after typhoid fever. Louis (*On Phthisis*, Syd. Soc., p. 336) gives a case of pneumothorax occurring only fifteen days after the first symptoms of tubercular disease; and in another case (323), although extensive disease of the lung was present (from the description, probably cirrhosis), the pneumothorax resulted from "a yellow round spot, one line in diameter, corresponding to the situation of a softened tubercle, partially evacuated and burst into the pleura." Alluding to instances of pneumothorax of very early occurrence, Louis says (p. 342): "Cases of this kind" (referring to the one alluded to above) "are fortunately very rare; and this is the only one I have myself observed in the course of twenty years, and out of upwards of six hundred phthisical subjects whose bodies I have opened."

In my present case, the entire absence of any history of chest-disease until a very recent period, the healthy condition of the opposite lung so far as physical examination went, and the character of the expectoration, all coincided with the appearances after death, and led to the formation during life of a correct opinion as to the nature and extent of the morbid changes.

An interesting feature in the case—the obscurity of the early symptoms attending the rupture—supports an observation made by different authors, to the effect that, although the symptoms which mark the occurrence of perforation of the lung are usually

prominent and very urgent, yet there are many cases in which the accident is not indicated by any very obvious phenomena. This statement is made with great emphasis by Dr. Gairdner. In one of his cases, which occurred during convalescence from typhoid fever, it is noted that "the patient had been getting better, and got worse again—that was all;" and the pneumothorax was not discovered during life. This latency of the symptoms often finds an explanation in the suffering occasioned by coexisting disease; but, in the remarkable case already referred to by Dr. Gairdner, the patient was in health at the moment of the occurrence, and yet the symptoms were so mild as to have completely deceived his medical attendant.

In my own case, the symptoms which the patient presented whilst under observation were certainly sufficiently marked; yet he had difficulty in assigning a date for their commencement, and no sudden access of suffering was impressed upon his memory. This is the more remarkable, because, as in the case just quoted, there was no preexisting disease of sufficient importance to obscure the history.

The patient survived between four and five weeks. Louis relates some cases of remarkably rapid death; in two (pp. 316-326), on the same day. Dr. Walshe (p. 313, note) gives a death in four hours. From this date, Louis's cases range up to an interval of eighteen months before death. Dr. Gairdner relates a singular instance in which the patient survived for ten weeks, and in the interval passed through the effort of childbirth six weeks before death.

The author last referred to has some able observations upon the probability of cure in cases of partial pneumothorax. Dr. Walshe mentions two instances of cure (I infer, of general pneumothorax). In my own case, it seemed not unlikely that the process of sealing up the opening was advancing, since no air was expelled until several attempts at inflation had been made. I must add, that I now regret I did not propose the operation of paracentesis. Although the opposite lung was healthy, yet the displacement of the heart and the absence of any other cause of death indicate that the fatal termination was due to interference with the respiratory process.

There was probably little hope of restoring the collapsed lung, under the various unfavourable conditions in which it would have been placed; but respiration would probably have been relieved by the operation, and a chance of prolonging life would have been given. I must now confess that the opinion formed during life, from the history of the patient, and also from physical and other symptoms, as to the probability of only a small amount of disease having existed in the lungs, ought to have exerted a greater influence upon my practice.

Case. J. S., aged 33, admitted February 9th, with symptoms of pneumothorax. His health had been unexceptional. Nine months ago, after losing his daughter, he took to drinking excessively. Five months ago, he spat up four or five pellets of blood, but never again. He had had shortness of breath for some time; but during the last eight or nine weeks this shortness had increased, and he had emaciated rapidly. He had had some cough for five or six weeks, but did not notice it much. For a fortnight or three weeks (he varied in his statement), he had been obliged to lie upon the right side—previously, he lay upon the left side; and he afterwards remembered, in replying to my friend Dr. Wade, that this change occurred after a severe coughing fit. He had been taking cod-liver oil for three weeks, under medical advice. At his admission, he was suffering from intense dyspnœa. His fingers were quite blue; his voice nearly inaudible.

The following is the result of careful examination, made on the day following.

General emaciation and pallor; no cyanosis; veins of neck not distended; decubitus obliquely to the right; voice hoarse and feeble; little cough; increased expectoration, composed of mucus, transparent, nearly colourless, and very frothy. Movement of right chest very imperfect; intercostal spaces smoothed; circumference between one and two inches above that of the left (there was some discrepancy in the observations). Heart-dulness and impulse two inches to the left of the normal position.

The base of the right side of the chest was perfectly dull on percussion, the dull space rising to a line drawn on a level with the ninth dorsal spinal process. The line of dulness varied with remarkable readiness in every movement of the body. Above the margin of the dull space, the chest was perfectly resonant, but not tympanitic. Respiratory sounds were heard remotely over the entire right side above the line of dulness, accompanied by some crepitation and sibilus. Once I heard metallic tinkling; and amphoric resonance was produced by coughing. The voice was too feeble to afford any indication. On shaking the patient, the succession-phenomena were produced in a very striking manner, and were quite sensible to the patient himself.

On the left side, all the phenomena derived from auscultation and percussion were normal, excepting that the respiratory sounds were puerile; this character of the sounds continuing behind the sternum. Beneath the manubrium, the sounds were loudly bronchial, though without dulness. Over the right ventricle of the heart was a soft but distinct systolic bellows-sound.

He died on the 22nd. His state did not present material change. Dyspnœa was so easily excited by movement, that we were unable to make more than very partial examinations. Decubitus was constantly on the right side. The cough became rather more troublesome for a day or two; but the expectoration lessened greatly. The voice continued hoarse and feeble.

The integuments of the right side of the chest became very œdematous; the face slightly puffed. Dulness ascended in the right chest to the level of the fourth rib. The clear space above the line of dulness became quite tympanitic; the respiratory sounds continuing distinct, though distant. No vocal phenomena could be developed. During the last two days of life, the left subclavian space was dull on percussion. I did not again hear amphoric resonance; but my examination was necessarily imperfect.

The urine was at first loaded with pink urates. A week before death, it became alkaline, and deposited a large quantity of phosphates. It was quite free from albumen.

The pulse varied between 100 and 108; the respirations fell from 33 to 24. The temperature oscillated between 96° and 97°; on two occasions, it attained 98°.

Post Mortem Examination. The right pleura was three parts filled with straw-coloured clear fluid, from which a considerable amount of solid fibrine had been deposited upon the lower part of the lung. Only a small quantity of air escaped when the pleura was punctured before opening the chest. The lung was closely compresssd against the vertebral column, and also against the pericardium, which it had driven towards the opposite side, as already explained; it was covered with a moderately firm false membrane, of recent formation. Air was blown into the trachea before the lungs were disturbed, without affording evidence of any orifice existing in the lung; but,

when the same operation was repeated, still under water, from the right bronchus, after separation of the lung, a small orifice was discovered at the posterior part of the apex, just large enough to admit an ordinary probe with smooth rounded edges. This opening led to a mass of soft tubercle, not a quarter of an inch thick, nor more than an inch or an inch and a half in extent, situated quite at the surface. The tissue was here quite broken down. The general tissue of the lung was much condensed, and, except at the base, sank in water. The lung could not be inflated. A very sparing formation of miliary tubercles was discovered in different parts. The left lung was loosely adherent to the chest; its tissue was florid, its apex very œdematous; it was emphysematous on the surface. It presented two or three small tuberculous groups, much like the one described as existing on the opposite side. The bronchial tubes contained mucus. The pulmonary arteries of the collapsed lung were free from fibrine. The heart was healthy in all respects. The other organs were quite healthy.

ST. MARY'S HOSPITAL.

In each of the three following cases, occurring at St. Mary's and the Middlesex Hospitals, there was unusual prolongation of the fever; but, while in the first of them there was no remission in the symptoms for a period of six or seven weeks, in each of the others convalescence was steadily advancing when the premonitory symptoms of the second attack appeared. In Dr. Handfield Jones's case, the considerable amount of the bronchitic symptoms might, at one time, have led one to suppose the very possible invasion of phthisis.

CASE OF TYPHOID FEVER OF UNUSUAL DURATION.

Under the care of C. Handfield Jones, M.B., F.R.S.

James F., aged 51, was admitted on July 28th, 1865. His illness had commenced a month previously, with slight shivering and weakness, which gradually disabled him. His tongue was dry and brown, and about twenty rose-coloured spots were observed on the abdomen. Moist bronchial *râles* were heard on both backs, and the expiration was slightly prolonged and exaggerated at the right apex posteriorly. The temperature in the axilla was 100° Fah.; and it varied during the first ten days from 100° to 104°, and then gradually fell. The pulse was about 90, small and weak. No fresh eruption of spots was noted; but after four or five days, he was much more prostrated; his pulse became weaker and smaller; and he was semi-stuporous; and, during the nights, delirious.

After August 2nd, his bowels were more relaxed than they had been on admission. The urine appeared normal throughout, and contained a good amount of chlorides, but no albumen. He was ordered twelve ounces of brandy daily, beef-jelly and steel, and acid draughts. Under their use he gradually improved.

On August 12th, his pulse was much stronger, and his tongue nearly natural; the bronchitic symptoms, however, persisted, and the *resonance* on the right back was somewhat diminished.

During convalescence, there was copious rusty and muco-purulent expectoration; but when the patient was, at his own desire, discharged from the hospital, on August 28th, this had greatly diminished, and only occasional semi-moist *râles* were heard at the right base.

MIDDLESEX HOSPITAL.

TWO CASES OF RELAPSING TYPHOID FEVER.

Under the care of A. P. Stewart, M.D.

[*From the Notes of* Mr. Bailey, *Resident Medical Assistant.*]

Case I. Anne D., aged 42, was admitted on November 21st, 1865. Her previous health had been good. On November 11th, she was seized with sickness and violent headache, and became feverish.

On admission, she was very pale and languid, and her lips were dry. There were several rose-coloured spots on the abdomen and engorgement of the superficial veins in the right iliac fossa. The pulse was 84. The bowels were confined. The inspiration was slightly harsh on both sides. A draught, containing four minims of hydrochloric acid, was given every four hours; and the bowels were kept open by the fluid extract of senna. No fresh spots were observed after November 23rd, and she improved in every way till December 3rd, when she felt faint and sick, and was seized with alternate heats and chills; her appetite, which had been keen, again became bad; and on the following day, a fresh crop of rose-coloured spots was observed on the abdomen, and others appeared daily from the 6th to the 11th of December. The pulse had risen to 104. The bowels were confined, and had to be acted on by medicine. The patient improved after the 13th of December. The tongue became cleaner; the skin moister and cooler; and the pulse fell in frequency. Her strength gradually returned; and she was discharged, convalescent, on January 4th, 1866.

Case II. Eliza C., aged 22, was admitted on December 9th, 1865. Her illness had commenced three weeks previously, with languor, headache, alternate heats and chills, and bilious vomiting, followed shortly after by diarrhœa, which had continued since.

On admission, her expression was anxious, and the skin hot. The tongue was very dry, brown, and fissured in the centre, and very red at the sides; the lips and teeth were encrusted. There was general tenderness of the abdomen, and gurgling could be felt in the right iliac fossa. The bowels were loose, and the motions light yellow and watery. The pulse was 106. No eruption was observed. After a few days, the symptoms abated, and she steadily improved till her discharge from the hospital, on January 1st, 1866; when, with the exception of rather frequent pulse and a tendency to perspirations on exertion, she was convalescent.

On the day after her discharge from the hospital, she was again seized with headache, prostration, and vomiting; and the diarrhœa returned, and continued till she was re-admitted on January 17th.

She was again pale and anxious; and her skin was hot, but soft. Six rose-coloured spots were observed on the trunk, and the tongue was dry in the centre, and red and clammy at the sides. For two nights, the patient was very restless; and till January 20th, fresh spots were noted daily. There was some dulness at the bases of both lungs posteriorly, and the expiration was there prolonged; rhonchi were heard on both sides of the chest.

After she had been in the hospital for a week, the symptoms began to disappear, and she was convalescent on February 5th; but, as her strength was reduced by her long illness, she was, on February 23rd, sent to the Convalescent Hospital at Walton-on-Thames.

Anatomy at Strasburg. The number of dead bodies supplied to the Strasburg School of Medicine during the Session 1864-5, was 426. The number of students was 265.

Original Communications.

REMINISCENCES OF A FOUR MONTHS' STAY WITH PROFESSOR A. VON GRAEFE IN BERLIN.

By A. Samelson, M.D., Manchester.

The Russian Government, about to establish universities in several of the largest cities of the empire, Odessa among the number, where there is first to be a medical faculty only, intends at this latter place to erect a general hospital on a truly Russian scale, as there are no fewer than three hundred of its beds to be assigned to patients affected with eye-disease only. The Italian Government, again, proposes, it is said, to place Dr. Sperino at the head of an ophthalmic hospital to be established at Milan, which is to afford accommodation to three hundred patients. As yet, however, there does not, to our knowledge, exist any ophthalmiatric institution equal in extent to that of Professor von Graefe in Berlin. If mere dimensions were of any essential importance, we might add that the latter has recently possessed himself of very extensive property directly adjoining his present establishment, which is thus expected, at no distant day, to assume greatly enlarged proportions. Besides, whatever quantitative attempts in this direction the next future may realise, will all have to be traced to the example set and the impulse given by Von Graefe, whose advent in conjunction with Helmholtz, Donders, and Bowman, will ever mark an epoch in the ophthalmic province of medicine.

The uniqueness of Von Graefe's establishment does not, however, consist in the extent of it, but in these facts; that it is an entirely private undertaking, even at present all but unaided from without; that he, the master, reigns absolute in its precincts, to which, moreover, whilst at Berlin, he almost entirely restricts his out-of-door practice; that he never delegates any of his duties, excepting the merest routine—not disdaining to do himself thousands of times over that which lesser minds would scorn as derogatory; and, especially, that the distinction between private and public practice is here in a great measure sunk, so that patients of both sexes are seen from every quarter of the globe and of all classes of society. To other features, in our opinion no less distinctive, we shall further on find opportunities of calling attention.

As regards numbers, when we state that, from an average of the last five or six years, about six thousand patients annually are entered as seen, during the nine months of his stay at Berlin, by Professor von Graefe, both in private and public practice (for all are entered day by day promiscuously in his journal), the figure will, perhaps, at first surprise by its smallness; but, in explanation, we will restrict ourselves to mentioning the fact that there are at present almost all over Germany medical men to be found fairly conversant with eye-disease, not merely in the large centres and in the university towns, but in many smaller places, who have attended the school of Von Graefe; the disciples of which, as is well known, are now dispersed all over the world.

Professor von Graefe's "Eye-Clinique" is situated in the Karlstrasse, at the north-western extremity of the city of Berlin, close to the river Spree, just where this leaves, after having traversed the town, in close proximity to the vast park, called the "Thiergarten", as it were the lungs of Berlin, and at a very small distance from the "Charité", the largest hospital and clinical school of the kingdom, amongst the teachers of which Virchow, Frerichs, and Traube are at present the foremost. Although the clinical teaching of ophthalmology at the Charité is entrusted to Professor Jüngken, who, well stricken in years, combines this post with that of clinical professor of surgery, a small division, comprising some forty beds, has for some years been placed under the direction of Professor von Graefe. His patients here, all of the poorer class, and left to the immediate care of a military medical officer with his subordinate assistants, are mostly such as are affected with chronic inflammatory eye-disease, and whose cases but seldom call for the performance of a capital operation.

The edifice of Von Graefe's Eye-Clinique is a corner house, in the main three-storied; but a small portion of the back façade, going by the name of the "small house", consists of two stories only. The block, as it appears at present, is a combination of three houses, none of which was originally planned for the purposes of a hospital; and, as there has never been a thorough reconstruction, the interior is of almost bewildering intricacy. In most parts of the building, the sick-rooms are opposite each other, divided by a narrow passage, and looking into the street or into the yard respectively. The rooms are heated, each separately, by means of the customary German stove, constructed of glazed tiles, and standing in a corner of the room. The stairs, passages, and some of the dwelling-rooms, are lighted with gas; in the sick-rooms, candles are used. There is no artificial system of ventilation; but the building is provided with pipe-water and with water-closets in all its stories. These latter are far from being *cabinets inodores*, owing chiefly to an overwhelming stench of tobacco—a nuisance the toleration of which is the more surprising, as persons of both sexes are compelled to resort to these abominable places. There is only one bath in the whole building. None of the rooms are without double windows and weather-blinds—the latter made of strong linen twill, and moving between the two windows. Every door is edged throughout with list of woollen cloth. The curtains, the inner blinds, and the bed-screens are all of dark blue merino; the folding candle-screens, of green silk. On the ground-floor there are no more than four or five sick-rooms for private patients; there is, besides, the diphtheritic ward, consisting of a few small rooms. The remainder is occupied by the clinical department on the one side; the porter's room, the inspector's dwelling-rooms, and the patients' assembly-rooms, on the other. The kitchen, presided over by a male cook, is underground, where also some of the male servants are accommodated.

The Clinique affords accommodation for upwards of one hundred patients. Pretty nearly half of the beds are assigned to what are called hospital patients; the other half to private patients. The rate of payment, together with the character of the accommodation, forms the distinction between these two classes of patients. The patients of *the hospital* proper are charged at the rate of £1:17:6 per month, for all in all. There are, however, about fifteen beds for such patients as are unable to pay, entirely entertained at Professor von Graefe's own expense; and a considerable number of hospital patients, again, are admitted at half the usual

charge. Many also are assisted with a free pass by the communal authorities of Berlin and of other towns, who undertake the liability for them. The occasional overflow of hospital patients are accommodated at the hospital charge by the two male attendants, one of whom lives within the building, the other close to it. The rooms forming the hospital are for the most part situated in the top story (where there are but a comparatively small number of private sick-rooms), but partly and stragglingly also on the first floor. The hospital rooms, modestly furnished, though none without a sofa, contain from three to six beds, all mattressed, which, during the day, are raised against the walls. Each of these rooms has its cubic space marked on a board, and, like every sick-room in the house, is provided with a thermometer. The hospital wards, visited by the professor with the same scrupulous exactness as the private portion of the establishment, are by him entrusted to the superintending care of Dr. Waldau, and more especially attended to by his junior clinical assistant—whose office is an entirely unpaid one—at present Dr. Tachau of Hamburg, who invariably accompanies Von Graefe in his hospital visits, and has to watch the cases with such care as will enable him to meet, in his reports, the exacting interrogatory of the master.

The private sick-rooms, about fifty in all (there being some in the first story, rented for the purpose, of a house opposite the Clinique), are of various proportions, a small number of them being narrow and one-windowed only; by far the majority are on the first floor. Each contains, for the most part, one bed only; and the office of this has, in the smaller rooms, to be performed by the sofa, inside which the bedding is placed during the day. The furniture—mahogany, and fully sufficient—is pretty uniform in all the rooms. The charge per bed (there staying, in many instances, a relative, friend, or attendant, with the patient at the Clinique) varies from four to five shillings a day, according to the size of the room, but independently of the aspect and of the story in which it is situated. For this payment, lodging, meals, and service are afforded; while fuel, lights, medicines, night-watches if required, errands, etc., are separately, and for the most part moderately, charged for. There is, of course, to be paid, besides, the fee for medical attendance, as given, first by the professor himself, and secondly by one of his three assistants, Drs. Waldau, Arendt, and Ewers, to the care of one or the other of whom each of these private patients is entrusted. The sick-rooms all over the establishment are regularly visited by Von Graefe once a day; but every operation-day—*i. e.*, three times a week—and frequently also on other days, he sees the operative cases and others requiring it again late at night. On many days, he pays three or even four visits at the establishment. In his visits to the private patients, he is not usually attended by any of his assistants, who have to report what is necessary at other times; but a male attendant follows him with a case containing the most usual applications; and the nurse to whose department the patient belongs has to be regularly and promptly at hand with her own medicine-case and dressings, or else with those set apart for the individual patient. The private patients are often, whilst at the Clinique, attended to for their general bodily ailments or some special affection by their habitual advisers, or by some practitioner called in at their own desire or at Von Graefe's suggestion.

The whole of the patients are tended by female nurses, who have each a housemaid attached, with whom they appear to work in pleasing harmony, one having often momentarily to act as the substitute of the other. There are as many small kitchens as there are couples of nurses' housemaids in the private portion of the establishment; five or six rooms being apparently the complement for each couple. The nurses, varying in age from about 16 to 60 (and of whom only a small number have for a long series of years been attached to the institution), have to serve an apprenticeship of several months, during which they receive no wages, under one or another of the older nurses, and are each and all free to leave or liable to be dismissed at less than a day's notice. Not unfrequently, individuals who have been patients of the Clinique before, stay or return to become nurses. There are now two young and very efficient ones, wearing each an artificial eye, in place of the one enucleated at the Clinique.

The nurses, their training over, are expected to be, and generally are, most prompt, clean, and handy, in the management of dressings, applications, thermometrical measurements (to which great attention is here paid), and the like. They have to provide, and seem to know well how to procure from the patients or the friends of the latter, the whole of the old linen and charpie required in their respective departments. They do not appear to be overpaid; but in compensation are certainly receivers of substantial bounties on the part of their patients. The discipline throughout the institution, with its staff of from thirty to forty officials and servants, leaves, on the whole, nothing to be wished for. With little or no noise, the word of command finds its way in every direction, and everywhere meets with ready obedience. Although the utmost stretch of severity of which the gentle disposition of the master admits, is a momentary semblance of harshness, yet the faintest intimation of his approach, a mere whisper of his voice, never fail to secure the swiftest attention.

There also resides in the establishment a young lady, versed in languages, who had before been a patient herself, and whose office consists, apart from presiding at table, in attending to the casual wants in the way of correspondence, conversation, reading, etc., of the more or less helpless among the private patients.

The meal hours of the establishment are as follows: breakfast at eight, dinner at two, coffee at four, and supper at seven o'clock. The house door is locked at 10.20 P.M. The meals generally—we are now speaking of the private portion of the establishment—are very carefully prepared and from good material, except the coffee, which is distinguished by its weakness. The dinner is as substantial as persons enjoying perfect health are accustomed to partake of abroad. The ordinary beverage is water, and this of tolerable quality. A glass of beer or a bottle of light wine may be ordered and had, but they are, on the whole, but little in request. An exception in diet from the rule is apparently but seldom thought necessary, and perhaps almost exclusively for persons who have had some trying operation recently performed upon them.

The dinner for those who are permitted or choose to have it out of their rooms, is served in the dining-saloon, which accommodates about forty persons. The attendance here is most efficient. The company of ladies and gentlemen, of course greatly varying in age, comprising natives of every clime, often the many healthy companions of patients, and hardly ever persons very gravely affected, is frequently most interesting; and parties of a moderately genial disposition are sure to carry away with them many a cherished contribution to the pleasures of memory. The dining-room possessing the luxury of a piano, music and singing often afford a grateful entertainment to the company after dinner. Those who are

compelled or prefer to take their dinner in their own room receive it there punctually; but, to their disadvantage, the whole of it at one time, and, what is more grievous to some and mysterious to all, curtailed of the tart. At four o'clock P.M., coffee is served to those who prefer in the so-called garden-saloon, adjoining the dining-room; from which a few steps lead down to what is by courtesy named the garden, though it is little more than a small and unpaved portion of the not very extensive yard.

The long university vacations, from the beginning of August to the end of October, Professor von Graefe has of late years regularly spent at Heyden, in the canton of Appenzell, and during the month of October in Paris, interposing a short stay at Heidelberg on account of the Ophthalmological Congress which meets there every year in the beginning of September; at all of which places patients in great number and from every quarter crowd upon him. During the whole of this time, the In-patients' Department, as we hear, and as may be imagined, is well nigh deserted. But the daily attendance on out-patients, which we shall now endeavour to sketch, as we have found it in the Professor's own keeping, is continued without interruption by his assistants. We may perhaps state by anticipation that, in a distant part of the town, out-patients, other than those of the Clinique, are twice a week attended to by one of the assistants.

At the Clinique, attendance is given by Von Graefe, whilst he is at Berlin, every day, Sundays and holidays included. The patients begin to appear at twelve o'clock, and distribute themselves over the three anterooms, which in an irregular curve skirt the reception-room. The latter, which occupies the corner of the ground floor, is about twenty-six feet by fourteen, with three windows on its long and two on the small side, and has three doors, one by which visitors and students enter and the patients leave, another for the patients to enter from the anterooms, and a third (a sliding door) giving access to the ophthalmoscopic room, which is fitted with all the requisites for two persons to be examined at the same time. There is besides a spacious chamber for microscopical and pathologico-anatomical examinations; where, also, private conferences and consultations are held, and the pathological, together with a pharmacological, collection, optical instruments, and the long series of patients' entry-books, are kept. The reception-room is operation-room and lecture-room as well. When the time for operating has come, tables and chairs are moved out of the way, and the couch so long raised against the wall, a very convenient and little complicated structure, is lowered and properly placed.

The applicants for relief are admitted indiscriminately, without any inquiry into their pecuniary circumstances. There being no outside contributors to this entirely private charity, anything like a recommendation is unknown. The bounty thus lavishly proffered is, of course, largely abused; but this is little heeded, and an occasional inquiry about the fee incurred is for the most part ignored. However, a considerable number of the Professor's private patients, apart from the occupiers of the sick rooms, make here their appearance pursuant to his desire, and promiscuously with the real or pretended objects of charity. Many a lady or gentleman, of noble birth or high rank, superior military officers, deputies, etc., arrive here to occupy for a space the seat before Von Graefe, just vacated by some person of the labouring class.

From twelve to half-past one o'clock, a large number of patients are attended to by Dr. Arendt; viz., those who are judged by Von Graefe no longer or yet not for some time to require his own immediate care, and are therefore committed by him to what he calls "the second chair." He appears himself at the Clinique by about two o'clock. Mostly before commencing his attendance, he sees a knot of private patients who have been waiting his arrival, and are content to have his advice on such higher terms as are here charged in comparison with the fee at his private residence. At the latter, he sees patients only on three or four days of the week, invariably in the evening, by lamp-light, from seven o'clock often until midnight. Every patient has to sit down before him; and he occupies a higher chair with its back to the window. The out-patients are admitted in batches of from four to six by an attendant, who provides the new comers with a slip of paper containing their names, ages, occupations, and residences, for entry in the journal, which is kept by the junior clinical assistant. The patients looked at, Von Graefe dictates the diagnosis to be entered and makes such applications as he deems proper, or despatches the patient for more thorough previous examination either to the assistant on whom the ophthalmoscopic exploration of cases exclusively, and for the most part also the inquiry into the state of refraction and accommodation, devolves — at present Dr. Schelske; or to the second chair, represented by Drs. Arendt and Ewers, who also supply patients with their prescriptions, as directed by Von Graefe. There is, however, comparatively little prescribing, as inward medicines, except in specific disease, are held generally to have but small effect upon the local disorder, and as the various local applications are in most instances not only made there and then, but the fullest scope is afforded for their speedy and frequent repetition, the attendance being daily. The preliminary examination by the assistants over (who are all qualified practitioners with a practice of their own), the patients again appear before Von Graefe, furnished with a slip of paper on which is written the result of the examination—*i. e.*, in many instances, the diagnosis thus made out—which is in ophthalmoscopic cases mostly verified by Von Graefe either immediately or at a later moment. Frequently, the patients have to carry away with them, and re-present on their return, a paper with the diagnosis, the state of vision, the remedy applied, etc., marked upon it. Regular prescription-sheets left in the hands of, and regularly to be produced by, the patients, are not in use, and are in a great measure rendered superfluous by Von Graefe's extraordinary memory. Besides, the prompt attention to the indexing of the paged case-books secures expedition in reference. Whilst he attends, hardly any application is made but by his own hands; cauterisations, incisions and probings of the lacrymal passages, the applications of powder, ointment, and drops, opening of abscesses on the lids, even frequently the performance of dressings, are all sufficiently weighty with him not to be lightly entrusted to others. Homogeneous cases are by the attendant caused to appear *seriatim* in close succession, such as patients requiring their lacrymal passages to be probed; often a dozen of them will come forward presenting their probes, one or two, as the case may be, previously handed to them by the attendant. It is a curious spectacle to see a number of persons seated in a row, each with two long, shining, tapering objects, stiffly projecting at his forehead like a couple of horns or antennæ. We were struck by Von Graefe's dexterous despatch in the performance of Weber's operation and the introduction of his probes. Readiness is with him the chief postulate, and it is efficiently secured. The patients, with rare exceptions, have their senses about them when questioned. Verbosity on their

part is sure to be shortlived; nervousness becomes pluck itself where the minutes are so precious; the infant to be operated upon appears at the desired moment with its body firmly secured to the pillow by many windings of a roller; every requisite of dressing is unfailingly presented when the hand but moves to seize it; the patient under chloroform, independent of rank, somehow contrives speedily to shake off the trammels of the soporific to have his muscular capacities tested after tenotomy. The blennorrhoic and diphtheritic cases appear towards the close of the attendance. A number of them are always in-patients, brought down by their respective nurses. The junior assistant, so long engaged in writing, now steps forward to assist in the tedious manipulations which the cases of these little sufferers necessitate, who, with their heads fixed between Von Graefe's knees, are the objects of his most scrupulous and laborious care. His vigilance in the warding off all danger of infection either to his own or others' eyes by the utmost punctiliousness in ablution cannot be surpassed. No case of purulent or trachomatous disease is ever touched by him without resorting to the basin thoroughly to wash his hands with soap and water, whilst in particularly suspicious cases chlorine solution is superadded for the purpose. It is no exaggeration to say, that we have seen him clean his hands in this manner upwards of twenty times in less than two hours of attendance. Apparently, most sorrowful experience has made him thus keenly alive to the necessity of caution. One of his assistants has had one of his eyes all but mutilated by diphtheritic infection. In certain cases where the risk may be apprehended of the discharge squirting into the surgeon's face, Von Graefe even protects his eyes with a pair of plane glasses.

Patients whose cases are likely to be of interest to one or another of the celebrities of the profession, or to be benefited by their attention and treatment, are frequently directed to their respective addresses—thus, *e. g.*, grave cases of malignant disease to Von Langenbeck; neuro-pathological cases to Romberg or Griesinger; cases by their inherent difficulties of physical exploration courting the touch of a master to Traube; again, cases of nervous disease, *e.g.*, exophthalmic goître, for electric treatment to Remak, etc.

The *remedial agencies* in which trust is here placed are few in number. Internal remedies, as we have said before, are little in request; for specific purposes mercury and the iodide of potassium—the latter often in combination with iodide of mercury*—are appreciated. The preferred method for mercurialisation is inunction. Of late, the Turkish bath has become a favourite resource, apparently for alterative purposes generally. Aperients do not seem often to be thought necessary. For the ordination of quinine there is much less occasion than we find in this country. (Altogether, the out-patients, as regards appearance and intelligence, are of a different cast; as the national wealth of Prussia is yet far from the standard of England, so her national misery, if it ever should come to rival, has not yet attained to British dimensions.) A combination of camphor and carbonate of ammonia is occasionally, at the Clinique, ordered for the same purposes for which here the more expensive quinine is prescribed. Blisters are but sparingly made use of, and issues all but ignored. General depletion appears to be entirely abandoned. Local bleeding is, in the inflammatory condition following operations, utterly repudiated; and, in acute disease generally, very little resorted to. Contrariwise, in congestive conditions, especially those so frequently attending amblyopic disease, extensive use is made of Heurteloup's artificial leech, with the application of which a special surgical assistant is entrusted at the Clinique. The eye-douche continues to be held in deserved esteem. There are, further, the multitudinous orders for the various refracting-glasses, either spherical or cylindrical; a kindred resource is the prismatic glass in muscular asthenopia, etc.

Nothing strikes the visitor more, though not at the Clinique only, but in Berlin generally, than the extraordinary number of persons wearing blue glasses. These, mostly plane, and ordered for the purpose of protection from the yellow rays of light, are now frequently preferred of the globular shape. The neutral tint or smoke-glass is seldom seen. The sunlight, throughout the year, is more glaring abroad than we have it here. Moreover, there is at Berlin, besides Von Graefe, an authority perhaps greater than he in this particular, favouring the resort to blue glasses, Professor Böhm, who has made the merits and effect of the blue light his special study, and to whom practical ophthalmology is certainly indebted for valuable information on this head. Whoever has cared to inquire into, and in suitable cases try, the effect of blue glasses, will not, on account of a possible excess due to fashion, too unfavourably judge the ascendancy obtained by this therapeutical agent. A reliable firm of opticians at Berlin (Pätz and Flohr) is specially, and we think wisely, patronised by the Clinique in the ordering of glasses.

Atropia, as it were the staff of ophthalmology, is extensively resorted to; but we were gratified to find much discretion observed in its use. Correspondingly, those tedious and obstructive conjunctival and erysipelatous affections consequent on its administration appear to be comparatively rare. The application is made with the brush.

Of the remedies directly applied to the palpebral conjunctiva, the solution of the absolutely neutral, and thence so inoffensive, acetate of lead (generally one drachm to the ounce) and the nitrate of silver stick, mitigated by the admixture of double the quantity of nitrate of potash, are in the order in which they are here named by far the most frequently employed. The light-handed touch, the circumspect restriction of the remedy to the really affected locality, and the singularly painstaking ablution (with water in the case of lead, with a solution of chloride of sodium first and then with water in the case of the caustic) must, in our opinion, be ranked among the characteristic features of the treatment here bestowed. The mitigated lapis seems to have almost superseded the sulphate of copper so much in request some twelve years since, when we attended this clinique. However, when used, the sulphate of copper crystal is here employed in a very elegant form; viz., carefully ground into pointed cones which are fixed in a crayon-holder—to be obtained, like the other articles mentioned above, from the wholesale house of Mr. Simon, Spandauer Strasse. The use of the unalloyed lunar caustic is almost limited to the purpose of obliterating the lacrymal passages; for a similar end the nitrate of silver is, in suitable cases, also employed in the form of small silver probes or of bougies coated with the salt. Other favourite topical administrations, partly of recent introduction, are the inspersion of calomel, the application of liquor chlori, and especially that of Pagenstecher's amorphous oxide of mercury ointment—all these in fascicular or phlyctenular kerato-conjunctival affections; the latter excellent remedy (which is regularly removed from the eye again after a few minutes), also in subconjunctival (circumcorneal) inflammation. The tincture of

* Iodide of potassium 3j; iodide of mercury gr. vj; water 3iij. A teaspoonful to be taken in the morning.

opium is considered by Von Graefe as a specific in the *dry* form of conjunctivitis. Amongst the derivatives might still have been mentioned the frequent application, but lightly made, of the mitigated lapis or the concentrated lead vinegar (solution of basic acetate of lead) to the cutaneous surface of the upper lid; but, above all, the almost stereotyped use, in acute inflammation attended with more or less intolerance of light, for inunction to the forehead, of Arlt's salve, containing the extract of belladonna and the white precipitate of mercury in varying doses (in most cases respectively one and two parts to twelve of fat. In the administration of this ointment, it is not the specific action of the ingredients which is sought; the remedy appears, in the main, to be intended as a sedative and counterirritant, and is usually directed to be applied in tolerably large quantity from six to eight times a day. The practice of ordering bulky lotions does not prevail at the Clinique; the most frequent prescription is that of two drachms of the acetum plumbi, of which a few drops mixed with a few ounces of water furnish a lead lotion to the patient which he may thus frequently renew for himself. Of very general extemporaneous employment are the elegantly prepared glycerine and starch ointments (Simon's), with their admixtures of sulphate of atropia or acetate of lead or nitrate of silver. Tar is another local application ever at hand for cases of exanthematous lid-affection.

We conclude this survey of the pharmacological armoury with a reference to some of the principal instruments of treatment relied upon by Von Graefe. Sustained pain after operation is invariably met by the subcutaneous injection of morphia; iced compresses are the chief remedy opposed to the diphtheritic process during its yet unbroken severity, and are likewise resorted to when cutaneous inflammation rises to an excessive height. But the great adjuvant in the subjugation of danger, or in the conquest of a partial effect at least, is the systematic use of compression, in many instances alternating with warm camomile fomentations, of a temperature regulated in accordance with the requirements of the cases. It is this latter method of proceeding matured to its present perfection by the thoughtful and assiduous study of many years, and ever and anon, in the individual cases, practised with unswerving vigilance, which, in our opinion, again constitutes one of those patent secrets of success attending the practice of a master of the healing art.

If, by way of transition to the chapter of *operations* proper, I shortly refer to those multiform manipulations which in a sense belong to the province of what is called minor surgery, as they are mostly performed in a more off-hand way—such as the opening of abscesses, or of the lacrymal ducts after Weber's method, or the abscission of prolapsed iris—it is because Von Graefe's systematic dealing with the last-named morbid occurrence has appeared to me so pre-eminently instructive. In those frequent instances of ulcerative perforation of the cornea, whether of diptheritic or blennorrhoic origin, the luxuriating protuberance is never winked at, but again and again removed with scissors, until, in progress of time and by dint of cauterisation of the mucous membrane, the exuberant tendency of the morbid process, if not an invariably destructive one, is effectually subdued. It is once more our impression that diligence and devotion thus succeed in rescuing much that else would be unfailingly lost; and the least gain is a more speedy termination of the process.

[*To be continued.*]

DESCRIPTION OF A KIDNEY, WITH CYST, CONTAINING CALCULI.

By G. H. Philipson, M.A., M.D.Cantab., M.R.C.P., Newcastle-upon-Tyne.

The kidney was taken from a sailor, a patient in the Newcastle Infirmary, under the care of Dr. Humble, who kindly permitted me to make the *post mortem* examination, and the further privilege of giving the following description.

The organ, when removed, was of ordinary size and natural in appearance, the capsule being removed with ease. When divided by a longitudinal incision, the lower third was found hollowed into a cavity, filled with serous fluid, and containing four calculi; the remaining portion being healthy, the cortical substance well distinguished from the medullary. The cavity was equal in size to a large walnut, internally ridged, lined with a glistening white membrane, and for two-thirds of its circumference bordered and separated from the capsule by the cortical structure, fully one-fifth of an inch in thickness. No communication existed between the cavity and infundibula, which, with the pelvis and ureter, were of ordinary capacity and free from calculi. The fluid was clear, colourless, and devoid of any urinous odour. The calculi together weighed nine grains. Two were like small peas; the others larger, nodous, with two or three prolongations. The section of one of the small ones disclosed a distinct nucleus, surrounded by visible layers. Chemically, it was composed of oxalate of lime.

The right kidney was healthy. The pleuræ were firmly adherent; the lungs highly emphysematous; the bronchial tubes filled with tenacious mucus; and the mucous membrane extensively inflamed—the immediate cause of death.

Cavities or cysts in the kidney, perfectly distinct from the pelvis, and filled with serous fluid, are not unfrequently observed; but, containing calculi, very rarely so—the renal calculus being commonly located within the pelvis or the cyst-like expansion formed by the dilatation of an infundibulum.

The obstruction of a tube, and the extension of the pervious portion, from the collection of fluid, is applicable as an explanation of the origin of the cyst; the calculi, in all probability, being subsequently formed by deposition upon some urinary or organic matter within the tube.

A Wonderful Bullet. I had just been ordering our men not to waste their ammunition, and to fire only when they saw the person of a Yankee completely exposed, when close at hand I heard the dull thud of a bullet striking home, and turning round I saw one of our soldiers, a gallant young fellow whom I knew well, throw up his arms and fall heavily to the ground. Dismounting at once, I hastened to his side; but finding that the ball had struck him right in the middle of the forehead I regarded him as a corpse, and deemed all further assistance wholly unnecessary. Not many minutes had elapsed, however, before the apparently dead man began to move, and when the surgeon, who had already arrived, poured some brandy down his throat, to our infinite amazement he opened his eyes. A few hours later, miraculous to relate, when the bleeding from the wound had ceased, he had recovered sufficiently from the severe shock to return to his post of duty. According to the surgeon's statement, the ball, striking obliquely, had glanced, passing between cuticle and skull, all around the head, emerging at last from the very place it had first entered. (*Blackwood's Magazine.*)

Reviews and Notices.

A Manual of Minor Surgery and Bandaging, for the Use of House-Surgeons, Dressers, and and Junior Practitioners. By Christopher Heath, F.R.C.S., Assistant-Surgeon to and Lecturer on Surgery at the Westminster Hospital. Third Edition. Pp. 249. London: 1866.

We have already had occasion to speak in favourable terms of this little book; and are well pleased to find that it has so far met with the encouragement it deserves, that a third edition has been rendered necessary. The degree of completeness to which, consistently with conciseness, the author succeeded in bringing the former editions would seem to have left little room for improvement; still Mr. Heath has availed himself of his further experience as a surgeon and teacher, and of the suggestions of several friends, and has introduced more tables of diagnosis, six new woodcuts illustrating surgical appliances not in common use, and several additional formulæ. There can be no question that his hope will be fully gratified "that the present edition will not be less useful to the student and young practitioner than its predecessors."

Cases illustrative of the Pathology of Dysentery, with Remarks. By Dr. S. G. Chuckerbutty, Officiating Professor of Clinical Medicine, and Second Physician to the Medical College Hospital, Calcutta. Calcutta: 1865.

Dr. Chuckerbutty here gives the histories of forty-one cases of dysentery coming under his care in the Medical College Hospital at Calcutta. In the fourteen months during which these occurred, he had in all 280 cases, among which were 91 deaths. Partly from the religious prejudices of the natives, and partly from the loss of some notes, the records of only 38 *post mortem* examinations were preserved; and these are all included among the cases which form the subject of this essay.

After giving the histories of the cases, the author points out, in reference to each case, the special pathological condition therein illustrated; and, having done this, he gives a summary of the facts observed; viz.: certain conditions causative of dysentery; the varieties of sloughs, ulcers, and hæmorrhage; and the complications of dysentery.

He then goes on to observe that most of the pathological conditions which he has described may be detected during life by physical examination applied to the abdomen and to the intestinal discharges.

"Abdominal examination is made with the hand to ascertain the seat of any tenderness or thickening, the contents of the bowel, the tension of the abdominal muscles, and the state of the neighbouring solid organs. Tenderness and thickening of the intestine point to the seat of the inflammation, or, if considerable, to the situation of separating sloughs or colicky distension of the diseased structures; in the first case, showing where leeches or blisters may be applied; in the second, where ice and cold may be applied in cases of hæmorrhage; and in the third, the value of giving carminatives by the mouth. Thickness of the bowel with the loss of tenderness indicate extensive tissue-death, and the importance of giving stimulants in place of antiphlogistics. Tenderness with muscular tension shews the advent of peritonitis. Dulness of the intestine under manipulation with the fingers and percussion shows the presence of sloughs, and not fæces, if the inflammation has been acute. Gurgling with loss of sensibility, after acute symptoms, shows a dissolving condition of the bowel. And tumours or enlargement of other organs, the presence of complications."

The stools are to be examined, according to a plan introduced by Dr. Edward Goodeve, by diluting with water, after the removal of foreign bodies, and washing the sediment, the characters of which are to be observed. This sediment may consist of a certain mucus—ropy, gelatinous, branny, or thready; shreddy or granular lymph; laudable, ichorous, or scrofulous pus; fæces in various degrees of consistence; and sloughs. These different forms are shewn to denote different pathological conditions. For instance, the conditions indicated by the various kinds of sloughs are as follows.

Character of Sloughs.	Conditions Denoted.
Ecchymosed	Abraded or minute ulcers: intestinal apoplexy.
Compact grey or light yellow	Acute phlegmonous dysentery.
Thick pus—infiltrated mucous	Erysipelatous dysentery.
Ragged	Gangrene.
Dark olive	Secondary gangrene of mucous coat.
Thin black, plain or tubular	Primary gangrene of mucous coat.
Shreddy	Gangrene in either mucous or cellular coat.
Molecular, or putrilage	Disintegration of tissue.
Flaky epithelial	Commencing gangrene of mucous membrane.
Shaggy	Violent inflammatory action.
Free filamentous (simple)	Primary gangrene in submucous tissue.
Ditto ditto (pus-infiltrated)	Submucous cellulitis.
Ring-shaped	Ring-shaped ulceration in mucous folds.
Discoid	Circular ulcers in ecchymosed patches.

After in like manner pointing at the indications derived from the different characters of the mucus, etc. Dr. Chuckerbutty observes:

"All these facts serve to prove the absolute necessity of a careful study of dysentery, for with that study comes the proper appreciation of all the different varieties and the different stages of those varieties, a knowledge of which cannot fail to be of great value in guiding our treatment of that dire malady. For instance, of what use is it to give ipecacuanha when the stools show that gangrene has set in, or that acute phlegmonous dysentery has already merged in extensive sloughing? Again, of what inestimable advantage is it not to know from a minute speck of blood during the separation of sloughs that a large hæmorrhage is close at hand, against which precautionary measures should be immediately adopted?"

This little essay shews the exercise of much patient observation on the part of Dr. Chuckerbutty, and a desire to make the results thereof useful. He merits the thanks of the profession, especially in his own country, for this as well for other contributions to medical science.

Medical Journalism in America. The *New York Medical Record* in its *first* number, just published, says that new medical journals are showing themselves from all sections of the country. With the commencement of the year have made their appearance: the *Richmond Medical Journal*, the *Galveston Medical Journal*, and the *Cincinnati Journal of Medicine*.

We are requested to remind members of the Association that the Annual Subscriptions became due on the 1st of January. They can be paid either to the Secretaries of the Branches; or to the General Secretary, T. Watkin Williams, Esq., 13, Newhall Street, Birmingham.

British Medical Journal.

SATURDAY, MARCH 24TH, 1866.

THE PURSUIT OF HEALTH UNDER DIFFICULTIES.

HAVING arrived at the comfortable assurance that nuisances, being for the most part unsavoury and often unwholesome, lie open not only to theoretical objections but to legal proceedings, and that it is lawful to employ officers for the express purpose of searching them out and banishing them, let us next inquire on whom rests the responsibility of caring for the noses and the health of the community. In other words, what is the meaning of the term "local authority"? A short question, which, thanks to the independence and self-governing propensities of Britons, demands a long answer. Here, stripped of its legislative verbiage, is the substance of the answer given by the Nuisances Removal Amendment Act of 1860, where it occupies nearly a whole folio page.

The local authority, in places under the Public Health or Local Government Act, is the Local Board of Health; in boroughs, the Municipal Council, except in the City of London, where the Commissioners of Sewers, and in Oxford and Cambridge, where the Local Improvement Commissioners are the responsible parties; in places without Board of Health or Council, but under an Improvement Act, the Trustees or Commissioners appointed under said Act; failing all of these, the Board of Guardians for the place, parish, or union; and failing a Board of Guardians, "the Overseers of the Poor for such place, or for the parish of which such place forms part." Highway Boards and Nuisances Removal Committees, appointed under the Act 1855, may be continued so long only as they employ Sanitary Inspectors; the appointment of such inspectors being, as we mentioned in a former article, optional to all the other local authorities to whom the provisions of the same Act apply.

Among such a variety of bodies, subject, as we have seen, to so many Acts, varying more or less in some of their most important provisions, we are apt to conclude that there will be room enough and to spare for many a good game of hide and seek, if one or other of the parties concerned should feel disposed to evade the duties and responsibilities imposed or suggested by the legislature. In estimating the chances in favour of or against a hearty compliance with the spirit of our sanitary laws, we must take into account, as the chief element in the problem, *the main object for which each local authority exists, and was originally instituted.* Thus, the existence of a Local Board of Health under the Public Health Act presupposes an intelligent apprehension, on the part of the community governed by such a Board, of the propriety and expediency of getting rid of all manner of stinks and nuisances, as not only offensive but unwholesome, and of the advantages of good drainage and a plentiful supply of pure air and water, both for rich and poor. The fact of any community having voluntarily placed itself under the Public Health Act, implies an assent to the principles embodied in it, and an honest intention to be guided by its provisions. So that, with them, local government and sanitary reform are substantially convertible terms.

A Town Council, again, especially if its existence date from a remote past, if it bear rule in a snug small borough, well removed from the busy haunts of men and the full tideway of progress and of public opinion, and if it be largely composed of men whose sense of smell is none of the keenest, will be apt to consider sanitary improvement, not as involved in the original idea of local government, but rather as a new-fangled and expensive out-growth of these fussy and meddlesome times, when people are smitten with a strange fancy for washing their dirty linen in public, instead of doing it quietly at home, as they used to do in the good old days now passed away for ever. To such corporations, history is a sealed book; and plague and sweating-sickness, and even cholera itself, their modern analogue, will be little else than mythical existences, until experience, with its terrible and ghastly lessons, shall have stamped upon them a character of reality which even the most obtuse and stolid intellects can hardly fail to comprehend. In some of our great centres of population, where education, enlightenment, and public spirit, have accompanied the extraordinary material progress of the last quarter of a century, and have not been smothered by the lust of gold, Town Councils have set an example well worthy of imitation. But that mere material prosperity is compatible with the neglect of the most ordinary sanitary provisions, was proved on a large scale during the cotton famine, by the investigations and luminous reports of Mr. Rawlinson, who found, in not a few towns in Lancashire where the masters had amassed large fortunes and the men had been in the receipt of very high wages, an almost incredible destitution of the first requisites of health. In most cases, we apprehend that the members of Town Councils like much better to spout politics and to declaim against centralisation, than to show the practical advantages

of self-government by embodying in their public acts the grand old maxim, *Salus populi suprema lex.*

Passing over Improvement Commissioners, whom we can conceive to be reasonably zealous and active in carrying out the provisions of the Towns Improvement Act, we next come to Boards of Guardians, vestries, and overseers of the poor, whose special function has always been the administration of the Poor-laws throughout England and Wales. So recklessly and increasingly lavish had that administration been for successive generations, that at length, in 1833, the poor's rate had nearly or entirely swallowed up the rental of many estates, while every where it lay as a dead weight on the real property and honest industry of the country. To remedy these great and growing evils, the first reformed Parliament passed the Poor-law Amendment Act, the object of which, with its huge workhouses and labour-test, was to lay a stern arrest on the relief of the able-bodied profligate, who enjoyed himself in idleness at the expense of the respectable and productive classes. Henceforward the Poor-law authorities were constituted guardians not only of the poor, but of the ratepayers against the unreasonable demands of the poor. One great object, therefore, of the Boards of Guardians, vestries, and overseers of the poor, under the amended Poor-law, *is to keep down the rates;* and, in their efforts so to do, they have the hearty support of all—and their name is legion—who dislike putting their hands in their pockets to satisfy the immediate exigencies of the tax-collector, and have no patience with the novel doctrines of sanitary reformers.

Now, if we bear in mind that it is not yet nineteen years since Parliament *first* hinted to these local authorities that they were expected, in default of a conscience, which corporate bodies are not supposed to keep, either to *have* a nose or to *hire* one, we need scarcely wonder at their declining to avail themselves of the permission which Parliament has so kindly given them to spend a considerable yearly amount of their own money in fulfilling a function suggested to them but as yesterday, and of which they profess not to see the advantage. Indeed, so general was the apathy, and so difficult was it to prevail on the local authorities to institute proceedings under the Act 1855, that, as we have seen, every inhabitant of any parish or place is by the Act 1860 constituted a guardian of the public health, and is empowered to complain before a justice of the peace, who is bound to proceed as if the complainant were the local authority.

But "proceeding", under our sanitary laws, by no means implies a satisfactory termination of the proceeding. The normal method of procedure is, that the local authority, on the representation either of their officer of health or of their inspector of nuisances, should apply to a justice for a summons requiring the offender to appear before two justices in petty sessions—or, in the metropolis, before a police magistrate—that, after inquiry, an order of abatement or prohibition may be issued. But too often justice halts at every step of the process. To begin with the officer of health and inspector of nuisances, the appointment of both of these officers being permissive under the Nuisances Removal Act, they in general do not exist; and where they do, as in London, it is optional to the vestry or District Board to act or not upon the information they furnish. If the health of this vast metropolis is still much less satisfactory than it might be, it is not for want of information presented, or of practical suggestions offered, by that body of able and accomplished gentlemen, the medical officers of health. Some vestries, like those of St. George, Hanover Square, and Paddington, listen to the advice periodically tendered by their health-officers; while in others, such as St. Pancras and St. George's, Southwark, reports of acknowledged ability are either quietly shelved, or received, as in the recent case of Dr. Hillier, with derision, abuse, and indecent threats of dismissal against its author for having dared to speak the unvarnished truth. And, if so disposed, vestries or District Boards may summarily dismiss their officers of health; for it is expressly provided, by Sect. CXXXII of the Metropolis Management Act, 1858, that "it shall be lawful for the vestry to remove any such officer at the pleasure of such vestry or District Board." By Sect. XL of the Public Health Act, 1848, it is provided that "the appointment and removal of the officer of health shall be subject to the approval of the General Board" of Health, now merged in the Privy Council; and this check upon the possible abuse of power by local Boards is now vested, by Sect. XIV of "the Local Government Act (1858) Amendment Act, 1861," in one of Her Majesty's principal Secretaries of State. We cannot conceive why the metropolitan health-officer should be denied a privilege—or protection—so properly accorded to his provincial brother.

These considerations, we think, make out a strong *primâ facie* case for the adoption, by the Metropolitan Counties Branch, of the resolutions which we published last week, and suggest the propriety of also insisting that local authorities shall be *required* or *directed*, in the interest of the public, to act on the information laid before them by their sanitary officers, instead of being permitted, as now, to pass it over in silence, as their caprice or fancied interest may dictate. But we have not yet exhausted this complex and important subject.

ARMY AND NAVY MEDICAL DISCONTENT.

We confess that we are both surprised and disappointed at the dissatisfaction expressed by certain army and navy medical officers regarding the recom-

mendations contained in the Reports of the Admiralty Committee. From a full knowledge of the history of army and navy medical grievances, we have no hesitation in saying that, if the recommendations alluded to fail to give contentment, there is little hope that anything which can be done by the authorities will ever satisfy the discontented. We believe that the complaints in question are the complaints only of the few. We should, indeed, be paying a very bad compliment to our army and navy medical brethren, as a body, if we supposed them capable of making such unreasonable objections. What must and will authorities naturally say, when they find that recommendations of *the removal of every grievance heretofore complained of by army and navy medical officers*, and, in addition, of a very considerable increase to their pay, are received with marked signs of discontent? We believe these expressions of the few will operate very seriously to the injury of both services. We candidly confess that, if the very best intentions and very liberal efforts of the authorities are received in this wise, no one can blame them if, in settling the recommendations made in the Reports, they take these expressions of discontent as a sign that it is useless for them to attempt to satisfy the demands of the army and navy medical services. It must be remembered, that the Reports have not yet been discussed and settled by the authorities; and we leave every man of common sense to reflect upon the feelings of those authorities, who sit down to discuss the Reports with a foreknowledge that the very liberal terms contained in them are already stigmatised as unsatisfactory. Most assuredly, the profession at large can have no possible sympathy with such unreasonable and most unseasonable expressions of discontent. Comments on the Reports such as are contained in a pamphlet just issued by Dr. Brown will, we fear, prejudice the minds of the Admiralty Lords when they come to consider the Committee's most liberal recommendations. The Lords may say: It is evident that no efforts of ours will satisfy these gentlemen.

THE WORKHOUSE SICK.

The movement which has arisen out of the *Lancet* Inquiry into Workhouse Treatment of Sick Paupers is becoming one of national importance. There is every reason to believe that it will eventuate in a complete revolution of the present system under which our pauper sick receive medical aid. The *Lancet* hit a palpable blot; and the intelligence of the country has accepted the telling facts which it recorded, and declares that a disgraceful mismanagement of workhouse hospitals shall no longer continue. Under the energetic action of several members of our profession—of Dr. Anstie, Dr. Carr, and especially of Mr. Ernest Hart, and of a large committee of other gentlemen—steps are being pursued for the complete remodelling of workhouse hospitals of London. Already the authorities—influenced, no doubt, by the unmistakeable force of public opinion—have expressed a readiness to entertain the great question; and to take into consideration any feasible scheme which may be brought before them. Such a scheme has been drawn up by Mr. Hart's committee, which consists of very influential men of all classes of society.

It is proposed for the consideration of the Poor-law authorities, that six hospitals, each containing a thousand beds, shall be erected in London for the purposes of the sick poor of the metropolis. These hospitals will be paid for by the ratepayers generally; but will be placed under an uniform management. Their superintendence will be vested in paid officers, who will be responsible, not to the ratepayers, but to the Poor-law authorities. The treatment of the pauper sick will there be conducted as the treatment of the sick is conducted in ordinary hospitals; and so that the cruel and miserly thriftiness of Guardians will no longer be able to step in between the sick pauper and his requirements. It is proposed that, at the head of this great scheme, shall be placed (as in Paris) a lay director, and under him two medical superintendents, who shall direct and be responsible for its proper working. And, besides this, each hospital will be amply supplied with its own medical staff and nurses; and will be in itself a model hospital, furnished with all the modern provisions required for the treatment of the sick.

To such a magnificent proposal as this, doubtless, great objections will be made; but happily we may foresee that they will be made in vain; for the proposal is not only most just and righteous in itself, but it has already taken possession of the mind of the intelligence of the country. It is founded on truth and equity; and, we may safely add, *prævalebit*. One great difficulty will be the natural opposition of ratepayers. They will object to a scheme which takes the management of their affairs out of the hands of those who pay for it; but no doubt some middle way will be found to satisfy the requirements of the case, and especially of this case, where it has been so clearly proved that the Guardians have been found unequal to manage their work properly.

But, besides this part of the question, many matters of the highest importance in a medical point of view will arise for the consideration of the profession. The erection of a number of large hospitals will demand very serious discussion. Why, it will be asked, instead of six hospitals of a thousand beds each, why not erect twelve of five hundred beds? Does our general information, as far as it goes, bear out the idea that hospitals of one thousand beds are

appropriate in a metropolis? Is the experience of those who have of late investigated this subject in favour of the larger or smaller hospitals? Again, would not smaller hospitals, and more of them, much better suit the wants of the community—be much better adapted to the requirements of the thirty or forty unions spread over the metropolis? Is the erection of hospitals with one thousand beds in accordance with our best notions of hygiene?

Then, again, it may be fairly asked, Why should the head director of this scheme be necessarily a layman? Why not equally well a doctor? We cannot avoid asking, Would any one think of placing a civilian at the head of the Horse Guards? Would any one suggest that a layman should preside over Convocation? Would any one propose putting a doctor at the head of Lincoln's-inn? We really cannot imagine what reason, excepting only that one which is founded on the rankest prejudice, could be adduced against the director being a medical man. Because the business to be directed is wholly and solely a medical business, that therefore a medical man should not have the direction of it seems to us really monstrous. It is introducing into civil life the prejudice of the military hierarchy, which forbids doctors in the army exercising any command. Surely the fact of a combatant officer being placed at the head of Netley Hospital, cannot be tortured into a reason why a doctor should not be director of this grand scheme. The comparison of his proposed position with that of M. Husson of Paris is not just. M. Husson has many and very different functions to perform besides those of directing the economy of Parisian hospitals. Let it be clearly understood, that the proposed duty of the director of London workhouse hospitals would be simply and solely connected with the superintendence of the details of hospital management—would be, above all, a medical charge.

We sincerely trust that our medical brethren will not allow this part of the proposal to pass unquestioned. To suppose that a medical man cannot be found fit or equal to this high post is, to our view, something approaching to an insult to the profession. Whatever the exigencies of the army and navy may be which forbid the army and navy doctors having command, assuredly nothing of the sort holds good in civil life. It is indeed really a reflection on the whole profession to proclaim that a layman only, and not a doctor, is fitted to carry on the work of director.

The scheme, again, will require a large staff of medical men, residential and otherwise, to carry on the work. Here, again, let the profession insist, and so as to ensure, that the medical officers shall be duly remunerated for their labours. It has already been suggested by a few non-medical men connected with the conduct of the plan, that it would be well for the pockets of the ratepayers to get honorary medical men to do a part of the work at all events; but let us hope that any such proposal will be sternly resisted, and that the force of professional opinion will be brought to bear against any medical man who may offer to do this work gratuitously. It must not be forgotten that the system adopted in London will be spread eventually over the whole country; and that, therefore, any evils, in the way of gratuitous medical advice or otherwise, which may attach to it now, will be repeated and stick to it ever afterwards.

We believe also that out of this scheme may arise a complete reformation in the present conduct of our general hospitals. Assuredly, governors of hospitals will in the future refuse to do the work of the parish by admitting sick paupers, when the parishes possess their own fitting hospitals. Moreover, we believe that a total reformation will be effected in the out-door departments of our hospitals, and in a similar way. In the meantime, we have to call the earnest attention of the profession to this very important movement, in which undoubtedly their own interest as well as those of the pauper sick are directly and indirectly deeply touched.

The scheme, we again repeat, is a grand and a noble one, and we trust it may be a national success. But it is one with which the medical profession is very immediately concerned; and it therefore demands from the profession full and deep consideration and careful watching, and in this sense we now call especial attention to it.

A VERY influential meeting was held on the 15th instant, at Birmingham, to further the establishing of a sanatorium in its neighbourhood. The excellent proposal was warmly supported by leading members of the medical profession. Already about £8000 were subscribed towards the £12,000 which were required. Dr. Fleming well explained the uses and great value of such an institution. He said:

"Its object was to promote an asylum in the country for the reception of convalescents discharged from hospitals and dispensaries, and for the sick poor generally. It could not be too plainly stated that, for the most part, the dwellers in large and populous towns, who had suffered from serious diseases, required a short residence in the country for the full establishment of their health. The sanatorium would supply this want. Already sanatoria had been established with much success at Rhyl, Walton-on-Thames, New Brighton, Southport, and at Bournemouth. The largest of the kind was at Vincennes, founded by the Emperor of the French in 1857, and containing 411 beds. In two years and ten months, this hospital administered relief to 14,000 convalescent artisans from Paris."

The promoters of the scheme are naturally anxious to have the hearty co-operation of all the profession in Birmingham; and, as far as we can judge, they

both deserve and have it; so that the prospects of the sanatorium are very good. There will, as we understand, be no honorary medical officers, but one paid resident medical officer.

The following very unsatisfactory tale appears in the papers. The verdict may satisfy the jury, but assuredly not any man of science. Why was not a proper investigation made in the case? is a question which requires answering.

"An inquest was held at Topcliffe, near Thirsk, on the body of Henry Stringer, aged 4 years. The child had been living with George Dale, a labourer, of Topcliffe. A few days ago, Dale had a neck of mutton presented to him by a farmer, a portion of which was boiled by Dale's wife; and she and deceased, her own children, and others, partook of it; also of the broth. Soon afterwards, the party manifested dangerous symptoms; the little boy, Stringer, particularly. It appeared that the mutton had been unsound. Medical assistance was called in; but the child died on Thursday last. The verdict of the jury was, that death was caused by irritant poison, by eating animal food. Three of Dale's children were also taken ill, and they are not yet out of danger."

Nothing could more clearly show that medicine does not hold its rightful position, nor exercise fitting authority in the army, than the following details of gross official blundering, whereby, and whereby alone, a large number of valuable lives have been sacrificed.

"The strength of the 9th Regiment, on its arrival at Hongkong in 1865, was 839 non-commissioned officers and men, 47 women, and 77 children. Of these, 48 non-commissioned officers and men, 6 women, and 28 children, died; 139 non-commissioned officers and men, 27 women, and 31 children, were sent home sick. On May 31st, 1865, the *Tamar* brought from the Cape 25 officers, 702 non-commissioned officers and men of the 11th, with 54 women and 92 children. On their arrival at Hongkong, there was no accommodation ready for them. Two companies had to be lodged on board the three-decker *Hercules*, and a few on board the *Princess Charlotte* hulk. The rest were put into sheds at a swampy place called Kawloon. Disease and death soon began to appear. Between June 5th and the end of last year, 2 officers, 58 non-commissioned officers, 5 women, and 27 children, died. Four officers, 189 non-commissioned officers and men, 22 women, and 35 children, have been invalided. There are still in hospital 53 non-commissioned officers and men. Besides this, the 11th has lost all its surgeons; one has died, one is sick, and one is on leave at home. The excuse given by the authorities at Hongkong for not having made proper preparations for the reception of the 11th is, that they did not expect them till two months later. They were warned, however, by the Horse Guards, long before the *Tamar* had been sent to convey the regiment from the Cape to Hongkong. In any case, there are plenty of buildings to let which might have been hired for the occasion, or a ship might have been got to take the men out to sea. General Guy was absent in Japan; and Captain Roberts, the Quartermaster-General, would do nothing without his sanction. The causes of this sad mortality are not far to seek. Proper accommodation should have been ready for the 11th Regiment on its arrival. If the General chose to go to Japan, he ought to have left proper instructions with the Quartermaster-General. Another undoubted error was the withdrawal of the native Indian regiment, and the substitution of unacclimatised European soldiers. Even if men had been brought from India, they would not have suffered so much; but those from the Cape were exposed to all the worst effects of the new climate to which they were transported. The excessive night-work tells very severely on the European troops, who, in addition to other hardships, are deprived of their fair share of sleep. The object of removing the Indian regiment is well known. It was in order that the pay of the rest of the forces in Hongkong, which, while an Indian regiment was there, was maintained at the Indian scale, might be reduced to the colonial standard. But, putting humanity out of the question, the arrangement has proved, in a pecuniary point of view, a very costly one. The heavy expense of sending home sick troops has more than counterbalanced any saving which has otherwise been effected; and the loss of so many good soldiers must also be taken into account. Altogether, it is calculated that the short-sighted economy of the authorities has entailed a loss of at least £30,000. The excessive work thrown on the diminished numbers of the garrison will doubtless add to the sickness and mortality. There are still, we understand, in the 11th Regiment, only 36 non-commissioned officers, 103 privates, and 12 drummers, fit for duty." (*Pall Mall Gazette.*)

The superintendence of the ventilation of the House of Commons and the Law Courts at Westminster is in the hands of Dr. Percy; but Dr. Percy cannot always have his way in the Law Courts. There the judges rule supreme; and one of the body, Lord Chief Justice Cockburn, has, it appears, an especial and insuperable objection to fresh air, or, at all events, to currents of air. He therefore, a few weeks ago, had the ventilating process of his court arrested; and the results are shewn in the following statement, which tells of the analysis of a few bottles of air, and which were taken from the court when it had become what the Lord Chief Justice considered comfortable.

"Some specimens of air from the Court of Queen's Bench were recently examined by Dr. Angus Smith. He reports that 'they are the most deficient in oxygen of any specimens found by me during the day in inhabited places above ground. The first is almost exactly the same as the average found in the currents of galleries in metalliferous mines; that from the lantern is nearly the same as the specimens found close to the shafts of the same mines, meaning, of course, the average of many specimens. I have not known any mills or workshops so deficient in air. I consider a room bad when it loses 1000, and workshops very bad when they lose 2000 of oxygen out of a million parts; here the loss is actually 5000 less than the parks of London. The circumstance is strange, and I hope unusual. A scientific friend happened to call my attention to it, and wished me to examine the air. The moisture from the window was collected, and there were several ounces obtained, and more might have been easily found. It was perspiration in great part; the smell of it was distinct. It is putrefying, and decolorises more permanganate now than it did at first. Mere change of air will not purify a room like this—a cur-

rent must pass through it for a long time until complete oxidation takes place.'"

There is one side of the National Cattle-Plague Humiliation Fast which has been overlooked by our preachers; but it is one which the occasion was especially fitted to exemplify. We mean the humiliation which ought to fall upon those of our rulers who had not sense enough to seek and follow the advice of men of science in a matter where scientific knowledge was especially concerned, and would have been especially effective in preventing the spread of the plague. It seems to us that the degradation and the humiliation of our country in this crisis are, that it loved and preferred money-making interests and quackery, rather than science and truth. Science saw clearly enough how to arrest and stop the plague, and would have done so in its beginning, as she did in France, if her voice had been listened to. Those who ought to wear sackcloth and throw ashes on their heads are they who listened to and followed the falsehoods and calumnious insults on medicine day after day uttered by the *Times*. They who said these things, and they who allowed them to be practised, should stand degraded and humiliated before the country.

Colonel North, in moving for a Committee to inquire into the mortality of the troops in China, said that

"He could not close his observations without expressing the greatest admiration for the conduct of the military medical department, and especially for the conduct of Dr. Saunders, surgeon of the 9th regiment, who, in the absence of his senior, took the whole responsibility on his own shoulders, and saved many valuable lives."

He also quoted a report of Deputy Inspector-General Innes, which spoke highly of the conduct of Mr. Adams on board the vessel which brought home some of the troops.

"The Board ventured to express a high opinion of the attention and care displayed by Captain Burland, the officer commanding, and Staff-Assistant-Surgeon Adams, in medical charge."

The following is a copy of a General Militia Order, which has lately appeared in the Guernsey papers, by which the militia medical staff, dissolved in 1861, has been reorganised under a new form. We are glad to learn that, under the judicious government of Major-General Rochford Scott, a soldier of varied and extensive scientific acquirements, the medical officers of the militia experience a very different treatment from that which they received at the hands of his predecessor of homœopathic celebrity.

"Medical Staff: Surgeon M. A. B. Corbin, from the Artillery Regiment, to be Inspector-General; Surgeon N. Bisson, from the 2nd Regiment, to be Deputy Inspector-General. Artillery Regiment: Assistant-Surgeon G. H. Thurston to be Surgeon, *vice* Corbin, promoted. 2nd Regiment: Assistant-Surgeon B. Collenette, M.D., to be Surgeon, *vice* Bisson, promoted. March 10, 1866. By order, James McCrea, Lieut.-Col., Adjt.-General."

The medical students of the University of Brussels have made a solemn complaint against Dr. Hyernaux, the professor of midwifery, that he neglects to teach them and give them due opportunities of learning practical obstetrics, and that he throws all the work into the hands of the midwives.

Professor Palasciano has been removed from his office of clinical surgery, it is said, most unreasonably, by the minister De Sanctis.

No fewer than eleven doctors have seats as deputies in the Italian Chamber; viz., Bottero, Demeraria, Lanza, Corticelli, Mantegazza, Morelli, Salvagudi, Cecconi, Cipriani, Cognata, and Deodato. In addition to these, seven illustrious names figure in the higher position of senators: Buffalini, Burcia, Panizza, Prudente, Puccinotti, Tommasi, and Zyannetti. Seven of these gentlemen are connected with the medical press.

Our readers are aware that chloroform is not used in Lyons. M. Pétrequin of Lyons has published *apropos* a memoir "On the Comparative Value of Chloroform and Ether." The Medical Society of Lyons entirely agrees with M. Pétrequin, and has, after long discussion, adopted unanimously the following conclusions: 1. Rectified ether employed as an anæsthetic is less dangerous than chloroform; 2. Anæsthesia is produced as regularly and as completely by rectified ether as by chloroform. 3. Ether is in some respects less convenient in use than chloroform; but the inconveniences attending its use are of little consequence when compared with the dangers inherent in the employment of chloroform; 4. Consequently ether should be preferred to chloroform. In concluding his report, M. Pétrequin says: "Now for fourteen years ether alone has been employed in Lyons, and we have not had to deplore the loss of a single patient. The ether employed is rectified to 62° and 63°."

M. Ségalas presented some fragments of a sound (taken from a man's bladder and urethra) to the French Academy of Medicine. M. Cloquet suggested that the maker of the instrument ought to be prosecuted, just as a *pharmacien* is who sells bad drugs. M. Larrey was of the same way of thinking, and suggested that the Academy ought to bring the subject under the notice of the Government. M. Bouley opined that the creation of inspectors of sounds and syringes would be a retrograde step; and that it was the business of doctors to look after their own instruments. M. Velpeau said that gutta-percha sounds, after having been used, naturally became brittle, and therefore should not be used.

THE LATE ANDREW M. McWHINNIE, Esq.

ARISTOTLE tells us in the *Ethics* that, as in the Olympic games it is not the fairest or the most powerful who receive the crown, but those who take an active part in the contest, so, in the battle of life, the mere possession of virtue or of brilliant abilities is no guarantee that a man has achieved the τὸ ἀγαθόν of existence; he must be able to use his gifts; and, if he would pass for something better than a selfish artificer, he must exercise his energy for the good of other people.

One conspicuous feature in the character of the late Mr. McWhinnie was his large capacity for social friendship, which led him not only to form particular and permanent intimacies, but developed a taste in him for popular and general intercourse with his professional brethren. Few men have ever attained and held a firmer footing in the sympathies of those who could claim no closer tie than that of common acquaintanceship. The secret of this power lay in a prominent desire to serve the cause of all who came into contact with him, rather than to assert the dignified privilege of his rank as a public man. Hundreds of men who read these words will remember how the careful and considerate instruction of the anatomical teacher in St. Bartholomew's did not cease when the student had turned his back on the old hospital. The records of many a village practice will bear witness to the confidence that has been inspired by the presence of the hospital surgeon at operations in far distant hovels, where the insignia of the operating theatre were most meagre and the fee altogether absent.

Andrew Melville McWhinnie was born in London in the year 1807. Some considerable portion of his preliminary education was obtained at Verdun-sur-Meuse, in France, where he acquired a thorough knowledge of the language; and he retained throughout life a profound admiration of the institutions and habits of the French people. At the age of seventeen, he became the indoor pupil of the late Mr. Stanley; and at once devoted himself to the study of his profession within the walls of St. Bartholomew's Hospital. In 1830, Mr. McWhinnie became a member of the Royal College of Surgeons; and in the same year we find him in Paris, engaged in ministering, at the Hôtel Dieu, to the wants of the wounded during the three memorable days of July. It was at this time that he gained, by his fluency in French and his sound anatomical knowledge, the favourable notice of Dupuytren, Larrey, and other distinguished surgeons; and in the following year Mr. Stanley accompanied him to Paris, when the young English surgeon won fresh laurels in the eyes of the lively *savans* of Paris, by his vivid interpretation of his old master's solid observations.

During this period, Biett was in the zenith of his career at the Hospital of St. Louis; and here McWhinnie laid the foundation of that mastery over the diseases of the skin, which has been destined in these later years to prove of such public benefit. Under the direction of Mr. Startin and Mr. McWhinnie, the Skin Hospital in Blackfriars has acquired a reputation that may now be called European.

After one or two unsuccessful contests, and some disappointment, the subject of our notice was elected assistant-surgeon to St. Bartholomew's Hospital. He had succeeded to the office of Junior Demonstrator of Anatomy on the retirement of Mr. Skey; and it was at this time that he published, in conjunction with the late Dr. Roupell, his *Illustrations of the Effects of Poisons*—a work of the highest artistic value, and consequently too costly to be found in the possession of many persons. Mr. McWhinnie's power as an accurate draughtsman enabled him, a year or two later, to produce, with the aid of his colleague Mr. Wormald, the *Anatomical Sketches and Diagrams*, which, having been the result of the most careful anatomical observations, contain corrections in our knowledge of the relation of parts to be found in no previous work on the subject.

For many years, Mr. McWhinnie resided in Bridge Street, Blackfriars, and served the great hospital, to which he was devotedly attached, as Lecturer on Comparative Anatomy, as Demonstrator of Human Anatomy, and as Assistant-Surgeon. His readiness on all occasions to help his colleagues; his conscientious zeal in the care of his cases; and, above all, the too close proximity of his house to the hospital, at last compelled him to relinquish a post for which he felt his failing health was hourly unfitting him. He has said that, night after night, at all hours, he has been called upon to perform the most serious operations in surgery within the wards of the hospital, until at last his very tools over which he had such command—the scalpel, the bistoury, the director, the amputating-knife, and the tourniquet—haunted his dreams.

On seceding from his more active duties at St. Bartholomew's Hospital, Mr. McWhinnie directed his energies, within limits which he had himself defined, to the pursuit of private practice, in which he may be said to have had an average success. He published many useful papers in the medical journals of the day, on Malposition of Organs and other anatomical curiosities; and latterly have appeared some Observations on Tracheotomy, which contain sound and philosophical views that are well worth the consideration of the advanced surgeon.

Mr. McWhinnie lived and died a bachelor. His life had been given to his art; and that may be said of him which has been spoken of more distinguished men—that he began to teach his profession when others were engaged in learning it. When he was little more than a boy, he translated and edited Cloquet's work on *Hernia*; and obtained no mean praise for his performance at the hands of the French surgeons. Of his moral and social qualities, which were invariably distinguished by a lofty sense of honour, benevolence, and charity, we might speak in terms that would far exceed our limits. For many months before his death, the ravages of internal malignant

disease had been wearing him out; yet still he retained his cheerfulness, and a vivid interest in the joys and sorrows of his friends. It is a difficult thing to speak with confidence of the religious convictions of any one; but, if we are permitted to draw our conclusions from observing the passive virtues of an undemonstrative man, and are prepared to endorse the declaration of the Ancient Mariner, that

"He prayeth best, who loveth best
All things, both great and small—

then the measure of our departed friend's faith will be found to exceed that which falls to the lot of most men.

The concluding words of the address which he delivered before the students of St. Bartholomew's Hospital at the opening of the session in 1856 will, at all events, shew that, if he made no prominent confession of faith, he was led at least by the same earnest aspirations as those of a great English philosopher in whom he thoroughly believed. "I wish," he says, "to impress upon the student of medicine the importance of striving to realise in his own career that union of the life of contemplation and action in which Lord Bacon places the perfection of human nature, and which, in all ages, has ever produced the grandest and most beneficent results in every intellectual calling." H. D.

CONVERSAZIONE OF THE OBSTETRICAL SOCIETY.

The Exhibition of Obstetrical Instruments will be held at the Royal College of Physicians on Wednesday, March 28th. On the following day (Thursday, March 29th), the distinguished foreigners present at the *conversazione* (of whom several, from Russia, Berlin, Paris, Copenhagen, etc., will be in London for that purpose) will be invited to a dinner, at which it is expected that a large number of the Fellows of the Society, and others, will be present. The dinner to be given at Willis's Rooms will be an appropriate *finale* to this important obstetrical gathering.

New Filter. A new form of filter has been devised by the Apparateur of the College of France. It is made by placing in a tank of impure water a vessel so arranged that a sponge which it contains shall lap over its edge and dip into the water of the tank. The sponge gradually sucks up and purifies the water in the reservoir, and allows it to drop into the smaller vessel or receiver, from which it may be drawn off by a tube. By placing a few lumps of charcoal in the bottom of the receiver, filtration of the most perfect kind is effected. (*Scientific American.*)

Accident in Chemistry. An accident happened in M. Wurtz's laboratory at the School of Medicine in Paris. Dr. Oppenheim had just sealed a flask containing 120 *grammes* of oxalate of silver, when it suddenly exploded, knocking the doctor completely over, and driving a piece of glass into his temporal artery, besides giving him a frightful gash in his arm. Luckily, a surgeon was close at hand. The accident is supposed to have been caused by a little of the oxalate remaining in the neck of the matrass where it was sealed. Dr. Oppenheim is said to be now out of danger. (*Chemical News.*)

Association Intelligence.

COMMITTEE OF COUNCIL: NOTICE OF MEETING.

The Committee of Council will meet at the Queen's Hotel, Birmingham, on Thursday, the 5th day of April, 1866, at 3 o'clock P.M. *precisely.*

T. Watkin Williams, *General Secretary.*

13, Newhall Street, Birmingham, March 20th, 1866.

BRANCH MEETINGS TO BE HELD.

NAME OF BRANCH.	PLACE OF MEETING.	DATE.
West Somerset. [General.]	Clarke's Castle Hotel, Taunton.	Wednesday, March 28th.
Bath and Bristol. [Ordinary.]	York House, Bath.	Thurs., April 12th, 7.15 P.M.

WEST SOMERSET BRANCH.

A meeting of this Branch will be held at Clarke's Castle Hotel, Taunton, on Wednesday, March 28th. Dinner at 5 o'clock, after which papers or cases will be communicated.

Gentlemen intending to be present at the dinner, or to read papers after, are requested to give notice to the Honorary Secretary.

W. M. Kelly, M.D., *Hon. Secretary.*

Taunton, March 6th, 1866.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT MEDICAL MEETINGS.

The next meeting of this Branch will be held at the Saracen's Head, Ashford, on Thursday, March 29th, at 3 P.M.

Dinner will be provided at 5 P.M. Charge 5s., exclusive of wine.

R. L. Bowles, L.R.C.P., *Honorary Secretary.*

Folkestone, March 14th, 1866.

SOUTH EASTERN BRANCH: WEST KENT DISTRICT MEETINGS.

The next meeting will be held at the Infirmary, Gravesend, on Friday, April 6th, at 3.30 P.M. Dr. Gramshaw has consented to occupy the chair.

Dinner is ordered at the Old Falcon for 5.30 P.M.

Papers will be read by Dr. F. J. Brown—"Unzer's question, Do true Insentient Animals exist?" and by Dr. Armstrong—"Obstetric Cases."

Dr. Richardson has consented to attend the meeting, and will exhibit his method of inducing Local Anæsthesia.

Frederick J. Brown, M.D., *Hon. Sec.*

Rochester, March 21st, 1866.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH: GENERAL MEETING.

The sixth general meeting of the present session was held at the Old Library, Birmingham, on March 8th. There were present, James Russell, M.D., President, in the chair, and fourteen members.

Contributions. 1. Mr. Wilders exhibited Dr. Richardson's instrument for causing Local Anæsthesia, and mentioned cases in which he had used it with perfect success.

2. Dr. Russell exhibited a pathological specimen

of extensive Disease of the Suprarenal Capsules, with Enlargement of the Lumbar Glands and Softening of the Bodies of two Lumbar Vertebræ; together with Syphilitic Ostitis of the Skull. The patient had been ill for some years; obstinate vomiting being the chief symptom. There was no bronzing of the skin.

3. Dr. Russell read a paper on Syphilitic Disease of the Nervous Centres. Having insisted on the importance of the subject, and having stated his belief that these affections are of more frequent occurrence than was supposed before attention was directed to them, Dr. Russell referred to the question of the diagnosis of the disease, representing its difficulties, and stating the various considerations by which we are directed in arriving at a conclusion; he, however, admitted that, in the present state of information upon the subject, our opinion will not infrequently rest, in the last resort, upon the results of the treatment employed. Dr. Russell then dwelt especially on the diversities of symptoms and of the mode of attack presented by this class of diseases, and upon their apparent tendency to invade a large amount of nervous function, and especially to implicate the mind. He concluded by adducing certain pathological considerations in explanation of these diversities. Several cases were related in illustration.

The reading of the paper was followed by a discussion.

Correspondence.

SUCTION-CURETTES.

Letter from Henry Greenway, Esq.

Sir,—In the Journal of the 10th inst., is a letter from Mr. T. P. Teale, jun., referring to mine of the 3rd, fully admitting the priority of my invention, and proving satisfactorily that his instrument is only a modification of mine without the cutting power.

My object, accordingly, is attained; and I have only to express regret that, in his enumeration of suction instruments as applied to the eye, in a paper read at the last annual meeting of the Association, he made no mention of mine, which, in 1864, if not before, he knew had furnished the means of reviving an operation disused through the want of such means.

Not knowing that Mr. Adams was acquainted with the instrument I invented and published in 1860, I did not complain of his omission; but meant, by my letter of the 3rd, to shew him and the profession that I was the first, not Mr. Teale, who devised an instrument whereby parts within the eyeball could be acted on by suction with ease and safety.

I am, etc., Henry Greenway.

Plymouth, March 13th, 1866.

Letter from Matthew A. Adams, Esq.

Sir,—In answer to the letter which appeared in your Journal of the 3rd inst., from Mr. Greenway, complaining of a certain passage in my paper on "The Modern Methods of dealing with Cataract", I feel called upon to assure that gentleman that I was by no means "under the impression" that Mr. Teale, jun., "was the first who devised an instrument whereby parts within the eyeball could be acted upon by suction through the medium of an India-rubber tube." Nor had I the least wish to convey such idea to my readers. The fact is, my paper treated only of the subject of cataract; suction-instruments were incidentally spoken of, and so far described, as was necessary to explain their application to the extraction of cataract; but for a historical notice of the various instruments used in cataract operations, I had no space, or I undoubtedly should have dwelt with pleasure upon the very ingenious instrument devised by Mr. Greenway for producing artificial pupil, similar in many respects to the suction-curette subsequently introduced by Mr. Teale, but used for a very different purpose.

Whether or not the instrument of Mr. Greenway suggested the suction-curette to Mr. Teale, I have no means of deciding; and, even if it did, we must agree that abundant credit remains to the latter gentleman for the application of a most valuable method to the treatment of soft cataract.

I am, etc., Matthew A. Adams.

Ashford Road, Maidstone, March 14th, 1866.

P.S. The form of curette which I have adopted and described in my paper in the Journal, answers most admirably.

THE DISCOVERY OF TRICHINA.

Letter from John Windsor, Esq.

Sir,—The subject of *Trichina spiralis*, and, I may add, that of *Cysticercus (telæ) cellulosæ*, have latterly excited considerable interest; especially the former, from the serious and even fatal effects which have resulted, particularly in Germany, from its accidental introduction with food into the human body.

Hence, it has become a matter of inquiry to ascertain at what period the trichina first became known to naturalists and to the members of our own profession. I do not happen to have Dr. Cobbold's book on *Entozoa* by me just now to refer to, as to his remarks on this subject.

About a year or so ago, it was brought before the notice of the Manchester Medical Society by Dr. Fletcher, who considered that he had met with a case of it; when I took an opportunity of stating that, in dissecting a part of a body at St. Thomas's Hospital so long since as in the winter of 1811-12, I had found the muscles about the shoulder and neck studded with an almost innumerable number of very small bodies, being of a roundish or subovoid form, to the best of my recollection. I regret now that I did not preserve some portion of the muscular substance thus infested. It would have been easy to do so, as there was, I believe, very little surrounding cellular or adipose matter.

This case appears to have been a very similar one to that recorded by Mr. Nunneley in the Journal of March 10th, but occurring at a considerably anterior period.

Mr. H. Cline, jun., was at that time the Anatomical Demonstrator at St. Thomas's Hospital; but whether the appearance was shewn to him, or to his relation Mr. J. H. Green, who shortly afterwards succeeded him as Demonstrator, I do not now remember. I have no doubt that it was seen by some of my fellow-students in the dissecting-room.

Neither do I remember now whether similar appearances presented themselves in parts of the same body apportioned to others in the dissecting-room. It is, however, very probable that they existed elsewhere, besides about the shoulder and neck, where I observed them. That they were the cysts of the trichina, which seem to produce its fatal effects by burrowing into important organs of the body, seems very probable, if not certain.

The *Cysticercus cellulosæ*, the origin apparently of the tapeworm in persons who have used imperfectly cooked measly pork, is sometimes also, in an anterior very minute stage of development, the production,

as we know, of troublesome effects—one of which is its occasional appearance in the eye, from which organ I have had an opportunity of extracting it, and preserving the sight. This case was recorded in the *Ophthalmic Hospital Reports;* and several nearly similar cases have occurred to others.

Although I am not aware who may have been the earliest observers of these appearances in the muscular structures, it seems to be only at a quite late period that the subject of the development of trichinæ has been much investigated, and the serious effects they are capable of producing have been brought prominently to our notice.

I am, etc., JOHN WINDSOR.

Manchester, March 12th, 1866.

HYPODERMIC INJECTION OF ATROPINE.

LETTER FROM CHARLES HUNTER, ESQ.

SIR,—It escaped my observation until lately that a misprint had occurred in the report of the case of neuralgia of the spine treated by me hypodermically, and detailed in your impresion of Feb. 24 (page 212).

It was there stated, that I injected the "one-sixteenth" of a grain of atropine as a first injection—it should have been the *one-sixtieth.*

I think it right to correct the error, as the sixteenth of a grain is far too large an amount for a *first* injection in almost any case.

Still there are some classes of nervous disease, such as epilepsy and chorea, in which the hypodermic dose can be rapidly augmented with benefit to one-tenth of a grain, and without such unpleasant symptoms as would attend the administration of so large a dose by the mouth.

I am, etc., CHAS. HUNTER.

Wilton Place, March 17th, 1866.

THE MICRO-SPECTROSCOPE.

LETTER FROM W. BIRD HERAPATH, M.D., F.R.S.

SIR,—I send you a full report of the trial "On the Mountain Ash Murder;" it is remarkable as the first *criminal case* in which the micro-spectroscope has been employed to furnish evidence of blood-stains, and it has succeeded in spite of great difficulties.

I am, etc., W. BIRD HERAPATH.

March 17th, 1866.

It was Mr. Browning's micro-spectroscope eye-piece—a very first rate instrument.

The following is the evidence as reported of Dr. Herapath.

"The hatchet produced I carefully examined. On the metallic portion I did not find any marks. I removed the handle, and experimented on thin slices of wood which I took from underneath the metallic ring. I examined those sections with a microscope, and found the majority of the stains were due to oxide of iron; some of them showed clotted blood—in some cases, the woody portions had been infiltrated with the colouring matter of blood changed by the action of water. On some of the sections of the handle I found globules of blood, and by the micrometer I measured the size of those globules. I placed a section of the handle in a glass cell in which there was a fluid medium, and the blood globules floated off into the cell, and by the measurement of these I could determine the size of the globules therein contained. These globules were exactly the same size as some globules from dried human blood which I purposely procured, and tested with the same apparatus in the same way. Finding this evidence of blood to be small, I obtained more numerous sections of the coloured surface of the handle of the hatchet, immersed them in distilled water, and obtained thereby a slightly coloured solution, which after filtering was ready for chemical tests, and for optical examination by the micro-spectroscope. I subjected this fluid to the action of light, and it had undoubtedly the properties peculiar to a solution of blood. When a solution of blood was examined in this instrument (instrument here produced), the fluid absorbed some of the rays of light, and thus altered the spectrum or rainbow. Within the green, and on the border of the yellow rays, two dark absorption bands were produced by the blood fluid. Only one other substance would produce two dark bands: that is, cochineal dissolved in ammonia, but the position of the two bands was different. The spectroscope alone would not enable me to *readily* distinguish between the two; but combined with chemical examination, it would satisfactorily do so. From this optical test, I was satisfied that the sections of the hatchet had been stained with blood; and, by chemical analysis, I also demonstrated it was blood. The combination of the three tests showed that the substance on the hatchet must have been blood.

"Cross-examined: I should not like to say that the stains were those of human blood, but my opinion is that they were."

The following were the remarks of the judge on Dr. Herapath's evidence.

"Dr. Herapath had submitted small slices of the wood from the handle of the hatchet to powerful microscopic and chemical tests, and had no hesitation in saying that those slips or slices of wood did contain traces of blood. He would not pretend to say that they were traces of human blood—no person could say so in the present state of scientific knowledge; but the opinion of Dr. Herapath was that it was human blood. That opinion was certainly not conclusive, but was unquestionably entitled to considerable weight."

THE PROPOSED VACCINATION BILL.

SIR,—Through the medium of your JOURNAL, we beg to call the attention of Poor-law medical officers and public vaccinators to a meeting held by the medical officers of the Fulham Union, on March 13th, to consider the proposed Vaccination Bill. At this meeting it was proposed—

"That a fee of two shillings and sixpence, and three shillings and sixpence, should be substituted for the shilling and sixpence and two shillings and sixpence, in consequence of the responsibility involved, and the trouble necessitated by the several certificates required by the proposed act.

"That in successful revaccination the same fee should be paid, inasmuch as it will involve more trouble than primary vaccination; and in many instances such revaccination will be unsuccessful, and therefore no fee can be charged.

"That the appointment of a public prosecutor should be made compulsory."

Letters expressing these resolutions were forwarded to Messrs. Bruce and Baring, and a petition was drawn up for presentation to Parliament, to the lower house if time permitted, if not, to the upper house. At the same time, it was felt that to carry weight this movement should be a combined one, and that with this view meetings should be held by the medical officers of at least all the metropolitan districts, when either separate petitions should be forwarded to Parliament embodying the opinion of the Poor-law officers, or our petition should be forwarded to the next union for signature, and thence forwarded in

turn to the next adjoining, till the round of the metropolitan district is made.

We meet again on March 28th, at 12 A.M., and shall be glad to receive any suggestion from the medical officers of other unions. We are, etc.,

THE MEDICAL OFFICERS OF THE FULHAM UNION.

52, King Street East, Hammersmith, March 20th, 1866.

Medical News.

UNIVERSITY OF LONDON. The following candidates passed the late examination for the degree of Master in Surgery. Pass Examination.

Andrew, Edwyn, M.D., University College
Deas, Peter Maury, M.B., University of Edinburgh

Examination for Honours.

Deas, Peter Maury, M.B. (Scholarship and Gold Medal), University of Edinburgh
Andrew, Edwyn, M.B. (Gold Medal), University College

APOTHECARIES' HALL. On March 15th, 1866, the following Licentiates were admitted:—

Ellis, William Henry, Swavesey, Cambridgeshire
Ley, Richard, South Molton
O'Neill, Patrick James, Canning Town, Essex
Prince, Frederic Tickell, Sawston, Cambridgeshire
Pritchard, John Frederick, Southsea
Smith, Henry Cecil, Kensington Park Gardens

At the same Court, the following passed the first examination:—

Ash, Robert Vacy, St. Mary's Hospital
Stainthorpe, Thomas Edward, Middlesex Hospital

APPOINTMENTS.

DAVIDSON, Alexander, M.A., M.B. and C.M. Edin., appointed Lecturer on Comparative Anatomy and Zoology at the Liverpool Royal Infirmary School of Medicine.

ARMY.

ALLEN, Surgeon-Major R. M., 3rd Dragoon Guards, to be Staff-Surgeon-Major, *vice* A. Humfrey.
ARDEN, Assistant-Surgeon G. B. F., 12th Foot, to be Staff-Surgeon, *vice* Staff-Surgeon-Major J. B. St. Croix Crosse.
BEATSON, Inspector-General G. S., M.D., to be Honorary Physician to Her Majesty, *vice* Sir J. McGregor, M.D., K.C.B.
CROSSE, Staff-Surgeon-Major J. B. St. Croix, placed on half-pay, to have the honorary rank of Deputy Inspector-General of Hospitals.
HUMFREY, Staff-Surgeon A., to be Surgeon 98th Foot, *vice* N. H. Stewart, M.D.
POPPELWELL, Staff-Assistant-Surgeon G. B., to be Staff-Surgeon, *vice* O'Connor D'Arcey, M.D.
STEWART, Surgeon N. H., M.D., 98th Foot, to be Surgeon 3rd Dragoon Guards, *vice* Surgeon-Major R. M. Allen.
WALLACE, Staff-Assistant-Surgeon J., M.D., to be Assistant-Surgeon 12th Foot, *vice* G. B. F. Arden.

BIRTHS.

ARSCOTT. On March 8th, at Southernhay, Exeter, the wife of Robert Arscott, Esq., Surgeon, of a son.
DRYSDALE. On March 19th, at Sheerness, the wife of A. Knox Drysdale, Esq., Surgeon Royal Artillery, of a son.
MUNRO. On March 15th, at Boulogne-sur-Mer, the wife of Alexander Munro, M.D., of a daughter.
WIGMORE. On March 13th, at Inverness Road, Bayswater, the wife of William Wigmore, Esq., Surgeon, of a daughter.

DEATHS.

BOWDEN, Alfred, Esq., late Surgeon on staff of H.M. 91st Light Infantry, off Port Phillip Head, at sea, aged 65, on January 15.
BROWN. On March 16th, at Sunderland, Agnes, wife of Joseph Brown, M.D.
HOGG. On March 4th, at Newington, Edinburgh, Alicia I. O. Dwyer, widow of T. Hogg, Esq., Surgeon, late 16th Regiment.
PRINCE. On March 9th, aged 21, Thomas Albert, second surviving son of *Thomas Prince, Esq., Balsham, Cambridgeshire.
SPURGIN, John, M.D., at 17, Great Cumberland Street, aged 69, on March 20.
WELLS, Frederick J., Esq., Surgeon, at Blyth, on March 16.
WINTER, James, M.D., formerly Staff-Surgeon 76th Regiment, at Hampstead, aged 34, on March 13.

DR. GRAILY HEWITT has been elected an Honorary Fellow of the Obstetrical Society of Berlin.

MR. BAKER BROWN has just been elected a member of the Medical Society of Christiana, in recognition of his services in operative surgery.

THE CATTLE-PLAGUE is reported to have appeared in Montgomery County, Pennsylvania, United States.

HIPPOPHAGY. In Berlin, during 1865, hippophagists ate 2241 horses. The flesh is reported to be "good honest, but toughish, beef."

CAPTAIN J. J. CORRIGAN, 3rd Dragoon Guards, whose death is announced in the *Melbourne Argus*, was the son of Sir Dominic Corrigan, M.D., of Dublin.

THE ARMY IN NEW ZEALAND. The thanks of the Commander in New Zealand are given amongst others to Dr. Gibb, Deputy-Inspector of Hospitals, and his staff, for their zeal, energy and attention.

TESTIMONIAL TO DR. BRUSHFIELD. Dr. Brushfield, on resigning the medical superintendence of the Cheshire Lunatic Asylum, had the satisfaction of receiving, as a testimonial, a valuable epergne.

FATAL ACCIDENT TO A PHYSICIAN. On the 16th ultimo, Dr. Mount of Cincinnati was struck behind the ear by the pole of a carriage driven at an illegal rate of speed along the street, and died the next day.

PHARAOH'S SERPENTS. It is stated that three young women who have been employed in making "Pharoah's Serpents", have been admitted into the Lariboisière Hospital suffering from dangerous symptoms. Their health, it is added, is permanently destroyed.

MEDICO-CHIRURGICAL SOCIETY OF MONTREAL. The first annual meeting of this society, which was formed in July 1865, was held on January 15th. Its numbers amount to more than forty; more than half of the eighty physicians practising in Montreal being members. Dr. W. H. Hingston was elected president for the year.

MURDER OF AN AMERICAN PHYSICIAN. One evening last month, Dr. J. H. Levering, of Lower Merrion, Montgomery County, Pennsylvania, was putting up his horse after returning from his visits to his patients, when he was shot dead by some one concealed near his house. No cause for the murder is known.

THE CHARTERHOUSE. Mr. C. R. Nicoll, Battalion Surgeon of the Grenadier Guards, has been elected medical officer of the Charterhouse. There were originally eighteen candidates, one of whom did not go to the poll. Amongst them were two army surgeons, one retired militia surgeon, one or two physicians, and the rest were general practitioners. The appointment has for many years been considered the great prize for the general practitioners.

THE NEW YORK STATE MEDICAL SOCIETY held its fifty-ninth annual meeting on February 6th, 7th, and 8th, under the presidency of Dr. H. W. Dean of Rochester. A committee of five was appointed to obtain knowledge regarding the action of medicinal agents, with special regard to the next decennial revision of the *United States Pharmacopœia* in 1870. A resolution was also passed, earnestly urging the State Assembly to agree at an early day to the New York Health Bill, which had already passed the Senate. A formal vote of thanks was given to the New York Council of Hygiene and Public Health, for the proceedings taken by them to prevent the introduction and spread of cholera. Dr. J. C. Hutchinson of Brooklyn was nominated president for next year. Other business was also transacted; and various papers in medicine, surgery, etc., were read.

Contagious Diseases Prevention. On the 15th inst. Mr. Childers (for Lord C. Paget) obtained leave to bring in a Bill for the better prevention of contagious diseases at certain naval and military stations. This Bill, as well as one for which the hon. member had previously obtained leave, were afterwards brought in and read a first time.

Medical Officers of the Army and Navy. In the House of Commons, on Monday last, Colonel North asked whether it was the intention of government to carry out the recommendations as regarded increased pay, etc., of the committee which was appointed to inquire into and report upon the grievances of medical officers of the army and navy. The Marquis of Hartington said, the report had only been received a short time since, and it was impossible at present to state how far the recommendations of the commissioners would be carried out. Colonel North said he would repeat the question after the recess.

The Levée. The following presentations to the Prince of Wales, on behalf of the Queen, took place at the *levée* on Monday last. Dr. R. H. Bakewell, by Mr. Beresford Hope; Dr. A. Bryson, C.B., on appointment as Companion of the Bath, by the Duke of Somerset; Surgeon T. Duka, Bengal Army, by the Secretary of State for India; Sir William Fergusson, on being created a baronet, by Earl Granville; Surgeon H. J. Gane, Her Majesty's Bombay Army, by the Secretary of State for India; Dr. Horatio Goodday, by Major-General E. Rowley Hill. The *levée* was also attended by Drs. F. G. Reed, Breslin, Sieveking, Forbes Winslow, Acland, Armstrong, R.N., T. King Chambers, Minter.

Dr. O'Reardon, first cousin and once the physician of Daniel O'Connell, died last week, at Killarney, at the age of 90. In 1803 he visited France, where he was the pupil of Baron Cuvier. He was detained there during the war for nine years, residing with his grand uncle, General Count O'Connell. Having returned to Ireland in 1814, he became physician to some public institutions, and ultimately settled in Cork, where for thirty years he was the medical attendant of the Fever Hospital. Dr. O'Reardon was the oldest member of the Irish College of Physicians; and though he had retired from practice for some years, he continued healthy and active almost to the last.

Statistical Society. The undermentioned noblemen and gentlemen were elected on Thursday, March 15th, as the Council and Officers for 1866-67. *President*—Lord Houghton. *Council*—Major-General Balfour, C.B.; Lord Belper; A. J. B. Beresford-Hope, Esq.; Sir John Boileau, Bart., F.R.S.; W. J. Bovill, Esq.; S. Brown, Esq.; W. Camps, M.D.; Edwin Chadwick, Esq., C.B.; D. Chadwick, Esq.; L. H. Courtney, Esq.; W. Ewart, Esq., M.P.; William Farr, M.D., D.C.L., F.R.S.; Earl Fortescue; W. A. Guy, M.B.; J. T. Hammick, Esq.; F. Hendriks, Esq.; J. Heywood, M.A., F.R.S.; W. B. Hodge, Esq.; C. Jellicoe, Esq.; W. S. Jevons, Esq.; F. Jourdan, Esq.; L. Levi, Esq.; W. G. Lumley, LL.M.; M. H. Marsh, Esq., M.P.; G. Moffatt, Esq., M.P.; W. Newmarch, Esq., F.R.S.; F. Purdy, Esq.; Rev. J. E. T. Rogers, M.A.; Col. W. H. Sykes, M.P., F.R.S.; J. Walter, Esq. *Treasurer*—William Farr, M.D., D.C.L., F.R.S. *Honorary Secretaries*—W. A. Guy, M.D.; W. G. Lumley, LL.M.; F. Purdy, Esq.

Spurious Carbolic Acid. Mr. W. Crookes writes: "The Cattle-Plague Commission have recommended carbolic acid as a disinfectant. A spurious article composed of oil of tar, utterly valueless as a disinfectant, is now being imposed on the public. The iniquity of this fraud claims exposure. Commercial carbolic acid is soluble in from 25 to 70 parts of water, or in twice its bulk of a solution of caustic soda, while oil of tar is nearly insoluble. To apply these tests: 1. Put a teaspoonful of the carbolic acid into a bottle; pour on it half a pint of warm water; shake the bottle at intervals for half an hour; when the amount of oily residue will show the impurity. 2. Dissolve one part of caustic soda in ten parts of warm water, and shake it up with five parts of the carbolic acid. As before, the residue will indicate the amount of impurity."

Rinderpest in Sheep. The committee of the Chamber of Agriculture, at a late meeting held at Edinburgh, resolved, "That the evidence of sheep having taken rinderpest is far from conclusive, and that if sheep become affected with the disease, they are certainly not naturally susceptible of it." The Edinburgh Cattle Plague Committee, on the other hand, have adopted a resolution of an opposite tenour, namely, "Having carefully inquired into the alleged cases of rinderpest in sheep, reported to have occurred in the county of Fife, having had the advantage of hearing a full statement on the subject by one of their own number, Professor Strangeways, veterinary surgeon, who went down to Fife for the purpose of examining into the matter, and having themselves witnessed the *post mortem* examination of several of the sheep in question, they are of opinion that the cases reported from Fife are undoubted cases of rinderpest, and that it is expedient that measures should be adopted for the prevention of the removal of sheep from infected places to places hitherto uninfected."

Representation of the University of London. On the 20th instant, a meeting of the Convocation of this University was held, for the purpose of considering what steps should be taken for securing provision for the due representation of the University in Parliament; Dr. Storrar in the chair. Mr. Jessel moved, "That a petition be presented to both Houses of Parliament, praying that two members may be given to the University of London." He remarked, that the number of the constituents would be 1729. It was clear that there could not be a better constituency than a number of learned and accomplished men. Such a constituency, moreover, would be above all bribery and corruption, and beyond all suspicion of it. On these grounds, he held that university representation would be a benefit, not only to the University, but to the whole country. He should like to know what constituency could be named which would give 2000 persons equal in intelligence, experience, and knowledge, to say nothing of social standing, to those of the University of London. The members of the University who were entitled to vote were under fifty years of age and above twenty-four, so that all the voters would be in the prime of life. A representation of the University of London would also accomplish this—that every class of learned men would be represented, more especially the class of medical men, of whose accomplishments the University of London might justly be proud. The claims of the University had been recognised by three governments—the Liberals, the Tories, and the government of Lord Aberdeen, which might be supposed to represent the middle party between them. Under these circumstances, he thought they had a claim to be put upon an equality with the old Universities of Oxford and Cambridge. The motion was seconded by Mr. R. N. Fowler, who strongly urged the claims of the medical profession to have a voice in the House of Commons. It was then arranged that Dr. Storrar should take measures to secure the presentation of a petition to the House of Commons, founded upon the resolution.

THE COLLAPSE OF GARLIC AND WORMS. Mr. Simonds writes: "Mr. Worms says, 'I would have the world believe that of the herd of 119 animals the majority had died, whereas, in fact, a very small proportion died, and the remainder had been slaughtered in conformity with the Act.' He adds also, that 'Baron Rothschild wrote to the Privy Council, requesting that a few days might be granted in order to give a fair chance to cattle under treatment,' and received an answer from Lord Granville to the effect that the operation of the Act could not be suspended, and that it must be put in force at once, which was accordingly done, and the animals forthwith slaughtered.' With regard to the latter part of this statement, I may remark, that the Act was passed on the 25th of February, and that my visit to Mentmore was made on the 3rd of March, at which time 66 animals of the original 119 were still alive. Three-fourths of those animals were in a dying condition, notwithstanding which, and that six days had elapsed since the passing of the Act, the requirements of the law had not been 'put in force.' With reference to the former part of Mr. Worms's statement, that 'a very small proportion had died, and the remainder were slaughtered,' I may observe, that, if the 66 animals referred to be deducted from the original 119, there will remain 53 to be accounted for. Now, of this number 18 only were shot, and 35 had died; so that the proportions of deaths to those slaughtered was a very large, rather than a small one."

THE PRUDHOE CONVALESCENT HOME. Sir William Armstrong, who was among the foremost to begin the fund, is one of the most anxious to complete it, and has taken a characteristic and effectual step in the direction of his object. He has offered "to double his subscription of £1,000, provided a sufficient number of existing contributors join in raising a further sum of £1,000, by doubling the sums they have already given." Sir William has subscribed a thousand pounds already; and he will give a thousand pounds more, if a third thousand be added by existing subscribers. If those who have already contributed will double their gifts so as to raise another £1,000, he will make his one thousand pounds two; and the building fund will thus be advanced a long stride towards completion. It is a princely offer; and our generous townsman will rejoice, we are certain, if his fellow-subscribers, moved to emulation by his munificence, shall make it available by their renewed donations. It is intended that patients of the Newcastle Infirmary, recovering from operations, accidents, or debility consequent upon previous illness, and requiring no longer the aid of that noble charity, may be received within the Prudhoe Convalescent Home until they are restored to perfect health and strength. In addition to the patients of that institution who may require its aid, others will be admitted on the recommendation of annual subscribers. Poor persons, also, suitably recommended as proper objects for its care, may be received into the Prudhoe Convalescent Home on the payment of no larger sum than seven shillings a week. (*Newcastle Daily Chronicle.*)

SANITARY LECTURES. The course of sanitary lectures originated by the committee of the Ladies' Sanitary Association at Leeds has commenced. Dr. Greenhow has lectured "On the Atmosphere," and Dr. Allbutt "On the Causes of Epidemics, and the best means of Preventing them." Mr. Ikin has also lectured "On the Means of Preserving Health." Other medical gentlemen have kindly consented to lecture on sanitary subjects, and as the mortality of the town continues so unduly high, it seems to us that the suggestion of the association to institute these lectures in different parts of the borough was most appropriate and useful. The lectures delivered by Drs. Greenhow and Allbutt were highly practical and suggestive, and were thoroughly appreciated by their audiences. Dr. Greenhow is a very old sanitary reformer, and he is still full of vigour and energy, and the association has reason to congratulate itself on obtaining his active and zealous cooperation. Dr. Allbutt, in his lecture on Thursday evening last, dwelt on the opinion now held by the highest authorities on fever, that typhus and typhoid fever can, by proper attention to the laws of health, and the avoidance of over-crowding, poisonous air, destitution, over-fatigue, impure water, and exposure to contagion, be as completely eradicated from any town or district as ague has been expelled in different counties by drainage. He stated that a company was forming in Leeds for the express purpose of erecting cheap dwellings, of a healthy kind, for the very poorest of the working classes. He suggested the formation of new thoroughfares, to run completely through the dirtiest and worst ventilated streets, courts, and yards, and hoped that pledges to promote sanitary measures would be required from every future candidate for municipal honours. He alluded feelingly to the numerous deaths, from typhus fever, of his assistants at the Fever Hospital and Dispensary; and also to the loss of many of the clergy, and others, whose valuable lives had been prematurely sacrificed from the same cause. Mr. Ikin presided on these occasions; and a most cordial vote of thanks was passed by the meeting to Drs. Greenhow and Allbutt for their valuable and instructive lectures.—(*Leeds Intelligencer.*)

THE EDINBURGH SCIENTIFIC REPORTS ON THE CATTLE-PLAGUE. In justice to Dr. Smart, we give the following abstract of a letter addressed to the *Scotsman* by "An Edinburgh Physician." "Amongst the very first and most valuable contributions made in this country to our knowledge of Rinderpest, must assuredly be placed the admirable report on 'The Pathological Appearances of the Cattle-Plague', by Dr. Andrew Smart, which was published in your columns on September 13th. In that report, Dr. Smart gave the result of a laborious investigation into the pathological anatomy of Rinderpest. The report constitutes one of the best contributions to our knowledge of the Cattle-plague. Some weeks after the appearance of Dr. Smart's report, a medical committee was appointed by the Town Council of this city to investigate the disease which was attracting so much attention; and, in accordance with the request of the magistrates, this committee—of which Dr. Smart was only for a very short time a member, and over which Dr. Andrew Wood presided—commenced its studies. Such being the facts of the case, my astonishment was considerable to find, on reading a pamphlet on the Cattle-plague by Professor Playfair, that Dr. Smart's report is to a certain extent placed to the credit of our very worthy, but, I venture to say, very useless, Cattle-Plague Committee. 'We refer with approbation,' says Dr. Playfair, 'to the description of the disease given by Dr. Smart, in the excellent and practical report of the Edinburgh committee, over which Dr. Andrew Wood presided. The committee worked with uncommon energy; and produced a report in about a week after they were appointed by the Lord Provost and magistrates—a report which in reality contains one of the best descriptions of the morbid anatomy of the disease which have yet been published in this country.' When it is remembered that Dr. Smart's pathological report was published on September 12th, and that the committee never published any patho-

logical report, I cannot easily understand how Dr. Playfair could have attributed to the committee what was undoubtedly the result of Dr. Smart's individual labours. My astonishment at Dr. Playfair's inaccuracy is all the more heightened by the fact that Dr. Playfair is himself a member of this committee."

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....Metropolitan Free, 2 P.M.—St. Mark's for Fistula and other Diseases of the Rectum, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TUESDAY. .... Guy's, 1½ P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.

WEDNESDAY... St. Mary's, 1 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.

THURSDAY.....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Great Northern, 2 P.M.—London Surgical Home, 2 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.

FRIDAY..... Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

SATURDAY.....St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1·30 P.M.—Charing Cross, 2 P.M.—Lock, Clinical Demonstration and Operations, 1 P.M.—Royal Free, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

TUESDAY. Royal Medical and Chirurgical Society, 8.30 P.M. Mr. T. Holmes, "Case of Lumbar Colotomy"; Dr. Morehead, "On the Pathology of Pneumonia and Hepatitis."

TO CORRESPONDENTS.

*** *All letters and communications for the* JOURNAL, *to be addressed to the* EDITOR, 37, *Great Queen St., Lincoln's Inn Fields, W.C.*

COMMUNICATIONS.—To prevent a not uncommon misconception, we beg to inform our correspondents that, as a rule, all communications which are not returned to their authors, are retained for publication.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

P. O.—The instructive papers on London Pauperism, which are being published in the *Standard*, are, we understand, written by Dr. Stallard.

THE VACCINATION BILL.—A letter to the following effect has been sent by Dr. Mackinder to Sir M. Cholmeley, Bart., M.P., and J. B. Stanhope, Esq., M.P.

"Gainsborough, March 21st, 1866.

"Sir,—As the Bill for Vaccination goes into Committee to-morrow (Thursday), may I ask you to support the amendment of Mr. Griffin, President of the Poor-law Medical Reform Association, a copy of which amendment has been sent to every member of the House of Commons.

"The Bill, as it stands, is unjust and insulting to the members of my profession; since the remuneration offered is not an equivalent for the services demanded, and the conditions of employment imply such an amount of ignorance as the merest tyro would blush to acknowledge. The idea of compelling every registered practitioner to pass a special examination on the simplest operation in surgery before he is permitted to become a public vaccinator is unjust, since he has to pay for an examination on a subject which formed a part of his original studies, and which came within the province of those who granted his title to registration. But to compel those who hold appointments as public vaccinators to leave their patients and homes to pass another examination, is to offer them such an indignity as no man with a proper feeling of self-respect has any right to submit to.

"The Bill, as it stands, is unworthy of public confidence, since no vaccinator will ever give himself the trouble to search out the unprotected, unless he be fairly paid for his time and labour, and be honourably treated.

"I am, sir, your obedient servant,

"D. MACKINDER, M.D., F.R.C.S., etc., Public Vaccinator."

T. F.—We believe we are not revealing any secret, if we say th the very clever Latin composition, *Ad Adolescentes*, referred to our correspondent, and which appeared in the JOURNAL of l week, is from the pen of Dr. C. Witt of Spring Gardens. W good common sense, and scientific medical advice, will be th found united in a capital classical exposition.

THE ARMY AND NAVY COMMITTEE.—SIR: Will you allow me sp for a few remarks on the feeling of dissatisfaction which is pressed by so many medical officers. The causes of dissatisf tion may be said to be solely the addition of "suggestions" to highly satisfactory recommendations regarding the presidency mixed boards and position at mess, which suggestions entir neutralise the said recommendations, and the proposal of *f* tenths instead of *seven*-tenths as the retired pay after twe years' service.

It is felt that the position at mess, which the second rec mendation proposed to make clear, will be left in an unsatisf tory state, in consequence of the "opinion" attached; and t the "suggestion" appended to the first recommendation rend the recommendation itself void.

Then, to offer a man permission to retire upon *five*-tenths o given rate of pay, when, by serving five years longer, he will entitled to retire upon *seven*-tenths of a higher rate, is to o that which no man is likely to accept.

These are the *blots* which have damaged the effect of the oth wise excellent recommendations.

It is rather strange that a higher rate of pay should be propo for the navy than for the army, when we consider that the nec sary expenses of the former service are far less than those of latter; but little is thought of that feature.

I am, etc., "FORTIS EST VERITAS."

POOR-LAW MEDICAL REFORM.—Mr. Griffin begs us to inform Poor-law medical officers that the following subscriptions h been received by him towards the funds of the association G. Taylor, St. Faiths, 10s.; H. D. Ellis, Poole, 5s.; Haynes, N and Haynes, 21s.; F. Owen, Epsom, 10s.; A. Stedman, Eps 10s.; H. G. Hardy, Auckland, 5s.; Newman and Atkins, Cosf 10s.; A. Roberts, Holborn, 10s.

By Mr. Prowse: T. Odell, Hertford, 10s.; H. Jepson, Kingst 10s.; A. Kirkland, Amersham, 10s.

THE PRUDHOE CONVALESCENT HOME.—SIR: I enclose a copy o leading article that appeared in the *Newcastle Chronicle*, in planation of a most philanthropic proposal made by Sir W. Armstrong, C.B., to the Committee of the Prudhoe Convalesc Home. The proposed memorial to the late lamented Duke Northumberland, viz., to double his subscription of £1000, p vided that a sufficient number of existing contributors join raising a further sum of £1000, by doubling the sums they h already given.

Already, in response to the proposal, one gentleman has offe to give £200, if other four individuals will contribute like sums

I am, etc., G. H. PHILIPSON, M.D.,
Hon. Sec. Prudhoe Convalescent Home

Newcastle-upon-Tyne, March 17th, 1866.

COMMUNICATIONS have been received from:—Dr. FREDER J. BROWN; Dr. T. H. BARTLEET; Mr. R. S. FOWLER; Mr. RICHA GRIFFIN; Dr. A. SAMELSON; Dr. A. MEADOWS; Mr. WILLI COPNEY; Dr. A. P. STEWART; Dr. TUBBS; Mr. HOAR; Dr. GRA HEWITT; Dr. H. LAWSON; Mr. DAYMAN; Dr. DOBELL; Mr. MORGAN; Dr. GAIRDNER; Mr. IKIN; Dr. PHILIPSON; Dr. ROBE FOWLER; Mr. C. HUNTER; Mr. I. BAKER BROWN; Mr. T. WAT WILLIAMS; Mr. W. PLATT; Mr. H. GREENWAY; Dr. ALEXAND FLEMING; Mr. C. HOLTHOUSE; Dr. CAMPS; THE HONORA SECRETARIES OF THE ROYAL MEDICAL AND CHIRURGICAL S CIETY; Dr. W. B. HERAPATH; and Mr. R. HARRISON.

ADVERTISEMENTS.

Medical Society of London.—The subjects for the FOTHERGILLIAN GOLD MEDA offered for competition by this Society are:—

For March 1867.—"The Regeneration of Bone by Periosteum."
For March 1868.—"The Diagnosis and Treatment of Non-mal nant Tumours of the Uterus."

Candidates for these medals are informed that practical a original facts and illustrations will be considered as especial me in all essays sent in for competition; that the essays must written in the English or Latin languages, copied in a fair a legible hand, and delivered at the Society's Rooms 32A, Geo Street, Hanover Square, on or before the 1st of November precedi the award, with a sealed packet, containing the author's name, a having on the outside a motto or device corresponding with a mo or device on the essay; that any Essay in the author's handwritu or with his name affixed, or which may in any way discover hi will be excluded from competition; and that the successful es will become the property of the Society.

The learned of all countries are invited to compete.

W. ABBOTTS SMITH, M.D.,
WALTER J. COULSON, F.R.C.S., } Hon. Se

32A George Street, Hanover Square, W.

Croonian Lectures

ON THE

LOCALISATION OF DISEASE.

DELIVERED BEFORE THE

ROYAL COLLEGE OF PHYSICIANS.

BY

EDWARD H. SIEVEKING, M.D.,

PHYSICIAN TO H.R.H. THE PRINCE OF WALES, AND TO ST. MARY'S HOSPITAL; PRESIDENT OF THE METROPOLITAN COUNTIES BRANCH OF THE BRITISH MEDICAL ASSOCIATION; ETC.

LECTURE I. (*Concluded.*)

In order that we may not lose ourselves in vague generalities, let us now try to fix more precisely the exact question that we have to answer. A given disease is before us, in which at the same time we find some affection that brings a certain organ or tissue prominently before our notice; and at the same time there are symptoms which indicate that the entire organism or constitution of the individual is more or less involved. The former we term the local, the latter the general phenomena of disease. Is the local disorder merely an expression, a climax, of the general turmoil; may we regard it simply as the crisis or culminating point of the disturbance created throughout the economy? Or is the diseased organ the real *fons et origo mali*, the *point de dêpart* of the general disturbance, the spark which has led to the conflagration?

Whether we are yet in a position to give a categorical reply which shall suffice for all contingencies, is at least doubtful. I fear that the present state of science, or rather the powers at my disposal, are inadequate to surmount the numerous difficulties that present themselves. But there can, I think, be no doubt of the important bearings of the inquiry which daily thrusts itself upon the student of morbid phenomena; while I believe that in a correct solution of it we shall also find a solution of many practical difficulties and of many of the contradictions and anomalies presented by the history of medicine, in regard to the variations and fluctuations in certain modes of proceeding. Even when we differ from a friend, the candid mind will seek to understand his motives and his reasonings, and be willing, though unable to adopt them, to admit what is just and true in them. So, in judging of our predecessors or contemporaries, it is only fair to put ourselves into the point of view which they occupied, or, if their proceeding was entirely empirical, to see whether our advances in science can explain and justify the proceedings adopted by them.

When I was a student, the rule still prevailed to bleed in every kind of accident. To the inquiry why this was done, the reply was given that it was to prevent inflammation. If the pertinacious student suggested that it might be as well to wait for the inflammation before the remedy was used, he obtained no further response; and he felt himself snubbed—a sensation which I trust no earnest student of the present day ever experiences in contact with his teachers. But, although I am not now going to defend or advocate this obsolete practice, I cannot but think that a justification may reasonably be pleaded on the ground that the injury, of whatever nature, by confining the patient and thus preventing suddenly the adequate consumption of the tissues or of the blood required to maintain health, indirectly induced a general plethora. That this plethora is no myth, is sufficiently demonstrated by evidence that will appear later on in connexion with other considerations. Mr. Hilton dwells upon this matter more fully; and, in speaking of the influence of rest in disease, forcibly points out how congestion of the liver and the lungs may be traced to forced rest necessitated by serious traumatic injury.

"I believe" (to employ Mr. Hilton's own words) "the congested liver which leads to jaundice, results from the forced rest to which the liver is subjected in the recumbent position; the circulation through the organ, up to the period of the accident, having been aided by active respiration and ordinary exercise. The withdrawal of these aids leads to congestion of the liver, and thence to jaundice. In other cases, the congested liver may terminate in inflammatory softening and abscess. The same kind of congestion of the lungs at their bases and posterior obtuse margins may, and frequently does, take place under the influence of difficult and inefficient inspiration, dependent upon the difficulty of moving the posterior parietes of the chest, while the patient is in the horizontal posture. The circulation through those parts of the lungs is not completed; and, as the quantity of the blood circulating up to the period of the accident was adapted to a free and complete respiration, this want of balance between the area of respiration and the quantity of blood circulating causes pulmonary congestion and pneumonia."

Mr. Erichsen, in a valuable paper communicated many years ago to the Royal Medical and Chirurgical Society, gives evidence to the same effect.

To return to the main question. It is scarcely necessary to say that I exclude from the consideration all traumatic injuries. Here the presence of a purely local affection is undoubted, though the manner in which reaction is effected and the course it runs depends upon antecedents peculiar to the individual's constitution. With regard to all diseases properly so-called, unless the direct introduction of a poison or a parasite can be satisfactorily demonstrated, I am disposed to regard the local disease as an expression of a general taint, rather than general phenomena as an influence propagated from the morbid focus. There are always both the τύπος and the ἀντίτυπος—the stroke and the reverberation; but I conceive that the history of disease, whether studied in the individual or in the community, whether judged by its antecedents or by the treatment that is commonly and successfully pursued, points but to that one conclusion, if not in all, certainly in the vast majority of the diseases that we have to deal with. Under this view, physiological pathology is a science and preventive medicine a reality; under the opposite view, the one becomes a congeries of isolated morbid realities, the other an abstraction which it would be futile to attempt to realise.

And, furthermore, it appears, and I intend to bring forward corroborative evidence, that all disease

is primarily referrible to some nutritive derangement. The cause of the derangement may reside in the various phases and conditions of the digestive process; in the *plus*, *minus*, or altered quality of the ingesta; in the manner in which assimilation is carried on; or in the manner in which the depurative processes are realised by the various organs of secretion and excretion. The forms of morbid action belonging to general disease which cannot be referred to some abnormal state of nutrition are but comparatively few in number. They are mainly those which the nosologist groups together under the name of zymotic diseases; and, although they appear to be directly attributable to a poison introduced from without, you will probably be disposed to admit that the receptivity of the individual, or (as others term it) his proclivity to the disease, is generally determined by the manner in which his nutritive functions are performed. It is the "vital condition", as Dr. Handfield Jones so truly observes (*Clinical Observations*, p. 175), which determines the reactions that take place in our patient; but that vital condition, physically speaking, depends essentially upon nutrition in the widest sense.

It is clearly, in a practical point of view, of very considerable importance whether we hold that the disease commences at an individual spot and spreads from there to contaminate or somehow involve the remainder of the body, or whether the local affection is merely an index of a constitutional state to which our attention should first be directed. I apprehend that, if we analyse the practical conclusions of various writers and different periods of the history of medicine, their apparent contradictions may generally be resolved into an unconscious leaning to one or the other extreme. Doubtless, all physicians with any ordinary appreciation of the phenomena of disease have realised the two great phases of morbid action to which I am adverting; but it appears also equally evident that many, even of the highest eminence, seek to exalt the pathological conditions of single organs into independent entities; or we should not meet with such frequent and unfortunately futile endeavours to *simplify* therapeutics, by determining statistically the superiority of individual drugs, not for their power of controlling vital phenomena, but for their influence in combating the disease of a parcular organ.

In one of the most complete monographs of the day, Dr. Thudichum analyses the curriculum of the trichina in the human body. It shows us, in a painfully irresistible manner, how the parasite is introduced into the stomach and intestines, and with what certainty it penetrates into the muscular and other tissues. Under certain circumstances, the new home which it provides for itself proves its tomb, and the infested individual may become a cemetery of defunct trichinæ. But this unfortunately is an exceptional case. A variety of diseases—nosological entities—are simulated by the trichinæ, according as they predominate here or there. The symptoms have frequently resembled those of typhoid fever (Zenker in Virchow's *Archiv*, xviii, p. 561; and Simon's *Seventh Report*, p. 351); so much so, that one of our most learned fellows confesses that he feels confident of having repeatedly regarded cases of trichinæ falsely in that light.*

"When the lung-tissue is largely invaded by the parasite, pneumonia of the severest and most intractable kind is established. One of the principal symptoms of trichiniasis is œdema, which accompanies the immigration of the trichinæ into the muscles. The œdema can be explained by the assumption that those trichinæ which miss the muscles enter the lymphatic spaces, and there cause irritation, swelling, and congestion, in the same manner as they cause it in the mucous membrane of the intestines. They produce the erythema, and other peculiar eruptions such as miliaria; they produce the local irritation of nerves, the burning, and the remarkable general perspirations. From the lymphatic spaces, they gain access to their continuation, the lymphatic vessels, and ascend; another time causing abscesses of the lymphatic glands of the groin or the pit of the shoulder, or abscesses in other parts of the skin not particularly provided with lymphatic glands. The irritation of the heart, which shows itself of a peculiar type, is most naturally explained, as the irritation produced in the fibres and nerves of the heart itself by the many minute animals penetrating its tissue, and causing a large increase in its activity of nucleation. The pneumonia, which is so fatal at a comparatively late step of the disease, I take to be caused by the arrest of late and already large trichinæ; and, if embolia have anything to do with this form of inflammation of the lungs, I assume the trichinæ to be the primary emboli." (Simon's *Report*, p. 362.)

Trichinous pneumonia is stated to appear suddenly during the course of the other symptoms; to affect mainly the left lung; and always to present the shape of a wedge, the base of which is at the circumference of the lung. The dangerous character of the pneumonia is much enhanced by the diaphragm and other respiratory muscles being infested with trichinæ, so that the functions of these parts are interfered with.*

I bring forward these observations of an independent inquirer on trichinous pneumonia, because they illustrate the exceptional production of disease of an internal organ by a direct local irritant, as well as the futility of attempting to treat similar symptoms by similar means, unless the cause of the symptoms can also be shown to be identical. In the instance detailed, an irritant is introduced directly into the tissue of the lungs by the migration of the trichinæ from the stomach and intestinal canal. No amount of health in the individual can influence the propagation, development, and wanderings of the parasite; its removal or death are the only means by which the health of the patient can be restored who has unfortunately consumed trichinous meat. It is not impossible that the zymotic forms of disease may be attributable to a similar mode of irritation; the analogy appears so strong to

* Dr. Aitken (*Science and Practice of Medicine*. Fourth edition. Vol. i, p. 879), in an account of the symptoms and history of trichiniasis, states that the only important symptom of typhoid fever absent in the disease, is the enlargement of the spleen. He adds, that it is very probable that some of the co-called epidemics of typhoid fever in former days were caused by the propagation of trichinæ in the human body.

* Dr. Thudichum states that a preparation from the biceps of a child, aged 5½ years, which died on the seventy-ninth day, was found to contain fifty-eight trichinæ. The preparation being estimated to weigh one-fifth of a grain, one grain of such muscle would contain on an average one hundred trichinæ. Dr. Thudichum calculates that an adult victim to trichiniasis may have as many as twenty-eight millions, if his entire muscular system be affected in the ratio as the child's biceps just mentioned; and that although their individual length is but about five *millimètres* (0.2 inch), the whole length of these twenty-eight millions put together would extend to ninety miles.

some writers, that the parasitic origin of certain fevers has been strongly advocated. Sir Henry Holland, following Kircher and Linnæus, discusses the whole question of insect life as a cause of disease, and is of opinion that it serves as an explanation of the origin of epidemic and contagious diseases, and especially of cholera. The doctrine does not at present enjoy the support of the profession; for a careful analysis of the phenomena, and an absence of the direct evidence of the supposed parasite, equally discountenance the hypothesis. Although the parasitic origin of the zymotic diseases is at least problematical, their origin from an irritant or poison introduced from without appears in the majority of instances to be indisputable. And the history of the disease in the individual, no less than its spread among the community, equally demonstrate that the facility with which the poison fastens on the individual or diffuses itself among the community is in the direct ratio to the nutritive vigour that prevails. The poison may be applied in equal strength to different organisms; in one it takes hold and developes itself in the most virulent form; in the next, it produces effects of a trivial and passing character; in the third, its manifestations may be so slight that, but for our knowledge of its prevalence, we should fail to recognise it. So far as we are able to account for these differences, they do not depend on an unreasoning fate; but are governed by the laws of nutrition with as much tendency to our benefit and as much uniformity as the normal growth of any organic being. We have not yet discovered the nature of the different poisons that engender zymotic disease; nor have we, up to the present time, been able to isolate them, and place the *corpus delicti* under the microscope, as we are able to do with the trichina; but we do know that we may reduce the power of the poison to a minimum by putting our house in order, by placing our physical powers in the best possible condition to resist its influence, by securing to all the different parts of our organisms the highest training, or, in other words, the most perfect nutritive development. All sanitary doctrine would be mythical, all human progress a fable, were not disease and the causes of disease governed by laws, which God has given us the means of ascertaining and inquiring into. Limited as our knowledge is, yet it is, I think, sufficient to assure us that it is not altogether futile, and that, by perseveringly seeking to unravel the apparent mysteries of Nature in an earnest and devout spirit, she will reveal herself to us; not, indeed, if we value gold higher than truth and the esteem of the outer world higher than that of our own professional brethren.

The many contradictions existing between various systems of medicine and between individual teachers who have the same people and the same forms of disease under observations, do not appear to me reconcileable, unless we are agreed on a certain basis of observation. That that basis must be a physiological one, seems to be incontrovertible; and it is impossible to read much of what is written at the present day without feeling that a red line of physiological colouring runs through the works of all conscientious writers.

"Holding," says Dr. Handfield Jones, "the belief that disease is an extremely varying and inconstant thing which utterly refuses to adjust itself to strict definitions, or to be bound by a settled reckoning of days and hours, I cannot think that the proposal which has found much favour in the eyes of some of our best physicians—to ascertain the natural history of all diseases, as an indispensable preliminary to forming any opinion as to the effect of remedies—is likely to lead to any result. The fundamental idea of the proposal is, that the several pathological states to be examined can be regarded as uniform and constant, each case of each kind being truly similar to those which are ranked with it. Were this so, at least to any considerable extent, the problem would be conceivably soluble; but, as the case actually exists, the idea seems to me impracticable. For, if one thing be impressed upon me more than another by increasing experience, it is the great diversity which exists between the several morbid states, and which have an outside show of similarity in their location and symptoms."

I adduce these quotations from a recent inaugural address by Dr. Handfield Jones, because they completely convey my own meaning. At the same time, with all the diversity which meets us in disease, and granting all that Dr. Handfield Jones states without reservation, we may, I think, still seek for unity in our diversity; only our unity is not to be regarded as a nosological entity, but as a perversion from the physiological standard. I can arrive at no other conclusion regarding disease taken as a whole, than that it is essentially referrible to a derangement of nutrition, and that the morbid influence may affect nutrition in one or more of the following ways. Nutrition may be primarily at fault in the digestive apparatus proper, through unwholesome, excessive, or deficient ingesta; nutrition may be rendered imperfect and irregular through a primary nerve-influence and its sequelæ; nutrition may deviate from the normal standard through a primary influence on the organs of respiration and oxygenation; or it may, I think, be stated that a primary morbid influence causing a derangement of the secretory and excretory or emunctory and purifying functions, may so derange the nutrition of the body or of individual organs as to induce the phenomena of disease.

These various derangements of nutrition are practically not always to be separated into the classes suggested; for they become complicated with one another and effect an interchange of elements, which is occasionally embarrassing. Still the student of disease will, I think, on consideration, admit the general truthfulness of the classification; and, in tracing the modifications in nutrition or in the metamorphosis of the tissues associated with and leading to typical morbid conditions, find the predominance of one or the other features. It is more consonant with our present knowledge to regard all disease arising within the body as the manifestation of the derangements here shadowed forth, than as nosological entities referrible to a blind cause unconnected with the physiological history of our race.

Could we conceive a human being in a state of absolute health, under the influence of no hereditary taint, and with all organs and functions in the most perfect condition, we might be able to determine the normal standard of all the functions. As it is, we only know them approximately and by extensive statistics. Still the modern system of inquiring into the derangements of function, as exhibited by the secretions, the respiratory and circulating media, the temperature, and other measurable data, is based

on an approximative knowledge of a healthy standard; and all are employed to determine the variations in the nutritive elements alluded to, and are used as indications of disturbed health or approaching recovery, in the exact ratio in which they depart from the normal condition of nutrition. Mr. Ford (*Medico-Chir. Trans.*, vol. xx) gives us a case of a remarkable and perhaps unique* recovery from what would generally be considered a fatal wound, illustrating the wonderful reparative powers of Nature where all the nutritive functions—in other word, health—are in the most perfect condition. It is analogous to what both the physician and the surgeon daily experience in illustration of the varying powers of individuals to throw off morbid influences, while it affords a valuable suggestion as to the means by which we may with the greatest certainty compass the chief objects of medicine—viz., the removal of disease and physical suffering, by anticipation, as well as by direct cure. The case is, briefly, that of a Fingo who, in an engagement with Caffirs, was transfixed by an assegai, which entered opposite to the eleventh rib three inches from the spine, and passed out at the right hypochondrium. The anterior opening was equidistant from the umbilicus and the cartilage of the ninth rib. In dragging out the weapon, the man drew out a considerable portion of the lung. The protruding lung was five inches in length, and of considerable thickness. Reduction was impracticable; so Mr. Ford placed a ligature round it, and brought the edges of the wound together. Adhesion took place between the latter in three days; and, the piece of lung having been cut off, the man continued to progress towards a speedy recovery. Without any further treatment than a dose of Epsom salts, the man in a fortnight had quite recovered, and, at the time of the report, was able to run, throw his assegai, and perform any other active feat as well as any of his most agile companions.

A state of health such as that enjoyed by Mr. Ford's Fingo is clearly exceptional; but, as he was not a metaphysical abstraction constructed out of the inner consciousness of an army surgeon, he may be regarded as an embodiment of the great and chief aim of medicine—to place the human race in such a state of physical development—to secure so perfect a balance of the powers and so high a state of nutrition of all the textures in every member of our species, that we may be able to resist morbific influences to the fullest extent our constitution is capable of, or neutralising the results with the greatest possible readiness, if the powers of resistance are insufficient to prevent their entrance. These two points involve the aims of preventive and curative medicine—both of the highest importance to mankind, but not equally appreciated, because the one requires a high state of intellect and foresight to induce its adoption; the other affords more or less speedy relief to present suffering. The two pass by insensible gradations into one another. But while, in curative medicine, we can never do without the dictates of preventive medicine, the latter is calculated to render the former altogether unnecessary; and, of all the uses that statistics have been put to, probably none is more beneficial than that which brings home to us direct demonstrations of the power we possess in anticipating and preventing disease and its sequelæ, suffering and early death. If we find that the mortality in London has been reduced from 42 per 1000, which it was between 1681 and 1690, to a present average of 25 per 1000, this shows the encouraging fact that the mortality is reduced by improved hygienic measures by 17 in the 1000. In other words, science saves the life of, on an average, 25,000 individuals annually in London alone, who, if the death-rate of 1690 still prevailed, would have sunk into an untimely grave. These facts, which I owe to a kind communication from Dr. Headlam Greenhow, received further confirmation, or rather the argument to which they are applied is enhanced, by the fact that the death-rate in the Cavendish Square District of Marylebone is only 16 in 1000, or equal to that of the healthiest district in all England, showing how much has already been done to prolong life by following the laws ascertained by a careful perusal of the book of Nature.* On the other hand, these numbers indicate how much remains to be done; because, if the death-rate of one large district of the metropolis is capable of so great a reduction upon the general average, it is patent that it is a duty of the commonwealth to secure a similar state of things throughout the capital, and that we ought not to rest satisfied until a minimum mortality is produced in the whole country. Nowhere is the neglect of preventive medicine more glaring than as exhibited by the statistics of infant mortality. Nearly one-fourth of the total mortality is still, in some parts of England, due to the deaths occurring under one year. Although, in his address before the Social Science Congress held during the past year, Dr. Lankester shows that the death-rate in London during the last thirteen years, owing to zymotic or miasmatic diseases, is not satisfactory, we find that, on comparing more distant periods of time, the improvement is very great. In each of the ten years between 1681 and 1690, 63.3 persons out of every 10,000 inhabitants of London died of fever. Sixty years later, the average annual death-rate from the same cause, calculated for the ten years from 1746 to 1755, had fallen to 53.9. The present death-rate of the class of fever is only 38.5 in 10,000, showing a diminution of 24.8 since 1685, and of 15.4 during the last hundred years. (Dr. Greenhow, *On the Present Death-Rate of London.*) And this reduction has been accomplished in the face of an unprecedented increase of bricks and mortar, swallowing up thousands of acres of open land; and of a corresponding increase of a population that is daily multiplying all the predisposing and exciting causes of disease, unless controlled and watched over by an enlightened government, willing to be instructed and guided in its turn by those who have devoted their lives to the study of Nature's laws.

If the view be correct, that all diseases have one common basis in disordered nutrition, we obtain at once a clue to the great variations in the form, symp-

* Its extreme rarity is evident, from the fact that nothing of the kind has been witnessed at St. Bartholomew's or Guy's by Mr. Paget or Mr. Birkett.

* In France, we are told by Dupin, the duration of life has been increasing, equal to fifty-two days for each year from 1776 to 1842, or nine and a half years for the whole period. The increase *per annum* was at no time less than nineteen days, although that revolutionary and warlike nation shed seas of blood, not only in her cities, but upon every battle-field of Europe. Other illustrations of the gradual improvement in the value of human life in civilised countries, may be found in Comegys' preface to his translation of Renouard's *History of Medicine*. London: 1856.

toms, type, and reaction to medicines, that constitute the charm of our profession, while they give the caviller opportunity to suggest puzzles that we are unable to solve, if we regard disease only as a nosological entity. We see here, too, a ready means of determining the exact relation of acute and chronic, of organic and functional disease; these varieties of morbid forms being dependent upon, and in the exact ratio of, that primary or secondary derangement in the nutrition of the body which we are daily becoming more capable of measuring with mathematical exactness. We must be careful, in making our estimates of disease, not to be led away by any accidental circumstances, such as the effects upon individual life, according to the point at which it exhibits itself. An epithelial growth may be assumed to be due to the same morbid perversion, wherever it occurs; but the effect on the patient will differ materially, if it be placed on the lips, on the vocal cords, or on the orifice of the bladder. Œdema of the prepuce, or œdema of the epiglottis, may result from analogous morbid conditions, and both may be amenable to similar treatment; but, while the patient can scarcely die of the one, he may with difficulty survive the other, more from the accident of localisation, than from the essence of the diseased elements upon which the œdema rests.

I should be sorry if my remarks were misinterpreted to mean an absence of law in any morbid phenomena. Certainly their prominent occurrence in a particular part of the body is determined by laws as uniform and irrefragible as any other change in Nature; but those particular laws appear to have no direct bearing upon the question that we have under discussion.

At my next lecture, I propose, sir, with your permission, to adduce individual phenomena and actual cases of disease, and to analyse them, so as to illustrate in a more directly practical manner the theory of disease which I have ventured, but crudely and imperfectly, I fear, to bring before you. I confess that to me it seems to harmonise many seeming incongruities both of nosology and therapeutics, while it recognises what must always be the only ultimate basis of all organic science, whether in its normal or its abnormal manifestations, *videlicet* physiology.

In conclusion, I beg to sum up in a few words,

"Der langen Rede kurzen Sinn,"

in order that we may know the exact point from which we start at our next meeting. Pardon the aphoristic and involuntarily dogmatic form of the following paragraphs.

All disease is a perversion of the normal nutrition of the body. This perversion may be due to various influences acting by the ingesta, through arrest or other irregularities in the metamorphosis of the tissues, and determines, according to its character or duration, what are distinguished as functional or organic diseases. There is no essential difference between functional and organic disease; *cæteris paribus*,* the former indicating a less, the latter a greater, amount of nutritive perversion; the difference is one of degree, and not of kind. The localisation of disease is not its essential feature, but rather an incidental result, produced by the congenital weakness of an individual organ, the influence of climate, of telluric conditions, of habit of life; but, wherever it assumes a "local habitation and a name", the basis on which it rests is the main point for the physician to attend to, in order that he may rectify the fundamental error of nutrition, while he puts the affected organ in such a condition as is most calculated to restore it to its healthy balance with other organs. There is much disease unnamed and unrecognised. At present we deal with it as an indolent farmer deals with the weeds which spring up in some of his richest soils: we wait till it has grown and forced itself upon our notice before we seek to destroy it. To continue the simile of the husbandman, our duty is so to cultivate and modify the soil that it shall not nourish the noxious seed; or, if that be in all cases impossible, still to first means to scorch or wither up the parasite before its roots have absorbed all the virtue of the parent earth.

* *Cæteris paribus* is here not a mere figure of speech; it means that the elementary disturbance of each must be alike, in order that they may bear comparison. The organic disease resulting from a simple inflammation may not be put on a level with one based upon a cancerous predisposition.

THE LATE DR. WHEWELL. The *Lancet* contains some particulars by Dr. Humphry respecting the death of the late Master of Trinity. Up to the accident which caused his death, Dr. Whewell had shown no sign whatever of failure of mental power, though at the age of 71 he could not be, bodily, the active man that he had been. His pulse usually ranged between forty and fifty, and occasionally it intermitted. He had long been disposed to somnolency, and his tendency to sleep at the various meetings he was called upon to attend was well known, though he seemed to have the faculty of sleeping with open ears, so that after all little escaped him. After the accident he never quite lost his consciousness; he made some remark directly after it; and on his way home, when stopping at Dr. Paget's door, three miles from the place of the fall, though he had not been perceived to open his eyes, he inquired whether they were stopping at a friend's house, closely adjacent, thus showing that he had been observant of the route. There were, however, from the first, signs of partial paralysis, which gave his medical attendants much concern. The fatal damage which had been sustained by the brain, consisting of an extensive extravasation in the interior and slighter extravasation at two parts on the exterior, without injury to the skull, is explained, Dr. Humphry thinks, by the diseased condition of the vessels and the atrophic state of the brain. When the vessels of the brain are sound they rarely give way, and there is seldom a lesion of the brain substance unless the violence has been sufficient to break the skull. Here the strength of the skull was quite disproportionate to the resisting power of the brain, and the latter gave way, under a jar which was insufficient to cause any mischief to the former. This increasing disproportion between the weight and strength of the skull and the weight and strength of its contents is no uncommon anomaly in advancing years. The brain shrinks, and the skull at the same time thickens, perhaps from the lessening of the pressure of the brain upon its interior. The shrinking of the brain was not associated with any noticeable impairment of intellectual power, except the somnolency. The local paralysis of the hand and side of the mouth, which gave the doctors anxiety from the beginning, was, as it usually is, the result, and, therefore, the indication, of a local definite lesion. It told that the jar had caused more than a mere concussion, that it made a rent, and from that a man rarely recovers.

Original Communications.

ON THE USE OF THE SPHYGMOGRAPH IN THE INVESTIGATION OF DISEASE.

By Balthazar W. Foster, M.D., M.R.C.P.Lond., Licentiate of King and Queen's College of Physicians; Physician to the Queen's Hospital, and Professor of Clinical Medicine in Queen's College, Birmingham; etc.

[*Read before the Midland Medical Society, February 6th*, 1866.]

Part II.

Of late years, our knowledge of the pathology of the organs of the circulation has been much extended, and our power of detecting their morbid conditions has reached a point of much excellence; yet all will admit that there are many diseases of which we are even now but slightly informed, and many cases in which our power of diagnosing the exact cardiac lesion is often unsatisfactory. Many of these cases are examples of the early stages of maladies of which we know but too well the more developed phases. Many others are the slighter forms of organic change in which the functions are but little disturbed. By means of the sphygmograph of Marey we can detect changes in the movement of the blood that would ordinarily escape us; and by its use, I have no doubt we shall, when our observations have multiplied sufficiently, gain much information concerning morbid conditions in their earlier stages, as well as a knowledge of the slight indications capable of assisting in prognosis.

In the better understood diseases of the heart and great vessels, we can arrive at a diagnosis by the aid of the ordinary means employed; but in most cases the instrument of Marey can afford us useful confirmatory evidence, and in many it can perfect a diagnosis which percussion and auscultation have failed to complete. The pulse-trace alone often enables those skilled in its interpretation to foretel the sounds to be heard on auscultation; and in doubtful cases, by the information it yields, augments in no small degree the certainty of the diagnosis.

In the remainder of the time allotted to me, it will be my endeavour to point out a few of the morbid states of the organs of circulation, in which the pulse-form affords valuable indications. In doing so, I shall chiefly confine myself to diseased conditions of the organs of circulation, because I have had in such conditions the most extensive opportunities for investigation.

Among the pathological changes with which the arteries may be affected, is one that we so often meet with in old age, that we almost deem it the condition natural to our last days. I allude to that *Senile Change in the Vessels* which gives to the finger placed over the radial artery the sensation of resting on a hard inelastic tube. With such change in the arteries, we usually find hypertrophy of the left ventricle, and also a dilated state of the vessels themselves. We can easily account for these associated conditions, when we reflect that by such alteration the elasticity of the arterial walls is more or less destroyed. The special property, indeed, by which the arteries facilitate the onward flow of the blood and regulate its movement, is gradually lost; and the heart, thus deprived of one of its chief aids, is compelled to act more forcibly in order to carry on the circulation. Hypertrophy of the left ventricle is the consequence; and, little by little, the degenerated vessels, having lost their facility of modifying the force of the heart, dilate under the increased energy with which the blood is impelled into them.

Thanks to the luminous descriptions of Virchow, we are now well acquainted with forms of degenerative change other than ossification affecting the great arterial trunks; and we know also that such changes, as well as ossification, may occur at a comparatively early period of life. All these changes may extend over more or less of the vascular system; but they all have one common effect—they diminish the elasticity of the arterial wall.

This deterioration of a necessary property entails not only the changes to which I have above referred, but it is associated with an ever threatening tendency in the degenerated vessels to rupture under any abnormal pressure of the blood.

The power of detecting such alteration when it affects the larger trunks, leaving the superficial vessels healthy, would be a great boon to practical medicine, by enabling us to recognise with certainty a condition which we can now only vaguely surmise. The sphygmograph will assist us in this; for we find that certain forms of the pulse-trace are characteristic of senile degeneration of the vessels; and the appearance of these peculiarities in a minor degree in early life leads us to conclude that arterial change has occurred. The elasticity of the arteries transforms, as we know, the movement given to the blood by the ventricular systole; and, therefore, we find the least trace of the ventricular movement in the arteries most distant from the heart. But, whenever the arterial elasticity is diminished, the pulse retains more or less of the form given by the ventricular contraction.

M. Marey, by an ingenious experiment (*op. cit.*, p. 416), has obtained the trace of the ventricular systole (in a horse), which is figured below. In the diagram (Fig. 1), the dotted continuation indicates



Fig. 1.

the traces of the ventricle, while the unbroken line shows the form which the arterial pulsation should possess in senile degeneration of the vessels. In the following traces, the resemblance to the ideal form is sufficiently striking. (Figs. 2, 3, 4.)

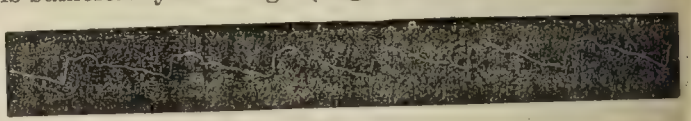


Fig. 2.

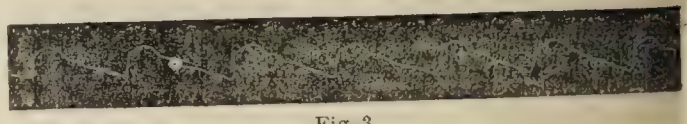


Fig. 3.

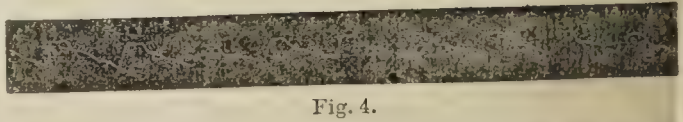


Fig. 4.

On examination, we recognise the following as the chief characters of the senile pulse: the great amplitude of the trace; the vertical and sometimes broken

line of ascent; the extended summit; the sudden fall of the first part of the line of descent; and its freedom from dicrotism.* These peculiarities are easily accounted for by the loss of elasticity in the vessels, the increased energy of the ventricle, and the dilatation of the arteries themselves. These features, when found in a minor degree in the pulse-trace of one little advanced in life, justify the opinion that there is arterial change. The rounded summit and the diminution of dicrotism are, when well marked, the first signs of alteration of the arterial elasticity. M. Marey has been able to test the diagnostic value of these characters by a *post mortem* examination. The pulse-trace (Fig. 5), taken by me in a case in



Fig. 5.

which considerable atheromatous change of the aorta and many of the larger vessels was found after death, shows the features of the trace of arterial degeneration in its more limited form. The trace (Fig. 6)



Fig. 6.

well shows the form of pulsation which excites suspicion of commencing arterial change. It was taken from a patient (age 37) in whom many symptoms lead to the diagnosis of this condition. The pulse-trace of strong tension simulates slightly that of senile change; but it is easy to discover if any of the causes of increased tension are acting.

In the investigation of *Aneurisms*, we shall find that the sphygmograph can afford us much valuable service, by showing us in the pulse-trace the modifications in the movement of the blood produced by the diseased condition.† These modifications are intimately dependent on the seat of the tumour, its size relatively to the vessel with which it is connected, and the elasticity of its walls.

We may, following the arrangement of the French author, consider, first, aneurism so situated on an artery that the pulse can be observed on the vessel below the tumour; and secondly, aneurisms affecting the aorta. The beat of an artery, when carefully felt below an aneurismal tumour which implicates it, is found to present unusual characters; it is weakened, and generally retarded. These changes are due chiefly to the fact that the blood has to traverse a sac whose elasticity much modifies the movement of the fluid, as Marey has proved by artificially producing the conditions in a series of experiments. By means of the sphygmograph, we obtain traces which point out that modifications of the pulse occur both in its form and force. In the pulse collected on an artery below an aneurism, we observe the changes which are the result of the transforming influence of the elasticity of the sac: the movement of the blood in the vessel approaches rather to that which is normally seen in the smaller arterial branches. The vertical line of ascent disappears; and often this line approaches in length that of descent. Thus we have a more feeble pulsation given to the finger; and, as the summit is slow to occur, there is further a sensation of apparent retardation felt in addition. In the following figures (7, 8) we see an example, in



Fig. 7.—Left radial.



Fig. 8.—Right radial.

the pulse-trace of the left radial artery, of the modifying influence of an elastic aneurismal sac. The traces were taken from a patient in the Queen's Hospital (under the care of my colleague Dr. Fleming), affected with an aneurism of the left subclavian artery, within the thorax. The right pulse shows very well the trace of another lesion under which the man labours; viz., insufficiency of the aortic valves. So characteristic of the conditions in this case were the above traces, that they alone enabled me to arrive at the diagnosis, to which ordinary means had led those watching the case. At the time when the above traces were taken, the tumour was evidently large and very elastic: hence the great modifications in the pulse-form produced. I have, by the kindness of Dr. Fleming, had opportunities of examining this patient from time to time; and, since he has been under treatment, and has been kept strictly at rest, the traces taken below the aneurism now show much less modification in the pulse-form than formerly. (Fig. 9.) This we may attribute to

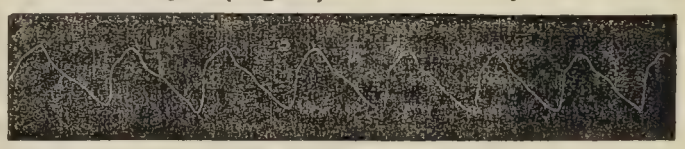


Fig. 9.—Left radial.

the diminution of the elasticity of the sac, following either deposition of fibrine on its interior, or the contraction of adhesions with neighbouring parts. In this case, the former supposition is rather warranted by the changes perceptible in the tumour.

In *Aneurisms of the Aorta*, we find that very much less striking indications are afforded by the pulse-trace. Those pointed out by Marey are: 1, modifications in the force of the pulse; 2, modifications in the intensity of the dicrotism; and 3, the existence of a constant difference in the pulse-form of the two radial arteries.

1. The force of the pulse, according to the French writer, is seldom much diminished. This character is only of small value in diagnosis. The causes of this want of change in force reside probably (*a*) in the small size of the tumour relatively to the volume of the aorta; (*b*) in the fact that the sac is sometimes not placed in the direct route of the blood, but communicates with the vessels, and thus has a much less transforming effect upon the blood-movement, than a tumour which must be traversed by the current; and (*c*) in the thickness and slight elasticity of the wall of the sac, often found in aneurisms in this situation. The force of the pulse, too, in these cases is altered very often, not in one artery alone, but in the vessels of both sides of the body; and, on the other hand, it must be remembered that the tumour, by compressing the orifice of one of the branches of the aorta, may cause a peculiarity in the radial of one side.

2. The modification in the dicrotism may exist in one or both radial pulses, and is occasionally a sign of much value.

* I am indebted to the kindness of Dr. E. Robinson, Medical Officer of the Birmingham Workhouse, for the opportunity of obtaining the traces (Figs. 2, 3, 4) from inmates between 80 and 90 years of age.

† *Vide* (in *Lancet*, Jan. 20th, 1866) a case in which valuable information was gained from a consideration of pulse-traces by Drs. Sanderson and Anstie.

3. The presence of a constant dissimilarity in the pulse-traces of the radial arteries is the most valuable sign in the diagnosis of aortic aneurisms. In many cases, the finger can perceive a want of parallelism in the beats of the radials, but often this is too slight to be detected by the finger. It sometimes shews itself in the trace by a slight difference in the dicrotism only; at others, the difference in form is more evident. When the tumour is so situated that it can be handled, we can gain valuable evidence as to its nature by observing the changes in the tension of the arteries, produced by its alternate compression and relaxation. The traces (Figs. 10, 11, 12, 13)



Fig. 10.—Left radial.



Fig. 11.—Right radial.



Fig. 12.—Right radial.



Fig. 13.—Left radial.

have been taken from patients suffering under intra-thoracic aneurisms; and the want of any great modification in the pulse-form of either radial has led me to consider the lesions as aortic.*

The detection of *Organic Diseases of the Heart* is rendered so certain by the use of auscultation and percussion, that we have but in few cases need of any other aid. In some cases, however, the pulse-evidence is useful; and this can be much more accurately and usefully obtained by the use of the sphygmograph than by any other means. I can now only briefly allude to certain affections of the cardiac orifices; and in these cases we shall find useful information yielded us by the instrument.

The changes of the aortic orifice to which I shall allude are those involving obstruction to the free exit of the blood from the ventricle, and those which allow of regurgitation. The first lesion is frequently met with, especially in the old, and produces often few symptoms, especially when it has gradually supervened, and the ventricle has had time to hypertrophy and counteract its effects. The pulse is generally regular; and the peculiarity observed in the trace is the obliquity of the line of ascent, which marks the greater duration of the ventricular systole and the gradual entry of the blood into the vessels. In the traces below (Figs. 14, 15), these characters are seen; but, as the second was taken from an old woman of



Fig. 14.

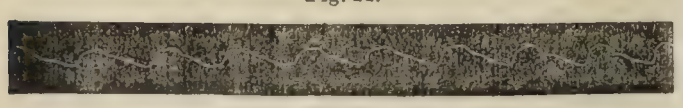


Fig. 15.

* I am indebted to Dr. Russell for an opportunity of seeing the patient from whom Figs. 10 and 11 were taken; and I have also to express my thanks to Drs. Casey and Steell for their kindness in assisting me in examining patients at the General Hospital.

over eighty, the modifications of senile change are superadded.

Aortic insufficiency, or incompetency of the sigmoid valves, produces certain effects of a very striking character in the pulse-beat. These have been well described by Corrigan (to whom, indeed, our knowledge of the disease is chiefly due), and consist mainly in the jerking force of the pulse, its visible character, and the peculiar sensation given by it to the finger. These peculiarities are consequences of the regurgitation of the blood into the ventricle during its diastole. Marey has from his experiments concluded that the force of the pulse is not due altogether to the ventricular hypertrophy which accompanies the lesion, but that the amplitude of the trace and apparent force of the pulse are due really to the feeble tension of the arterial wall, which exists in consequence of the regurgitation during the ventricular diastole. In the first part of this paper, traces illustrating the effect of this feeble tension in increasing the amplitude of the pulsations have been figured. The traces (Figs. 16, 17), collected from pa-

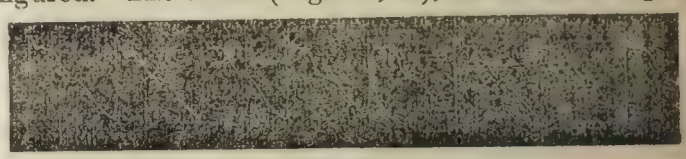


Fig. 16.

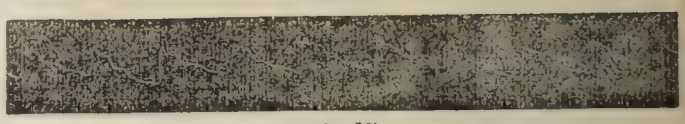


Fig. 17.

tients suffering from aortic patency, are marked by the following peculiarities. There is great amplitude of trace, as just explained. The vertical line of ascent marks the sudden ventricular contraction; this vertical line is terminated by a sharp-pointed process, which indicates that, on account of its very sudden elevation, the lever has, by virtue of an acquired quickness, ceased to be connected for a brief interval with the arterial movements. The summit of the pulsation is in many cases very short; but in others it presents a horizontal or curved line, especially if any constriction of the aortic orifice, or other cause producing delay of the passage of the blood into the vessels, obtain.

The trace (Fig. 17) was taken in a case of aortic patency, complicated with senile change in the vessels.

In mitral insufficiency, the irregularity of the pulse so well known may be registered very accurately by the sphygmograph. This irregularity is its chief characteristic, and, when recorded, is very interesting.

In the traces below (Figs. 18, 19, 20), collected from

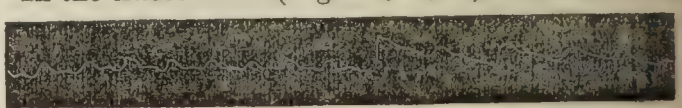


Fig. 18.

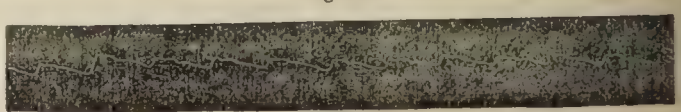


Fig. 19.

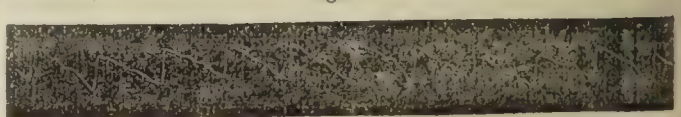


Fig. 20.

cases of this disease, that numbered 20 was complicated with the signs of contraction of the auriculo-

ventricular orifice. This additional lesion nearly always diminishes the irregularity of the pulse-characteristic of pure mitral regurgitation.

In conclusion, I would call attention to the trace (Fig. 21) taken from a man suffering under lead-



Fig. 21.

poisoning; it presents a peculiarity of form which has been figured by Marey, and which, when I saw it in his book, I scarcely expected to be able to verify so strikingly. I have since collected traces in several cases of this nature, and in all have met with this peculiar form. It may be indicated now as a curious fact: the explanation of it further investigation may discover. The subject of the pulse-form in acute disease, I may also add, is full of interest, and will, I am confident, from the little I have already seen of it, yield much interesting and useful information. This subject is receiving the attention of Dr. Anstie; and from his investigations, which were alluded to in the *Lancet* some months back, we have reason to expect some very valuable information. In now closing these remarks, I trust that this exposition of the views of the French physiologist may have not only proved interesting, but may have also indicated a means by which we can render our knowledge of disease more accurate, and at the same time pointed out a field of inquiry which promises rich results to the investigator.

Transactions of Branches.

SHROPSHIRE SCIENTIFIC BRANCH.

A CASE OF LEUCOCYTHÆMI A.*

By William Eddowes, Esq., House-Surgeon to the Salop Infirmary.

[*Read November 3rd*, 1865.]

Samuel Williams, aged 28, a forgeman, single, a native of this county, was admitted into the Salop Infirmary, under the care of Dr. Beddoes, on September 16th, 1865.

The patient had enjoyed good health until last March (six months before admission), when he began to feel pain in the left hypochondriac region, not constant, but of a shooting character. Soon after this, he perceived some enlargement at the seat of pain. He continued to work for three weeks after the commencement of the symptoms, when he was obliged to give it up, and since has attempted to resume work without success, because exertion made him giddy.

Before admission, he appeared to have been treated for diabetes; and, upon that supposition, had been been put on a non-saccharine diet. Under this treatment, he continued to grow weaker and paler until admission.

Sept. 16th. The patient was of a light complexion, and remarkably pallid; the conjunctivæ were quite white; and the skin of the face and body looked as if totally deprived of all colouring matter. There was, however, no great emaciation. He complained of languor and drowsiness, as well as of great weakness and giddiness on exertion. There was occasional pain over the region of the spleen, which could be felt distinctly enlarged both vertically and laterally. The liver and the rest of the viscera seemed to be normal in size, and healthy. The inguinal and cervical glands were much enlarged. A little blood taken from the finger appeared much paler than usual; and the microscope showed that it contained almost as many colourless granular corpuscles as red. The urine contained neither sugar nor albumen; specific gravity 1011. He was ordered to have five grains of bromide of potassium three times a day.

Oct. 2nd. He was ordered a drachm of syrup of iodide of iron twice a day.

Oct. 9th. There was no improvement. He was directed to take fifteen minims of tincture of perchloride of iron and three minims of tincture of digitalis, in an ounce of water, three times a day.

Oct. 19th. Up to this date, notwithstanding the treatment, the patient continued to grow weaker. The spleen had not perceptibly altered in size.

Oct. 20th. He said that on the previous night he felt very cold, and was purged a good deal. Pulse 120; tongue dry, but clean. He was ordered to take a mixture of sulphate of quinine, sulphate of iron, and sulphuric ether; and a pint of porter.

Oct. 21st. Pulse 124; tongue dry and clean. He stated that he felt intolerably hot during the night. The purging continued, and he had vomited up some dark matter like coffee-grounds. The skin was hot, but not very dry. He was ordered to have six ounces of whiskey.

℞ Tincturæ opii ♏xx; tincturæ catechu ʒi; decocti hæmatox. ℥i. M. To be taken every four hours.

Oct. 22nd. Pulse 120. The tongue was dry and black, probably from the iron he was taking. He was purged less last night, but vomited several times, and had slight epistaxis. He had no appetite, and what he took was soon rejected. He complained much of dryness of the mouth and thirst. The temperature of the axilla was 102.3°.

He died at 9 P.M.

Sectio Cadaveris, twenty-four hours after death. The body was decidedly, but not extremely, emaciated. The inguinal and cervical glands were much enlarged. The lungs and heart were healthy. There were old adhesions of the right pleura. Both ventricles contained small yellowish coagula; and the veins generally were filled with coagula, looking like ordinary pus mixed with dark coloured blood. The liver was healthy and pale, and weighed 4¼ lbs. The gall-bladder was normal in size, and distended with dark coloured bile. The spleen was firm, paler than natural, weighing 1 lb. 6 oz.; and old adhesions (so firm as to require cutting with a knife) bound it to the surrounding parts, especially the abdominal wall and left lobe of the liver. About the centre of the external surface was a yellowish-white-looking patch, of about the size of a half-crown, and extending into its structure about half an inch. It appeared to be a patch of organised lymph. The kidneys were healthy, but pale; and in the calyx of the right there was a considerable ecchymosis. The mesenteric glands, as well as those in the iliac fossæ, were much enlarged from simple hypertrophy.

This well marked case of leucocythæmia presented very nearly the same history, course, termination, and morbid appearances, as many of those described by Dr. Hughes Bennett in his work on *Medicine*.

Professor Beale, to whom I sent some of the blood and spleen, kindly examined them, and reported that he considered them very beautiful specimens of the disease.

* For the notes of this case, I am indebted to Mr. E. M. Little.

Progress of Medical Science.

MEDICINE.

Diagnosis of Endocardial Murmurs. Dr. James Andrew, in a paper on the diagnosis of systolic endocardial murmurs, whose point of greatest intensity is at or near the left apex of the heart, arrives at the following conclusions.

1. Of systolic murmurs audible at or near the apex, a large number (34 per cent.) do not indicate mitral regurgitation, or for the most part any very serious lesion.

2. The decision as to the regurgitant or non-regurgitant character of a murmur rests principally upon its presence or absence posteriorly.

3. Intensification of the second sound in the pulmonary artery, as a gauge of the obstruction to the blood-stream on the left side of the heart, is of great value, but in estimating it there are certain precautions to be taken.

4. The occurrence of a non-regurgitant systolic murmur may be explained by changes on the inner surface of the ventricle, or by dilatation of its cavity leading to undue tension of the chordæ tendiniæ. (*St. Bartholomew's Hospital Reports*, vol. i.)

Acute Progressive Paralysis. Dr. Pellegrino Levi describes a case which he observed in the wards of M. Pidoux, of acute progressive paralysis. The patient was a young man, aged 22, a notary's clerk, of strong constitution, and hitherto of excellent health. For two or three months he had a general feeling of weariness, with heaviness of the head, and remarkable drowsiness in the evening. Suddenly the weariness and debility made rapid progress, and in five or six days paralysis was developed. When Dr. Levi first saw him, he could not move the lower limbs, but retained some sensation in them. The application of the induced current produced a painful feeling and very active contraction. The patient did not suffer during sleep; but, when his position was changed, he complained of severe pain. He had tingling sensation in his toes; but there were no cramps, nor contractions, nor vibrations of the muscular fibres. The upper limbs were beginning to be attacked, and the muscles lying along the spine were paralysed; those of the neck and head were unaffected. His speech was slightly impeded; the intellect was sound; the respiration, circulation, and temperature, were normal. He had had obstinate constipation during several days. Micturition was easy; the urine was alkaline. In a week, the paralysis of the upper limbs became complete; and the diaphragm and other respiratory muscles were affected. There were oppression, dysphagia, constant sleeplessness, change of countenance; and the patient died asphyxiated, having preserved his intellectual faculties to the last moment. On *post mortem* examination, there was merely found congestion of the meninges and of the grey substance of the brain, and of the lungs and kidneys; this could be sufficiently explained by the asphyxia. Not the slightest alteration could be detected by microscopic examination in the nervous system.

Dr. Levi records other nearly similar instances from the writings of Ollivier d'Angers, Cruveilhier, O. Landry, Kussmaul, Liégard, Duchenne, Pidoux, etc. The history of the disease and autopsy of the celebrated Cuvier presents a very close analogy with that of the patient whose case is above related. From a consideration of all the facts, Dr. Levi has traced a general view of the symptoms of the disease denominated by M. Landry acute ascending paralysis, and which he proposes to name centripetal or acute extenso-progressive paralysis. The case related shows the main characters of the disease. There is a premonitory period lasting from a few hours to several weeks, the characteristic symptoms of which are tingling of the toes and fingers, and weakness of the limbs, especially the legs. This weakness is transformed into paralysis, which attacks in rapid succession the limbs, the trunk, the diaphragm, and the pharynx, thus producing dysphagia, dyspnœa, and ultimately death by asphyxia. Sensibility is preserved in the paralysed muscles, which generally contract under electricity: reflex movement is lost; there is no spasm, contraction, muscular tremors, nor spontaneous pain. Speech is impeded; the intellectual faculties are preserved: the patient is anxious, and sleepless. There is obstinate constipation, while micturition is easy. Death occurs from the third to the twentieth day. In very rare cases, recovery takes place; but much more slowly than the progress of the disease—the muscles last attacked being the first to resume their functions. (*Archives Générales de Méd.*, and *Gazette Méd. de Paris*, 17th February, 1866.)

Papular Erythematous Eruption following Vaccination: Convulsions and Death. On November 6th, 1865, Dr. Coutagne vaccinated several children from a pustule on the arm of a healthy child. The vaccination went through its course normally in all, except in a female infant, aged three and a half months, apparently in good health and in the best possible sanitary condition. The pustules were at first developed regularly in this child; but, on the fifth day, there appeared an erythematous redness over great part of the body and the limbs, without marked febrile reaction. This erythema lasted five or six days, and then disappeared. On the twelfth or thirteenth day after the vaccination, the pustules were desiccating, and the child appeared well. Dr. Coutagne had taken the precaution of confining it to the house, in order to avoid cold. On November 20th, the fourteenth day after vaccination, Dr. Coutagne was called to see the child, on the body of which several dark spots had appeared since the previous evening. He found on the neck, arms, and legs, a score of papular spots, some slightly acuminated, like small boils; others flattened like patches of urticaria, with an engorged base, occupying the entire thickness of the skin. In some parts, especially the anterior and upper part of the thighs, two or three of the acuminated papules were grouped together on a common base. Most of the spots had a reddish brown colour, which was most marked on the largest and flattest—those on neck and lower part of the face. These projected slightly, were somewhat rugous on the surface, and resembled patches of urticaria that had been blackened by nitrate of silver. There had been no appreciable *malaise*, but the child had been restless during the night, had cried repeatedly, and had refused the breast several times, but was at length induced to take it. There was no fever; the abdomen was not tense, and did not seem painful. Some simple medicine, and injections, were prescribed. In the evening, there was no sensible change. The next morning, the child seemed a little better; the skin was not hot; but some conical papules had become developed in the feet, hands, and ears, and the colour of those already present had become deeper. In the afternoon, fever and much agitation set in. In the evening, the symptoms were aggravated: the child cried continually, and moved its limbs almost incessantly. The eruption was more

developed; the number of papules was double of that which existed on the previous day. There were none on the chest, abdomen, or loins. At midnight, the restlessness increased; convulsions soon set in, and one paroxysm followed another without cessation until the morning. Calomel, antispasmodics, cutaneous revulsion, were all tried without effect: the convulsions continued: and the child died on the morning of the third day of the eruption, and the sixteenth after vaccination.

In commenting on this case, Dr. Coutagne observes that the occurrence of erythema in the course of vaccination is not rare; but that this does not explain the occurrence of the eruptive disease which proved fatal in the case related. It may have been, that there was a mere coincidence: and that the second eruption was altogether independent of the former. (*Gazette Médicale de Lyon*, 16th February, 1866.)

Aneurism of the Abdominal Aorta: Hæmorrhage into the Right Pleural Cavity. Dr. Chatin relates the case of a woman, aged 56, who, about four years before her admission into hospital, first felt pains in the lumbar regions, and at the same time noticed a small tumour at the upper part of the abdomen, towards the left. This swelling increased in size, and gave rise to dyspepsia and vomiting, which obliged her on November 16th, to enter the Croix-Rousse hospital. When admitted, she presented the appearance of having arrived at the last stage of cancer. There was marked blueness of the lips, and considerable dyspnœa; the tongue was in a varicose condition, and the veins of the neck were much dilated. Vomiting was incessant, and nutrition was much disturbed. A tumour was found to occupy the epigastrium and the supraumbilical region, and was lost under the false ribs on each side. It was smooth, incompressible, fixed and superficial; pulsation was evident both to the touch and to the sight; the hand or ear, when applied, was immediately raised. Towards the edge of the false ribs on the left side there was a point where the pulsation appeared to be stronger, and where there was a constant blowing sound which was not heard in other parts. The heart-beats were rapid and weak, but without any murmur; the limits of the organs could be well defined by auscultation and percussion. On December 5th, the patient was suddenly seized with intolerable tearing pains in the lumbar and abdominal regions, causing her to cry out incessantly; her countenance became anxious and pinched, and the pulse small and rapid. There was no discharge of blood by the mouth or by stool. Respiration became more difficult; and on auscultation there was found to be dulness over the lower two-thirds of the right lung, with mucous and sibilant rhonchi. On the following days, the respiration became further embarrassed; the voice was lost, and the patient sank and died on December 28th, twenty-two days after the bursting of the aneurism.

At the *post mortem* examination, the peritoneum in the region of the liver was found to be inflamed; pus was present, and also some adhesions. The liver was displaced to the left, and nearly covered the aneurism, except at one point, where the blowing sound had been heard during life. The stomach was pushed into the left hypochondrium; it was narrowed, but the orifices were not altered. The pancreas was displaced. The right kidney lay transversely on the iliac fossa, the cellular tissue of which region was infiltrated with blood. On raising the liver, an aneurism of the size of an orange was found lying beneath the crura of the diaphragm, which had become adherent to it; it lay on the last three dorsal vertebræ, the bodies of which were unaffected. An irregular opening, as large as a five-franc piece, in the right side of the tumour, communicated with a second sac, constituting a diffuse aneurism, and formed by the pleura and the right lung. This second sac was smaller than the other, and lay out of the current of the blood, hence the hæmorrhage was not immediately fatal. The heart was covered with a very thick layer of fat. Its muscular structure was pale, but presented no fatty degeneration. The arch of the aorta was much dilated, and the aorta was atheromatous throughout. (*Gazette Medicale de Lyon*, Feb. 16th, 1866.)

Another case, in some respects similar, is related by Dr. John Duff, Surgeon in the Royal Artillery. Samuel Pemberton, Sapper, Royal Engineers, aged 30, was admitted into the hospital at Quebec, on August 16th, 1865, and died on January 2nd, 1866. On admission, the man complained simply of a dull pain in his loins, which, being looked upon as nothing of consequence, was treated accordingly. Three days afterwards, the pain not yielding, Dr. Duff made an examination. Marks of cupping were seen on the loins, also a blister, which the patient said had been applied some time ago, for lumbar pains. He stated that the pain was increased in the lumbar region, when he lay on his face, but, when turning on his back, this pain was most felt in the abdomen. A well defined pulsating tumour was detected, immediately above the umbilicus, about the size of a small orange. The stethoscope discovered an obscure bruit, which Dr. Duff was inclined to think the result of a tumour pressing on the aorta, on account of the pain shifting with different positions of the body, as if from the traction of a moveable tumour. On September 1st, the bruit was heard very distinctly in the epigastric region, to the right of the mesial line: its site was well defined, and confined to a space not larger than a crown-piece. This bruit was sometimes absent. No impulse or bruit was detected when the man was in the erect position. He was now markedly jaundiced. He stated that sometimes, when he lay on his back, he saw a lump rise slowly in the epigastrium till it attained the size of an egg, when it gradually subsided again. On September 17th, the tumour was increasing; the pain was becoming more severe, and of a dragging character, and the bruit was heard over a much larger extent of surface. On October 6th, he complained of constant pain in the back, and in the neighbourhood of the tumour generally; the bruit was now audible over the whole tumour, and its aneurismal character was more apparent. On November 16th the tumour was very perceptibly increased, and its aneurismal character was well defined. After this date the man rapidly got worse, and the pain increased, depriving him of sleep. On December 4th he was reported as unable to even sit up; he said that, when he attempted to do so, he felt a severe pain dragging down from the shoulders and chest, and this time the tumour was easily felt of a conical form, and about twice the size of a closed fist. On January 2nd, 1866, just after finishing breakfast, which consisted of tea and toast, he suddenly died, and with his death the tumour in the abdomen at once disappeared. Throughout, the treatment was purely palliative. The man, naturally of a weak habit of body and relaxed appearance, could not sustain any depressing treatment. Local applications and opiates to relieve pain, were therefore chiefly had recourse to, with general rest. The man's history did not furnish any clue to the origin of the disease. He had been under treatment several times for venereal affections, and once with secondary syphilis. He never strained or injured himself in any way to his knowledge.

A *post mortem* examination was made twenty-six hours after death. The body was emaciated but not to any great extent. No tumour could be felt in the abdomen. On opening the cavity of the chest a large mass of clotted blood was found filling its right side, the pleural cavity being completely occupied by it; the lung was pressed backward toward the spine. Both lungs were healthy; there were slight pleural adhesions, and old ones on the left side. The heart, stomach, liver, and other viscera were healthy. Close to the lower border of the stomach, and towards its pyloric extremity, a tumour of about the size of an orange presented itself. At first it looked like a diseased pancreas; but closer examination detected the latter, in a state of almost complete absorption, lying along the surface of, but not in any way incorporated with this tumour. On dissecting backwards, this tumour was found to be connected with the aorta. This vessel was dissected out, by cutting it across immediately below its arch and working downwards. There was thus found a large aneurism of the aorta, involving about an inch and a half of the thoracic, and the same, if not two inches, of the abdominal aorta; the main trunk of the superior mesenteric was also involved. The aortic portion of the aneurism was firmly attached to the spinal column, but the mesenteric aneurism formed a large conical and very moveable tumour, the apex of cone pointing to the abdominal wall, below the lower border of the stomach. The lesion took place in the thoracic portion of the aneurism close to the crus of the diaphragm, just as the thoracic was about to become the abdominal aorta. The aortic aneurism had some layers of fibrine formed round its wall, but the mesenteric was almost filled with thick layers of tough coagula. That portion of the aortic wall which rested on the vertebræ, was entirely absorbed; the vertebræ forming the back wall of the aneurism. They were extensively absorbed and broke down under the finger; the cartilages were prominent and not altered. (*Canada Medical Journal*, Feb. 1866.)

Treatment of Diphtheria. Dr. W. Lindesay Richardson, of the Ballarat Hospital, Melbourne, has in the course of seven years had under his care two-hundred and twenty cases of diphtheria. Of these, one hundred and seven occurred in children under ten years of age. The number of deaths was eighteen; two only of which were in-patients about five years old. This mortality (8·2 per cent.) is, Dr. Richardson observes, very little in excess of that of measles (7 per cent.) As to the treatment, he observes that there is no disease more amenable to treatment, in patients over five years, nor any in which a favourable termination may more speedily be predicted. The treatment consisted in 1859 of the free use of caustics from the first, chlorine gargles, and iodide of potassium. This was not successful. In 1860 and and 1861, the chlorate of potash and hydrochloric acid mixture was used, still occasionally applying caustic. Since then, local applications have been completely disused, and the muriated tincture of iron has been given in full doses, and latterly the chlorate of potash in powder with sugar dry on the tongue. Dr. Richardson used the nitrate of silver, in the first years of the appearance of the disease; then hydrochloric acid and honey, but his experience is that all applications to the throat are useless, and even hurtful. The mixture containing free chlorine, he considers certainly of great value, but its strength appears to vary and its action is not certain. The muriated tincture of iron was first brought into notice, as a remedy in this disease, by the author's friend, Mr. T. H. Smith, of St. Mary Cray, in a paper that appeared in the British Medical Journal some years ago. Dr. Richardson has found it most reliable in all cases of membraneous diphtheria. The fever symptoms are no indications against its use, as under it the pulse falls. In a case under treatment, one day the pulse was 146; the patient was put on twenty minims every two hours, and next day it was 96, with an improving throat. It did not, however, appear to exert any speedy influence over the disease when it had extended into the trachea. It was necessary then to resort to emetics, to expel the false membrane as it forms. Dr. Richardson prefers common salt and sulphate of copper; succeeding these, the inhalation of turpentine on hot flannels, with the constant application of compresses around the throat, are most beneficial. Dr. Richardson performed tracheotomy in one case, and assisted at it in several, but always without success. In putrid sloughing throat, he finds that neither caustics, nor tincture of iron, nor solution of chlorine, nor quinine, exert any influence; and after trying various remedies, he at last hit upon what he believes a most valuable remedy, chlorate of potash in powder. It appears to be inactive even in a saturated solution; but in large enough doses, mixed with sugar, dry on the tongue, it exerts an immediate influence. In mixed or relapsing cases, an alternation of the two meets the case. On the important question of support to the patient, there can be no difference of opinion. Dr. Richardson has not examined the urine in every case; in those in which he did, he did not find any trace of albumen, nor any deposit more abnormal than lithates and purpurates. Six persons suffered at different times from two distinct attacks. Recovery as a rule is rapid, and paralysis as a sequela has been rare; three cases only having occurred. (*Australian Medical Journal*, July 1865.)

ANATOMY, PHYSIOLOGY, & PATHOLOGY.

An Arterial Irregularity. At a meeting of the Vienna Medical Society, Professor Patruban exhibited a preparation showing an infracostal artery. The vessel arose as a common trunk from the subclavian, ran a short course to the upper border of the first rib, and there divided into the external mammary artery, which followed its ordinary course, and an infracostal artery of large size. The latter vessel ran obliquely over the inner wall of the anterior part of the thorax, anastomosed with the other intercostal arteries, and passed outwards at the sixth rib to be distributed to the muscles of the chest. Dr. Patruban observed that this abnormal artery was of importance in regard to medicine, surgery, and forensic questions. For instance, in empyema, in paracentesis thoracis, in necrosis of the ribs, in fractures, etc., fatal hæmorrhage might take place from this artery. (*Wiener Med. Wochenschr.*, 24th January, 1866.)

Changes in the Adipose-Cellular Tissue in Amyloid Degeneration. The adipose tissue, says M. Hayem in a note read before the Société de Biologie, in cases of more or less complete amyloid degeneration, becomes firmer and harder than in the normal state, and has a whitish appearance. The small arteries visible to the naked eye are thickened, as in the other organs which have undergone degeneration. By the microscope, the amyloid matter is seen to be deposited in the cellular fibres of these arteries, and on the external surface or in the substance of the capillaries. In some rare instances, the adipose vesicles themselves are infiltrated with amyloid matter, which is apparently deposited in the substance of the envelope, around the nucleus, which remains visible. The fat contained in the vesicles,

or the crystals of margarine are pushed to a point opposite the place of deposit of the amyloid matter, or even seem to be surrounded by it. At the same time, an increased number of nuclei are frequently found in the connective tissue. M. Hayem has observed the changes in the adipose vesicles generally in the abundant adipose tissue enveloping the kidneys and suprarenal capsules, in that lying on some of the folds of the mesentery, and in the fatty appendices of the epiploon. In such cases there was very advanced degeneration of several organs, especially of the kidneys and suprarenal capsules, and also of the digestive canal. (*Gazette Méd. de Paris*, 10 February, 1866.)

We are requested to remind members of the Association that the Annual Subscriptions became due on the 1st of January. They can be paid either to the Secretaries of the Branches; or to the General Secretary, T. Watkin Williams, Esq., 13, Newhall Street, Birmingham.

British Medical Journal.

SATURDAY, MARCH 31ST, 1866.

NAVY MEDICAL OFFICERS.

DR. F. J. BROWN has long shown himself to be a warm friend of navy medical officers; but, like other earnest persons, he may be occasionally indiscreet. He has, in our opinion, for example, acted unwisely in issuing at the present moment a pamphlet entitled *Comments on the Recommendations of the Committee* which has been engaged at the Admiralty in the army and navy medical affairs. Before the Lords of the Admiralty have considered the Committee's Reports, Dr. Brown thinks it his duty to express his opinion thereon. Nothing could more clearly show the over-haste of Dr. Brown than the fact that, within a few days of the issue of his "Comments", he puts forth another edition of it, containing several important alterations. Thus, for example, he tells us one day, "The two services should be equalised in *every particular*." A few days later, in his revised edition, having, we suppose, learnt that their equalisation in every particular is impossible, he alters his words thus: "Should be equalised in *every feasible point*." Again, one day he "cordially agrees" with the Army Director's protest; and, a few days later, erases from his pamphlet all allusion to the Director-General and his protest—retracting not only his "cordial agreement", but silently repudiating the Director-General *in toto*.

Of the way in which the Report has been "commented" on by Dr. Brown, we give an example. Of the matter of pay, he says: "A comparison of the schemes of pay recommended by me on the one hand and by the Committee on the other brings out differences unfavourable to the medical officers, more particularly of the higher grades. It is a matter of regret that these differences should exist." Now our readers, we are sure, will be surprised to hear that the scale of pay proposed by the Committee gives the navy surgeon, for his first twenty and twenty-five years of service, more pay per annum than has even been asked for by Dr. Brown himself. Dr. Brown tells us, in his original pamphlet, that the scheme of pay proposed by him would yield a mean sum of £283 per annum for twenty years, and of £318 per annum for twenty-five years' service. This is the pay asked for by Dr. Brown. But the pay proposed by the Committee is actually more; viz., £291 per annum for twenty years, and £326 for twenty-five years! We think the profession will agree with us, that the above comment of Dr. Brown on the pay proposed, with the facts lying before him, is not only unjust to the Committee, but that its inference is calculated to mislead the reader. Dr. Brown should have plainly stated the fact: that the Committee had generously proposed to give more pay for the twenty and twenty-five years' service than even he himself had asked for. Fair play required this.

We must also venture to remind Dr. Brown, who now writes in such a very determined and authoritative style, that he does not appear to have long made up his own mind on the subject of navy medical grievances. In his first pamphlet, published not a year ago, he says:

"In an enumeration of the sources of discontent, inequality and insecurity of position hold the primary place; whilst juniority, with its subjection to the 'superior officers' class and restriction of the privileges of rank, follow. *Eradicate these sources, and discontent will cease.*"

But now he tells us "that the labours of the Committee will be thrown away unless medical officers are allowed optional retirement after twenty years' service, on the half-pay of the period of service completed."

Dr. Brown has been tacitly put forward as the champion and spokesman of the navy medical service, and has been in some degree so looked upon by the Admiralty. What, then, will "my Lords" naturally say, when they read in this document, before they have considered the Report, that "the labours of the Committee will be thrown away, and that young surgeons will not join the service with the intention of remaining in it; and that medical officers will continue to be discontented," unless they are allowed to retire, after twenty years' service, on the half-pay of the period of service completed? "If the most liberal terms," they will say, "of the Report fail to satisfy the navy medical officers, nothing we can grant will ever do so. It is quite clear that nothing short of allowing them to dictate their own terms will be satisfactory." This is what the heads of the Admiralty may reasonably say; and it is in

this way that we fear these "Comments" may seriously damage the interests of the navy medical officers.

We candidly say that, in our opinion, the recommendations of the Report, by which almost every, if not every, grievance put forward by navy medical officers, is removed, and which give a very considerable increase of pay to navy medical officers, should be hailed with great satisfaction by medical officers. We are most happy to hear, from very excellent authority, that the recommendations are, in fact, so received generally by navy medical officers.

THE ROYAL COLLEGE OF PHYSICIANS.

On Monday last, Dr. Watson was again unanimously elected President of the Royal College of Physicians, and delivered the following address.

If on this, the fifth annual occasion on which you have done me the signal honour of placing me, with almost one consent, in the President's chair of this great College, I fail to find fit words wherein to express my sense of that honour, you will, I am sure, be charitable enough to attribute that failure to my want rather of readiness in speech, than of the proper responsive feelings of gratification and gratitude. The repetition, year by year, of this mark of your confidence, acquires year by year a fresh value and additional significance; demanding, on my part, a corresponding increase, if possible, of care and pains, lest I forfeit, by any act or neglect of mine, the good opinion which I covet and estimate so highly.

The official year which has just expired has not been unfruitful of events to the College.

Suffer me, as on former occasions, briefly to recall the most prominent of them to your notice.

As in previous years, messages of courtesy, and applications for help or advice, have reached us from the Government, and have been suitably responded to by the College. In particular, that great question, between the medical profession on the one hand, and the authorities at the War-Office, the Admiralty, and the Horse Guards, on the other, respecting the grievances of the medical officers of the army and navy, has been brought to a happy settlement—and that through the instrumentality of this College. Those of you who may look into the blue-book which has just been issued on this subject, and which is lying on the table before us, will find in it ample proof that the first steps towards that promise of redress which is contained in the report of the Committee appointed to inquire into the matter were taken by our College. They will call to mind, also, that the College was moved to action by a small number of our Fellows, who had formed a more sanguine and, as it has turned out, a more just estimate of the weight and efficacy of our influence with the authorities in question, than I, and I believe than many of us, ventured at that time to entertain. They who read the printed evidence collected by the Committee, upon which evidence the report is founded, will find in it much that is curious and even entertaining; and, above all, they will see how admirably the representative of this College in the Committee acquitted himself of his arduous task, how faithfully and well he fought the battle of the profession, and vindicated the choice which, in a moment of emergency, and counting confidently on your sanction, I did not hesitate to make in appointing him.

Among the events of the past year which, though they require no comment, seem yet deserving of commemoration, are the following.

The delivery in English, for the first time, of the Harveian Oration; and the presence of the Prince of Wales among the audience.

The completion, and the setting in order, of our new museum upstairs.

The affixing of the College seal to a lease from the Crown, for 999 years, at a peppercorn rent, of the building in which we are now assembled.

The visitation of the examinations for our licence by deputies from the Medical Council.

I may here remind you, that with this year the examinations on the subjects of general education will cease.

The College has consented to lend several of our pictures to the Committee of the Council of Education, for the forthcoming national exhibition of portraits.

The Leprosy Committee have continued their labours during the year, and their final report is now in the press.

The customary endowed lectures have been delivered in the theatre of the College by Dr. Roberts, Dr. Sieveking, and Dr. Fuller; and permission has been granted to Dr. Richardson and to Dr. Andrew Clark to give, each of them, a short course of lectures there presently after Easter.

The number of Fellows upon our list is less by one than at the same period of last year, seven having been elected within the year, and eight having died—namely, Dr. King, Dr. Southey, Dr. Formby, Dr. Ferguson, Sir Alexander Morison, Dr. Forbes Reynolds, Dr. Conolly, and, within these few days, Dr. Spurgin.

Fifteen members of the College have died, and eighteen have been admitted. Seventy-four licences have been granted.

I am confining myself, I believe, within the limits of sober truth, when I say that some of those Fellows whom we have thus lost were among the gems of this our body. It is not my purpose to deliver a set eulogy upon any one of them; but I can scarcely permit myself to refrain from saying a word or two, with your permission and indulgence, upon those of them who were most familiarly known to me.

The late Dr. Southey had reached so ripe an age—he was upwards of fourscore—that there are not many of us left who knew him in his prime; and, as he was not often at the College during the latter part of his life, there must be many of the younger Fellows who never knew him at all. In his life and qualities, he was not unworthy of the name that his elder brother, the poet, has made famous. In his youth remarkably handsome, active, athletic, and fond of the sports of the field, he became a great favourite, both as the companion and as the physician, of many of the great aristocratic families in the north of England; and their favour and support followed him when he afterwards settled in practice in this town. It would be incorrect to speak of him as a great physician. I doubt whether he ever had that true love of his profession which is essential to the making of a great physician; but he possessed a large share of that useful faculty which we call, not very felicitously, common sense—for, in truth, it is not common at all—which, in the business of life, often stands a man in better stead than deep or abstract science; and he had thoroughly mastered, and applied with safety and success, those rules of practice which were current in his day, and which were then deemed the soundest and the best. Among his early friends was Henry (afterwards Lord) Brougham, who survives him, and who, when he held the Great Seal, ap-

pointed Dr. Southey one of his referees in those cases of lunacy which fall within the care and jurisdiction of the Court of Chancery. From that time, Dr. Southey's practice lay chiefly, though not exclusively, among the insane; and here the natural good sense of which I have just spoken, his practical judgment, and his kindness of heart, gave him the power of conferring substantial benefits upon his afflicted clients, while he inspired corresponding confidence and comfort among their distressed relations and friends. Throughout his long life, Dr. Southey was a general favourite; and one strong evidence of this appears in the fact that, on three occasions at least, valuable legacies were bequeathed to him by men who were bound to him by no ties of consanguinity, or, so far as I know, of professional obligation.

With Dr. Ferguson I had the happiness of living on terms of close and cordial friendship during the whole of my professional life. He also was endowed by nature with a goodly presence. He possessed, moreover, a very powerful intellect, a highly cultivated mind, great literary taste and acquirements, and a remarkably strong will—gifts and attainments which, in their separate existence, conduce in no small degree to success in human affairs, and which are certain, humanly speaking, to command it, when combined in the same person. And Dr. Ferguson, by the mere force of his personal and mental qualities, did achieve eminent success. He broke loose early, by a strenuous effort, from the advantages and from the trammels of a department of practice which, though highly useful, honourable, and honoured, is still of necessity, in its highest sphere, what in modern parlance is called a *specialité*. Relinquishing very lofty ground in that department, he committed himself boldly and prosperously to the chances of general practice, as a physician, in its widest sense and highest pretensions; and he attained his object. He furnished one of very few instances of great success in that way in this town, without the previous and almost essential condition of having held the office of physician to a great general hospital. His antecedents had been propitious. He had enjoyed the intimate friendship of such men as Sir Walter Scott—as Sir Walter's distinguished son-in-law, John Gibson Lockhart—as Dean Milman. He counted among his personal friends the poet Wordsworth, Henry Taylor, Washington Irving, and many others of like literary distinction; and thus, perhaps, he had become well fitted for the large practice which he ultimately obtained among the aristocratic portion of our countrymen. Most of his actual patients gave him their unbounded confidence. He had the faculty—whether it be, in a worldly point of view, a desirable faculty or no, I will not stop to consider—but he had in an uncommon degree the faculty of transforming patients into admiring friends. I may mention, as one instance of this, that almost the first thing which the late Lord Palmerston said to me, when he became my patient, was, "I have lost in Ferguson not only an able physician, but a personal friend." He was held in the same estimation, I have reason to believe, by the great chief of the other political party, Lord Derby. He was struck down suddenly, in the full exercise of an honourable and lucrative career, by an attack of epileptiform convulsions, which shattered his strength and abated his spirit, and at length, by their frequent repetition, brought his life to an untimely close, in about two years from the first onset of his malady.

"Multis ille bonis flebilis occidit,
Nulli flebilior quàm mihi."

The name of Conolly will float further down the stream of time than that of Southey or of Ferguson. I am not aware of any book of which Dr. Southey was the author. The best, probably, of Dr. Ferguson's writings—and he wrote well—are entombed among the perishing records of periodical literature. Some of Dr. Conolly's works, especially those on his favourite subject—insanity, deserve, and will, perhaps, obtain, a more enduring reputation and currency. There was a pleasing harmony between his aspect and manners, which were gentle and engaging—his oratory, which was easy, copious, elegant, and persuasive—and his written style, which was correct, refined, and graceful, with the weakening fault, perhaps, of being somewhat diffuse. But his renown will rest, and his name will go down to a late posterity, upon his having been the first and foremost in redressing and abolishing that hideous neglect, those cruel methods of restraint and even torture, which had been the scandal of our land, in respect of the treatment of the insane. He showed, not merely by eloquent and pathetic reasoning, but by the testimony of undeniable facts, that most of the shackles and privations which had been imposed upon those unhappy beings were unnecessary and hurtful, and that their release from needless bodily misery and degradation tended more than any other thing to restore, or when restoration was impossible, to improve, their mental health. The spirit of John Conolly was congenial with the spirit of John Howard; and their noble example has left behind them, and encouraged, a similar spirit, which is actively and widely at work in this nation. We cannot have a better instance of this than is afforded by the efforts even now being made for improving the condition of the sick poor in our workhouses and their infirmaries: efforts which we may be proud to remember, have been set on foot, and are mainly sustained, by members of our own profession.

Of the honest, genial, kindly-natured man, whose name closes the death list that I have read, I need scarcely remind you. But a few months ago, he was among us in his usual robustness of health. His life was doubtless shortened—the diseased conditions that ultimately wore him out were set a-going, if they were not absolutely generated, by the disgraceful outrage committed on him by a band of thieves, in the light of day, and in one of our broadest streets. His pleasant and friendly face will long be missed and regretted by us; especially on those days when, as now, we assemble in our quarterly comitia. We express feebly enough, on this day, our grief for his loss, and our respect for his memory, by abstaining from that festive meeting of which he had been the originator, and was the manager, and main support.

But I am wearying you, I fear, with these reminiscences. They may appear to you, indeed they are, fragmentary, incomplete, and probably tedious also. But to myself, they have the force of an admonition. In one particular at least, that of age, I belong to the category of the men of whom I have been speaking: younger than three or four of the eight who are gone; older, I believe, than any of the rest. When last year you replaced me in this chair so soon as I had vacated it, I ventured to express my misgivings as to my continued capacity for the proper fulfilment of its duties. Those misgivings have not been lessened by the lapse of another twelvemonth.

I much question—if you will forgive me for saying so—the wisdom of the College in again re-electing me, and my own wisdom in again accepting such a charge. At that point in the downhill of life which I have reached, months may tell more disastrously than years might do with men who have not yet begun, or who have scarcely begun, the descent. Should I survive the coming year, and—what I have the presumption to suppose to be even more likely—should your kindness towards me also survive it, it still

will be my plain duty to make way for some younger and abler President. I shall then have completed that lustrum which our Treasurer has often been good enough to suggest and to assign to me. Five years' occupancy of this chair is, in my opinion, quite as much as is good, either for the College or for the President himself.

There are yet other considerations. At my age, as year after year is mercifully added, it becomes ever more and more needful and becoming, to withdraw, in some measure at least, from the cares and distractions of professional and outward life, and the fleeting interests of this world, and to cultivate, in comparative retirement and repose, thoughts and feelings which have for their object that bourne which is inevitable, and which cannot be far distant.

"Illi mors gravis incubat
Qui notus nimis omnibus
Ignotus moritur sibi."

The following resolution, proposed by Dr. Black and seconded by Dr. Sibson, was unanimously carried by the College.

"The Royal College of Physicians of London, in acknowledging the receipt from the Lords of the Admiralty of the 'Report of the Committee appointed to inquire into the whole question of the Rank, Pay, and Position of the Medical Officers of the Army and Navy', beg leave to convey to the First Lord of the Admiralty and to the Secretary of War the expression of their high gratification with the manner in which their Lordships have responded to the appeal of the College, by appointing a Committee to inquire into the subjects referred to in the Memorials addressed to their Lordships by the College, and by inviting the College to nominate one of themselves to represent them in the Committee.

"The College also desire to express their satisfaction with the Recommendations contained in the Reports of the Committee. They consider that these Recommendations, whereby the Position and Pay of Army and Navy Medical Officers are materially improved, are well fitted to remove those sources of discontent which the College deemed injurious to the public interest, and will, if carried out, meet with the general approbation of the profession; and so be the means of inducing a higher class of medical candidates to seek admission into the Army and Navy Medical Services."

Dr. Sibson, in seconding the resolution, said that the excellent part played by the College in this matter would reflect high credit upon the College, and proved it to be what it really was—the leading medical body in the country. The College in this had looked beyond its own immediate interests, and showed that it had a regard for all members of the profession, whether they were or not members of its corporation. This was the right and a proud position for the College to assume. The influence exercised by the College with the Government had produced the highest benefits to our army and navy medical brethren. The recommendations contained in the Reports of the Admiralty Committee must meet with general approbation. Thereby the position of army and navy medical officers was much improved, and, besides, a very considerable addition made to their pay. Surely it was no slight matter that an assistant-surgeon of the navy should have his pay increased to the extent of £48 per annum, and that all grades of the medical service upwards should have likewise a considerable increase of pay. Everything wished for by medical officers may not be obtained; but certainly, considering the very great improvement made in their position and pay, all reasonable people must allow that a great boon is bestowed by these recommendations upon them. The tact and firmness shown by Dr. Markham in the Committee deserved the thanks of the College. In a settlement of highly conflicting interests, it was simply an act of wisdom to give fair consideration to both sides of the question. It was impossible to disregard the opinions of official minds; but, in any concessions thus made, the right interests and position of medical officers have been duly secured to them.

Dr. Armstrong, on the part of his naval medical brethren, begged sincerely to thank the College for the great services rendered to the army and navy by the intervention of the College on their behalf. He supported the resolution with pleasure, and had no doubt that the liberal recommendations contained in the Reports of the Admiralty Committee would be favourably received by navy medical officers.

Dr. Burrows then, in warm language of approval, proposed, and Dr. Alderson seconded, a vote of thanks to Dr. Markham for the manner in which he had acted as representative of the College in the Admiralty Committee.

MEDICAL VESTRYMEN.

The conduct of a certain few—thank Heaven! very few—of our profession, when they attain to office where they have to consider the proceedings of a medical brother, is not remarkable for brotherly love or common sense. The conduct to which we refer reminds us of a tale in Anastasius. This respectable Greek, on sailing from Galata to Smyrna, noticed that a great many Jews had hid themselves in the ship, in order to get a free passage; and that, consequently, before the ship sailed, there was on the part of the sailors a general *chasse aux Juifs*. The Jews were very indiscriminately bundled over and out of the ship; but one Jew was allowed to remain, to be thrown overboard as an expiatory Jonah in case of a storm. Anastasius remarked, that no one was so active in evacuating the ship of the Jews as this their own brother. In fact, the last blow which he saw struck fell from this brother's staff on the knuckles of one who was clinging to the side of the vessel to save himself from tumbling into the water. This behaviour of the Jew occurred to us whilst perusing the late proceedings of one Dr. Collins, who figures as a vestryman of St. Pancras. Of all the members of the Board, we note that none are so actively opposed to the recommendations of his professional brethren as himself. It is quite time

professional opinion was brought to bear on small officials who venture thus unduly to criticise and rebuke the doings of men infinitely their superiors in every respect. We will give our readers a taste of how this medical man assists in carrying on the medical business of the parish, or rather, how he constantly figures as a leader of the opposition to every proposal which has for its object the improvement of the sanitary condition of the parish—putting himself in direct opposition to the energetic and excellent officer of health of the parish, Dr. Hillier.

From the *Marylebone Mercury* of February 24th ult., we take the following, under "St. Pancras Vestry".

"*Proposed House-to-House Visitation.* In pursuance of a suggestion from the medical officer of health, the Sanitary Committee brought up a report recommending that two additional sanitary inspectors be appointed for six months. Mr. Watson moved the adoption of the recommendation; Mr. Seaton seconded. Dr. Collins referred to 'sensational' articles that have appeared in the public papers, condemning local papers most unjustly. He attributed much of this to the medical officers of health, with 'Edwin Lankester' at their head. Dr. Hillier's object was to bring the vestry into contempt, and his proposal to appoint two additional inspectors ought to be treated with the contempt it deserved. Mr. J. R. Collins dissented from the remarks of the last speaker, and argued that much deference should be paid to medical and scientific men in sanitary matters. Mr. Ross moved an amendment, that it be referred to the Sanitary Committee to consider the propriety of appointing a chief medical officer of health who should devote the whole of his time to the interests of the parish—seconded by Dr. Collins. This amendment was lost. Mr. North moved another amendment, that the matter be referred back to the Sanitary Committee. The amendment was seconded by Dr. Collins, and obtained twenty votes, twenty-nine voting against it. Mr. Jenkins proposed another amendment; Dr. Collins seconded it. The amendment was lost. Dr. Collins moved that the debate be adjourned for four weeks, seconded by Mr. Douglas. The amendment was lost. Mr. Ross moved the next order of the day, which was seconded by Dr. Collins; it was lost. Mr. Douglas moved the adjournment of the debate, which was seconded by Dr. Collins, and again lost. A division was again called for, amidst cries of 'faction, shame, shame'. A motion was then made by Mr. Watson, seconded by Mr. Chandler, that the matter be referred to the Sanitary Committee. Mr. Douglas moved, and Dr. Collins seconded, an amendment; this amendment was lost. Mr. Douglas next moved an amendment, seconded by Dr. Collins; this was lost also. The original resolution, to refer the matter to the Sanitary Committee, was then put, and carried by 26 to 16."

Happily, the good sense of the parish prevailed over the folly of Dr. Collins; but exhibitions of this character unfortunately tend to bring into contempt the whole medical profession; and, unfortunately, the St. Pancras vestry is not the only place where such scenes occur, as will be seen by the following.

"At a recent meeting of the Committee of Works of St. George's, Hanover Square, Dr. Appleton made some strong observations about the conduct of Dr. Aldis, a medical officer of health, in writing to the *Times* a letter recommending the abolition of dust-bins, and the substitution of wooden boxes, for the reception of ashes. In reply to the attack made upon him, Dr. Aldis wrote a letter to the board, stating that he had made a similar suggestion to the Sanitary Committee of St. George's in 1858. At a subsequent meeting, Dr. Appleton renewed his complaints of Dr. Aldis's conduct in writing to the *Times* instead of communicating with the parochial committee; and expressed his surprise that, if the suggestion made in 1858 was regarded as important, it should have been allowed to rest until now. It was most indecent that officers appointed by vestries should attack them in the manner which was now becoming so common, as in the cases of Dr. Hillier in St. Pancras, and Mr. Rendle in Southwark. Dr. Aldis repudiated any intention to cast discredit upon the board, and said his only object in writing to the *Times* was the public good."

We hear that Sir George Grey has put the President of the Medical Council in communication with the counsel of the Home Secretary's office, in reference to drafting an amended Medical Bill.

Lord Granville, last week, on being asked by the Earl of Lichfield whether it was true that the Cattle-Plague had been reintroduced into several parts of the metropolis by means of a cargo of animals from Holland, replied that he was sorry to say there was no doubt of the fact.

"I am told that the disease was not sufficiently visible, being only in a state of incubation; and that the Custom-house authorities did not detect its existence, but admitted the cattle into the metropolis."

There is really something painfully ludicrous in this systematic and determined neglect on the part of our rulers of the simplest precautions, so plainly dictated by science, to preserve us from this cattle-pestilence. In truth, this sort of neglect seems to us really approaching to wickedness. Our rulers ask us to acknowledge a day of humiliation, to call upon Providence to arrest this plague, and, at the very moment of doing so, allow the disease to be imported, red-handed, into the country! What must men of science all over the world think of a high official who talks such twaddle about the "state of incubation not being visible to the Custom-house officers"? This is the sort of excuse our rulers have to offer for their shameful negligence. They admit the plague into the country—positively, with their eyes open, invite it in; and then ask us to cover ourselves with ashes and humiliation because the plague is raging around us. Why is science come to this wretched estate amongst us? Why is it that every peddling quack can get a hearty hearing, and scientific teaching be trodden in the mire? We may be very rich; we may be the cotton and iron princes of the universe; but there must be, surely, beneath all this glitter of wealth, something rotten and slippery, when science and its reasonable truths

are thus utterly ignored—nay, derided—by the rulers of the country, and by the popular exponent of its opinions—*The Times*.

A Prussian ministerial journal contains an article which asserts that the trichina-disease is nothing but a revolutionary proceeding, got up by the enemies of the government. This, no doubt, on account of (politician) Virchow's name being connected with the trichina.

Dr. Fiedler says that the trichinæ may find their way into the muscles through the current of the blood is proved by the facts: that he has frequently found trichinæ in coagula of the right auricle and ventricle; and that at times, even in the most distant muscles, trichinæ are found not exceeding in size those found in the abdomen.

Professor Klob says that the use of raw meat in Prussia and Saxony has become of late years very common. The workmen have no means of cooking, or will not take the trouble to cook, their meat; and consequently find that raw pork, minced, etc., is the most convenient food.

Dr. Martin, in the *Monatschrift für Geburtskunde*, November 1865, describes the successful removal of an entire extrauterine fœtus through the abdominal walls. The fœtus was nearly of full growth.

The *Gazette Médicale de Lyon* reports another instance of syphilis communicated to a patient through catheterism of the Eustachian tube; and by the aid of the same specialist who has already become famous in Paris in this way as a distributor of syphilis. The fact of his repeated offences has been authenticated by Ricord and the highest surgical authorities in Paris, or such gross carelessness as is indicated in the proceeding would have been hardly credible.

M. Boehr relates a case of twins, where one died during pregnancy and the other continued to grow. (*Monatschrift für Geburtskunde*, November 1865.) After the birth of a healthy child, there was expelled a male fœtus, full grown, in a state of putrefaction. The umbilical cord appeared sound. The mother said that, ten days before her confinement, she struck her abdomen violently against a chair, and afterwards had shiverings and pain in the bowels.

Sanitary Advice. In a very useful letter addressed to the inhabitants of Wiveliscombe, Somerset, Mr. Legge, Surgeon to the Wiveliscombe Dispensary, gives his fellow townsmen the benefit of his special knowledge on matters immediately affecting the sanitary condition of their town.

Trichinised Meat. In consequence of the alarm created by the announcement of deaths from trichinæ, the municipal councils of Lille, Marseilles, and other towns in France have resolved that the veterinary surgeons appointed to inspect the butchers' meat shall be supplied with microscopes for a more minute examination.

THE LATE DR. SPURGIN.

The profession and the public have to deplore the loss of Dr. Spurgin, a gentleman beloved by all who knew him. Sad to relate, he died from injuries he received from the accomplices of a London thief, who robbed him in the public streets. Dr. Spurgin's kindness of heart, numerous acquirements and high moral tone, were universally recognised among his professional brethren, and his loss must be sincerely deplored; for his numerous friends will miss from among them an accomplished scholar and a high minded gentleman. Dr. Spurgin was born on his father's estate, at Bradwell, in Essex, and received his medical education in the then united schools of St. Thomas's and Guy's Hospital. He graduated at Cambridge. For many years, Dr. Spurgin enjoyed a very considerable practice, and secured the affectionate regard of his patients in a very remarkable degree. His death, at 69 years of age, may be fairly considered as premature; the probability being that, had he not been murdered by ruffians, he would have lived to a ripe old age. (*Communicated.*)

The following is the account given in the papers of the fatal outrage. "Dr. Spurgin expired on the 20th inst., after a painful illness and acute suffering, brought on by injuries he received from thieves in Bishopsgate Street. In September last, about nine or ten P.M., Dr. Spurgin had returned from visiting a patient at Wanstead, and had got only a few hundred yards from the Great Eastern Railway on foot, when he was suddenly (to use his own expression) 'butted' by a man, who threw himself headforemost at Dr. Spurgin, striking him on the chin and breast, and falling on him as he fell. The ruffian placing his knee on the pit of the stomach, snatched at a gold chain and valuable gold watch, and waving them hurriedly to some one behind, rose and commenced running in an opposite direction. After lying stunned for a moment, Dr. Spurgin rose and attempted to follow the garotter, whom he still had in sight, when a man suddenly appeared at the corner of an alley, and exclaimed, 'Halloo! What's the matter?' 'Why,' gasped Dr. Spurgin, 'that man has just stolen my watch!' 'Oh, has he?' was the reply, and in an instant the unfortunate gentleman was tripped up and fell prostrate on the flags, sustaining a second time serious injuries. Both miscreants got off scotfree; there was no policeman near or in sight, no one to lend a helping hand till it was too late. Dr. Spurgin was at the moment of the outrage in robust health."

St. Bartholomew's Hospital has 600 beds; each bed is occupied ten times a year by a new patient, equivalent to 6000 patients a year. It has thirty "sisters" or head nurses, divers of whom would "put up" a fracture or pick out the appropriate splint better than any of the students, besides a hundred ordinary nurses, and its income from capitalised receipts of sale of lands given by Parliament is £32,000 a year! Fifteen pipes of port wine alone a year is given to the patients, with innumerable other cordials and vinous tonics. Epsom salts are, we suppose, bought by the ton, castor oil in hogsheads. £600 worth of quinine has been purchased at one order. There are four apothecaries, and a steam engine grinds the drugs. (*Medical Press.*)

Scientific Notes.

THE APPLICATION OF SPECTRUM ANALYSIS TO THE DETECTION OF CHLORINE, BROMINE AND IODINE.

M. Mitscherlich says that he has discovered a means of recognising the smallest amounts of chlorine, bromine and iodine by the use of spectrum apparatus, The haloid salts of copper are the most difficult to decompose by heat, and they are therefore to be preferred for spectrum investigations. The substance to be examined, well dried, is intimately mixed with half its weight of sulphate of ammonia and one-tenth its weight of oxide of copper. This mixture is placed in a globular enlargement of a combustion-tube, one end of which is connected with a hydrogen gasometer, the opposite end being open. A stream of hydrogen is passed through the tube, and heat gradually applied to the mixture. The hydrogen being ignited, the first appearance seen in the spectrum apparatus is a brightness in the green in which, however, no definite spectrum can be perceived; but afterwards the spectrum of the haloid salt of copper is distinctly visible. By this method, and without further trouble, one quarter per cent. chlorine, one half per cent. bromine, and one per cent. of iodine are easily recognised, and a practised observer may detect much smaller quantities. The use of sulphate of ammonia, indeed, renders it difficult to recognise the haloids when mixed with each other in very small proportions, and it is better to precipitate the haloids first by a silver salt, mix the dried precipitate intimately mixed with twice its weight of oxide of copper, and employ this mixture in the hydrogen apparatus before described. By this method as little as one-tenth per cent. of chlorine, one-ninth per cent. of bromine, and one-eighth per cent. of iodine in the silver precipitate can be recognised. The spectra of the haloid salts appear consecutively, that of the chloride first, then that of the bromide, and lastly that of the iodide of copper. The slower the volatilisation is conducted, the more certain are the results of the analysis. When only traces of iodine and bromine compounds are present in a large excess of a chlorine compound, about the tenth of a gramme of nitrate of silver should be added to the solution. The greater part of the iodine and bromine will be found in the precipitate, which may be tested as before described. Where organic matters are to be examined for the haloids a tube with two bulbs must be connected with the hydrogen apparatus. The bulb nearest the flame is filled with oxide of copper only, and the organic matter is placed in the other. Both being heated, the products of the heated organic matter over the oxide of copper reduced by the hydrogen in the second bulb. In this way the smallest amount of chlorine, bromine, or iodine may be recognised; and, indeed traces of one in a large excess of the other. (*Poggendorff's Annalen*; and *Chemical News.*)

PORT ROYAL SENNA.

In the Pharmaceutical Society the Chairman called the attention of the meeting to a specimen of *Port Royal Senna*, brought to England by Dr. Bowerbank; and Dr. Tilbury Fox stated that Dr. Bowerbank had used the senna in his practice for thirty years, and found it preferable to East Indian and Alexandrian sennas. It was less disagreeable to the palate, excited no nausea, and produced no griping. The infusion tasted something like tea, and children drank it readily. Professor Bentley said that the specimen consisted of leaves of *Cassia obovata*, a cultivated variety of the plant, which was originally introduced from Africa. It was mentioned by several writers on West Indian plants, under the names of Italian Senna and Cassia Portugalia. It was said by Sloane to produce much griping. He believed that it was less active than East Indian and Alexandrian senna. Mr. Cook stated that the plant grew wild in the hedges in the West Indies. (*Chemical News.*)

THE FUNCTIONS OF THE LEAVES.

In a memoir read to the Academy of Sciences, M. Boussingault experiments on the action of certain vapours on leaves. The few experiments made, induce the author to believe that vegetable essential oils for the most part exert no well pronounced deleterious influence on leaves, but oil of turpentine does appear to diminish the decomposing power of oleander leaves. The next series describe the action of the vapour of mercury. When leaves are placed under a glass bell with their peduncles immersed in mercury, it would appear that they are completely deprived of their power of decomposing carbonic acid; but when the leaves are not directly in contact with mercury, but still exposed to the metallic vapour, the decomposing power is lessened, but not completely destroyed. The foregoing experiments were conducted in the light, but the author has proved that leaves kept in the dark in contact with mercury transform quite as much oxygen into carbonic acid as a leaf similarly placed in confined air will when not in contact with mercury. M. Boussingault next describes how he collected the gases evolved from the branch of an oleander still attached to the plant. The gas escaped from the branch at the rate of 3·3 c. c. per hour, and in twenty-three hours there were collected 76·93 c. c. of a mixture having the following percentage composition: nitrogen 88·01; oxygen, 6·64; carbonic acid, 5·35. This gas, the author says, is similar in composition to that confined in strongly manured soil. On reaching the leaves with the sap it only brings carbon to the vegetable organism, or, as the author said at the commencement, carbonic oxide, hydrogen resulting from the simultaneous decomposition of carbonic acid and water. Oxygen is evolved, and COH remain, representing the composition of glucose, $C^{12}H^{12}O^{12}$, which, by fixing or parting with the elements of water, give rise to the bodies designated as carbo-hydrates, sugar, starch, and lignine, and which a leaf elaborates as long as it is stimulated by a ray of light. The author then quotes some illustrations in support of this view of the functions of leaves. (*Chemical News.*)

PRESSURE AND TEMPERATURE OF THE AIR IN MINES.

M. Simonin's results do not enable him to establish any general laws, but the mean of four experiments at the coal mines of Creuzot and Epinac gave a rise of one degree (C) of temperature for every 45 *mètres* of vertical descent; and a rise of one *millimètre* in the barometer for every 10½ *mètres* of vertical descent. (*Chemical News.*)

A NEW LEECH CAGE.

At a meeting of the Pharmaceutical Society was exhibited a new leech-cage. It consisted of a glass jar, in which were three perforated diaphragms of galvanised iron, fitting the jar, and fixed upon a vertical axis, so that all could be lifted together. The perforations of the bottom diaphragm were too small to allow the leeches to pass through; the larger holes in the upper afforded the animals the means of cleansing themselves. A metal cover, with small perforations, admitted air, and allowed the water to be changed with facility. (*Chemical News.*)

Association Intelligence.

COMMITTEE OF COUNCIL: NOTICE OF MEETING.

The Committee of Council will meet at the Queen's Hotel, Birmingham, on Thursday, the 5th day of April, 1866, at 3 o'clock P.M. *precisely*.

T. Watkin Williams, *General Secretary.*

13, Newhall Street, Birmingham, March 20th, 1866.

BRANCH MEETINGS TO BE HELD.

NAME OF BRANCH.	PLACE OF MEETING.	DATE.
Metropol. Counties. [Ordinary.]	37, Soho Square.	Friday, April 6, 8 P.M.
Bath and Bristol. [Ordinary.]	York House, Bath.	Thurs., April 12th, 7.15 P.M.

SOUTH EASTERN BRANCH: WEST KENT DISTRICT MEETINGS.

The next meeting will be held at the Infirmary, Gravesend, on Friday, April 6th, at 3.30 P.M. Dr. Gramshaw has consented to occupy the chair.

Dinner is ordered at the Old Falcon for 5.30 P.M.

Papers will be read by Dr. F. J. Brown—"Unzer's question, Do true Insentient Animals exist?" and by Dr. Armstrong—"Obstetric Cases."

Frederick J. Brown, M.D., *Hon. Sec.*

Rochester, March 21st, 1866.

METROPOLITAN COUNTIES BRANCH: ORDINARY MEETING.

An ordinary meeting of the Metropolitan Counties Branch was held at 37, Soho Square, on Friday, March 23rd; E. H. Sieveking, M.D., President, in the chair.

New Law. Mr. Heckstall Smith proposed the adoption of the following law, in place of that previously existing as Law I of the Branch:

"The Metropolitan Counties Branch shall include the counties of Middlesex and Hertfordshire, the parliamentary division of South Essex, and the portions of Surrey and Kent comprised within the 'London district' of the Registrar-General."

Dr. Henry seconded the motion, which was unanimously carried.

Amendments of the Sanitary Laws. Dr. Stewart read the following

Report of Council. "The Council of the Metropolitan Counties Branch beg to report that, at a meeting holden on February 2nd, they took into consideration the following resolution, which was agreed to at the meeting of the Branch holden on January 26th; viz.,

"'That it be referred to the Council of the Branch to consider whether any or what steps may be taken for the purpose of securing a recognition of a Board of State Medicine as an integral part of the Legislature; and also what means may be adopted for obtaining a consolidation and amendment of the Sanitary Laws; and that the Council report at the earliest opportunity.'

"It was agreed that the subject referred to in the resolution should be submitted to the Committee on Parliamentary Bills, which includes the members of the Council, together with other members of the Branch. The Committee, having held two meetings, and having obtained the advice and assistance of Dr. Burdon Sanderson, stated that, after careful consideration, they recommended that the efforts of the Branch, and, if they should see fit to invite them, of the other Branches of the Association, should be chiefly devoted to a few leading points, the recognition of which they consider of the highest importance—indeed, essential to the proper working of our sanitary system. These are:—

"1. That a speedy and inexpensive appeal should be provided from the decisions of local authorities; and that the body best fitted for a Court of Appeal is the Health Department of the Privy Council.

"2. That the appointment of Medical Officers of Health and of Inspectors of Nuisances should be made, as in the metropolis, compulsory instead of permissive.

"3. That the appointment and dismissal of Medical Officers of Health should be subject to the approval of the Health Department of the Privy Council.

"4. That in counties, the appointment of Medical Officers of Health should be vested in the justices, and that they should be paid out of the county rates.

"5. That the provision of local refuges for those labouring under contagious diseases should be rendered compulsory on unions and parishes.

"6. That the early removal of persons labouring under such diseases should also be rendered compulsory.

"7. That local authorities should be required to provide carriages for the removal of such persons.

"At a meeting of the Council holden on the 14th instant, the report of the Committee was adopted, and ordered to be laid before the present meeting of the Branch.

"Edward H. Sieveking, *Chairman.*
A. P. Stewart. } *Secretaries.*
Alexander Henry. }

"London, 23rd March, 1866."

Mr. Heckstall Smith moved—

"That the Report now read be received, and entered on the minutes."

Mr. Bottomley seconded the motion, which was unanimously carried.

Dr. Stewart then proceeded to explain the recommendations made in the report. It was a feature of most acts of Parliament relating to sanitary matters, that they were permissive. In the Metropolitan Local Act alone, the appointment of medical officers of health was compulsory: but in the city of London it was permissive—one section of the Commissioners of Sewers' Act stating that they "shall or may", etc., while another stated that "it shall be lawful for them," etc. Hence even within London there were the two systems—the permissive and the compulsory. The necessity for an appeal was shown by such an instance as that of Dr. Hillier, who, a short time ago, had been very discourteously treated by his Board on the occasion of bringing up a report, and might even have been dismissed without the power of appeal. A medical officer of health, in fact, might at any time lose his office, and his professional position, by the arbitrary act of those who have appointed him. No doubt some boards—such as that of St. George, Hanover Square—were desirous of doing all that was right; but it was not so with all: and hence an appeal to higher powers was advisable. Then came the question, to whom should the appeal be made? In a case that lately came before Mr. Woolrych at Bermondsey, where a person had been prosecuted for making sauce from putrid livers, that magistrate had decided that sauce did not come within the definition of food. An appeal was accordingly made to the

Court of Queen's Bench; and he (Dr. Stewart) trusted that an important question would thereby be set at rest. But, in the case of private individuals, when a local authority would not interfere for the abatement of a nuisance, an appeal to the Court of Queen's Bench would be very difficult and expensive. In a few days, costs to the amount of £200 might be incurred—perhaps more than enough to carry out the required improvements. It was therefore not desired to have an appeal to the law courts, but to the Privy Council, who would have an inspection made, and condemn the appellant to pay costs, if the complaint were frivolous and vexatious. He believed that the proposal would meet with general approval.

With regard to the second recommendation, he said that many places in England and Wales were under the Public Health Act, but that few had medical officers of health or inspectors of nuisances. The appointment of these officers was now permissive; and hence in many cases there were no means of carrying out the Act, from the want of the proper persons to give information as to the health of the district. In some instances, the surveyor was the inspector of nuisances; and, if he had reasons for not consenting to the alterations advised, he might recommend the Board of Guardians not to make the necessary rate. In other instances, the justices might be an enlightened body of men—he believed they were often so; but still there was danger of their being of the same opinion as the Board of Guardians. If they refused to act, there was at present no remedy left but to apply to the law courts for a *mandamus*. Two or more parishes might unite for the appointment of an officer of health and inspector of nuisances.

The third recommendation was an important one, because men of high standing in the profession could not be expected to submit themselves to be judged by the caprice of local boards. The alteration advised was merely a return to the old law. It was a curious fact that, under one of the Acts, the appointment and dismissal of public analysts was subject to the approval of the Secretary of State.

Dr. Stewart commented briefly on the necessity for the other recommendations; and various remarks were made by Dr. Markham, Dr. Cholmeley, Dr. Merriman, Mr. Bottomley, and other members.

The PRESIDENT suggested the adjournment of the debate, in consequence of many members being absent, having been evidently prevented from attending by the severity of the weather.

Mr. BOTTOMLEY moved, and it was agreed, "That the meeting be adjourned to Friday, April 6th."

The further discussion of the report of the Council was therefore adjourned.

THE BUXTON WATER. The Buxton mineral water is discharged from several openings in large quantities, at 82° Fahr. It is charged with nitrogen gas in, probably, a larger degree than any other mineral water; being estimated by Dr. Lyon Playfair to contain at the moment of issue 206, and by Dr. Sheridan Muspratt 504 cubic inches of nitrogen per gallon. This gas is presented in water, which has, otherwise, alkaline, earthy, and saline properties, and is remarkably detergent and softening to the skin when used as a bath; while it is free from odour or disagreeable taste, is clear and bright in its appearance, and of a singularly beautiful faintly blue colour. The medical action of the water, whether used as baths, or drank, has been from time immemorial known to be great in relieving or curing all conditions of a rheumatic or gouty character. It is stated by Dr. Jones, so long ago as in the year 1572, that it was then used for the relief of the same ailments as it is at the present time.

Reports of Societies.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, FEBRUARY 7TH, 1866.

ROBERT BARNES, M.D., President, in the Chair.

FOUR gentlemen were elected Fellows.

The PRESIDENT announced that several important responses had been received in answer to the invitation to aid the approaching exhibition of instruments. Dr. Radford of Manchester, had forwarded a very large and valuable collection. Dr. Hugenberger of St. Petersburg, promised contributions from St. Petersburg and Moscow; Professor Ninon from Denmark; Drs. Laggati and Casati from Italy; and Dr. E. A. Meissner, secretary of the Obstetrical Society of Leipzig, offered the cordial aid of that Society.

Amputation of the Cervix Uteri. Dr. MEADOWS related two cases. In both the operation was performed for elongation of the uterus, with more or less complete procidentia. In one case the patient was 23 years of age, single, and had suffered from procidentia three years. Treatment of various kinds, by pessaries and otherwise, had been tried without any benefit. The uterus measured four inches and three quarters in length, the length of the cervical cavity being fully two inches and a half. The elongation was limited to the infravaginal portion of the cervix. There was no rectocele or cystocele. About an inch and a half was removed by means of the *écraseur*, the patient making an excellent recovery. In the second case the patient was 28 years of age, married, and had had two children and two abortions. She first suffered from procidentia after the birth of the second child, and for several years the uterus has been outside the vulva. On examination, it was found to measure no less than five inches and a half, the uterus being also much thickened and indurated. There was neither rectocele nor cystocele. About two inches of the cervix was amputated with the *écraseur*, but so difficult was it to cut through the thick indurated cervix that no less than two wire ropes and three chains were broken before the operation was accomplished. The uterine wall at the seat of amputation measured fully an inch in thickness. The patient had since made an excellent recovery, and in both these cases the uterus has continued so high up that there is every reason to hope that a cure will be effected.

Sudden Death during Labour. Dr. BARNES related two cases. In one case, that of a primipara, maniacal excitement came on during the dilatation of the cervix. Chloroform was given to induce moderate anæsthesia, so as to facilitate the application of the forceps. Gentle traction, aided by uterine contraction, effected delivery in half an hour. The placenta was cast. The patient maintained a good pulse; she spoke deliriously at times, but also rationally afterwards. Death occurred almost suddenly ten hours after delivery. No *post mortem* examination was held. Dr. Barnes did not think death was owing to the chloroform, but was disposed to attribute it to the nervous shock which was manifested before the chloroform was given. The other case was more clear. The woman was in her seventh labour. Convulsion, stertor, and syncope set in before the expulsion of the child. The child was expelled alive. The mother died in twenty minutes afterwards. A small clot, quite recent, was found in the left thalamus opticus; and another, larger and of a dissecting character, in the left crus cerebri. The ab-

dominal and pectoral organs were healthy. The record of such cases Dr. Barnes considered to be exceedingly important, as supplying illustrations of the fact that death during labour might occur independently of any fault on the part of the practitioner.

Abortion and Menorrhagia dependent upon Lead-poisoning (With Cases.) Mr. Benson Baker read a paper and observed that this subject had received little attention in this country. In Dr. Graily Hewitt's work on the *Diseases of Women* there was an allusion to it, and reference to a paper in the *Archives Génér. de Méd.* This was all the author had been able to learn from the obstetric literature of this country; consequently he had availed himself of M. Paul's paper, of which he had made an abstract. The author's cases and observations afforded concurrent testimony of the effect of lead-poisoning in the woman. The lead-poison killed the fœtus in utero, and then abortion took place. Not that abortion was dependent upon the action of lead on the muscular structure of the uterus. After abortion took place, persistent menorrhagia was often found to exist, and which would not yield to ordinary treatment, but was cured by treating the patient for lead-poisoning. With respect to the mortal effects on the spermatozoa, the woman being free from lead taint, cases had not come under his observation, although M. Paul affirms that the mortality to the fœtus is equally great whether the father or the mother be permeated with lead poison.

ANÆSTHETIC PROPERTIES OF BICHLORIDE OF CARBON.

BY A. E. SANSOM, M.B.

The author considered that this new anæsthetic would be of great value to the practitioners of obstetrics. Very much as to its constitution and properties had yet to be determined, and more could not be attempted at present than the presenting to the Society a few scattered hints and observations. Dr. Sansom claimed to be the first to describe this body as an anæthetic in his book on *Chloroform*, published in May, 1865. It was then called tetrachloride of carbon; it has since been determined to be a bichloride, and Sir James Simpson has suggested for it the term chlorocarbon. The fluid possesses many of the characteristics of chloroform; its odour, however, is more pleasant and less pungent; its density is slightly greater, and its volatility less. It takes a longer time to induce anæsthesia. On the 4th of July, 1864, the author, in conjunction with Dr. John Harley, tried the effect of the inhalation of the new anæsthetic upon a frog. The circulation in the web of the foot was observed by the microscope throughout the process. It was seen to cause a considerable amount of irregular muscular action, and a very decided contraction of the capillary arteries. A state of torpor was then induced for three-quarters of an hour, but reflex action was not wholly abolished. Experiments were made upon dogs and guinea-pigs. In these there was considerable muscular agitation at the outset. Deep anæsthesia was slowly produced, but, once induced, continued very profound until death. The *post mortem* signs were complete collapse of the lungs and distension of the right side of the heart, so that the organ assumed a globular form. The sensations produced by the inhalation of the bichloride of carbon are at first very agreeable: there is a pleasant sensation of warmth, and, as the author thought, a freedom from the vertigo such as is produced by chloroform. Dr. Sansom had employed it in cases of midwifery. It was readily inhaled: it mitigated the pains, and in one case almost completely abolished them; it did not interfere with consciousness. The author thus summed up: 1. Chlorocarbon has the advantage over chloroform in being inhaled with greater comfort; it is not susceptible of decomposition with the formation of deleterious chlorine compounds; and its cost will probably be considerably less. Being much less volatile than chloroform, it will probably be best administered by pouring it upon a sponge wrung out in hot water. 2. It is, during its early stage of action, a powerful stimulant to the circulatory system. It will probably be especially valuable in midwifery, for it abolishes pain without affecting consciousness, and its tendency is certainly to increase muscular action. 3. It is not advisable to induce deep narcotism by means of this agent. Its profound effects are very persistent, and it is eliminated from the system slowly.

Dr. Greenhalgh stated that two and a half months ago he requested Dr. Sansom to administer chloroform to a lady during the removal of a large polypus from the uterus. She was extremely anæmic and feeble, from large and frequent losses of blood occurring over a period of two years and a half. She had a damaged heart, and a profuse sanious and offensive discharge from the vagina. Shortly after the administration of the chloroform, and before complete anæsthesia was induced, her pulse began to falter, her breathing became embarrassed, and her countenance livid. Dr. Sansom, without delaying the inhalation, substituted ether with the best results. Dr. Greenhalgh asked that gentleman if he had adopted a similar practice in other cases with good effects; and if so, whether he considered that the vapour of ether could be regarded as an antidote to the evil consequences of chloroform, and whether he could offer any physiological explanation of how such beneficial effects are brought about.

Dr. Sansom replied that it was his constant practice to administer ether if in any case chloroform seemed to produce a depressing effect. Indeed usually, in prolonged operations, he thus maintained the anæsthesia. The substitution, or rather addition, was never attended by any return of sensation. He always found that the plan answered admirably: it certainly restored the force of the circulation. It was perhaps premature to explain the *rationale* of the procedure; but he would remark on the singular circumstance that whereas chloroform tended to empty the blood-corpuscles, ether tended to distend them—chloroform reddened the blood, and ether darkened it. There thus existed, as it were, a natural antagonism amongst agents of the anæsthetic class. Again, they influenced differently the sympathetic system. Ether would cause contraction of the heart and arteries even during the period of the influence of chloroform, and the bichloride of carbon did the same in a marked degree.

ON ENLARGEMENTS OF THE UTERUS WHICH FOLLOW ABORTIONS, PREMATURE OR NATURAL CONFINEMENTS; WITH CASES.

BY T. SNOW BECK, M.D., F.R.S.

The author remarked that these enlargements had been long recognised by pathological anatomists, and quoted some microscopical observations by himself, and communicated to the Medical Society of London in 1851, which showed that the pathological condition essentially consisted in an enlargement of the muscular tissue of the uterus, without the presence of any inflammatory or heterologous deposits. The causes were considered to depend chiefly upon: 1. A want of complete and persistent contraction of the uterus, which permitted an increased circulation of blood in the gravid organ, and interfered with the changes which took place after parturition; and 2. On the partially developed state of the uterine tissue

in abortion, which appeared to be unfavourable to the development of those changes necessary to its complete reduction in size. The enlargement of itself gave rise to few and comparatively slight symptoms, unless it existed to such an extent as to be felt as a tumour in the hypogastrium; but it rendered the patient liable to profuse hæmorrhages, coming on suddenly and without appreciable cause. These enlargements might exist for many months, or even for some years, without any symptoms of importance; but from the recurrence of the catamenia, or other causes, congestion of the enlarged organ was gradually induced; or congestive inflammation, which may be either of the whole or of any portion of the uterus, might take place, the usual symptoms of uterine affection being then present. Amongst the subsequent changes which took place were anteversion and retroversion, with more or less bending of the organ, which lesions interfered with subsequent impregnation. But a more important change was a gradual hardeninig of the organ, which reduced it to an indolent state, and rendered it very rebellious to treatment. The modification of the symptoms. thus produced was shown by the cases recorded, and the physical examination of the organ detailed. The author found that in these cases the uterus was equally enlarged, smooth, pyriform, the cavity enlarged, and the orifice open. The sound readily passed to an extent varying from three to five or six inches. When inflammation was added the organ became tender, the arteries were felt to beat with more or less force, and the interior became very sensitive. Subsequent and various alterations were made: the lips became enlarged, often lobulated, projecting into the vagina, red and raw in appearance, and bounded by a distinct line, which marked the division between the mucous membrane of the vagina and that of the uterus. It was this condition of the organ which had been so frequently described as ulceration, although no such morbid change actually existed. With respect to the treatment, various cases were recorded showing the importance of injecting the cavity of the uterus with astringent lotions, and the safety with which it could be done, provided the actions of the uterus were perfectly quiescent. The cavity of the uterus being enlarged, and the orifice open, impregnation readily took place; and the physiological changes which followed were decidedly the best means of restoring the organ to the healthy state. Congestion or inflammation, when present, would have to be met by the usual means; and when the uterus was in the hardened, modified condition, in addition to the ordinary means of treatment, it would require some local stimulant to rouse the local action, and enable the other remedies to act. For this purpose cauterising the lips with potassa cum calce had been generally employed.

The PRESIDENT observed that he continued the practice of injecting a solution of perchloride of iron into the uterus to arrest hæmorrhage after abortion and labour, and with excellent effect. He no longer dreaded flooding as of old. So far he could illustrate by experience the safety of intrauterine injections. But he thought a more desirable method of applying fluid styptics or caustics to the inner surface of the uterus would be by swabbing; that is, soaking a bit of sponge or cotton wool in the liquid, and passing it into the cavity. He had contrived an apparatus for this purpose. An excellent plan of applying solid nitrate of silver was one he had learned from Sir Benjamin Brodie. That eminent surgeon dipped a silver probe in fused nitrate of silver, thus obtaining a thin stratum, which could be passed freely and safely into a sinus. This was the safest way of cauterising the inner surface of the cervix or body of the uterus.

Dr. GREENHALGH said that Sir J. Y. Simpson had described these enlargements under the terms of subinvolution or incomplete involution of the uterus. He (Dr. Greenhalgh) quite agreed with the author as to their frequency and the obscurity of the local symptoms. He regarded it as a common cause of sterility, but that where impregnation resulted it was always curative, except where abortion ensued. In this disease he had found the uterus enlarged, flabby, and ill-defined, the sound entering an enlarged cavity four inches, and even seven inches and a half. He considered that hæmorrhage was not a frequent symptom in this disease, and, where it did exist, was mainly attributable to some affection of the lining membrane of the uterus. He advised, where hæmorrhage was frequent or profuse, so as to affect the general powers and resist the ordinary treatment, the injection of the compound tincture of iodine into the uterus; but laid great stress upon the importance of first freely dilating the internal os uteri, which dilatation in itself was more or less curative. He had found resolvent and sedative pessaries of value, as also douches of tepid and cold water with a Kennedy's syringe, and medicated fluids. He likewise advocated the administration of tonics, with the iodide of potassium and liquor of the ergot of rye, and alterative doses of the bichloride of mercury. He relied greatly for success upon improvement of the general health, out of some impairment of which this affection frequently originated and persisted.

Dr. WYNN WILLIAMS agreed with much that had been stated, but, remarking on that portion of the paper alluding to ulceration of the os uteri, he considered there were various degrees of ulceration in mucous membranes as well as in the skin, according to the strength and nature of the irritant. Fortunately the mucous membrane covering the os and cervix uteri is not ordinarily exposed to an irritant powerful enough to produce the amount of ulceration which we so often see in prolapsus uteri. He found that superficial ulceration, or excoriation, happens when perverted or irritating secretions remained in contact with the mucous membrane of the os and cervix uteri. For treatment he relied on constitutional and local remedies, and found nothing answer so well as the injection of weak solutions of iodine. As before stated to the Fellows of the Society, he considered iodine as perhaps the most powerful disinfectant or decomposer of the products of animal decomposition we possess.

Dr. RASCH saw a great number of cases of subinvolution of the uterus, in some of which the sound would pass six or seven inches. Careful bimanual examination left no doubt that there were no tumours in the uterus, the walls being in some cases quite thin and flaccid, like a bladder. He had often practised intrauterine injections. He had mostly used acet. pyrolignos, recommended by Carl Mayer, though not for this purpose. Diluted with equal parts of water it had often checked obstinate flooding, and not produced untoward symptoms. The patient should stand or walk after the injection, to allow the fluid to gravitate out of the uterus. He thought, before injecting, if any flexion of the uterus existed, it should be known, as this prevented the ready outflow of the fluid. To distinguish between broken and merely reddened mucous membrane on the os uteri, he used, with a brush, a solution of nitrate of silver. The parts denuded of membrane presented an appearance strikingly different from those which were covered.

New Bye-Law. At the annual meeting on Jan.

3rd, the following bye-law was passed: "That a limited number of medical students, bringing a recommendation from his lecturer in midwifery, be admitted to the ordinary meetings of the Society, without privilege of participating in the discussions." Applications to be made to the honorary secretaries.

Correspondence.

POOR-LAW MEDICAL REFORM AND VACCINATION.

LETTER FROM RICHARD GRIFFIN, ESQ.

SIR,—I shall feel obliged by your allowing me, through the medium of your columns, to inform the Poor-law medical officers and, I may say, the profession generally (for nearly all medical men are vaccinators), that the Vaccination Bill will not go into committee before the first Wednesday after Easter—time amply sufficient for every medical man in the kingdom to communicate with his member of Parliament. I have sent a copy of the amendments mentioned by me in former communications, to every member of Parliament, and have written private letters to about twelve gentlemen in the house. From communications already received, I believe it is intended to permit certain alterations to be made in the Bill; and, perhaps, government may consent to pay a portion of the fees; but unless that portion be specially appropriated to the medical men, it will only be relieving the poor-rate without benefiting the vaccinator. The Bill will require careful watching; otherwise it will slip through committee without being materially amended.

The general question of Poor-law Medical Reform must stand over until after the general Reform Bill has been disposed of.

Allow me to tender to Mr. Prowse of Amersham the best thanks of the Association, for the exertions he has made in raising the large sum of £92:18, which he has forwarded to me. It is now in the Bank to the credit of the Association.

I am, etc., RICHARD GRIFFIN.

12, Royal Terrace, Weymouth, March 24th, 1866.

The following subscriptions have been received since the last publication:—Barton and Turner, Caistor, 10*s.*; Nay, E., Clerkenwell, St. James's, 21*s.*; Wyer, O. F., Nuneaton, 10*s.* 6*d.*; Greenwood, Major, St. Leonard's, Shoreditch, 10*s.*; Willis, R., Tavistock, 5*s.*; Evans, M. G., Narberth, 10*s.*; Congdon, W. G., Penzance, 5*s.*; Smith, W., M.D., Weymouth, 21*s.*; Hanham, F., Bath, 10*s.*

THE CHARTERHOUSE ELECTION.

LETTER FROM EDMUND LLOYD, ESQ.

SIR,—As the candidate indirectly alluded to in your notice of the late election of Resident Medical Officer at the Charterhouse as not going to the poll, will you allow me to state that the only reason of my absence from the meeting on the 14th instant was ignorance of the date fixed for the election, not having received any notice thereof from the Registrar of the Charterhouse.

Having been favoured with letters of recommendation to two-thirds of the governors, including the Archbishops of Canterbury and York and the Bishop of London, I had otherwise every inducement to go the poll.

I am, etc.,

EDMUND LLOYD.

St. Martin's-le-Grand, March, 1866.

Medical News.

ROYAL COLLEGE OF PHYSICIANS OF LONDON. At a general meeting of the Fellows, held on Monday, March 26th,

Watson, Thomas, M.D.Cantab., D.C.L.Oxon.,

was unanimously re-elected the President of the College for the ensuing year.

At the same meeting, the following gentlemen, having undergone the necessary examination, were duly admitted members of the College:—

Parson, Edward, M.D.Lond., 3, York Street, Portman Square
Liveing, Robert, M.D.Cantab., 14, Harley Street
Fox, William Tilbury, M.D.Lond., 43, Sackville Street

APOTHECARIES' HALL. On March 22nd, 1866, the following Licentiates were admitted:—

Basan, Horace, 9, Castle Street East, Berners Street
Finch, John Edward Montague, Salisbury
Loane, Joseph, Dock Street, Upper East Smithfield
Roberts, Thomas Edward, Gibraltar

At the same Court, the following passed the first examination:—

Clay, George Langford, Queen's College, Birmingham
Hay, Richard Francis, London Hospital
Howse, Frederic, Charing Cross Hospital

APPOINTMENTS.

INDIAN ARMY.

BRETT, Surgeon J., M.D., to be Surgeon-Major Madras Army.
CLEMENTSON, Surgeon F. L., to be Surgeon-Major Madras Army.
COOPER, Assistant-Surgeon C., M.D., to be Surgeon Madras Army.
EWART, Assistant-Surgeon J., to be Surgeon Bengal Army.
GRANT, Assistant-Surgeon N. J., to be Surgeon Bengal Army.
HYSLOP, Surg. J. M'A., M.D., to be Surgeon-Major Bombay Army.
LORD, Surgeon R. G., to be Surgeon-Major Bombay Army.
MOTT, Assistant-Surgeon M. W., to be Surgeon Bengal Army.
NICHOLSON, Surg. J. G., M.D., to be Surgeon-Major Bombay Army.
SANDERSON, Assistant-Surgeon A., M.D., M.A., to be Surgeon Madras Army.
STEADMAN, Assistant-Surgeon F. S., to be Surgeon Bombay Army.
SYLVESTER, Assistant-Surgeon J. H., to be Surgeon Bombay Army.

ROYAL NAVY.

RANKIN, Wm. J., M.D., Acting Assistant-Surgeon, to the *Sphinx*.
SHEPHARD, Charles D., Esq., Surgeon, to the *Frederick William*.

VOLUNTEERS, (A.V.=Artillery Volunteers; R.V.=Rifle Volunteers):—

BURNS, J., Esq., to be Assistant-Surgeon 17th Lancashire R.V.
CARVER, E., Esq., to be Surgeon 3rd Cambridgeshire R.V.
CLARK, W. W., M.D., to be Surgeon 1st Administrative Battalion Northamptonshire R.V.
HURMAN, H. B., Esq., to be Assist.-Surg. 26th Somersetshire R.V.
LEWIS, C. F., Esq., to be Hon. Assistant-Surgeon 18th Sussex R.V.
LONG, F., Esq., to be Hon. Assistant-Surgeon 11th Norfolk R.V.
M'CAULL, C. N., Esq., to be Honorary Assistant-Surgeon 4th Cambridgeshire R.V.
MARTIN, H. V., Esq., to be Assistant-Surgeon 19th Surrey R.V.

BIRTHS.

GORRINGE. On February 24th, at Colaba, Bombay, the wife of J. Gorringe, M.D., 4th Regiment, of a son.
HYDE. On February 2nd, at D'Urban, Natal, the wife of Clarence Hyde, M.D., of a son.

MARRIAGES.

BIGG, the Rev. T. Frederick, M.A., to Janet Emma, fourth daughter of *James JOHNSTONE, M.D., of Birmingham, on March 20.
STEWART, Izett, Esq., of Welhall, Lanarkshire, to Marion Waterstone, youngest daughter of A. K. YOUNG, M.D., of Bayswater, on March 20.

DEATHS.

CRABBE, Benjamin, Esq., Surgeon R.N., at Strabane, County Tyrone, Ireland, aged 32, on March 18.
FAIRBAIRN, William Holme, Esq., Surgeon-Major Royal Army, half-pay, at 38, Jermyn Street, aged 48, on March 23.
HALL, David James, M.D., at Eastbourne, aged 61, on March 23.
HASTINGS. On March 21st, at Worcester, aged 75, Dame Hannah Hastings, wife of *Sir Charles Hastings, M.D., D.C.L.
HORTON. On March 22nd, at Stepney, aged 18, Thomas Heslop, only son of James Horton, Esq., Surgeon.

Morison, Sir Alexander, M.D., at Balerno Hill House, Edinburgh, aged 86, on March 14.

Smith. On March 17th, at 32A, Upper Belgrave Place, Frederick Sydney, infant son of H. M. D. Smith, M.D.

British Pharmacopœia. The publication of the New Edition is delayed; but it is expected that it will be ready by the time the Medical Council meets in May.

Royal College of Surgeons. Professor Huxley brought his course of lectures to a close on Wednesday last. The remaining portion of the College lectures will be delivered by Professor Hancock, about June next.

Bequests. Miss M. R. Tuffnell of Bath, lately deceased, has directed that all her furniture, linen, plate, china, glass, and other effects, be sold, and the proceeds be handed over to the Bath United Hospital, together with a legacy of £300, to be paid free of duty. Mr. C. Culling has left a legacy of £2,000 to the Great Northern Hospital.

St. Pancras Workhouse. At the inquest on an infant "laid out" as dead in St. Pancras Workhouse while it was yet alive, the jury returned a verdict to the effect, that the attendants were greatly to blame, and that there was not a sufficient number of medical officers properly to meet the requirements of so large an establishment as the workhouse of St. Pancras.

Prevention of Cattle-Plague. The Rinderpest has appeared in Cadzon Forest, among the famous breed of wild cattle belonging to the Duke of Hamilton. The duke, with a view to preserve his valuable herd of Ayrshires, has put them down in his coal-pits, where they are enjoying complete immunity from the plague though it is raging above. (*Carlisle Patriot.*)

The Cholera Conference. The Cholera Conference at Constantinople, held its seventh meeting on March 8th, when the report of the committee appointed to draw up the programme of proceedings was read by Dr. Naranzi, the secretary. It grouped the questions to be considered into four classes—1, the nature and origin of cholera; 2, its transmissibility; 3, the measures of prevention against it; and 4, the form to be given to the resolutions of the Conference. After some discussion this scheme was adopted as a basis for the investigations to be undertaken, and a general committee, consisting of three of the diplomatic and the whole of the medical members, was named to consider and report on the questions embraced within the first two of the above categories. The Conference then adjourned, and will not again meet until the committee has prepared its reports on these points.

Religious Enthusiasm. Incredible as it may appear, a body consisting of thirty Irish gentlemen have refused to receive a sum amounting to several thousand pounds for the support of a county infirmary. The case is this: the late Mr. J. Grattan thirteen years ago left a sum of £4,500 to the Queen's County Infirmary, which sum has not since been applied. Mrs. Grattan Bellew, owner of the Grattan estates, now offers to pay up the money with arrears of interest, and to add £1,000 of her own for the erection of an hospital or ward for convalescents and incurables of all religious denominations, upon condition that the hospital shall be placed under the care of the Sisters of Charity, with every safeguard against interference with the religion of the patients, and with free access to the clergy of all persuasions. The Governors of the Infirmary, thirty-one Protestants and three Catholics, met to consider this proposal, and it was negatived without a division.

Surgeon L. Moyne, of the 16th Pennsylvania Cavalry, has been breveted Lieut.-Colonel for conspicuous gallantry in giving prompt attention to the wounded under fire, and in performing duty as *Aid-de-camp* on several occasions.

St. Mary's Hospital. On March 22nd, the anniversary dinner of this hospital was held. The chair was occupied by the Duke of Grafton. The Chairman, in proposing "Prosperity to St. Mary's Hospital", stated that, since 1851, upwards of 200,000 patients had obtained treatment in the hospital. During the past year, between 17,000 and 18,000 were admitted, including nearly 500 cases of serious accidents. The hospital at first contained 150 beds; but a new wing, the foundation-stone of which was laid by the Prince of Wales, was now being built. Its annual cost was £8,000, and the yearly subscriptions amounted only to £4,500. His Grace concluded with an earnest appeal to the company, and to all the friends of the hospital. The Secretary read a list of donations and subscriptions, amounting in the whole to upwards of £1,100.

The British Army in China. A notice has been received at Hongkong from the War-office that "the practice of serving out umbrellas to the various regiments is to be discontinued." The pecuniary saving effected will be at the utmost £35 a year, but who can tell what will be the loss caused by increase sickness among the soldiers in consequence of this cheap protection against the intense heat of the sun being withdrawn? This is quite of apiece with the miserable penny-wise-and-pound-foolish policy which, for the sake of saving £6,000 by the removal of a native regiment from Hongkong, exposed the garrison to be decimated by disease and the country to an expenditure of £30,000 for sending home invalids. There seems, indeed, from first to last, to have been the worst mismanagement about the troops at this station. We are told, for instance, that when the 11th arrived out there not only were proper lodgings wanting, but for two months there were no paper helmets for the soldiers, who had to go on guard with no other protection against the sun than their ordinary forage caps. (*Pall Mall Gazette.*)

The American Army. During 1861 and 1862 the mortality in the army from disease was more than five times as great as that of men of the same age in civil life, being 48·7 men per 1,000 in 1861, and 65·2 per 1,000 in 1862. The total number of deaths from disease alone during the two years was 56,193. The number of men constantly sick was about 10 per cent. of the strength of the army, and the total number of cases treated, including wounds, was 878,918 during 1861, and 1,711,803 during 1862. The most fatal disease was camp fever, of which 19,459 died during the two years. Of diarrhœa and dysentery 11,560 died, and from inflammation of the respiratory organs there were 8,090 deaths. The army was remarkably exempt from scurvy and from the diseases that result from intemperance and vice. When the hospital system was at its *maximum* there were in the country 202 general hospitals with 136,894 beds. There were over 1,000,000 patients healed at these hospitals, and of the whole number treated but 8 per cent. died.

Sir Dominic Corrigan having vacated the office of Physician to the House of Industry Hospitals in Dublin, Dr. Lyons, Professor in the Catholic University, and physician to the Maynooth College, has been chosen by a majority of one. "Dr. R. D. Lyons", says the *Cork Examiner*, "is the gifted son of the late Sir William Lyons, of this city. There were three candidates seeking for this appointment, which may be termed the 'blue riband' of the medical profession

in Ireland. Dr. Lyons stands, by general consent, in the foremost rank of his profession; and indeed scarcely any man of his years had attained so many honours. Dr. Lyons was appointed chief of the Pathological Commission, whose duty was to investigate the diseases affecting the army in the Crimea; and for his eminent services in that critical period he was rewarded with the Crimean and Turkish medals, and the clasp for Sebastopol. At a subsequent period he received from the King of Portugal the Knight Commandership of the Order of Christ, in recognition of the services he rendered to science by his investigations into the phenomena of that most terrible scourge of humanity—yellow fever. His contributions to the literature of medical science have earned for him a world-wide reputation. We may add that his personal merits in no small degree enhance his professional reputation."

Varieties.

Schools of Medicine. There are three Schools of Medicine in full, and it is said successful, operation in New York. The old "Crosby Street School," now known as the "Twenty-third Street College." "The University Medical School" or "Fourteenth Street School," and the "Bellevue Hospital Medical College," the most recently instituted.

Population of our Chief Towns. The Registrar-General makes the following estimate of the population of thirteen of our great towns in the middle of the year 1866: London, 3,067,536; Liverpool, 484,337; Manchester, 358,855; Salford, 112,904; Birmingham, 335,798; Leeds, 228,187; Sheffield, 218,257; Bristol, 163,680; Newcastle-on-Tyne, 122,277; Hull, 105,233. The estimate for Edinburgh is 175,128; for Glasgow, 432,265; for Dublin, the city and some suburbs, 318,437.

Aboriginal Americans. Dr. Macgowan, in a lecture delivered at New York, estimated the present number of Indians in the United States to be about 250,000, and said that unless something prevented the oppression and cruelty of the white man, these people would gradually become reduced, and finally extinct. He predicted the total extermination of the Digger Indians of California and the tribes of other States, within ten years, if something were not done for their relief. The lecturer concluded by strongly urging the establishment of a Protective Aborigines Society, something similar to the society in England to prevent cruelty to animals. By this means he thought the condition of the Indian might be improved and the race longer perpetuated.

Introduction of Peroxide of Hydrogen. Dr. Richardson lays the following claim to the introduction of peroxide of hydrogen as a therapeutic agent. The peroxide of hydrogen, made at his instance for medicinal purposes, and now so largely manufactured by Mr. Robbins of Oxford Street, is prepared on and by the original process of the illustrious discoverer of the peroxide of hydrogen, the French chemist, Thénard. The credit, if there be any, that is due to him in respect to the use of this substance as a medicine, rests on the circumstances: 1. That he was the first experimentalist who investigated the physiological properties of the peroxide of hydrogen. 2. That he drank the first doses of it to test what could be borne by the human subject. 3. That he determined what volumetrical strength of the solution could be practically employed in medicine. 4. That, as a remedy for disease, he introduced it originally into practice.

OPERATION DAYS AT THE HOSPITALS.

Monday.....Metropolitan Free, 2 P.M.—St. Mark's for Fistula and other Diseases of the Rectum, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

Tuesday. .... Guy's, 1½ P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.

Wednesday... St. Mary's, 1 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.

Thursday.....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Great Northern, 2 P.M.—London Surgical Home, 2 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.

Friday..... Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

Saturday..... St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1·30 P.M.—Charing Cross, 2 P.M.—Lock, Clinical Demonstration and Operations, 1 P.M.—Royal Free, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

Monday. Epidemiological Society, 8 P.M. Dr. Mackay, R.N., "On an Outbreak of Dysentery among the Crew of H.M.S. *Conqueror*."—Odontological Society.

Tuesday. Pathological Society of London, 8 P.M.—Anthropological Society, 8 P.M.

Wednesday. Obstetrical Society of London. 7 P.M., Council Meeting. 8 P.M., Dr. Battye, "On Certain Uterine Affections in their Relation to Phthisis"; Mr. Robert Ellis, "On a New Mode of Inducing Anæsthesia by Compound Vapours"; Dr. Greenhalgh, "Case of Obstructive Dysmenorrhœa."

Thursday. Harveian Society of London, 8 P.M. Mr. Haynes Walton, "On Detachments of the Retina, their Causes and Treatment: with Specimens."

Friday. Western Medical and Surgical Society of London, 8 P.M. Mr. J. R. Lane, "On some Points connected with the Pathology of Syphilis."

TO CORRESPONDENTS.

*** *All letters and communications for the* Journal, *to be addressed to the* Editor, 37, *Great Queen St., Lincoln's Inn Fields, W.C.*

Communications.—To prevent a not uncommon misconception, we beg to inform our correspondents that, as a rule, all communications which are not returned to their authors, are retained for publication.

Correspondents, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

The Griffin Testimonial Fund.—Sir: The following subscriptions have been further received on behalf of the above Fund:—C. H. Carter, Esq. (Pewsey), 10s. 6d.; J. Breach, Esq. (Aston-up-Thorpe), 10s.; Dr. Ed. Ray (Dulwich), £1:1.

Amount previously announced, £134:5:3. Received at the office of the *Lancet*, £13:11:6.

I am, etc., Robert Fowler, M.D.,
Treasurer and Hon. Sec.

145, Bishopsgate Street Without, March 21st, 1866.

COMMUNICATIONS have been received from:—Sir Charles Hastings; Dr. de Gorrequer Griffith; Dr. A. Samelson; The Honorary Secretaries of the Western Medical and Surgical Society of London; Dr. B. W. Foster; Mr. A. B. Steele; The Honorary Secretaries of the Obstetrical Society; Mr. Richard Griffin; Dr. Shapter; Mr. William Copney; Dr. Sieveking; The Honorary Secretary of the Epidemiological Society; The Honorary Secretary of the Harveian Society of London; Mr. T. M. Stone; Dr. M'Call Anderson; Mr. C. S. Smith; and Dr. C. H. Marriott.

BOOKS RECEIVED.

1. The Danger of Deterioration of Race from the too Rapid Increase of Great Cities. By J. E. Morgan, M.A., M.D. London: 1866.
2. On the Use of the Chloride of Zinc in Surgical Operations and Injuries, etc. By Campbell De Morgan, F.R.S. London: 1866.
3. Lectures on Animal Chemistry, delivered at the Royal College of Physicians. By William Odling, M.B., F.R.S. London: 1866.
4. On the Anatomy of Vertebrates. Vol. II. Birds and Mammals. By Richard Owen, F.R.S. London: 1866.

Croonian Lectures

ON THE

LOCALISATION OF DISEASE.

DELIVERED BEFORE THE
ROYAL COLLEGE OF PHYSICIANS.

BY

EDWARD H. SIEVEKING, M.D.,

PHYSICIAN TO H.R.H. THE PRINCE OF WALES, AND TO ST. MARY'S HOSPITAL; PRESIDENT OF THE METROPOLITAN COUNTIES BRANCH OF THE BRITISH MEDICAL ASSOCIATION; ETC.

LECTURE II.

Mr. President,—I attempted in my first lecture to place before this assembly a series of arguments calculated, if just, to reduce all morbid action to a comparatively simple denomination. I sought to show that the phenomena of disease may all be regarded as those of disturbed nutrition, and that the localisation of morbid action was rather an accidental sequel than the primary and essential feature. Such a theory does away with the distinction between functional and organic disease, because the former necessarily precedes the latter, and the relation of the forms to which the terms are applied is one of degree only. The incongruity of anything like a specific remedy follows equally; because, if we are agreed that disease is some modification of nutrition, our duty is plainly to determine in what the modification consists; and, if we have an adequate knowledge of Nature, the remedy, or, more correctly speaking, the mode of treatment, follows as a matter of course; and, provided the organism be not so far deranged that a dissolution is necessarily at hand, improvement or cure must result. At all events, we fulfil to the utmost the demands that can be made of scientific medicine. I must guard myself against misapprehension in two respects, if my language have failed to convey my exact meaning. We should act upon the same principles that guide the intelligent husbandman, who varies the soil according to the seed that he has to sow, and changes his manure in accordance with the crops that he wishes to gather. I use the term nutrition in a wide sense. It is supposed to embrace the entire process of digestion, with its results, and all those phenomena which are included under the heading of growth and metamorphosis of tissues. I conceive that, with the exception of those diseases which are classed together as zymotic diseases, the primary derangement is essentially one occurring within the body; but that, even when we are bound to believe in the introduction of a poisonous agent from without, its propagation or multiplication depends essentially upon the state of nutrition which prevails in the person attacked. My whole theory is a protest against specifics or empirical treatment, still I have not the presumption to assert that, in the present state of science, we can dispense with empiricism; nor shall I attempt to explain the action of all the remedies that frequent use has compelled us to regard as curative, or at least beneficial, in certain phases of morbid action. I believe that one of the great impediments to the progress of medical science has been that dogmatism which has checked the confession of ignorance; for if we clearly see what we do not know, we are much more likely also to see clearly the field of knowledge that has been opened to us. I do not, indeed, claim remotely to equal many of the distinguished associates of this College in point of abstract knowledge or practical wisdom; and I should not attempt to lay before you a theory which necessarily indicates how little we really do know, did I not rely upon your kind forbearance and consideration, virtues that are generally associated with real greatness of mind. I shall have to throw myself upon your kindness most especially, Mr. President and gentlemen, during the next two Croonian lectures, because I shall wish to establish, by reference to the whole range of medicine, the practical truth of my remarks, as well as the foundation they have in the best and most approved modes of treating morbid action.

My intention during the present lecture is to seek for illustrations of my meaning, not so much in the works of my fellow-labourers as in the still greater Book of Nature. If I draw upon the former, it will be mainly because they appear to me to have delineated Nature's workings in disease better than I can, not because I desire the authority of great names to bolster up an hypothesis. I believe that, in this matter, I am actuated solely by the desire to approach nearer to that goal which all of us—and who more zealously than the gifted and beloved president of the Royal College of Physicians of London?—run that we may attain, truth.

If any one should be disposed to raise the *cui bono* objection to the whole intent of the argument, I would submit this consideration. If local disease be the expression of antecedent derangement, clearly the recognition of this condition will be a benefit to the individual no less than to our race, varying in its importance with the danger of the malady.* It is in accordance both with reason and experience that, as a seed is more readily crushed or destroyed than the tree which springs from it, so the morbid conditions of our frame will be checked and eradicated with the greater ease, the earlier we are enabled to attack and arrest their development. There are many diseases, an early recognition of which the present state of medicine does not enable us to arrest them with certainty; that may be due either to the fact of our not possessing the proper antidote, or to our failing in making our diagnosis at a sufficiently early period. But a present failure, from whatever cause, does not in itself invalidate any fact bearing upon the development and history of disease; this rests upon its own basis. Besides, if my conclusions are legitimate, they tend to prove that we are far from using or even possessing all the means necessary for the earliest detection of perverted nutrition, perverted secretion, perverted metamorphosis of tissue. The fall of the barometer indicates with certainty the coming hurricane; but it does not tell us whether the mariner has the ability to sail his ship, or whether the ribs and spars of the ship possess the strength that will enable her to weather the storm. What is required in medicine is a similar certainty of anticipating the future—of prophesying the course of morbid events; and the further back we are able to

* I would wish to draw the reader's attention specially to an admirable paper published in the last volume of *Guy's Hospital Reports*, in which Dr. Wilks handles the question of local disease from the pathological point of view, and which, unfortunately, has only come under my notice as this lecture was passing through the press.

trace the changes that eventuate in disease, by means independent of any statements of the patients, the more completely shall we be able to delineate their future course, or the more precisely shall we apply the agents suitable for particular manifestations or stages of morbid phenomena.*

Allow me to ask your attention to a common cold, not more frequently regarded as the starting point of serious disease than it merits, according to our prevailing nosology, and yet, I believe, more uniformly still the consequence of earlier unrecognised, but still very often traceable, derangements. You will find little or nothing on the subject in the great works on medicine that we regard as our main instructors. What is a cold? The *erkältung* of the Germans, the *refroidissement* of the French, go more to the root of the matter, and convey the fact that, in consequence of cold, something has been deprived of its normal temperature. This physical fact is undoubtedly an exciting cause of *the* cold; but we are constantly exposed to great varieties of temperature, and parts of our bodies suffer from a *refroidissement*, and still we do not catch cold. How, then, is *the* cold to be accounted for? If we examine carefully into the history of a cold, we may generally discover that circumstances have preceded, in which a due elimination of the products of respiration or of other volatile excreta have been interfered with. The real failure of health takes place from the moment when the eudiometric condition of a locality in which we are, prevents the due discharge of watery vapour and carbonic acid from our lungs and skin; and the greater the consequent accumulation of effete matter within the system—may we not fairly say, within the vascular system?—the less shall we be able to bear sudden alternations of temperature. The young lady, who catches cold in going out of a suffocating London ball-room, has during a few hours been doing her best to store up in her body a large quantity of wasted tissue which ought to have been removed, burnt off, by even a larger supply of air than that which suffices when she is engaged in the less exciting calls of morning tuition. The physician who dines with an hospitable *confrère*, in a room in which the available oxygen is consumed before the soup is removed, not only accumulates in his stomach more viands than he can digest at the time, but is quite incapable of throwing off the amount of carbonic acid necessary to health, and necessarily *catches cold* as he leaves the house or suffers from its analogues on the following day. The rowing man or the cricketer do not catch cold, although the consumption of tissue may be still greater while they are actively occupied in their respective pursuits, because they are carried on in the open air. They are obeying a law of Nature which tells the young as it tells us all, that it is good to accelerate the metamorphosis of the tissues of the body in order to make room for fresh and vigorous growth; but they would be obeying it only in a very imperfect manner if their sports were not fanned by the breezes of heaven, for the worn out tissues would remain in the body and become a clog and a poison, instead of being a source of renewed health. The local affection of the catarrh, the subinflammatory condition of the mucous membrane of the antrum Highmorii, the posterior and anterior nares, which causes so much annoyance, must only be regarded as a sign of the previous derangement. Whether, as is often asserted, the disease is an "effort of Nature" to throw off an injury, may or may not be true. We know that Nature is often a long time in affecting this, and that the patient not unfrequently succumbs during the process; we also know that, the earlier we can trace a morbid taint, the more readily we can aid Nature in her attempts to remove it and restore the patient to his normal condition. If the power of prophesying is, according to Professor Owen, the test of science, we could easily show that the powers possessed by the scientific physician are greater than usually admitted. He can foretell with certainty, if he knows the materials he has to deal with, or, in other words, the condition of his patient and the influences he will be subject to, what the result will be—the chemist can do no more. We act upon this knowledge in daily life; but the effect of the prophesy is often concealed or the warning not listened to, because we have to deal with responsible beings, and not with inanimate matter contained in a test-tube. Let us now see whether the same kind of argument that I have sought to illustrate by what takes place in the production of a common cold is applicable to more serious diseases. Can we trace in them that harmonious operation of the laws laid down by an all-wise Creator? or must we regard them as manifestations of His power, destined solely to point some moral discourse of fatalistic tendency?

I will first sketch a case of pneumonia, of which I take the headings from my note-book. I do not, in doing so, mean to imply that all inflammations of the lung-tissue are brought about in the same manner. I see endless variety both in the causation and the phenomena of disease, though with all everywhere the same fundamental laws. It is this constant variety that compels me to doubt the wisdom of those who would adopt one mode of treatment for any disease, merely because nosologists have classified certain physicial signs under the same names. Whether the inferences that I shall draw from one or two isolated cases of pneumonia are more generally applicable to the causation of what is called idiopathic disease, is just one of those questions that we are here to discuss; but, while I protest against our being bound by an artificial nosology, I would maintain that there is a certain unity in the laws that govern disease as there is in those that preside over health.

A. B. is a gentleman of independent means, who has always enjoyed excellent health, and has been engaged in out-of-door occupations, until, at sixty years of age, in consequence of a portion of a step giving way, he has a severe fall bruising his hip considerably. The injury, though not very serious, confines him to his room for some weeks. Before he has recovered his previous active habits, he goes out on a cold raw day, in consequence of which he suffers from flying pains passing from one side of the thorax to the other, and regarded as gouty neuralgia

* In a recent address, Professor Owen, in discussing the claims of medicine to be regarded as a science, illustrates his position by the hold that chemistry and astronomy have upon the public mind, as compared with the regard formerly shewn to alchemy and astrology, and states that the power of prophesy is essentially that quality which impresses the public. "It is interesting," he remarks, "to consider how a public, ignorant of and careless about the grounds and proofs of an established science, does in time come to believe in and trust it, to the exclusion of its simulacra, and the utter deposition and extinction of the quack professors of the same. I believe the public gain this faith by what the true science effects, and what it predicts." (British Medical Journal, June 10th, 1865.)

by the medical attendant. The prostration, however, and symptoms of general exhaustion, indicate more serious mischief; and on closer examination, we detect dulness and crepitus at the base of one lung; and, after a few days, the same symptoms indicate, although there is scarcely a trace of cough or expectoration, that the other lung is similarly affected. As there is no albumen in the urine and no heart-disease or other complication, rest and alterative medicines and derivatives, followed by a tonic *regime* and medication, slowly but surely restore our patient to health. Resolution takes place, and the ordinary rotation of healthy phenomena is able to resume its course.

In this case, we have an illustration of what Mr. Erichsen and Mr. Hilton have so well described as occurring frequently after injuries. The absence of due exercise prevents due aëration of blood; and, an undue amount of waste tissue having to be burnt off, the lungs are more highly taxed than their opportunities allow them to accomplish—and disease sets in, in the local form of inflammation of the lung-tissue. It is an expression, however, of long antecedent general malnutrition. Or take another case, which is not so uncomplicated as the last.

C. D., a government official, has a syphilitic sore in the course of the summer, followed by roseola and other secondary symptoms. In consequence of exposure during a voyage, he is seized with intense pain in the left side, which is called pleurisy; and this is followed by indefinite pains, apparently of a rheumatic character, affecting different parts of the trunk. There is some cough and expectoration, once streaked with blood. On examination of the chest, about six weeks from the time when he was seized with the stitch in the side, percussion and the stethoscope reveal a subacute pneumonia at both bases, as shown by the presence of dulness, bronchial respiration and dry crepitation. The almost entire absence of all febrile symptoms—in fact, of any symptoms except great debility and prostration and rheumatic pains—might in such a case easily mislead the observer, were it not for the stethoscope and physical exploration. But, having made your diagnosis of pneumonia, would it be possible to regard this in any other light than as the reflex of the antecedent morbid conditions fixed in the lung by the casual interference with the aërating process, while there was accumulated material for destruction and removal in the pulmonary furnace? It would not have been difficult for a well-instructed physician to prophesy the result. What else is the meaning of the warning so constantly urged, that during convalescence from other affections exposure should be avoided, because there is at that time a peculiar liability to an interference with the regular metamorphosis—the waste and repair of the tissues—and therefore a peculiar proclivity to catching cold?

The difference in the severity of pneumonia in different subjects could doubtless be sufficiently accounted for were we sufficiently acquainted with the details of their mode of living, and were it possible to put all the different elements of health or disease into the balance. The examination of the excreta is one of the means by which, in a retrograde manner, we get at the internal organs and their functions, and thus indirectly at the state of the blood; but after they are eliminated they are no longer a part of the individual, and their analysis is not, and cannot be, a direct analysis of a vital process. The test-tube and the microscope are apt to mislead us into the belief that we are watching disease itself; they enable us to examine the products of morbid action only. The pulse and the tongue and other media give us a clue to vital processes, and have therefore always, and justly, been esteemed by the practical man as the true indications of disease; but their variability under non-essential influences often diminishes their value—so that the physician readily hails any new and positive mode of measuring internal processes, which is not amenable to any subjective impression of the patient. We may hope to have re-discovered such a method in the employment of the thermometer—an instrument which, as we are told by high authority, greatly facilitates the clinical recognition of diseases, while it tends to elucidate the natural history of all diseases where fever is present.* My personal acquaintance with the use of the thermometer in disease is only sufficient to enable me to bear feeble testimony to its value; but I am disposed to anticipate its utility in the still wider range of prophesy, to which I conceive it will become an efficient handmaid—prophesy of future events by the positive present recognition of minute changes scarcely perceptible to the individual in whom they occur, and certainly not measurable by another, unless aided by so trustworthy but delicate an indicator as a well made thermometer. Dr. Aitken tells us that all observers, Valentin and Traube in Germany, Edwards, Becquerel, Breschet, and Bernard in France, and Dr. John Davy in England, are agreed with regard to the fluctuations in health so as to afford us a standard of comparison in disease. Seeing how close are the relations between animal heat, pulse, and respiration, and how important the accurate knowledge of these functions is in reference to any variations in health or deviations from the normal standard, the thermometer, as a means of determining accurately one of these three elements, becomes a mighty lever of science. It appears that, in temperate regions, the normal temperature at completely sheltered parts of the surface of the human body amounts to 98.4° Fahrenheit, or a few tenths more or less, and a rising above 99.5° Fahrenheit or a depression below 97.3° Fahrenheit are sure signs of some kind of disease, if the increase or depression is persistent. The large experience of Wunderlich has enabled him to speak most positively as to the value of this instrument in detecting and following up morbid changes. He has already given numerous instances, showing how by the thermometer disease was indicated before any other means of diagnosis availed for that purpose. Elevation of temperature is generally associated with disordered functions perceptible to the individual in whom they occur, as well as to the bystander; but it may even amount to four or five degrees, and still coincide with a quiet pulse and apparent health. (New Sydenham Society's *Year-Book*, 1861, p. 119.) It is this certainty with which it indicates hidden processes, which induces me to hope that further study will enable us to foretell events with yet greater certainty than we possess at present, and that it will prove one of the means by

* Upon these and all matters connected with the most recent advances in medical science, the English language affords no better information than that given in the fourth edition of Dr. Aitken's *Science and Practice of Medicine*, 1865, *loc. cit.*, vol. i, p. 38; see also New Sydenham Society's *Year-Books* for 1861-62.

which we may detect the earliest deviations of function from the healthy standard. In the particular disease which we have been considering, it has been shown to give more certain proof of definite changes or of the absence of certain variations in the course of the malady than any other means at our disposal. A temperature of 104° and above is a sign of grave import in pneumonia. (New Sydenham Society's *Year-Book*, 1862, p. 176.) In genuine pneumonia, the temperature is stated to rise rapidly, amounting on the first day to 101.7° Fahrenheit, and maintaining a temperature of 4.5° to 5.6° above the normal standard, with little or no morning remission; on the fifth or seventh day it falls rapidly; and in thirty-six hours returns to the natural condition. Peculiar variations of temperature in the course of the disease are described as characteristic of definite varieties of pneumonia. To conclude this digression, Wunderlich affirms generally that the temperature is the surest measure of the improvement or aggravation of a disease, of its running a favourable or unfavourable course, and of the efficacy of treatment. I may add that in surgery this little instrument has also been employed with advantage, both in determining the presence or absence of traumatic fever and in fixing the exact local changes in deep-seated tissues.

The theory which I have advocated, that pneumonia is not a disease *per se*, but the climax of a series of antecedent morbid changes would be liable to contradiction, so long as we have not obtained positive proof of the deranged condition of the blood and of the nutrition generally. I have sought to indicate the general grounds deducible from what is observed in individual cases. Other evidence, though not absolutely conclusive, appears to be given in the admitted hyperinosis of the blood before the outbreak of pneumonia and the diminution of the general symptoms of disease as those of the local affection become more prominent. However, so long as the direct evidence is not obtainable, we must be allowed to have recourse to circumstantial evidence, and be satisfied to use such means of observation as are now at our disposal.

I trust that I may not be misunderstood as maintaining the impossibility of any form of pneumonia without an arrested or perverted metamorphosis of the tissues. The pneumonia occurring in the course of trichiniasis is one of those rare forms that are attributable to the presence of a direct irritant in the lung-tissue. The pneumonia, so fatal in some trades, in which mechanical irritants find an entrance into the lungs, belong to the same category. But they are not the pneumonias of every-day life; and it is to the ordinary cases of inflammation of the lung-tissue which we meet with in hospital and private practice, that my remarks apply.

[*To be continued.*]

Accidents in the Metropolis. The number of persons run over and killed in the streets of the metropolis during last year was 140. In the same year 1707 persons were injured. To the end of February in the present year 23 persons were killed and 231 injured from the same causes. In the City Police district last year 14 persons were killed in the streets and 207 injured. In the same district up to Feb. 26 of the present year 8 were killed and 30 injured.

Original Communications.

ON THE CAUSES WHICH TEND TO AND OCCASIONALLY ENDANGER FŒTAL LIFE DURING LABOUR:

WITH REMARKS ON SOME OF THEIR MEDICO-LEGAL BEARINGS.

By G. K. H. Paterson, L.R.C.P.Ed., L.R.C.S., Balbeggie, Perthshire.

[*Read before the Perthshire Medical Association.*]

[*Continued from page* 145.]

It is well known that the states mentioned in my previous paper lead to, and frequently cause, stillbirth. However, according to the recent Report of the Capital Punishment Commission, several alterations in the present law in reference to crime are advised to be made; and one particularly relating to my subject is felt by not a few in the profession to be rather startling, and is consequently of great interest, and vitally important in a medico-legal point of view. I refer to the recommendation of the aforesaid Commission in regard to infanticide; viz, "that it should be made an offence punishable, etc., maliciously to inflict injury on a child during its birth, or within seven days afterwards, in case the child should have subsequently died; and no proof that the child was completely born alive should be required." On such becoming a part of the future criminal code of our country, difficulties from conflicting medical opinion will, to my thinking, be found to occur from time to time in several ways. But it is necessary to show how such can arise. It will be admitted as far from being uncommon, that, in a case of difficult labour, with no medical attendant present at the time, the child may die during labour or before its complete birth, and may also present appearances not unlike "inflicted injury"; while nothing could be discovered to implicate the mother. Let me state the following possible cases.

A woman, in broad daylight and alone in her own house, is all of a sudden taken in labour at the full term. The head of the child protrudes; it is heard by her to cry, and more so when the head is extruded. It remains in this—often dangerous—position until the next uterine pain, which perhaps does not come on for five or ten minutes after. Meanwhile, she tries with one of her hands to push forcibly the child's head, so as to relieve herself until gradually its body comes into the world. In doing this, her nails have pierced parts of the head, neck, and face of it. At length it is completely born, and found to be lifeless.

Place alongside of this case a woman taken up for concealed birth. Her child is found soon afterwards hidden in the room in which she bore it, with severe scratches here and there on parts of its neck and head, etc.; while the mother afterwards confesses that she heard it cry shortly before it was completely born, and did the same thing as the previous one to aid self-delivery, and with an unfavourable termination.

In another case, the child's head being similarly extruded, and shewing many signs of fœtal life, the mother, from some inhuman motive, stuffs its mouth with a part of either her flannel petticoat or a corner of the bedsheet, and afterwards declares that it was stillborn.

How is the first of these to be exonerated from blame, and the second or the third to be convicted

of maliciously inflicting injury? There may be no serious wound or ecchymosis on the head, neck, or face of the first child referred to, any more than the other two, when medically examined outwardly, sufficient to convict of injury; but it may be found, if sought for, of greater or less extent, within. Where else is evidence of the cause of death in many new-born children to be relied on? Not, as hitherto, in the hydrostatic test; as it would appear that this is not to be required. We, therefore, are shut up to whatever state the brain and its membranes, or the heart, may be in, to decide the cause of death in the instances of new-born children suspected of having been foully dealt with. It is true, and proper to bear in mind, that the head of the child in certain kinds of labour, when extruded, may remain, from various causes (maternal and fœtal) too long in such position; and, on its complete birth, may be stillborn, without the woman, or any one else, having meddled with it at all. But, on the other hand, if such is to be the law in future, that "no proof that the child was completely born alive should be required", how many may be led to bring about by secret means a child's death during its birth without fear of penalty, when early medical examination would be often able to detect the malicious injury inflicted, but for such a law.

A woman alone is seized with the pains of labour at full time, and soon bears her child alive; but, after it is born, she finds the umbilical cord twice at least round its neck, and is anxious to relieve herself and the child. In trying to remove the cord, she only causes a greater constriction of the neck, whereby the fœtal respiration is the more impeded; and by the time she has managed to free the child of it, life has fled. In a case of this kind, there might be caused marks on the neck of the child, sufficient to excite suspicion against an innocent person. Another, also alone during the bearing of her child, is standing and about to get into a low bed, when a severe uterine pain comes on, by which the child is forcibly and quickly expelled, and driven against the corner of a chair or stool, causing a wound or fracture of the child's head, ending in the death of it; and the woman, although suspected, would be innocent. Another alone in labour feels as if she were to have an evacuation, and sits down on a house slop-pail with water in it; a succession of violent pains takes place; and before she gets off it, the child is not only born, but it has lost its life by being drowned. Another woman, unmarried, is taken in labour, alone; the child is found, not long afterwards, dead, with its umbilical cord insufficiently tied, which has caused the death of the child by loss of blood. On the other hand, what is to hinder a lying-in woman wickedly doing away with her new-born child from afterwards screening herself under the same states and circumstances as above described? There would be much room for conflicting medical evidence in such a case.

A case of labour, at full term, in a married woman, about 40, who had several children before, came under my care not very long ago, where an elderly female was in attendance. The child, the mother said, was living prior to labour-pains coming on, and it came by the feet. The attendant, thinking she had no more to do than to pull the child's feet and deliver the woman, continued pulling away; until the mother became alarmed, as the child was not coming so soon as she expected, and I was therefore hastily sent for; on my arrival I found her still undelivered, but the child was now dead. The head was by me readily brought into the world. What is to be done with those unprofessional and unlearned persons who proffer their aid in such and other cases, as well as with those itinerant quack evil advisers who vend medicines secretly to cause abortion, especially in advanced pregnancy in unmarried females, occasionally with a fatal termination? Some greater restriction is certainly required to be put in force by the legislative powers of government against such persons.

Inattention to the severed and tied end of the umbilical cord seemed to have been the cause of phlegmonoid inflammation and death in two infants of different mothers, which I was lately requested to see before they died. The neglect was apparently unintentional on the part of either the mothers or attendants!

REMINISCENCES OF A FOUR MONTHS' STAY WITH PROFESSOR A. VON GRAEFE IN BERLIN.

By A. Samelson, M.D., Manchester.

[*Continued from p. 309.*]

Those three days of the week, on which Von Graefe lectures in the morning—*i. e.*, Monday, Wednesday, and Friday—are also set apart for operating. This generally commences soon after 3 o'clock P.M., and is continued for about an hour, within which, on an average, fifteen operations are performed. Some eight or ten of the hearers regularly attending the lectures are in turn admitted to watch the operations, as well as the preceding attendance on the ambulatory patients. The remaining afternoons of the week, apparently devoted to the more collected and thorough investigation of cases, are passed in comparative seclusion; only a casual visitor being present, or some foreign colleague anxious to make the most of his limited stay at Berlin. But, on the operating-days, the number of practitioners mostly equals or exceeds that of the pupils; and, amongst the former, one or another person of high repute, or at least local celebrity, may often be met with. We had the good fortune of meeting Dr. Desmarres of Paris, Professor Rossander of Stockholm, Dr. Melchior of Copenhagen, Dr. Heymann of Dresden, etc.

The ordinary medical attendant of a patient is in many instances present to watch the operation on the latter. As Von Graefe, when in Berlin, performs but very few operations any where else but at the Clinique, the interesting spectacle is presented of a concourse of patients of each sex, belonging to the most various countries and ranks of society. Not to mention a host of counts and countesses, high functionaries and military officers, financiers, etc., we saw two children of royal birth, grand-cousins of King William of Prussia, brother and sister, operated upon in succession—the one for squint; the other for closed pupil in the only and but very poor eye left to her. Amongst the foreign patients, the most abundant are Russians, and next in number French—both, it appears, appreciated on account of their substance and liberality; but, amongst the former, the poorer classes also are most numerously represented, especially the Jews of Poland and the Baltic provinces, obviously much visited with eye-disease—quaint people with curious names, such as Rosetwig, or Gingerbread, or Mother-o'-Pearl, and often distinguished by their epizootic propensities. Perhaps this latter proclivity accounts in part for the comparatively frequent occurrence among them of an otherwise rarely seen disease—trichosis, or Plica Polonica—of which we met with three or four examples. In some instances, when persons of high rank, especially ladies or very nervous individuals among the

private patients, are to be submitted to an operation, the students attending are requested to withdraw for a while; otherwise little distinction is made on account of the standing of the various subjects. Time presses; chloroformisation, for that very reason often dispensed with, absorbs precious minutes; so does the dressing, when attended to by Von Graefe himself; lid-operations, especially blepharoplastic ones, are necessarily tedious; yet the task of the day must be performed, as postponement would soon result in an avalanche. Habituated to intercourse with persons of towering position in every possible sense, Von Graefe is ever at his ease; favoured by birth, fame, titles, and badges, which all are his in plenty, he, the observed of all observers, is civilly genial with every one; stiffness, assumption, or pedantry have no hold on him. Remarkable is his considerate bearing towards practitioners who, as often occurs, happen to be present when a former patient of their own appears among the crowd of his patients. Apologisingly he appeals, as it were, to the indulgence of the colleague, and never fails to endeavour to restore the patient to his previous adviser. Exceptionally only, a patient is operated on in his or her own room; and the whole of the operations are performed by Von Graefe's hand, except occasionally a squint-operation or an iridectomy, entrusted, under his guidance, to the junior clinical assistant, for his benefit. The patient is invariably placed on the couch; the operator sitting, as the case may require, either before or behind him. Being slightly hypermetropic, Von Graefe sometimes arms himself with his convex glasses when a minute inspection is deemed requisite. No operation on the globe of the eye is attempted without fixing it with forceps. The distension of the palpebral aperture is effected by means of the stop wire-retractor. The head of the patient is fixed by an attendant—trusty Andreas, well known to the professor's pupils and friends all the world over, on whom this sufficiently important task has now devolved for upwards of thirteen years. And fully this time Dr. Waldau (who some years since adopted this instead of his former name of "Schuft") has been Von Graefe's assistant in operations. To the superlative skill and ingenuity which this gentleman brings to bear upon his share of the work we think that no description can do entire justice. Much may be said in praise of his ability in the devising of ingenious and more or less useful instruments, amongst which the curette, perfected by him and generally known as Schuft's spoon, was the most valuable; but his singular tact, the extraordinary quickness of perception by which he ofttimes anticipates the want of the operator, his firm and secure yet gentle touch, are qualities highly developed by such an enormous practice, and the exhibition of which it is certainly no less instructive than gratifying to witness. A short word of encouragement on his part, fitly though charily bestowed, also often goes far to tranquillise a nervous or obstreperous patient just undergoing an operation. On the other two assistants, who in turn with him have the attendance on private patients, devolves the duty of watching the operations, respectively of administering chloroform, in their own cases. It is the office of the junior clinical assistant to hold the tray of instruments, and to tender or receive them back as the moment requires. As a rule, the instrument-maker (J. G. Birck, sen., Dorotheen Strasse) habitually employed by Von Graefe is expected to be present during the operations. The nurses in attendance on the various cases are in readiness with their supplies to assist in the dressing of the patients, and to lead them back to their rooms.

Chloroform is given in less than half of the cases. In five days, we counted forty, in which it was employed. To its administration Von Graefe generally attends himself, so long as his hands are still at disposal for the purpose; but, even when deeply engaged in operating, he is ever most sensitively awake to the behaviour of the subject under chloroform, and, with delicate discrimination, directs either the continuance or the withdrawal of the anæsthetic. He has never yet had to lament the loss of a patient from its influence. I have seen it at the Clinique employed in about four hundred cases; and amongst this number there was but a single one in which some momentary uneasiness was caused by the appearance of the patient. In explanation, however, it must be stated that chloroform is here hardly ever administered with the intent to induce profound narcosis, except, perhaps, in those rare cases of malignant disease where the removal of bone becomes necessary. A superficial administration, and hence a small quantity, is usually found sufficient for the purpose; and a larger dose may, in fact, well be dispensed with, seeing that there are always plenty of people at hand to efficiently control the movements of the patient. Besides, there is no time either for protracted inhalation or for much delay in recovering from the effects of the anæsthetic. It is, perhaps, owing also to the small quantities given that we have but rarely seen the employment of chloroform followed by vomiting. No apparatus is used, except a cylinder of pasteboard, lined with cloth, open at both ends and tapering upwards, of about three inches' diameter at its base, which has a shallow notch for the nose. The chloroform is poured on the lining. In the appreciation of the symptoms of danger, little stress is laid on the condition of the pulse: the state of the respiratory function absorbs the attention.

We have witnessed the operative practice of ophthalmologists who certainly equal, if they do not in some respects surpass, Von Graefe, as regards delicacy of performance; but we know of none exceeding him in the precision with which he establishes his indications prior to the manual business of operating.

Morbid specimens of interest accruing from operations are generally despatched for examination to Professor Virchow, or his distinguished assistant, Dr. Kühne. The instruments are restored to the careful custody of Dr. Depaubourg, the inspector. Von Graefe, who, in the short intervals between operations, was now and then seen to be preoccupied, when he appears to revolve in his mind the phases of some operative proceeding just carried out, at once attends to the insertion of important observations in his journals, more especially the entering of cataract-operations in the book of cataracts—a record solemnly kept and deservedly valued, in which a special corner is conscientiously set apart for mishaps. Having, lastly, fulfilled a duty responsible enough not to be delegated—*i. e.*, dictated a number of certificates, ever lucid and exhaustive, little masterpieces in conception and style—he withdraws to the wards, to finish his round of visits, when a day's work as trying as interesting is once more brought to a close.

The *teaching arrangements* at Von Graefe's Clinique, apart from the practical lessons implied in the afternoon work which we have just reviewed, appear to call for a separate notice. Here we find, as it were, a little university of ophthalmology established. Dr. Waldau teaches the ophthalmic operations in a course of twelve lessons, giving, we believe, four such courses in each of the two academical divisions of the year. Dr. Schelske (lecturer at the University and known as the author of several elaborate phy

siological essays), the scientific assistant, as we shall call him, whose office was but recently, after a tenure of some years, vacated by the eminent pathological anatomist, Professor Schweigger, gives three different courses of instruction—one on ophthalmoscopy, another on the diseases of refraction and accommodation, and a third on the pathological anatomy of the eye. Professor von Graefe himself discourses on the diseases of the eye, as we have stated, three times a week, from ten to eleven o'clock in the morning. There were, on an average, from fifty to sixty hearers attending—among them always a number of qualified medical men. They are seated on chairs in two double rows, confronting each other, and leaving a passage between them for the patients presented, and particularly for the lecturer, who seldom occupies a seat, and ever and anon repairs to the black board, which, though moveable, rivals indeed the most stable of fixtures: it is his most cherished instrument of instruction, in the use of which, whether lecturing, or conversing, or pausing from an operation, he is untiring, and the convenience of which he is very apt to suggest to any party conveying or seeking some information. The cases to be produced are, on the day preceding a lecture, selected by Von Graefe himself, or more frequently, under his direction, summoned by the junior clinical assistant; who also, seconded by one of the male attendants, controls their movements to and from the lecture-room. A few minutes before the commencement of his lecture the professor spends in glancing at some of the cases in the anteroom. Some four or five of those among the students who believe themselves to be sufficiently advanced not to be listeners only, examine the cases previously to the lecture, in order to prepare themselves for the impending interrogatory. The lecturer does not profess within a given period to exhaust the whole subject of ophthalmology; his lectures are clinical in the received sense of the term. As cases emerge, or a series of cases, invested with practical interest, they are made the substratum of instruction. There is, however, scarcely anything of importance missed during the term; and whatever is taken up is certain to be exhaustively treated. The number of cases dwelt on in this manner are from two to five in the course of a lecture, towards the end of which as many or more are cursorily dealt with. Not unfrequently, the suggestion or request of a friend is sufficient for a subject to be made the item of discourse. The delivery of the lecturer is spirited in the highest degree, signalised by the most perfect ease and freedom, sometimes perhaps too rapid, though ever elevated in style. The tone is very frequently colloquial, and only becomes more measured when the teacher rises as it were with his subject—*e. g.*, when he comes to treat on such chapters as paralytic disease, or the disorders of accommodation and refraction, or, especially, muscular asthenopia. We shall long harbour the impression we received when, having descanted in the most perspicuous strain on the last named very intricate and most interesting subject, he wound up his remarks by reminding us that the subject was one of the highest practical importance, and that the fathoming of it did honour to the human understanding. To my mind, this succinct peroration, most objectively pronounced as it was, embodied the text of a panegyric such as in our day but few men might more rightfully claim than the speaker. We should, however, find it difficult to decide where his teaching was more instructive and suggestive; whether when he spoke on amblyopia, or when on the consistency of cataract, or, again, on the various forms of conjunctivitis and keratitis. We have once more been in the position lately of listening to teachers of great and deserved renown; but, thankful as we feel for many a valuable lesson, we did not fall in with any one who "had the elements so mixed in him".

[*To be continued.*]

Errata. The following corrections are required in that part of Dr. Samelson's paper which appeared in the Journal of March 24th.

Page 306, col. II, line 28 from bottom, for "10.20", *read* "10.30".

Page 306, col. II, line 8 from bottom, *omit* "many".

Page 308, col. II, line 15 from bottom, for "mentioned above", *read* "here mentioned".

Page 309, col. I, line 6 from bottom, for "invariably", *read* "invincibly".

ON THE TREATMENT OF STRABISMUS WITHOUT OPERATION.

By C. Holthouse, Esq., Surgeon to the Westminster Hospital, and to the Surrey Ophthalmic Hospital, etc.

[*Continued from page* 252.]

Case iv. *Double Convergent Strabismus of the Left Eye to one Line, of the Right to three and a half Lines, from Paralysis of the Left External Rectus Muscle.* Mary D., aged 52, married, came under my care at the Surrey Ophthalmic Hospital on August 17th, 1865, for double convergent strabismus, which had made its appearance eight days previously, having been preceded by what seems to have been a slight conjunctivitis in consequence of cold; the eye being "bloodshot", slightly watery, and affected with "a pricking sensation", and the lids "gummy" in the morning. Two days after this inflammation had subsided, the patient was seized suddenly, in the middle of the day, with a severe shooting pain in the left eyeball, extending over the left side of the forehead and head and the upper part of the nose on the same side, together with much giddiness, confusion of vision, and diplopia, so that she had been afraid to trust herself to go about alone ever since.

Condition on Application. The above symptoms were still present with scarcely diminished severity. The eyeball was very tender on pressure, and its movements were painful; but its tension was normal, and there was no vascularity of the sclerotic or conjunctiva. The pain over the forehead and head followed exactly the course of the supraorbital and supratrochlear nerves, pressure on which, at their points of exit from the orbit, caused much suffering. On examining the movements of the eye, the right being covered, they were found to be limited in the outward directions; *i. e.*, the cornea could be brought exactly to a central position between the canthi, but not beyond; and the diagonal movements in an outward direction were defective. On the patient trying to look outwards, no action of the oblique muscles could be detected. The power of inverting the eye was perfect. On attempting to grasp a pen held a little to her left, she always clutched at it as if it were still more to her left than it really was. The pupil was of normal size, and responded readily to the stimulus of light. The eye was presbyopic to $\frac{1}{14}$; otherwise its vision was good—indeed, rather better than that of the right eye; for, whereas the latter had an acuity of vision of only $\frac{3}{4}$, the left was normal. The vision of the right eye was $\frac{20}{30}$, and with 30 lens, $\frac{20}{20}$, and that of the left eye $\frac{20}{20}$; so that the defect of sight of the right eye was due to hypermetropia. On closing the paralysed eye, the movements of the right eye and of its pupil were found to be perfect.

When looking at my finger, placed three feet in front of her face, with the good eye, the left being shaded, the latter was never inverted; but, on regarding the finger with the left eye while the right was covered, the latter was fully inverted to at least four lines or more. The most striking features of this case, however, were manifested when both the eyes were uncovered. Evidently all the volition of the patient was exerted and directed towards the paralysed muscle, in order to prevent its antagonist from drawing that eye inwards; and this effort was made manifest chiefly in the sound eye, which was inverted to three and a half lines; while the paralysed eye was either straight or inverted to not more than one line. I have alluded to this phenomenon at page 118 of my work on *Squinting*. When speaking of the loss of balance of power between two antagonistic muscles, I observed: "One, then, of two results must ensue; either the more powerful muscle will draw the eye somewhat towards it; or its weaker antagonist will counteract this by increasing its tension, and this cannot be effected without causing some inversion of the opposite eye." The position in which this patient maintained her head was also remarkable; it was bent forwards and downwards and to the right side, and rotated on its axis to the left; the object being evidently the avoidance of diplopia. The following phenomena were observed in connexion with this symptom.

1. It (the diplopia) was homonymous and lateral, the left-hand image being generally lower than the right, but parallel to it. Under no circumstances did the patient observe the images otherwise than parallel.

2. It extended to the extreme limit of both lateral fields; the images being nearest together when the object was held directly in front of the patient, and furthest apart when to her extreme left. On moving the object into the left field, though the images receded from each other, they became level.

The treatment consisted, in the first instance, of ten grains of Dover's powder every night, and the following mixture three times a day.

℞ Vini colchici ♏xx; magnes. sulph. ʒij; misturæ camphoræ ʒi. M.

This was continued till the 28th, when the sensibility of the skin was less, but the paralysis remained unchanged. The bowels had been freely acted on, and the patient complained of nausea and weakness. She was ordered to take two grains of disulphate of quinine twice daily, and an aloes and myrrh pill every alternate night.

On September 4th, there being no alteration in the symptoms, a blister of the size of a shilling was applied over the eyebrow, which relieved the frontal pain; but, on the 11th, the eyeball remained very tender on pressure, especially on its upper and inner part, the outer being free from pain. Diplopia was still nearly as extensive to her right as to her left side. She was ordered to take three grains of iodide of potassium in camphor mixture three times a day.

September 28th. No improvement having taken place, the interrupted electro-magnetic current to the forehead and side of the nose was commenced on the 18th, and continued twice a week to the present time, but hitherto without results. The iodide of potassium was omitted; and the patient was ordered four grains of cinchonine with five minims of dilute sulphuric acid in water three times daily.

October 30th. The patient had continued taking the tonic mixture, and had been galvanised twice a week for one minute each sitting, with marked benefit; so that the cornea could now be everted to within one line of the outer canthus, and the pain and tenderness of the forehead and eyeball had entirely left her. The diplopia, however, still extended into the right half of her field of vision, so that she could not yet go about with the paralysed eye uncovered. The double images of an object ten feet in front of the patient, which on the 28th ult. could not be brought nearer together than five inches by a prism of 24°, could now be united by one of 20°. On testing the diplopia in the upper and lower fields, the left-hand image was lower when the object was held below the level of her face, but higher when it was held above. On moving it directly in front of the patient, at a distance of two feet, the images coalesced; also when held to the right and one line above the level of her face.

November 9th. There was decided improvement in the position of the eyes and of the head, and the left cornea could be everted quite to the outer canthus. The lateral diplopia had disappeared from the right half of the field of vision, and also from the front, and was now limited to the left half. She could go about with both eyes uncovered.

November 20th. Notwithstanding the patient could evert her left cornea to a normal extent, it required such a strong effort, that inordinate inversion of the right eye resulted; and hence diplopia still arose whenever she looked to her left. There was also diplopia in the lower half of her visual field. She complained of the mixture disagreeing with her, and of a slight return of the frontal pain. The galvanism, which had been discontinued the last fortnight, was resumed, and the mixture ordered in diminished doses.

December 21st. After two applications of the galvanism, the frontal pain disappeared, and did not return; and the patient was, to all appearance and in her own opinion, well. The only direction in which diplopia could be evoked was in the extreme outward and downward direction to the left, which, on shading each eye alternately, was seen to be due to the optic axis of the left eye not meeting that of the other on the object; for, the right being covered while both were apparently directed to it, the left made a slight movement downwards and outwards.

It is often difficult, sometimes impossible, to trace a disease to its source—to say what is the first point of departure from health, or how this has been brought about; and this remark applies equally to the so-called predisposing, exciting, and immediate causes of disease. The case just narrated is an instance in point. There was no history of previous ill health; no exposure to cold or wet; no draught of cold air on a limited surface of skin or mucous membrane; yet suddenly, and without warning of any kind (unless we regard as such the preceding conjunctivitis), the patient became affected with hyperæsthesia of the ophthalmic division of the fifth nerve, complete paralysis of the sixth, and a partial paralysis of the fourth, or of one or two twigs of the third. What was the immediate cause of these symptoms?—what the *materies morbi* which could bring about such results? One can give but conjectural replies to these questions. It would be easy to cut the Gordian knot by saying that rheumatism was the disease—a name under which have been included many different affections, which agree only in the fact of their being painful. But if by rheumatism be meant a specific inflammation, affecting chiefly the fibrous and synovial structures, yet characterised as are other acute inflammations, not only by pain, but by redness, heat, and swelling, then the absence of these symptoms in the present case disentitles it to that appellation. The tenderness of the eyeball, which some might regard as evidence of rheumatic inflammation, was unaccompanied, as just observed, by any physical signs of inflammation. All the usual

symptoms of sclerotitis (rheumatic ophthalmia) were absent; and, in their absence from the sclerotic, we have no right to assume their presence in the fibrous nerve-sheaths. How, then, is the tenderness of the eyeball to be accounted for, if inflammation be excluded? Probably we have a more satisfactory solution of this question on the hypothesis of neuralgia, however indefinite may be our knowledge of the real pathology of neuralgic affections. The site of this tenderness, it will be recollected, was not general, but chiefly over those ciliary branches of the lenticular ganglion which are derived from the fifth nerve. So, again, the hemicrania was concentrated in the cutaneous branches of the first division of the fifth. Whether this neuralgia of the fifth nerve stood in any causal relation to the paralysis of the sixth; in other words, whether this case is an example of the so-called reflex paralysis, or whether the hyperæsthesia of the one nerve and the paralysis of the other were not both produced by a common cause acting within the orbit—we have no means of deciding.

As regards treatment, in the absence of a precise knowledge of the cause of the paralysis, it could not be otherwise than tentative, and to a certain extent empirical. Acting, in the first instance, on the supposition of the rheumatic character of the disease, colchicum and Dover's powder were prescribed; but, the symptoms not yielding to these remedies, quinine was given, with as little apparent benefit; and, subsequently, iodide of potassium and bark. On the 18th of September, or between five and six weeks from the commencement of the attack, the interrupted electro-magnetic current was commenced, and continued twice a week, for about one minute a sitting, till the first week in November, when the patient was so far recovered that it was discontinued. Can we attribute the favourable result to this particular remedy? So far as the evidence furnished by this case only goes, certainly not. It is true, the paralysis gradually disappeared; but this is the natural tendency of, I should say, the majority of these cases of paralytic strabismus. Then, as respects the pain, the only note from which we might infer benefit from galvanism was that of December 21st; while it must not be forgotten that, at an earlier period of the disease, the pain had undergone an increase during the same treatment, and then subsided, apparently altogether independent of the means employed. Comparing its effects on the neuralgia with those of the blister, it must certainly yield in efficacy to the latter.

It is not intended by these remarks to disparage galvanism as a valuable agent in the treatment of this class of diseases, but only to draw such inferences from the present case as we were warranted in doing by the phenomena.

[*To be continued.*]

Easy Poisoning. A labourer was last week charged with attempting to kill himself by taking oxalic acid. He bought a bottle at a rag-shop, then went to a chemist's and bought two pennyworth of the poison, mixed it with water at a street pump, and drank it. The poison was sold by a lad under seventeen years of age in the employ of a chemist named Blackwell, who said he made no inquiry as to the purpose for which it was wanted. Oxalic acid was kept ready for sale by his master in penny packets for the use of shoemakers, and was labelled "shoemakers' poison." He supplied the prisoner with two of these packets. Mr. Ellison severely censured the careless way in which the poison was sold, and remanded the prisoner.

Transactions of Branches.

BATH AND BRISTOL BRANCH.

CASE OF PUERPERAL CARDIAC EMBOLISM.

By Charles Steele, M.R.C.S., L.R.C.P., Clifton.

[*Read March* 1, 1866.]

When a person in apparently good health, and following his or her usual vocation, suddenly expires, the consternation produced in the public mind bears only on the individual to whom this awful event has happened. But when death unexpectedly seizes upon a lying-in patient, in addition to its being deeply painful to all concerned, and becoming a topic of conversation through the neighbourhood, it is so apt to give rise to insinuations as to the skill and discernment of the practitioner in attendance, that any case in which visible intelligible proof of the cause of death can be discovered, is of great value generally as well as directly. Of such a nature I hope to demonstrate the following to have been.

In the morning of Saturday the 26th of August last, Mrs. W., without any previous exertion, or any pain, suddenly parted *per vaginam* with a large quantity of blood, while standing in her kitchen. As the hæmorrhage soon ceased, she paid no attention to it; but in the evening the same thing recurred. Her husband directly fetched me to her. I found her in bed with the hæmorrhagic pulse, but the flooding greatly abated. The chamber-utensil was almost, if not quite, half full of recent blood, undergoing coagulation. The attendants considered that the quantity voided in the morning exceeded this. No pain had been experienced. The os uteri was felt high up, soft, but not sufficiently open to admit the tip of a finger.

Under treatment, in the supine position, the patient passed no more blood till next midday, when pains commenced, accompanied by less copious discharge of blood. The os uteri was dilating, and soon I could introduce my finger sufficiently to make out complete placental presentation. I presently administered chloroform; and, insinuating my hand between the placenta and uterus, seized the infant's feet, turned and brought away the child, followed immediately by the placenta. But little hæmorrhage occurred at the time and no unusual quantity afterwards. The child, a seven months' fœtus, was dead. The mother was put on nourishing diet, and did well for a few days.

On the Thursday following her confinement, which took place on a Sunday, the patient was seized with a severe shudder; after which she became rather dry and heated in her skin, thirsty, lost her appetite, and complained of pain in the sacral region. There was no pain or tenderness in the uterus. The lochia were diminished. The next day she had two violent shudders; the lochia stopped, and her head became hot and ached much.

In reply to the relations' anxious inquiries, I stated that some evil was certainly impending, which, though it might possibly prove slight, I feared would be serious, though its exact nature I could not predict.

The next morning she experienced another shudder; and her head was so hot, with the temporal arteries throbbing, and eyes blood-shot with wild expression, and inclining upwards, that I ordered leeches to the temples, and a dose of calomel. By these means, the severe head symptoms were abated. The friends wished a consultation, to which I willingly agreed, and in the

afternoon Dr. Symonds and Dr. Swayne saw the patient with me. A second shudder had just passed off. The prognosis expressed by these gentlemen was identical with mine.

The treatment adopted consisted of four grains of disulphate of quinine twice a day; twenty minims of tincture of susquichloride of iron with ten minims of chloric ether, four times a day, and injection of dilute Condy's fluid to be used twice a day, in case any clot might be decomposing in the uterus; nothing, however, could be felt in the vagina. Dr. Swayne kindly visited her daily with me.

On each of the two following days she had two shudders, then a single return on two consecutive days; after this they ceased. From the first they observed no regularity in their hour of accession. All the symptoms during this time abated; but the sacral pain, though greatly alleviated by turpentine stupes, was still present, and remained slightly till the last. The malady was put down as ephemeral fever; and, at the end of a week, the tremors having ceased, fever disappeared, and her appetite returned in some degree, solid food gradually took the place in part of the strong fluid nourishment, which had been maintained. She took her medicine less frequently, and was permitted to lie on another bed by the side of her own, being lifted from the one to the other without being raised in the least. She was first moved thus on the Sunday fortnight after her confinement. Dr. Swayne then discontinued his attendance. Our patient was, of course, extremely weak and of anæmic appearance, though naturally of florid complexion and pretty full habit. On the Monday when I saw her, she appeared to be doing well on every point, except her pulse, which, though it had been gaining in strength and diminishing in frequency, was quick, feeble and fluttering. I inquired closely for any cause, but the only suggestion was that she had just been lifted on to her day bed, and had taken a little wine. This was not satisfactory; and I determined to see her as early as possible next morning, feeling apprehensive.

Before nine next morning, the husband came to my house in great agitation, saying his wife had just become worse, and he wished me to see her soon with Dr. Swayne, with whom he then went to make an early appointment. Within a quarter of an hour a lad ran up saying, "Go directly, Mr. W. thinks she is dying." I met Dr. Swayne starting, and we soon ran to the house. Mr. W. told us that he took his wife a cup of tea at breakfast-time, and raised her partly on her elbow to drink it, when she appeared giddy, and stared vacantly at him. On his asking what was the matter, she said, "I shall be better presently"; she did not swallow any tea, but remained staring strangely. He laid her back, and ran off to us. On his return he found her in the same position in which he had placed her, with her eyes open, looking deathly pale, and not appearing to breathe. She gave no answer when he spoke. He then ran for us the second time. We found her dead, lying on her right side, her eyes three quarters open, and her hands dropped forwards: being altogether in an easy position.

Dr. Swayne said, "I expect this is a case of puerperal pulmonary embolism, and that we should find a clot in the pulmonary artery."

Post Mortem Examination twenty-four hours after death. The abdomen was immensely distended with gas, and blue in colour; as also were the intercostal spaces. The dependent parts were very purple. The tissues were crepitant from decomposition. On opening the right side of the heart and pulmonary artery the clot (which you see in this preparation) was revealed. All the other organs were quite healthy. The uterus was well and evenly contracted, its lining membrane natural, its cavity empty. The vagina was healthy also; neither it nor the uterus presented any appearance of any rupture or inflammation. On puncturing the peritoneum at the back of the pelvis, a quantity of serum flowed out, and a large cavity was disclosed, lying between the peritoneum and the sacrum, containing a quantity of softening, dull coloured crassament, quite free from odour, and passing into a treacly consistence, evidently undergoing absorption, presenting no appearance of any inflammatory action around it.

It seems highly probable that this extravasation was the cause of the pain, shudders, and febrile disturbance before mentioned.

My great desire is to place beyond doubt the fact that this clot was formed during life; that is, from blood in motion, and in cavities varying in size. You will perceive that it is a long substance of varying thickness, white, opaque, dense, firm, marked on its surface, tough-looking and tenacious, consisting of pure fibrine. In describing it I will follow the course of the circulation. It commences in the superior vena cava in which it lies; but a portion of the same calibre extends for some distance into the right auricle, showing that the orifice of the vein has been further down on the clot than it is now. It commences also by another formation in the inferior cava. The torn extremities of both these venous formations show an arrangement in bundles or layers, passing in the direction of the circulation. These long formations run into a large mass which lies on the floor of the auricle and receives a prolongation from the appendix, the fibres of which are entwined in thread-like processes from the clot. This large mass is of the shape of the auricle, and has depressions and elevations corresponding with elevations and depressions of the auricle. But the clot is not so large as the cavity of the auricle. This point of relative size seems to me of great importance, and proves, with the long venous formation of the vena cava superior, which is loose in the auricle, that the auricle has been contracted on the clot, or alive with the clot in it. When the clot enters the right ventricle, the principal mass, which, however, is not nearly so large as that in the auricle, passes close against the auriculo-ventricular septum by the nearest course to the pulmonary artery, that is, as the current of the blood would drive it; while, hanging downwards over the chordæ tendineæ of the tricuspid valve, are a number of fibres varying in length and size, one of which, larger and thicker than the rest, reaches the apex and is well marked by the muscular columns in its neighbourhood. These evidently have been formed as the blood rushed from the auricle straight into the ventricle, just as straws are caught over the bars of a drain-grating in rainy weather, and are like fibrine formed on twigs moved about in fresh drawn blood. The clot is pyramidal in the conus arteriosus, diminishing in the same ratio as does this portion of the ventricle to the size of the pulmonary artery. In this part of its course it has longitudinal sharply defined ridges so minutely corresponding with depressions in the ventricle, that when from the edge of one elevation you see a fine hair-like clot start off, you will see in the apex of the corresponding cardiac depression, a minute bridge thrown across, which has started this hair of clot, just as the fibres of the tricuspid valve did before. Again, as the clot passes the semilunar valve it sends behind one of them an exact cast of the pulmonary sinus, which was most striking in the recent specimen. Dividing into each branch of the pulmonary artery, the clot can be traced into the small arterial ramifications.

Bearing all these characters of the clot in mind, all

of which accord with rules laid down by eminent pathologists for determining *ante mortem* formations, noticing the general and particular course which it bears to the circulation, the important point of the difference in size of the clot and cavities, their marks at the same time corresponding, also the different position which an ordinary *post mortem* clot takes up, and the fact that Dr. Richardson has opened animals during life and found pure fibrinous formations exactly corresponding, one in whole, another in part to this, in the same positions, I feel you will agree in the opinion that without doubt this clot was formed during life, and was the cause of death.

Rebiews and Notices.

On the Anatomy of Vertebrata. Vol. II. Birds and Mammals. By Richard Owen, F.R.S.; Superintendent of the Natural History Department of the British Museum; etc. Pp. 586. London: 1866.

It is but a few weeks since we noticed the appearance of the first volume of this work, which comprised the description of the anatomy of fishes and reptiles. A second volume is now before us, containing an anatomical description of Birds, and of the skeletons of the various orders of Mammals. It is therefore to be inferred that a third volume is in course of preparation.

The description of Birds, arranged on the same plan as that of fishes and reptiles, occupies two hundred and sixty-five pages of the book. The remainder is devoted to an account of the general characters and primary groups of the Mammalian class, and to the description of the osseous system in the several orders. The subdivision of the Mammalian class which Mr. Owen follows is one proposed by himself some years ago, and founded on the characters of the brain.

In the first or lowest subclass, that of *Lyencephala* or loose-brained animals, the hemispheres are connected by the round commissure and hippocampal commissure only; the cerebral hemispheres are usually without folds, and the cerebellum, olfactory lobes, and part of the optic lobes, are left exposed. In this subclass are included the orders *Marsupialia* and *Monotremata*.

The next subclass—*Lissencephala* or smooth-brained—has the corpus callosum present; but the surface of the brain is smooth as in the preceding subclass, and the cerebellum and part of the olfactory lobes are exposed. This subclass comprises the orders *Rodentia*, *Insectivora*, *Cheiroptera*, and *Bruta* (*Edentata* of Cuvier).

Various characters, some of which are specified by the author, indicate the affinity of the lyencephalous and lissencephalous subclasses with the oviparous air-breathing vertebrates.

In the next subclass—*Gyrencephala* or convolute-brained—the cerebrum is large and covers in half or more of the cerebrum and of the olfactory lobes; and the surface of the hemispheres is generally disposed in many convolutions. This subclass contains the *Mutilate* mammals (without posterior extremities); *i.e.*, the orders *Cetacea* and *Sirenia*; the *Ungulate* orders—*Proboscidia*, *Perissodactylia*, and *Artiodactylia*; and the *Unguiculates* — *Carnivora* and *Quadrumana*.

The last or highest subclass is that of *Archencephala*. In it the brain attains its highest development; and with this development peculiar mental powers are associated. This subclass consists of one order and genus only—*Homo*.

In the descriptions of the skeletons of Quadrumana and Bimana, the contrasts between the various parts of the osseous system in man and his next neighbours the gorilla and other apes, as well as the differences between various human races, are fully pointed out.

At the end of the work are appended several tables; viz., Synonyms of the Bones of the Head, according to their General Homologies—the nomenclature of Owen, Oken, Spix, Bojanus, Geoffroy, and Carus, being placed in parallel columns; Synonyms of the Bones of the Heads of Vertebrates according to their Special Homologies—the systems of nomenclature compared being those of Owen, Cuvier, Geoffroy, Hallmann, Meckel, Wagner, Agassiz, and Soemmering; and Synonyms of the Elements of the Typical Vertebra, according to Owen, Geoffroy, Carus, Müller, Cuvier, and Soemmering.

An Introduction to Practical Chemistry, including Analysis. By John E. Bowman, F.C.S., late Professor of Practical Chemistry in King's College, London. Edited by Charles L. Bloxam, F.C.S., Professsor of Practical Chemistry in King's College, etc. Fifth Edition. Pp. 316. London: 1866.

In the preparation of a fifth edition of this well known little work, Mr. Bloxam has endeavoured to make such improvements as may still further increase its utility. In one point, he may appear to some to have failed. It was, he says, necessary "to decide whether the formulæ of chemical compounds and the equations representing their action on each other should be represented in accordance with the old system; or with the unitary system more recently introduced." If the new symbols were used, they would be comparatively unintelligible to students educated under the old system; and, on the other hand, it would be unwise to present the old symbols to those who have learned the unitary system. In this difficulty, Mr. Bloxam has decided on omitting the symbols and equations altogether; and thus chemical students will be so far deprived of one of the means of which they have been accustomed to avail themselves for the purpose of fixing in their memory the results described. This defect, however, if it may be regarded as one, is in a great measure compensated by the simplicity of the directions given and the clearness of description of the results. And, as Mr. Bloxam correctly suggests, the student can make the equations for himself according to the system which he best understands—and with more profit to himself than if he merely copied them from his text-book.

Several amendments and remodelings have been made. The chapter on the Blowpipe has been re-written, so as to form a dictionary of blowpipe-tests. The Reactions of the Metals in analysis have been re-arranged in the direct instead of the inverted order; the general system of Qualitative Analysis has been carefully revised; some Tables have been added; and a process for the analysis of gunpowder

has been introduced, "since it affords an excellent example of the separation of bodies by solution."

There is one table in the Appendix to which we must call the author's attention, as we must confess that we cannot understand it. It is Table IX, "shewing the solubility of salts." The author says that "figure 1 means that the salt is soluble in water; 2, that it is insoluble in water, but soluble in acids; and 3, that it is insoluble in water and acids." It is not easy to see how a salt can belong to more than one of these categories; yet sulphate of lime and chloride of lead are marked "1, 2, 3"—apparently denoting their possession of very opposite properties. In like manner, several silicates are marked "2 and 3"—denoting at once their insolubility in water, and their simultaneous solubility and insolubility in acids. There must be some mistake here.

When the late Mr. J. E. Bowman brought out the first edition of the book in 1848, there was, he said in his preface, no work of the kind in English. Now, however, they may almost be said to be numerous; and it must be highly satisfactory to his talented successor to find that, in the face of so many rivals, this book still maintains its reputation. And there seems to be every probability that it will long yet hold its ground as a text-book for the student commencing a course of practical chemistry.

Clinical Surgery. On Diseases of the Testicle, Vesico- and Recto-Vaginal Fistula, and Ruptured Perinæum. By Thos. Bryant, F.R.C.S., Assistant-Surgeon, etc., Guy's Hospital. Part VI. London: 1866.

This additional part of the very useful series of observations in practical surgery which Mr. Bryant has been from time to time placing before the profession, consists of 96 pages, numbered 445 to 540 inclusive. The subjects treated of in the several chapters of the part on Diseases of the Testicle are: Hydrocele, Vaginal and Encysted; Hæmatocele; Inflammation of the Testicle—Epididymitis, Acute Orchitis, Chronic Orchitis; Tubercular Disease of the Testicle; Hernia Testis; Cystic Disease of the Testicle; Cancer of the Testicle; and the Diagnosis of a Scrotal Tumour.

As in the other parts of Mr. Bryant's *Clinical Surgery*, the remarks which he makes are illustrated by histories of cases that have come under his care in Guy's Hospital. The chapter in which he sums up the diagnostic marks of the various tumours to be felt within the scrotum is a valuable one; and indeed contains the pith of much of his remarks in previous chapters. He first disposes of the question, Is the tumour hernial? To determine this, it is generally sufficient to ascertain whether the tumour can be isolated from the abdominal cavity by means of the thumb and finger. If it be found to be not hernial, the nature of the tumour has next to be determined. On this point, Mr. Bryant gives some plain directions; and places before the reader in a table the several characters of hydrocele, hæmatocele, chronic orchitis, syphilitic orchitis, tubercular disease, cystic or adenoid disease, and carcinomatous disease, as regards the condition of the tumour, its outline, position of the testis, testicular sensation, rapidity of growth, size, form, pain, manipular indications, seat of the commencement of the disease, its cause, progress, condition of the cord, results of tapping (exploratory or otherwise), condition of inguinal and abdominal glands, complications, and organs involved.

The chapters on Vesico- and Recto-Vaginal Fistulæ and Ruptured Perinæum are illustrative of a branch of operative surgery to which Mr. Bryant has devoted much attention, and in which he has gained a considerable share of success and credit.

Photographs (coloured from life) of the Diseases of the Skin. Second Series. No. II. By Alexander Balmanno Squire, M.B.Lond., etc. London: 1866.

We have much pleasure in bringing under the notice of our readers the second photograph of Mr. Balmanno Squire's second series. It represents a case of "Ringed Herpoid Syphilide", otherwise termed "Syphilitic Herpes Circinatus", occurring in the neck of a female aged 20. The usual letterpress description accompanies the photograph.

The Causes and Treatment of Imperfect Digestion. By Arthur Leared, M.D.Dub. and Oxon., M.R.I.A., Senior Physician to the Great Northern Hospital, etc. Fourth Edition. Pp. 244. London: 1866.

Dr. Leared has, in preparing this fourth edition of his work, subjected it to a careful revision, and has added in an appendix his observations on charcoal, with the results of the experiments made by him to determine the best kind for use in flatulent dyspepsia, and the best mode of administration. He tells us that charcoal obtained from the more solid vegetable substances (as vegetable ivory or cocoa-nut shell) is superior to that made from lighter materials. The mode of administration which he uses is that of enclosing the charcoal in capsules.

We have already on a previous occasion spoken favourably of this treatise; and can now only refer to and confirm what we have already said.

On the Nature, Cause, and Treatment of Tuberculosis. By Horace Dobell, M.D., M.R.C.P., Physician to the Royal Infirmary for Diseases of the Chest, etc. Pp. 84. London: 1866.

This work consists of a reprint of the papers which were published by Dr. Dobell in the British Medical Journal at the commencement of the present year, and also of several which he has inserted in the *Lancet*. Our readers will, therefore, probably be for the most part aware of the views which he holds regarding the cause and nature of tuberculosis, and the efficacy of pancreatic emulsion as a remedy. We must, however, not the less thank him for collecting his contributions to this department of medical science, and laying them before the profession in the present convenient form.

Cat Liver Soup. The French journal *Les Mondes* has a version of the "Liver Catsup" tale. It tells us that in a large eating house (*établissement alimentaire*) in London, there is made daily an enormous quantity of a soup which is very popular, and is made of the half putrid livers of cats.

We are requested to remind members of the Association that the Annual Subscriptions became due on the 1st of January. They can be paid either to the Secretaries of the Branches; or to the General Secretary, T. Watkin Williams, Esq., 13, Newhall Street, Birmingham.

British Medical Journal.

SATURDAY, APRIL 7TH, 1866.

THE CHOLERA IN 1866.

THAT fatal epidemic, the Cholera Morbus, still lingers in different localities of Europe; and lucky indeed and happy shall we be, if our island escape its terrible visitation during the present year. Judging from its former mode of appearance, there is, unfortunately, every reason to anticipate that we are doomed again to suffer its presence amongst us in 1866. At all events, it will assuredly be the greatest want of sense and wisdom, if we do not prepare ourselves for the probable exigence. We have more than once called the attention of the profession to this subject, and particularly as respects the medical treatment of the disease. We have asked our brethren, What are we prepared to do—how do we intend to treat the disease, should it fall to our lot again to have to deal with it? Have we derived any practical experience from our past acquaintance with cholera to guide us to something better than the barren, haphazard, empirical practices heretofore employed? The question is one of life or death to our patients, and yet we fear it is one to which little satisfactory can be said in the way of answer. Dr. George Johnson's papers in this JOURNAL have opened up deeply interesting considerations as to the nature of the disease. His views of the pathology of cholera seem to us to be founded on physiological facts, and also to give a very complete account of the matter. Assuredly his arguments have not been answered, and to us we confess they appear unanswerable. From his theory of the disease there happily flows a distinct indication as to the proper method of dealing with cholera. It points out to us that, if we have no cure for cholera—*i. e.*, if we have no specific method by which to arrest the malady—we can at least shun certain fatal errors which have heretofore formed the basis of our treatment of the disease. For example, if purgation and vomiting be Nature's efforts to eliminate a fell poison from the system, we can at least abstain from opposing her efforts by trying to arrest with opium, etc., the flow of the morbid secretions from the body. If it be true, again, that stimulants invariably increase the obstruction in the lungs, as shown by the increase of the evil symptoms of collapse which so invariably attends their administration, then, surely, we have indication for the avoidance of another fatal error—the giving of brandy and other alcoholic stimulants; for, according to Dr. Johnson, brandy and opium, so far from being of service, are highly prejudicial to the cholera patient. Brandy and opium have heretofore—there is no doubt of the matter—been the basis of the general plan of treating cholera in this country; and brandy and opium, there is every reason to believe, will still form the staple articles which will in future be employed—*i. e.*, so long as the present ordinarily accepted, and as it may be erroneous, theory of cholera, is maintained.

In the midst of these difficulties, Dr. Johnson's theory of the pathology of the disease comes very *à propos*. It tells us what is the cause of the collapse of cholera; it explains the indications for treatment; and, if it offers no specific or any other distinct remedy, it tells us how to avoid fatal errors in treatment. It tells us that one great work of the doctor in future must be to abstain from doing mischief; that Nature must be left to work the cure after her own fashion—by a process of elimination; that the business of Art is to assist Nature, and not to thwart her efforts; and lastly, and above all, that the giving of opium and astringents, with the idea of arresting the flow of serum (or, as he regards it, the flow of poisoned secretions) from the body, is one of the most fatal acts which Art can be engaged in, in the treatment of cholera. Dr. Johnson's theory does more than this. It condemns, as something worse than barren empiricism, the haphazard throwing into the stomach of different kinds of drugs, and especially of powerfully poisonous drugs. It condemns, as worse than wrong, a repetition of the thousand vain experiments made by medical men on former occasions—experiments which we have ventured to liken to the efforts of the alchemist, who expects, out of his blind combinations, and by some happy accident, to find issue from his crucible the golden prize. It brings before us clearly and distinctly a rational explanation of the disease, and forbids as irrational the employment of any methods of attempted cures which do not coincide with that explanation.

At all events, we would again earnestly ask the profession, Are we prepared, as a body of professional men, to meet this fearful contingency as scientific experience tells us we ought to meet it? Is it worthy of our great medical society, that, with all the experience of past epidemics of cholera, we should again have to meet the terrible scourge with the same vain efforts—the same empirical doings—the same want of uniformity in action—the same difficulties and doubts cramping and paralysing our hands as heretofore? Surely, if the past have taught nothing *positive* in the way of a specific cure, it has at least taught us the *negative* value of a vast

number of attempted remedies. Surely, if we can do nothing more, we shall still advance greatly if we eliminate from our *armamentarium* those many weapons which have been so often and so vainly tried. Let us eradicate from our aphorisms that fatal saying, that "if it does no good, at least it will do no harm." Let us avail ourselves of all the light which pathological research has thrown upon the nature of the terrible disease with which we may soon again be brought face to face.

NAVAL MEDICAL OFFICERS.

THE main complaint made by naval medical officers against the recommendations of the Admiralty Committee is, that retirement upon half-pay after twenty years' service is not recommended; or, in other words, that the Committee have not recommended such a retiring scale of pay as might induce medical men to retire after twenty years' service. The following statement, as it seems to us, shows that this complaint is both unreasonable and contrary to evidence.

There are always, it must be remembered, two persons to a bargain; and in this case the two are the country and the medical officer. The country argues that, after twenty years' experience, the medical officer is in the prime of knowledge and of life. To lose his services then would be a loss to the country; and, therefore, for us to offer him *inducements* to leave the service after twenty years' service, would be an act of supreme folly. Our clear duty is to discourage his leaving the service, by making him such an offer as will induce him to remain in it. We, therefore, the country says, offer him retirement on 18*s.* 6*d.* per day after twenty-five years' service; but, if he leave after twenty years' service, only 12*s.* 6*d.* a day. At the same time, if he should be forced to retire through ill health, etc., after twenty years' service, then he shall have the half-pay of his rank—16*s.* 6*d.* a day.

That the Committee, in thus regarding the interests of the country, was doing no injustice to navy medical officers, appears clear from the following evidence given to them by eminent naval surgeons. This evidence distinctly shows that the granting of retirement on half-pay, after twenty years' service, is needless, as well as injurious to the interests of the service. The witnesses plainly stated it as their opinion, that naval officers would not accept of the offer of retiring after twenty years, even if the option were given them. We extract this evidence from the blue-book published by the Admiralty.

Dr. Smart's opinion is as follows.

"3071. (*Chairman.*) Coming to the staff-surgeon, after twenty years' service, what do you think that he should have?—18*s.* a day on half-pay, or retirement if he wishes it. After twenty-five years, I would give him 25*s.*

"3072. That is an increase of 7*s.* in five years?—Yes; in order to draw him on to serve those five years, because I believe that they are the most valuable part of a man's life.

"3073. What age would an officer then be?—He would not be less than 50 years of age, after twenty-five years of service; he would be from 50 to 55 years of age.

"3074. (*Dr. Markham.*) If he was in health, that would probably be the most valuable part of his medical service?—Yes; I think that men ought to be paid well, and to have inducements held out to them to serve between 50 and 55 years of age."

"3080. (*Chairman*). But you say a great number would take advantage of the retirement at twenty years?—Some whom we could well spare would take advantage of it; but I think that they would be very few when there was an inducement of 7*s.* a day more half-pay after five years longer service.

"3081. (*Dr. Bryson.*) You think that there would be a considerable class of men who would retire willingly, and whom it would be desirable to get out of the service?—I think that there would be some, but not a great number. I think that some would possibly go. Certainly the increase of 7*s.* a day would induce the majority to remain.

"3082. That is to say, the better men?—Yes.

"3083. Would you recommend an optional retirement at the end of twenty years?—I think that it would be a great boon to that branch of the service, and I think that it would not be availed of by many very good men.

"3084. Do you think that the bad men would take it and go away?—I think that many of them would.

"3085. (*Chairman.*) Do you not think that they would rather stick to the service when they had an advantage, than go away to practise where it would be a chance whether they succeeded or not?—I think that good men would stick to the service.

"3086. (*Sir James Gibson.*) Would it induce good men to go into the service?—I think so. They would see that, if things went badly with them, and they do not see their way clear to rise in the service to the rank of inspector-general, they might slip out of the service at twenty years. As far as my experience in the service goes, I have heard a great many men talk of leaving at twenty years; but they failed to do so as soon as they got another appointment.

"3087. (*Chairman.*) If you give the boon of retiring at twenty years, do you not think that it would be reasonable, in order to prevent a burden coming upon the country from an early retirement, that you should fix the retirements at a lower rate than the half-pay?—I do not see that. If a man has earned 18*s.* a day for his half-pay at that time, I do not think that it ought to be reduced if he is allowed to retire."

Dr. Armstrong says:

"3287. (*Mr. Busk.*) What is the earliest period at which you think that a man should be allowed to retire as a surgeon?—I think that the retirement of a surgeon after twenty-one years' service on full pay would be satisfactory.

"3289. At what rate would you allow him to retire?—I think that you might give him 18*s.* a day.

"3288. (*Chairman.*) Do you think that that retirement ought to be encouraged for the good of the service?—As far as my own opinion goes, I think that it would be a considerable encouragement to these men if they knew that they could retire after twenty-one years' actual service. Whether many of

them would avail themselves of it or not, I do not know.

"3290. Do you not think that it would be a bad bargain for the country to allow people just at the zenith of their usefulness to retire and become a burden upon the country after twenty-one years' service?—It would certainly bring a good deal of life into the service.

"3291. (*Captain Galton.*) You propose it in order to promote a continual flow of men into the service?—Yes.

"3292. (*Mr. Busk.*) But you think that a great many would not avail themselves of it?—No.

"3297. And you think that it would be an advantage to the service for the men to give up the service, who would give it up at twenty-five years?—Yes; there are many men who might be allured from the service by the prospects of private practice; but, as far as I know anything of the service, I think that, if their position was placed on a steady basis, and was not subject to individual opinion in any way, you would have very few men leaving it at twenty-one years.

"3300. Then it is hardly probable that a man would retire at twenty-one years?—No.

"3301. But, notwithstanding that, it would be considered a boon?—I think that it would be considered satisfactory."

Mr. Sloggett's evidence on the point is:

"3554. (*Chairman.*) Do you think that it is a good bargain for the Government that they should lose their officers just at the very time when they are of most value?—I think that it is a good bargain for the Government, because it would induce a very much larger number of men to enter the service; and the great majority of them, having entered the service, and having served twenty years in it, would not leave. On the contrary, I think that a large number of good officers, whose interests and likings are bound up with the service, would remain in it, and that very few would leave."

Now surely this evidence goes to show, that men at twenty years of service are in their prime of knowledge, and that to lose them at that period would be disadvantageous to the country; that very few men would avail themselves of the retiring pay; that the best arrangement for the country and for the navy surgeon is to offer such a retiring pay as will induce men to remain up to and above twenty-five years in the service; that the only real advantage suggested as likely to arise from a full-pay retirement at twenty years is, that it would induce men to enter the service. But, clearly, the mere inducing of men to enter the service can be of no benefit to those surgeons who are already in it. If of benefit at all, it can only be so to the country at large.

The Committee, therefore, on the strength of the evidence laid before them, whilst recommending an optional power of retirement at twenty years' service, saw no just grounds for recommending a full-pay rate of retirement; but rather, and for the reasons given, for holding out inducement to men to remain twenty-five years in the service. The Committee say: "We will give you the option of retiring after twenty years' service, with a retiring pay of £218 *per annum;* but, if you will remain five years longer, we recommend that you may then optionally retire with £347 *per annum.* More than this, if, after twenty-five years' service, you are 'retired on medical survey', we then recommend that you shall have a retiring pay of £365 *per annum.*"

To show that there is no great amount of injustice in this, we venture, in conclusion, to suggest the following question: How many medical practitioners in civil practice are there in this country who, at fifty years of age, can retire from their labours on an annuity of £365?

ST. PANCRAS WORKHOUSE.

We should advise the fussy vestryman, Dr. Collins, who is so fond of opposing and of proposing amendments, to let off a little of his superfluous and ill-directed energy in an attempt at amending the way practised in his parish in St. Pancras Workhouse of treating sick paupers, as detailed beneath. The thanks of the profession are due to Mr. E. Hart for having in this very case so effectively drawn the veil away from a state of things which might have otherwise escaped concealment. Surely the guardians never expected a visit from the Archbishop of York, when they sent him an invitation to come and see the beauties of their hospital sick arrangements. The facts came out at the inquest upon the child alleged to have been "laid out" for dead while alive in St. Pancras Workhouse. The following was the verdict of the jury.

"The jury are of opinion that great blame is to be attributed to the workhouse attendants for tying up the jaws of the deceased and treating her as dead for some time before she had wholly expired; that they are further of opinion, that there is not a sufficient number of paid medical attendants and nurses to perform the duties of so large an establishment as St. Pancras Workhouse."

"At the suggestion of Mr. E. Hart, the Coroner asked if any patient in witness's (Dr. Ringer's, *i. e.*, University College) hospital would be left without being seen by the medical officer from Monday to Thursday, to which the witness replied, that every patient would be seen every day; and the Coroner emphatically added, that in no hospital in the country would a patient be open to such treatment as this child received in the workhouse. Dr. Ringer then added, that he believed the child had all the attention the medical officer of the workhouse could give it; for an hospital doctor did not have a tithe of the patients to attend to that the medical officer of St. Pancras Workhouse had. Some of the jury expressed their doubts of this; and Mr. Butt, the medical officer, offered himself for examination. He said he was a duly qualified M.R.C.S.; and that, having visited the nursery on Monday, he did not find it necessary to go in again until the following Saturday, as he relied upon the superintendent telling him if any of the inmates required his attention; and she told him all were going on well. In reply to questions put by Mr. Hart, the witness said there were at the present time 240 sick persons in the infirmary, 430 aged and infirm women, 212 infirm and aged men, 42 insane men, and 90 insane women,

making a total of 1,014 persons in the doctor's hands, in addition to 32 lying-in cases, which made a total of 1,042 under the medical officer's immediate care; and his only staff was another qualified practitioner. There were, in all, it was elicited, about 2,000 persons in the workhouse; and, in addition to those under the doctor's immediate care, there were sure to be other cases. Dr. Ringer said a medical officer of an hospital would have no more than sixty or seventy cases under him at one time. The jury, on hearing this statement, said it was most important the public should know these facts; and some remarks were made to the effect that the Poor-law Board should not sanction such a state of things. Mr. Hart informed the Court that the Poor-law Board had no power in the matter. The Coroner said a medical officer could not be expected to attend to so many cases. Mrs. Sansom, the superintendent, candidly confessed that she was over-worked, as were all the officers; and her case was a sample, she having 156 people to look after, and not a single paid nurse under her."

ARMY AND NAVY MEDICAL SERVICE.

THE following interesting items are taken from the Appendix to the Report of the Admiralty Committee on Army and Navy Medical Officers' affairs.

The total number of candidates examined for the Army Medical Service since 1856 is 922. Of these, 713 were passed and 209 rejected.

The total number of candidates examined for the Naval Medical Service since 1856 is 569; of whom 389 were found qualified, 167 were rejected on account of defective professional knowledge, and 13 were found physically unfit for the service. In 1865, there were only 17 candidates, of whom 7 were rejected. In 1864, there were 49 candidates; of whom 21 were rejected; and in 1863, 63 candidates, 25 of whom were rejected.

The following return from the Colleges of Surgeons of London, Edinburgh, and Dublin, shows (besides other interesting facts) that the number of diplomas of the Dublin College is nearly double of what it was three years ago.

Year.	London.	Edinburgh.	Dublin.	Total.
1845	348	101	354	803
1846	389	90	40	519
1847	355	76	38	469
1848	341	62	56	459
1849	404	86	45	535
1850	370	91	45	506
1851	404	88	45	537
1852	475	75	44	594
1853	426	110	56	592
1854	498	115	75	588
1855	549	144	89	782
1856	463	114	66	643
1857	517	139	74	710
1858	675	154	81	910
1859	583	102	78	763
1860	462	87	67	616
1861	493	94	70	657
1862	415	123	110	648
1863	457	123	113	693
1864	402	147	131	680

Since 1850, up to the present time, 117 medical officers have voluntarily left the army, at the following periods of service.

Period of service.	Number.
Under 1 year	5
Between 1 and 2 years	22
„ 2 and 3 „	21
„ 3 and 4 „	18
„ 4 and 5 „	16
„ 5 and 6 „	9
„ 6 and 7 „	7
„ 7 and 8 „	6
„ 8 and 9 „	4
„ 9 and 10 „	3
„ 10 and 11 „	1
„ 11 and 12 „	1
„ 12 and 13 „	1
„ 13 and 14 „	1
„ 15 and 16 „	1
„ 16 and 17 „	1

This table shows that 48 out of the 117 resignations occurred before the end of the third year; and 82 before the end of the fifth year. After this date, the voluntary resignations diminish very rapidly, and cease at the seventeenth year of service.

Since 1850, 137 medical officers have left the navy—19 surgeons and 118 assistant-surgeons. Of the assistant-surgeons, no fewer than 63 (more than half) resigned before the completion of three years' service; 18 before the completion of one year; and 48 before the completion of two years' service. [This clearly shows how distasteful a naval life is to those who have not been brought up to it. The fact also tells dead against the opinion of Dr. Brown and others, that the present pay of assistant-surgeons of the navy is sufficient; and quite justifies the recommendation of the Committee that it should be increased from 10s. to 12s. 6d. a day.]

During the five years ending 1858, 230 assistant-surgeons entered the navy; and of these, in January 1864, 58 per cent. were still in the service, 16 per cent. died, 21 per cent. resigned, 4 per cent. were dismissed, and 1 per cent. deserted. Of those who resigned, 78 per cent. resigned within three years of entering the service.

The medical officers of the army effective on Jan. 1st, 1866, are as follows.

"Inspectors-General, 7; Deputy Inspectors-General, 27; Staff and Regimental Surgeons-Major, 97; Surgeons, 234; Assistant-Surgeons, 717.—Total, 1082."

The medical officers of the navy effective on Jan. 1st, 1866, stand thus.

"Inspectors-General, 7; Deputy Inspectors-General, 15; Staff-Surgeons, 69; Surgeons, 215; Assistant-Surgeons, 272.—Total, 578."

The average age of army assistant-surgeons on promotion to the rank of surgeon, for the last eleven years ending 1865, has been 33 years; and the average length of service 9½ years. [This hardly bears out a not uncommon newspaper complaint at the present time, that a man may remain twenty and thirty years in the service without getting his promotion.]

The naval surgeons' average age on promotion to surgeons is 32 years; and their length of service about 9 years.

Deputy inspectors-general of the army have obtained the rank at an average of 46 years, and after 22½ years' service.

Naval deputy-inspectors have obtained the rank at an average of 42 years, and after 18½ years' service.

During the Eastern campaign, 1854-56, 46 medical officers died, besides 3 dispensers and 2 dressers. Of these, 2 were deputy inspectors-general; 5 staff-surgeons; 13 surgeons; and 26 assistant-surgeons. Almost all of them died of disease—fever, etc. Dr. Spence, Deputy Inspector-General, was drowned in the *Prince* off Balaklava; Dr. N. O'Connor committed suicide; Mr. Le Blanc was shot by a French sentry; Mr. O'Leary, of the 68th, was killed by a round shot.

In the navy, during the Crimean war, 10 medical officers died; and 3 were wounded.

The average loss of time sustained by 114 naval surgeons from 1837 to 1864, through not being able to obtain employment, was 3½ years.

The following is the list of medical officers of the army whose names have been gazetted for the Victoria Cross since its first institution.

"Assistant-Surgeon T. E. Hale, 7th Regiment. For gallantry in the trenches before Sebastopol in September 1855. (*London Gazette* of 5th May, 1857.)

"Assistant-Surgeon H. T. Sylvester, 23rd Regiment. For gallantry near the Redan in September 1855. (*London Gazette* of 18th November, 1857.)

"Surgeon James Mouat, late 6th Dragoons. For going to the rescue of Lieut.-Colonel Morris at the battle of Balaclava. (*London Gazette* of 2nd June, 1858.)

"Assistant-Surgeon V. M. McMaster, 78th Regiment. For exposing himself to danger in bringing in the wounded at Lucknow in September 1857. (*London Gazette* of 18th June, 1858.)

"Surgeon A. D. Home, 90th Regiment. For bravery at Lucknow in September 1857.

"Assistant-Surgeon Bradshaw, 90th Regiment. For bravery at Lucknow in September 1857.

"Surgeon Joseph Jee, C.B., 78th Regiment. For bravery at Lucknow in September 1857.

"Surgeon H. T. Reade, 61st Regiment. For bravery at Delhi in September 1857. (*London Gazette* of 5th February, 1861.)

"Assistant-Surgeon Manley, Royal Artillery. For his conduct in endeavouring to save the lives of Captain Hay and others near Tauranga, New Zealand, in April 1864. (*London Gazette* of Sept. 22nd, 1864.)

"Assistant-Surgeon W. Temple, Royal Artillery. For gallantry at Rangiriri, New Zealand, in November 1863. (*London Gazette* of Sept. 22nd, 1864.)"

Subjoined is a statement of the pay and allowances of the surgeons employed by the Mail Packet Companies.

"*British and North American Royal Mail Steam Packet Company*: 5s. per diem, and 1s. 6d. per diem additional while actually at sea.

"*Peninsular and Oriental Steam Navigation Company*: £10 per month on home station. £13 per month when serving eastward of Suez, with an addition of 25 per cent. after seven years' service, and 50 per cent. after ten years' service.

"*Royal Mail Steam Packet Company*: £100 per annum on entry. £120 after three years' service, when employed intercolonially. £100 when on transatlantic service. £120 senior surgeon. 1s. 3d. a day additional allowed when at sea.

"*Note.* The surgeons are prohibited from demanding fees from passengers, but are allowed to receive them when offered."

M. Lefort has brought before the Paris Surgical Society Dr. Richardson's method of producing local anæsthesia. It is amusing to note the incredulity of our French *confrères*, and their disbelief in a thing which they might so readily put to the test. M. Lefort tells them that he has used this method with complete success. M. Foucher says he had long used a similar apparatus; but his success was so indifferent, that he gave it up. M. Demarquay often employed ether as an anæsthetic. He dropped it on the part, and hastened the evaporation by blowing on the ether. In this way he removed toe-nails, opened abscesses, etc.; and, in fact, had given up the use of general anæsthesia in such cases. M. Velpeau had often seen ether used locally in this way, but never saw any marvellous effects. On the contrary, the anæsthesia produced was superficial, incomplete, and fugitive. Moreover, the ether in vapour was inconvenient to the operators. He objected also, that new things often made us forget the old—for instance, Arnott's method, which he always employed in removing toe-nails. *This method is superior to the ether, because the ether does not wholly suppress the pain.* M. Desormeaux had used for ten years M. Charrière's little bellows, projecting air and ether. Lately he has used the "hygienic vaporiser", which requires great force of lungs to set in motion. In one case, he was forced to exhaust the pulmonary energy of six students; and even then the results were unsatisfactory. M. Desormeaux admitted that Arnott's refrigerative mixture was very painful—much more so than ether. M. Laborie preferred ether as used by M. Demarquay. By it, and with the aid of a ligature round the toe, so as to arrest the circulation, he could remove toe-nails without pain. M. Perrin suggested that it would be well not to confound the refrigerant with the anæsthetic action of ether. The application of pulverised ether may be very different from that of ether itself. Ether in fluid produced as much pain on the prepuce as the knife itself. He therefore, for the present, preferred Arnott's mixture. The subject has been a second time brought under the notice of the Surgical Society. M. Marjolin found the local anæsthesia, upon the whole, a failure. M. Lefort himself admitted that he only proposed to use it in

small operations—for opening abscesses and such like. (What will he say, when he hears that Dr. Richardson has successfully employed it in a case of Cæsarean section?)

We beg to call the particular attention of our readers to the following letter. We are sure that the profession at large will gladly aid the Committee of the Royal Medical and Chirurgical Society in their very laudable efforts to ascertain the value of an important therapeutical agency.

"Sir,—The Scientific Committee appointed by the Royal Medical and Chirurgical Society to investigate the Physiological and Therapeutical Effects of the Hypodermic Method of Injection, is desirous of obtaining from the medical profession generally communications of any facts bearing upon the subject; and, knowing your courtesy in matters of this kind, they have directed me to ask you to aid them in their appeal by the insertion of this letter in your columns.

"The Committee request to draw the attention of medical men to the following points.

"Whether the drug acts in the same way by the skin, the mouth, and the rectum.

"Whether the effects are more or less rapid, or energetic, or permanent, by the skin, than by the other methods of administration.

"Whether any local effects follow the hypodermic injection.

"Communications may be addressed to me at the Society's Rooms, Berners Street.

"I am, etc., Reginald E. Thompson,
"*Secretary to the Committee.*

"March 28th, 1866."

The *Times* is charmed that a jury will now unhesitatingly hang a murderer. It could not, however, allow the case of Leigh, the Brighton murderer, to pass by without exhibiting its falsehood and malignancy against the medical profession.

"The return of jurymen to just views on one of the most important duties which citizens have to perform to their country may be attributed chiefly to the scandal which some trials of late years have given, to the remonstrances of the press, and to the preposterous medical theories which have been enunciated in courts of justice. To such a point has medical evidence been discredited, that Leigh's chance of escape was, perhaps, rather increased by the circumstance that no doctor was brought forward to say that this or that act in his opinion savoured of insanity. The prisoner's counsel did not extract from learned experts any information concerning *amentia* or *dementia*."

We call this statement false, because in this very case it was mainly through the evidence of the medical witness that the plea of insanity was disproved. And is it not malignant to write such libels on medical evidence, in face of the clear, unhesitating, and scientific evidence given by Mr. Turner?

"Mr. Turner, the surgeon of Lewes Gaol, said that the prisoner had been under his charge since the 2nd of February, and he had never seen the slightest indication of insanity about him. He attributed the extraordinary conduct of the prisoner, deposed to by the mother, to *delirium tremens* occasioned by ardent spirits. *Delirium tremens* was not likely to produce temporary insanity; but of course, while the attack lasted, it might be considered temporary insanity. He was quite satisfied that the prisoner's brain was not at all weakened, from the fact that the moment he came into the prison he was stopped from obtaining spirits, and this sudden stoppage of stimulants had no effect upon him; but, if his brain had been at all weakened, this proceeding was very likely to have produced another attack. From all he had seen of the prisoner, the conclusion he arrived at respecting him was, that he was particularly intelligent, clear-sighted, and all his faculties were perfect."

Was not, in fact, the absence of any medical witness, on the part of the murderer, to maintain the plea of insanity, a tacit admission on the part of medical men that the plea was not capable of being maintained? Honesty would have taken this occasion to praise, not to malign, medicine.

Virchow says that a kind of natural cure of trichinosis is the encysting of the trichinæ. When shut up in a cyst, the wanderings and further development of the animals are arrested. They become imprisoned, and show no signs of existence in their then feeble state of vitality. Art can do nothing here in the cure. The attempt to assist the encysting process by giving phosphates and acetic acids is founded on a false idea; for it is not the calcification of the cyst, but the formation of it, which is essential. If the patient live long enough to allow of the formation of the cyst, in all probability the trichinæ will not afterwards destroy his life. It is possible, he adds, that some remedy may be found which will kill the trichinæ without destroying the patient; but assuredly none such has as yet been discovered. The most dangerous guests are the muscular trichinæ, and to find a remedy to kill them would indeed be of the highest benefit. In the meantime, we must remember that the intestinal trichinæ produce the brood of young animals which wander through the body into the muscles. The longer, therefore, these breeding animals are allowed to remain in the intestines, the greater will be the progeny set free in the body, and therefore the more destructive the disease. Hence it is of the highest importance to attempt to remove at once the breeding animals from the intestines by emetics and purgatives. [We are not aware whether the destruction of the trichinæ in the muscles has ever been attempted by the galvanic current; but the attempt, *à priori*, seems worthy of a trial. Such a shock as would be harmless to man's muscular fibre might, perchance, destroy the feeble organism of a trichina. Editor.]

The *Wiener Medizin. Wochenschrift* says that the method of treating acute rheumatism with blisters laid on the inflamed joints was first practised by Dr. Dechilly of Vaucouleurs; and that in 1850 he communicated a paper on the subject to the Paris Academy of Medicine, through Martin Solon.

The tenth year of the Direction of the General Hospital of Vienna by Dr. Helm was lately celebrated. At a grand assembly, the senior physician, Dr. von Viszanich delivered the address to the Director *in Latin*. How many physicians are there in this country who would now-a-days venture on such a *tour de langue?*

In the Section of Botany, at the French Academy of Sciences, M. Trécul has been elected to succeed M. Montagne, deceased.

M. Velpeau is, we fear, showing signs of age, if we may judge from some of his late remarks at the Academy of Sciences. He presented to the Academy the third edition of Sédillot's *Surgery*, remarking that it was, in his opinion, the most complete and advanced work existing on surgery, and even superior to one which he himself published some twenty years ago.

Dr. Letellier says that the poisonous substance in mushrooms is a fixed, non-crystallisable, narcotic principle—amanitine. It is precipitated by iodine and tannin. The treatment for poisoning thence resulting is vomiting and purging, followed by a strong aqueous solution of tannin.

The University of Leyden has just elected three medical professors, Heynsius, Zayer, and Boojard.

Statistics show that there have been in Paris hospitals, during the month of February, 597 accouchements, and 53 deaths: in the Hôtel Dieu, 104 accouchements, and 1 death; in the Lying-in Hospital, 74 accouchements, and no less than 30 deaths! The frightful mortality which has so long distinguished the Maternité is arresting the attention of authorities. The statistics are as follows.

	Accouchements.	Deaths.
Beaujon	33	0
Hôtel Dieu	104	1
Saint Louis	77	1
Charité	42	1
Necker	30	1
Pitié	53	3
Cochin	34	3
St. Antoine	41	5
Cliniques	56	8
Maternité	74	30

M. Lefort has lately given some interesting statistics, based on a consideration of 1,800,000 accouchements. Of 888,312 women confined in the Paris hospitals, 30,594, or 1 in 29, died. Of 934,781 women confined in their own houses, 4,405 died, or 1 in 212. The cause of the great mortality in hospitals is puerperal fever.

CÆSAREAN SECTION: LOCAL ANÆSTHESIA BY ETHER.

On Thursday, the 29th ult., the first application of the ether spray to produce local anæsthesia during the Cæsarean section was made in a case under the care of Dr. Greenhalgh.

The patient was a women about 30 years of age, the mother of two children. She was between seven and eight months advanced in pregnancy: but, in consequence of the presence of a large (probably malignant) tumour, at the neck of the uterus, it was believed by Dr. Greenhalgh, Dr. McClintock, and other obstetricians who saw the patient, that delivery in the ordinary way would be absolutely impossible, and that the uterus would possibly be ruptured during labour-pains. It was therefore determined to perform the Cæsarean section without delay. Both Dr. Greenhalgh and the patient objected to the use of chloroform; the objection on Dr. Greenhalgh's part being the liability of this agent to produce vomiting. On the day before the operation, Dr. Greenhalgh consulted Dr. Richardson as to the possibility of producing local anæsthesia. Having no instrument which seemed sufficiently large, Dr. Richardson hesitated to promise complete success, but engaged to make the attempt.

The patient was placed in a semi-recumbent position on a table with her legs hanging over the edge. She was supported by an assistant on each side; and her eyes were bandaged at her own request. Dr. Wilson, of Glasgow, watched the pulse, which was 74, and never varied in power, frequency, or time during the whole operation. To produce anæsthesia, Dr. Richardson used a large instrument with double jet, which he had roughly constructed for the purpose. It acted well; and complete insensibility was produced in forty-five seconds over a space 2½ inches broad from the umbilicus to the pubes. The incision was made direct on the uterus—the patient exhibiting no consciousness of the operation. The uterus being exposed, the ether spray was directed on it for a moment, with the effect of inducing contraction. An opening was then made in the organ; and, with some difficulty on account of the contraction, Dr. Greenhalgh introduced his hand and removed by the feet a fœtus which was alive, and lived an hour. The membranes burst with the delivery; the placenta was removed separately. The uterus immediately contracted as in natural labour, and required no sutures. The wound in the abdominal walls was kept open during twenty minutes, a large sponge being held in it so as to guard against bleeding when reaction took place. It was then closed with sutures of Chinese silk, the skin being perfectly narcotised with ether spray at each point where the needle was introduced.

In the morning, before the operation, the patient had felt a tendency to vomit, which passed off, but recurred slightly when the hand was introduced into the uterus. She felt this part of the operation, and asked what was being done. When the membranes were ruptured and delivery was being rapidly effected, she started, and said (as women in labour often say), "I am sure I shall die"; and made a similar complaint when the placenta was being removed. She was slightly conscious of uterine contraction. While the wound was being kept open after the operation, she talked on various subjects, but seemed anxious about the delay; she was, however, easily reassured.

The total quantity of ether used in the operation was about six drachms. It was obtained from Robbins, of Oxford Street, and boiled at 90°; and, in Dr.

Richardson's opinion, the success was in great measure due to its purity.

The operation was witnessed by a large number of obstetricians, among whom were Professors Hugenberger and Lazerawitch (of Russia); Professor Marten and Dr. Marten (of Berlin); Dr. Skaldberg (of Stockholm); Drs. McClintock and Beatty (of Dublin); Dr. Wilson (of Glasgow); Dr. Hall Davis; Dr. Graily Hewitt; Dr. Eastlake; Mr. Spencer Wells; Dr. Protheroe Smith; and many others. Dr. L. W. Sedgwick was also present, and rendered very efficient assistance to Dr. Richardson in the arrangements connected with the production of anæsthesia.

On Tuesday last, five days after the operation, the patient had not had a single bad symptom. The lochial discharge was free; the appetite good; sleep excellent; the mind tranquil and hopeful; pulse 80. The wound had healed throughout by the first intention, and four of the sutures had been removed.

On Wednesday evening, the patient ate and slept well; her pulse was 88; and she was in every respect going on most satisfactorily. During the day, she had been temporarily alarmed by the sudden introduction of a new nurse, and the pulse had risen to 120; but, before the evening, her condition, as above described, had resumed its favourable character.

So far as this one case can shew anything, the following facts are to be noticed.

1. There was no pain produced by the operation; and what was felt was only such as would occur in a very easy labour.
2. No vomiting occurred, although before the operation the patient had complained of great tendency to vomit.
3. There was no hæmorrhage; so that the operation was not interfered with.
4. There was no shock.
5. The circulation remained steady throughout the whole time of the operation.
6. There was no restlessness. The patient moved once only during the operation—shuddering slightly when the child was born.
7. Consciousness was retained, so that the patient was able to do what she was desired. When asked not to strain, she relaxed the muscles immediately.
8. The case shews that local anæsthesia can be produced in a wound six inches long, extending to the depth of the abdominal walls, without being followed by slough or by peritoneal mischief; the wound healing by the first intention.

LOCAL ANÆSTHESIA IN TENOTOMY OPERATIONS.

At the National Orthopædic Hospital, on Tuesday, 27th ult., the weekly operation day, local anæsthesia by Dr. Richardson's method was tried by Dr. Dick and Mr. Little. The first case, one of Dr. Dick's, was a contracted knee after disease of the knee-joint; the hamstring tendons requiring drawing. On division of the semi-tendinosus and semi-membranosus, no pain whatever was felt. In dividing the biceps, where a deeper puncture was necessary, some pain was felt by the patient. The results were still more satisfactory in division of the tendo Achillis, particularly in one case where etherisation on both sides was applied with two separate etherisers, so that the whole of the skin covering the tendon on each side was blanched. Mr. Little divided this tendon in three different patients, all of an age capable of expressing and describing what they felt.

If it be possible to draw a conclusion from this small number of cases, it is that the division of tendons near the skin can be performed without pain; and in the dividing tendons more deeply seated the pain of the puncture of the skin can be avoided, in itself no small gain.

Association Intelligence.

BRANCH MEETING TO BE HELD.

NAME OF BRANCH.	PLACE OF MEETING.	DATE.
Bath and Bristol. [Ordinary.]	York House, Bath.	Thurs., April 12th, 7.15 P.M.

WEST SOMERSET BRANCH: INTERMEDIATE MEETING.

This meeting was held (in pursuance of a resolution passed at the last annual meeting) at Clarke's Castle Hotel, Taunton, on Wednesday, March 28th, at 5 P.M. There were present—Hugh Norris, Esq., President, in the Chair; and eleven members.

Dinner. The members sat down to dinner soon after five. The cloth being removed, the usual loyal toasts were given from the chair.

The late Dr. W. E. Gillett. Mr. Randolph feelingly spoke of the blank which all present must have been conscious of, at seeing the place so long occupied by one of the oldest and most esteemed of their associates, no longer filled by his familiar form. Having alluded to the devotion which the late Dr. Gillett had ever shown to the interests of the Branch, and his personal kindness to individual members, he moved that the Secretary be requested to address a letter of condolence to Mr. George Gillett and the mourning relatives of the lamented deceased, assuring them how deeply the members of the Branch were affected at their bereavement, and at the loss of one so valued and beloved.

New Members. Frederick James Parsons, Esq., L.R.C.P.Edin., of Yeovil, and Nathaniel Batt Grigg, Esq., of Holcombe Rogus, Devon, were elected members of the Branch.

Communications. The following papers were read:

1. On Induction of Artificial Premature Labour. By Hugh Norris, Esq.
2. A Statistical Report of the Use of Chloroform in Childbirth. By Henry Alford, Esq.
3. A Case of Successful Ovariotomy. By H. J. Alford, Esq. [The tumour was shewn.]
4. A Case of Operation for the Cure of Inguinal Hernia. By William Liddon, Esq. [The patient was shewn, and the mode of operation was explained.]
5. On Medical Fees, and the Tariff which has been adopted in Bridgwater. By W. L. Winterbotham, M.B.
6. Dr. Richardson's Instrument for producing Local Anæsthesia was exhibited, and its action demonstrated. By W. M. Kelly, M.D.

The communications were all of much interest, and elicited considerable discussion, especially that on Medical Fees by Mr. Winterbotham. The Bridgwater Tariff was considered as excellent in principle, and a good guide for charging; but much doubt was expressed if it could be adhered to or generally adopted, more particularly in country practice.

The contributors having been thanked, the meeting broke up a little before eleven o'clock.

Special Correspondence.

LIVERPOOL.

[FROM OUR OWN CORRESPONDENT.]

THE unfavourable position as to public health, which Liverpool has so long occupied, has recently been rendered more than usually prominent by a rapid and progressive increase in the death-rate, until it has now reached the very high—perhaps, we may venture to say, the unprecedented—annual rate of 57 in the thousand; that of London and other large towns being 30, and the next highest, namely, Bristol, being 40 per thousand.

The number of deaths for the third week in March of this year was 530, being 231 in excess of the corrected averages of the last ten years. Of this number, 132 were from zymotic diseases, being 70 above the average; 206 from diseases of the lungs including phthisis, indicating pretty clearly the unfavourable influence of the low temperature which has prevailed. Of the total deaths, 248 were children below five years of age; and of these, 152 were infants below one year. Dr. Trench, the medical officer of health, attributes much of this large increase in the mortality to "the wave of cold that passed over the town two or three weeks since having caused a good many pulmonary diseases." Every year he has called attention to the fact, that the slightest wave of cold left its mark. From the annual report of the medical officer just published, it appears that the mortality of Liverpool for the year 1865 was at the rate of 36.4 per 1,000, being 446 in excess of that of the previous year, and 11,744 above the corrected average of the past ten years: of the total number, very nearly 45 per cent. died before attaining the age of five years.

A statement in this report, as to the influence of age upon fever mortality, is worthy of special notice, and is apparently in some respects at variance with our preconceived notions upon the subject, as derived from the recorded statistics of former epidemics. Dr. Trench remarks that, "below twenty, or during the period of childhood, youth, and adolescence, the number of (fever) deaths was 573; between twenty and fifty, when man's mental and corporeal frame attain their full vigour and completed growth, they increased to 1.305; while in the autumn and winter of life, when the faculties begin to be dulled by time and slow decay, they fell off to 460. It is this mysterious selection of its most numerous victims from among those who are the parents and the bread-winners of families that constitutes the dreaded attribute of typhus: for their death not only brings sorrow and grief to the survivors, but spreads want and pauperism over a wide radius of the social scale."

From this, it would appear to be a fair inference that the mortality from typhus was greatest in middle life and least at advanced ages, whereas in the tables of Murchison and other authorities, the death-rate reaches its maximum above the ages of 50 and 60. It must, however, be remembered, that the increase in the actual number of fever deaths at given periods of life does not necessarily imply a higher percentage of mortality in reference to the number of persons attacked. It is very possible that from several causes, such as special proclivity to receive infection, and increased liability to exposure to contagious influences, individuals in the prime of life may contract typhus in larger numbers than those at a more advanced age, so that while the actual amount of mortality from typhus may be larger during the former epoch of life, yet the death-rate per cent. of attacks may be lower than that of the latter. However that may be, there is no doubt that the individual experience of most physicians who have had much opportunity of observation in the treatment of typhus would lead them to assign a much higher death-rate in cases which occur in advanced life. It is to be regretted on scientific grounds that the materials from which these statistics are compiled involve certain unavoidable sources of error, which preclude the possibility of arriving at perfectly accurate results. The list of deaths from fever returned to the registrars, it is well known, include other forms of disease besides typhus; and in the case of the Liverpool returns, "infantile remittent fever", whatever that may mean, is classed with typhus.

As a proof of the contagious nature of typhus, this report is interesting; showing, as it does, that the class of the community above the rank of operatives, who suffer most, are those who are brought by business into direct communication with the affected, such as victuallers, undertakers, pawnbrokers, and small shopkeepers; and, again, those of the better ranks, who as clergymen, district visitors, physicians, and nurses, work in the dwellings of poverty.

In one week, two parochial medical officers, both in full health and in the prime of life, fell victims to typhus contracted in the discharge of their duties.

This exceptionally high rate of mortality, in itself sufficiently serious and alarming to a great community, is even more discouraging and perplexing when we bear in mind that it has occurred in spite of the most energetic sanitary measures, and the lavish expenditure of public money, in furtherance of means calculated to improve the health of the town. Immediately on the passing of the Health of Towns' Act, Liverpool was foremost in taking advantage of the facilities thereby afforded to municipal authorities, and upwards of three millions of money have since been expended upon sanitary improvements, which have been continuously and energetically carried out under the superintendence of the Health Committee, the members of which are men of public spirit, and by no means niggardly in the expenditure of public money, and guided and advised by a medical officer of health, of superior intelligence and untiring energy.

Amongst other results of their labours, the town has for some years been in possession of those two leading essential hygienic conditions, namely, an ample supply of good water, and a system of sewerage

equal, if not superior, to that of any other town in the kingdom. A considerable portion of the town is well elevated and built on sandstone rock, is skirted by a noble tidal river, and being within two or three miles of the estuary, is not beyond the purifying and invigorating influences of the sea breezes. With all these advantages, natural and acquired, it is certainly disheartening to find ourselves at the very top of the list of towns notorious for their high mortality. If there be a town in England that should be able to show the beneficial results of sanitary legislation, Liverpool is one which might naturally have been selected.

The solution of this problem in sanitary science is by no means an easy task. The difficulty is, perhaps, most clearly shown by the numerous attempted explanations which have been given. We know that, for the last four years, the increase in the death-rate has been almost entirely due to the unusually prolonged visitation of epidemic typhus, which has gradually brought up and sustained the death-rate much above the normal standard; and, at this specially unfavourable juncture, a sudden depression in the temperature has added yet another formidable element in the production of mortality, which, falling upon a community already staggering under the depressing and debilitating effects of the ravages of epidemic fever, would necessarily exert a most unfavourable influence on the public health, and make a striking impression on the death-rate. This, perhaps, may be accepted as the primary explanation of the recent high mortality of the town. The essential and permanent conditions which give Liverpool such an unfavourable position in the bills of mortality are of too recondite and complicate a nature to admit of examination on the present occasion. We may, however, venture to allude to one very natural, but, as we believe, no less erroneous conclusion, which is pretty generally adopted on these matters; namely, that, because a large town like Liverpool sometimes exhibits the highest death-rate, it is, therefore, the unhealthiest town in the kingdom. So far from this being the case with regard to Liverpool, we believe that, upon the old principle of "giving a dog a bad name", much undeserved and unfounded discredit has been cast upon the salubrity of the town, by attributing to the place itself the unfavourable conditions which are in reality proper to the peculiar social and ethnical characters of the population itself. There is no reason to doubt that individuals in good health, living in any other than the very worst parts of the town, and in moderately comfortable social circumstances, enjoy as good an expectation of life in Liverpool as in any other large town in the kingdom. Much, if not the entire, excess of mortality can be accounted for by conditions which have no direct relation to influences which belong to the sanitary character of the town properly considered. For example, drunkenness, which is, no doubt, a prolific source of disease and death, is entirely a moral condition. Again, the peculiar position of the town and its vast maritime connections render it a point of attraction to foreigners of all nations; and its contiguity to Ireland has had the effect of converting certain parts into what may be considered Irish provinces. This mixed alien population furnishes a large quota of disease and death. Numbers of invalided and diseased foreign sailors land here to die in our hospitals, our workhouses, or in the wretched lodging-houses in the low parts of the town. It is well known, owing probably to the damp nature of the Irish climate, that phthisis is very prevalent among the working classes of that country; and it is matter of fact that, of the numbers of Irish immigrants who are so constantly crossing the Channel to settle in Liverpool, a large proportion die of phthisis within a shorter or longer period of their arrival. Liverpool, in fact, becomes the refuge of the destitute of all countries, receiving constant reinforcements from all quarters, and especially from the under-fed, and therefore ill-conditioned and vitally depressed, peasantry of the sister isle.

When all these special circumstances are fairly considered, and when we give due prominence to the fact that the excessive mortality is owing to the extreme death-rate which is confined to certain limited districts of the town, other and more favoured portions having a death-rate considerably lower than the general average, it is evident that to pronounce Liverpool as a whole to be the most unhealthy town in the kingdom is as unreasonable and as fallacious as it would be to declare England itself to be the most unhealthy country because, in certain special localities, the mortality was extraordinarily high.

Commission on the New College of Science for Ireland. The government have decided to convert the Museum of Irish Industry into a College of Science for Ireland. The following noblemen and gentlemen have consented to act on a commission to advise them on the subject: the Earl of Rosse, F.R.S., etc.; Lord Talbot de Malahide, F.R.S., etc.; Dr. Carpenter, F.R.S.; the Rev. B. M. Cowie, B.D.; John Fowler, Esq.; Professor Frankland, Ph.D., F.R.S.; W. H. Gregory, Esq., M.P.; Colonel Harness, C.B., R.E.; Professor Hofmann, Ph.D., F.R.S.; Professor Huxley, F.R.S.; Professor Jukes, F.R.S.; Sir Robert Kane, F.R.S.; Myles O'Reilly, Esq., M.P.; Professor Lyon Playfair, C.B., LL.D., F.R.S.; Lieut. General Sabine, D.C.L., President of the Royal Society; Warington W. Smyth, Esq., M.A., F.R.S.; Professor Sullivan, Ph.D., Professor Tyndall, D.C.L., F.R.S.; Captain Donnelly, R.E.; who will also act as secretary.

Iridoscope. M. Houdin has discovered an instrument—the iridoscope—by the aid of which an individual may see all that is going on in his own eye. It is simply an opaque shell to cover the eye, pierced in the centre with a very small hole. On looking through steadfastly at the sky, or at any diffused light, the observer may watch the tears streaming over the globe, and note the dilatation and contraction of the iris, and even see the aqueous humour poured in when the eye is fatigued by a long observation. With this instrument a man can find out whether he has a cataract or not. If he has, he will only see a sort of veil covering the luminous disc, which is seen by a healthy eye. An iridoscope may be extemporised by making a hole in the bottom of a pill-box with a fine needle. (*Chemical News.*)

Correspondence.

THE NAVAL MEDICAL SERVICE.

LETTER FROM FREDERICK J. BROWN, M.D.

SIR,—Since you have made a personal attack on me in the JOURNAL for 24th March, and again in that of the 31st March, I ask you to publish my rejoinder.

I am, etc., FREDERICK JAMES BROWN.

Rochester, April 3rd, 1866.

Rejoinder.

1. I issued fifty copies of my *Comments* in the form of proofs, and sent out the revised copies as speedily as was possible. I did what every author does; I made a few alterations. Hence the inconsistencies of "every particular" altered into "every feasible point", etc.

Respecting cordial agreement with the Army Director-General, I beg to say that I hold the same sentiments as originally expressed, notwithstanding the erasure of the sentence. Authors usually revise proofs at their own discretion.

2. The editor says that I appear not to know my own mind (or not long to have made up my mind) respecting the grievances of naval medical officers, inasmuch as I have prophesied that "the labours of the Committee will be thrown away" unless optional retirement on the half-pay of the period of service be granted; whilst in my *Requisitions* (second edition, p. 22), I write: "In an enumeration of the sources of discontent, inequality and insecurity of position hold the primary place; whilst juniority with its subjection to the 'superior officer' class, and restriction of the emoluments and the privileges of rank, follow. *Eradicate these sources, and discontent will cease.*"

My answer is, that security of position is not yet established, as is shown by the arbitrary disposal of cabins by captains, etc.; and, secondly, that fresh circumstances have arisen since the publication of my *Requisitions*, rendering it necessary for me to notice a new source of discontent.

"There is no precedent for commutation of pay upon retirement. And, in the recently issued Admiralty scheme for the retirement of executive officers, the principle is not entertained." (*Comments*, page 4.)

Well may I ask, when will inequality and insecurity of position be eradicated as sources of discontent?

3. I am charged by the editor of the BRITISH MEDICAL JOURNAL with unfairness. I hold that this is aspersion of my character as a gentleman; and I indignantly repel the charge. I defy him to substantiate the charge; and I rejoin that his leading articles constitute a violation of the rules of courtesy.

The editor charges me with an omission. I certainly did omit to acknowledge that the Committee had recommended a larger amount of pay for twenty and twenty-five years' service than had been asked for by me. But I distinctly deny that I omitted this statement for the purpose of misleading my readers. My mind was preoccupied with the idea of the faulty adjustment of the pay; inasmuch as large pay was recommended for assistant-surgeons, and comparatively a small increase for the higher grades of medical officers. I sent a calculation to this effect to the editor previously to the appearance of the second article in the JOURNAL, but to no effect. I have committed the unpardonable fault of showing that more money is offered to assistant-surgeons in the navy than is asked for, and more than what is recommended by the Committee for the army; and for this exposure I am called to account.

Lest it be thought that the *Comments* are a series of complaints, I beg to state that I opened the pamphlet as follows.

"Having lately brought before the public the Requisitions of the naval medical officers, I trust that I shall not be considered out of place in giving expression to my sentiments on the present occasion. In speaking for the Royal Navy, I feel that the Committee have acted fairly in the selection and examination of witnesses, and I know that they have bestowed much labour on the inquiry. The Report is evidence of the ability displayed in the management of the subject, and in the conclusions thereon. The recommendations, taken collectively, are liberal; but, as they are not equal to the evidence on which the Report is founded, they are too much after the nature of a compromise. There is only one point that I am compelled to animadvert upon strongly; it is the pecuniary punishment attendant upon optional retirement."

4. In conclusion, I trust that the editor will see fit to apologise to me for the personal attack that he has made, so that there may be no unseemly dispute between two officers of the British Medical Association. FREDERICK JAMES BROWN, M.D.

[To Dr. Brown's very extraordinary demands and exaggerated language, we reply: That the facts remain exactly as we stated them; and that our opinion regarding them is unaltered. If Dr. Brown chooses to convert into a "personal attack" what every other person besides himself will at once see is simply a fair criticism of a pamphlet which he sent to the JOURNAL for review, we can only regret his wrong judgment of the case. Dr. Brown need have no dread of an "unseemly dispute" with us. We have no dispute at all with him. We express an opinion of a pamphlet written and published by him, and adhere to it; and have here generously allowed him unusual and unmeasured liberty to reply to our criticism. Dr. Brown's *Comments* were, in our opinion, calculated to injure the interests of naval medical officers; and we endeavoured to counteract the possible injury.

We here append the remarks actually made by us in order that our readers may compare them with Dr. Brown's version of them. "We think the profession will agree with us, that the above comments of Dr. Brown on the pay proposed, with the facts lying before him, is not only unjust to the Committee, but that its inference is calculated to mislead the reader. Dr. Brown should have plainly stated the fact: that the Committee had generously proposed to give more pay for the twenty and twenty-five years' service than even he himself had asked for. Fair play required this." EDITOR.]

IS SLOWNESS OF PULSE PREVALENT?

LETTER FROM C. RADCLYFFE HALL, M.D.

SIR,—I should like to ask whether other members of the Association in various localities have noticed during the last three years more frequently than formerly the occurrence of slowness of pulse? Scarcely a day passes without my being struck by noticing in non-phthisical cases under very varying ailments a fresh example of pulse ranging nearer to sixty than seventy. Say—many of the more common cases of ailment requiring a day or two of rest in bed with mild non-stimulating treatment, the pulse averages sixty in adults where there is certainly no cardiac disease, no severe cause of prostration, nothing more than ephemeral disorder

of some kind. This fact strikes me as happening so much more commonly than it used to do, that I should be glad to learn whether I am to attribute it to some climatic influence peculiar to Torquay; to my own want of exact observation on this point before time; or, whether it is a truth observed by others elsewhere, that there has really been an increased tendency to slowness of pulse in trifling indispositions during the last few years.

I think I noticed in one of the journals about a year and half ago a, conversation upon the subject at one of the medical societies in London.

If a truth, it is suggestive.

I am, etc., C. Radclyffe Hall.

Torquay, March 30th, 1866.

Medical News.

Apothecaries' Hall. On March 29th, 1866, the following Licentiates were admitted:—

Booth, James Webb, Queen Street, Huddersfield
Gillett, William, Westminster
Glaister, Harry Burrill, Southwell, Nottinghamshire
Sanders, George Cooper, Earlswood, Redhill, Surrey
Simpson, John Henry, Wotton, Gloucester
Warlow, Henry, Haverfordwest

At the same Court, the following passed the first examination:—

Clapham, Lawrence, St. Bartholomew's Hospital
Newton, Lancelot, St. Bartholomew's Hospital

APPOINTMENTS.

*Aspinall, W., L.R.C.P.Ed., appointed Certifying Surgeon to Factories, *vice* Robert Wright, Esq., deceased.
*Harrison, Reginald, Esq., appointed Junior Surgeon to the Liverpool Northern Hospital.
Roberts, F. T., M.B., B.Sc.Lond., appointed Physician to the Liverpool Northern Hospital.
Williams, William Rhys, M.D., elected Resident Physician to Bethlem Hospital.

Army.

Buckle, Staff-Surgeon R. T., M.D., to be Surgeon 72nd Foot, *vice* Surgeon-Major W. C. Seaman, M.D.
Mills, Surgeon W. W., Royal Artillery, to be Staff-Surgeon, *vice* J. Tulloch, M.D.
Seaman, Surgeon-Major W. C., M.D., 72nd Foot, to be Staff-Surgeon-Major, *vice* R. T. Buckle, M.D.
Trousdell, Surgeon-Major W. G., M.D., 11th Foot, to be Surgeon Royal Artillery, *vice* W. W. Mills.
Tulloch, Staff-Surgeon J., M.D., to be Surgeon 11th Foot, *vice* W. G. Trousdell, M.D.

Royal Navy.

Brigstocke, Richard W., Esq., Assistant-Surgeon, to the *Canopus*.
Fitzgerald, Jas. F., Esq., Assistant-Surgeon, to the *Bellerophon*.
Littleton, Nicholas, Esq., Surgeon, to the *Bellerophon*.
Morgan, David L., Esq., Surgeon, to the *Impregnable*.

Volunteers, (A.V.=Artillery Volunteers; R.V.=Rifle Volunteers):—

Buswell, R., Esq., to be Hon. Assistant-Surgeon 1st Surrey R.V.
Deville, T., M.D., to be Honorary Assistant-Surgeon 16th West Riding of Yorkshire R.V.
Douglas, M., Esq., to be Surgeon 3rd Durham R.V.
Jamison, A. A., M.D., to be Assistant-Surgeon 2nd Lancashire Engineer Volunteers.
Nattrass, C., Esq., to be Assistant-Surgeon 3rd Durham R.V.
Squire, W., M.D., to be Surgeon 4th Middlesex R.V.

BIRTHS.

Bate. On March 20th, at Albion Terrace, Guernsey, the wife of Henry Bate, Esq., Surgeon, of a daughter.
Christie. On April 1st, at Pembroke House, Hackney, the wife of Thomas B. Christie, M.D., of a son.
Gamgee. On March 31st, at Birmingham, the wife of *J. Sampson Gamgee, Esq., of a daughter.
Nowell. On March 20th, at Cornwall Villas, Westbourne Park, the wife of Arthur Nowell, Esq., Surgeon, of a son.
Slyman. On March 29th, at 18, Warden Road, N.W., the wife of *William D. Slyman, Esq., of a son.

MARRIAGES.

Wise, Andrew, Esq., Surgeon, to Marie Jane, eldest daughter of John Sharp, Esq., of Eastnor, Herefordshire, at Plumstead, on March 29.

DEATHS.

Braid. On March 24th, at Claughton, Birkenhead, aged 6, James Alfred, second son of James Braid, M.D., of Weybridge, Surrey.
Bullen, Denis Brenan, M.D., at Cork, aged 63, on March 21.
Mitchelson, William, Esq., late Staff-Surgeon East India Company's Service, at Dumfries, aged 68, on March 25.
Nix, William, Esq., Surgeon, at 454, Mile End Road, on March 3.
Norris. On March 23rd, at Argyle Street, Euston Road, Anne, wife of William Norris, M.D., of Stourbridge.
Parker, John, Esq., Surgeon, at Wincanton, Somerset, aged 59, on March 24.

Dr. Girdwood, late Assistant Surgeon, Grenadier Guards, has been appointed Health-Officer, for the city of Montreal.

Academy of Medicine. Dr. Rufz has left the Academy of Medicine 2,000 francs, to be given as a prize in 1870.

Of the French Army in the Crimea, of 309,000 men, about one third (95,000) perished during the campaign.

M. Dolbean will this year deliver the Surgical Course in the Paris Faculty of Medicine, in place of M. Jobert de Lamballe.

Brighton Review. Mr. Thomas Wakley reports that two casualties only, both of a slight character, were returned by Surgeon Burrows, in charge of the field hospitals:—Private Heasell, 2nd Hants Artillery, sprained ankle; and Corporal O'Connor, London Irish, injury to foot.

The Disease among Sheep. The London *Gazette* contains an Order in Council to the effect that a contagious disorder, variola ovina, now prevails among the sheep in a certain part of the United Kingdom, and prescribes measures for preventing such disorder from spreading.

Quadruple Birth. On the 14th ult., at Seaton of Cullen, Mrs. Mowatt gave birth to four full grown infants—two males and two females. Dr. Wilson successfully performed the duties of accoucheur, all the children having been delivered alive. Mrs. Hay, midwife, was also in attendance. (*Banffshire Journal.*)

Increase of Infanticide. Last week Dr. Lankester held inquests on two newly-born children found in the streets. The medical evidence showed very clearly that both children had been killed at their birth. The coroner said that the crime was on the increase, the inquests in his district being in three years—namely, 1863, 1864, and 1865—84, 100, and 114 respectively.

Conversazione of the Obstetrical Society of London. This Society held a Conversazione on the 28th ult., at the College of Physicians. The object was to exhibit a collection of ancient and modern obstetrical instruments. Invitations were responded to, and contributions sent from Russia, Sweden, Denmark, Germany, France, and Italy; and many distinguished foreigners attended the meeting. The instruments were arranged to represent historically the modifications in construction adopted at different times, and were grouped according to their uses. Among the principal objects of interest were the original forceps of Chamberlen, the cephalotribe of Baudelocque, and a variety of curious antique obstetric instruments. The sphygmograph and sphygmographic diagrams were exhibited by Drs. Sanderson and Anstie. There was also a display of microscopes, photographs, micro-spectroscopes, etc., and the walls were adorned by painting, and the staircases were lined with beautiful exotic plants.

Installation of Mr. Carlyle. Mr. Carlyle was n the 2nd inst. installed Lord Rector of Edinburgh niversity. At the same time, the honorary degree f Doctor of Law (LL.D.) was conferred on Mr. rskine, advocate; Professor Huxley; Dr. John Rae; rofessor A. C. Ramsay; and Professor Tyndall.

The French Academy lately received a note from Belfast solicitor, demanding the Bréant Prize for is client, Mr. Wallace, who believed he had a right o it. The Academy considered the note impertinent *onçue dans des termes peu convenables*), and decided iat it should remain unanswered. (*Chemical News.*)

Medical Society of London. The following entlemen have been elected at the ninety-third nniversary Meeting, as the Officers and Council for 866-67. *President*—C. J. Hare, M.D. *Vice-Presidents*—G. D. Gibb, M.D.; Henry Smith, Esq.; W. . Rogers, M.D.; and J. Birkett, Esq. *Treasurer*—. Marshall, Esq. *Librarian*—E. Head, M.D. *Secretaries in Ordinary*—W. Abbotts Smith, M.D.; Walter . Coulson, Esq. *Secretary of Foreign Correspondence* -J. Althaus, M.D. *Council*—F. E. Anstie, M.D.; V. H. Broadbent, M.D.; I. Baker Brown, Esq.; '. Bryant, Esq.; C. Cogswell, M.D.; W. J. Coulson, Esq.; V. De Méric, Esq.; C. F. Du Pasquier, Esq.; V. Tilbury Fox, M.D.; S. Day-Goss, M.D.; C. H. Rogers-Harrison, Esq.; E. Hart, Esq.; J. Jones, I.D.; H. Lee, Esq.; F. Mason, Esq.; J. W. Ogle, I.D.; J. Palfrey, M.D.; J. H. Paul, M.D.; W. F. 'eevan, Esq.; E. Symes Thompson, M.D. *Orator*—'. W. Headland, M.D.

M. Jobert de Lamballe. It is stated that when ie inventory of M. Jobert de Lamballe's property as taken, a box filled with little paper packets was ound. They contained 7,000 silver franc pieces and 50,000 in gold; there were, besides, $50,000 in bank otes, and $200,000 of French Threes. No kindred f Dr. Lamballe have been discovered, except some ery distant relations; poor creatures who earn ardly their daily bread as journeymen bricklayers. *Phil. Med. Rep.*)

National Asylum for Idiots. Commencing in 847 on the most humble scale, this charity has radually enlarged its usefulness till there are now iore than 430 inmates, on whom everything that indness or science can suggest is employed to meliorate their condition or improve their faculties. ll of them, it is said, have shown a capability of improvement, and many of them have been taught to ork at a trade, so as to become partially able to aintain themselves. The asylum is now full, and ts managers are anxiously desirous to so enlarge it s to receive 800 inmates, for the applications for admission which they are now compelled to decline are ost numerous. This extension could be effected radually, as the funds of the charity warranted. uch an establishment would be within the limits of fficient working, would diminish the annual cost per ead, would permit greater refinement in classification, and would not be larger than the grounds and state of Earlswood might easily accommodate.

Treatment of a Pauper Lunatic. At Liverpool Assizes, John Thompson was charged with the manslaughter of James Redmond at Sutton. The risoner was a pauper inmate of the Liverpool workhouse, and employed as day warder in the lunatic ward there. The deceased man Redmond was a violent lunatic, on Tuesday, the 5th of December, and it was thought necessary to strap his arms behind his back, and his ancles together, and place him in the "padded room." He was thus left at night by the prisoner and given over into the charge of two night attendants. The patient was very violent for many hours; and the prisoner being disturbed in his rest, got up, and entered the room, saying, "Hold on, I'll soon stop you from kicking." He then turned the deceased on to his belly, and, passing a strap round those which tied his hands and his feet, he thus joined hands and feet together behind the back, the knees being bent and the feet drawn up behind. The patient was then covered with his blanket and was quieter for the rest of the night. Some inmates of the asylum also spoke to hearing sounds of blows and scuffling earlier in the evening, and spoke to the prisoner coming into their room excited, declaring that he had had a troublesome customer to deal with, but he had soon settled him. He had hit him on the side of the head with his fist, and then given him one in the stomach, which made him sick. He then gave him four or five on the ribs, knocked him down and knelt on his chest, and, pointing to a broad leather belt round his waist, said, "This is what we settle them with." The prisoner was then about to remove the patient to the Rainhill Asylum, and he, in company with another officer, took him there in a cab with the straps on his wrists and ankles, and wrapped in a blanket. Arrived at the asylum he was shortly examined by the officers and medical attendants there, but not, it appeared, until he had been confined for some time in a room, which, although padded, had a pipe to warm it running round the wall near the floor. The medical examination when made, detected a broken rib, but nothing more at that time, and the bruises do not appear to have attracted very especial notice, the deceased saying, however, that it was the people at the workhouse who had caused them. The deceased died on the Sunday, not from injuries to the chest, although there were as many as eight ribs broken on either side, but from effusion of blood on the brain, underneath a bruise which was observable on the outside; and the question, therefore, was whether the prisoner was proved to be the author of this injury. It appeared, on the recall of a witness, that there was an abrasion on the deceased's forehead even at the time of his admission to the workhouse, and the jury, after a very brief consultation, returned a verdict of *Not Guilty*, at the same time expressing, through their foreman, their great dissatisfaction at the arrangements in force at the workhouse with reference to lunatic inmates. An indictment against the prisoner, directed by the Lunacy Commissioners under the Lunacy Acts, for the misdemeanour of ill-treating, neglecting, and assaulting the lunatic, was then proceeded with, but as his Lordship intimated an opinion that these acts only constituted an offence in persons having the charge and care of lunatics, and the prisoner was not in charge of the deceased at the time of the injuries, an *Acquittal* was taken in this case also.

Trichinosis. Professors Delpech and Reynal, who were charged with a mission to study the trichinosis in Germany, have presented a report of their investigations at Huy (Belgium), Hanover, Magdeburg, Berlin, Halle, Dresden, Leipsic, and Mayence. They solicited and obtained the co-operation of most of the eminent German physicians who had made the disease in question their especial study. The chief practical facts ascertained are as follows. The epidemic trichinosis lately prevalent in Germany has now almost entirely disappeared. The mortality was everywhere slight, except at Hedersleben. At Zwickau, Seltendorf, and Sommerfeld, there were eighty-eight patients, not one of whom died. In every case the disease was caused by eating imperfectly cooked pork containing trichinæ. In Hanover, in twenty-one months, out of 25,000 pigs, 11 were found full of trichinæ, 16 out of 14,000 in Brunswick,

and four out of 700 in Blakenburg. In France no case of the disease has yet been noticed. In Germany the hospitals receive many patients suffering from this affection; during last year there were thirteen at Magdeburg, of whom only one died. *Post mortem* examinations have also shown, among persons who died from other diseases, numerous cases of old trichinosis cured by the encystment of the parasites. The proportion of these at Leipsic has been about six per hundred. In places where the complaint prevails, the rats which infest slaughterhouses are found to have it, as proved by Leisering at Dresden, Adam at Augsburg, and Roll at Vienna. Since their return, MM. Delpech and Reynal have examined many of these animals as well as pigs without finding a trace of trichinæ. Consequently, there is no reason in France for any person to refrain from eating hog's flesh, especially when thoroughly cooked. In Germany many of the peasantry eat it almost raw or only smoked. The most timid may safely eat the heart, liver, kidney, brain, and fat of pigs, as those parts never contain trichinæ. MM. Delpech and Reynal assert, as an undoubted fact, that a temperature of 167 Fahr. is sufficient to kill trichinæ. Meat thoroughly salted is also perfectly safe. Smoke-dried sausages, which have been kept a long time, are considered free from danger, but the wisest plan is to give them a good boiling. The authors of the report attribute the spread of the disease among pigs to the fact that they are foul feeders and will eat any offal, such as the dead bodies of rats and other animals, which are now known to be liable to trichinosis. Great care ought therefore to be taken to keep such things out of their reach. MM. Delpech and Reynal likewise advise all experimenters never to throw away trichinised flesh, but to burn it as soon as their examination is completed; for a fragment of it carelessly exposed might be eaten by a rat, the rat devoured by a pig, and this last become the cause of fatal accidents. They recommend farmers to be very cautious in feeding their pigs, to avoid giving them offal flesh without first boiling it; to destroy rats and other small carnivorous animals; and never to leave human or other excrements in places where pigs can go. The Government has deemed it expedient to publish at once the above abstract of MM. Delpech and Reynal's report, which it has also submitted to the consideration of the Consultative Committee of Public Health.

REGISTRATION OF DISEASE.

RETURN of new cases of disease coming under treatment in public practice. (A.) Manchester and Salford (Sanitary Association). (B.) Preston (R. C. Brown, Esq.). (C.) St. Marylebone, London (Dr. Whitmore). (D.) Birmingham (Dr. Alfred Hill).

In the 4 weeks ending Jan. 27th, 1865.

Diseases.	A.	B.	C.	D.
Small-Pox	18	40	6	1
Chicken-Pox	1	2	26	3
Measles	5	—	72	119
Scarlatina	39	11	26	15
Diphtheria	—	—	3	4
Hooping-Cough	132	9	53	185
Croup	—	1	2	5
Diarrhœa	99	21	199	137
Dysentery	9	7	—	10
Cholera	—	—	1	—
Erysipelas	29	4	14	9
Insanity	25	2	14	—
Bronchitis and Catarrh	906	119	976	724
Pleurisy and Pneumonia	66	18	35	26
All other diseases and accidents	4151	486	3518	2637
Totals	5480	720	4945	3875

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....Metropolitan Free, 2 P.M.—St. Mark's for Fistula and other Diseases of the Rectum, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TUESDAY. .... Guy's, 1½ P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.

WEDNESDAY... St. Mary's, 1 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.

THURSDAY.....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Great Northern, 2 P.M.—London Surgical Home, 2 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.

FRIDAY..... Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

SATURDAY..... St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1·30 P.M.—Charing Cross, 2 P.M.—Lock, Clinical Demonstration and Operations, 1 P.M.—Royal Free, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

TUESDAY. Royal Medical and Chirurgical Society, 8.30 P.M. Dr. Morehead, "On the Pathology of Pneumonia"; followed by Mr. Gaskoin, "On Continued Syphilitic Inoculation"; or Mr. A. Durham, "On the Radical Cure of Hernia."

TO CORRESPONDENTS.

*** *All letters and communications for the* JOURNAL, *to be addressed to the* EDITOR, 37, *Great Queen St., Lincoln's Inn Fields, W.C.*

COMMUNICATIONS.—To prevent a not uncommon misconception, we beg to inform our correspondents that, as a rule, all communications which are not returned to their authors, are retained for publication.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

P. T.—The Latin quotation at the end of Dr. Watson's address (published in the last number of the JOURNAL), is taken from Seneca.

POOR-LAW MEDICAL REFORM.—Mr. Griffin begs us to inform the Poor-law medical officers that the following subscriptions have been received by him towards the funds of the association:—E. J. Hinnell, Thingoe, 5s.; R. T. Morris, Wigan, 20s.; H. Green, Lexden and Winstree, 10s.; D. F. Lys, Blandford, 5s.

By Mr. Prowse:—J. James, Bristol, 10s.; J. H. Wraith, Over Darwen, 10s.; J. Probert, Merthyr Tydvil, 10s.; F. Allday, Merthyr Tydvil, 10s.; T. J. Dyke, Merthyr Tydvil, 10s.; M. Rees, Merthyr Tydvil, 10s.; B. Roberts, Eastbourne, 5s.

COMMUNICATIONS have been received from:—Mr. RICHARD GRIFFIN; Dr. BOWERBANK; Mr. GOODWIN; Dr. C. RADCLYFFE HALL; Mr. HOLTHOUSE; Dr. SIEVEKING; Dr. DICK; Dr. ARTHUR RANSOME; Dr. SHAPTER; Mr. SLYMAN; Mr. W. ASPINALL; Mr. R. S. THOMPSON; Dr. KELLY; Mr. C. STEELE; Dr. FREDERICK J. BROWN; THE HONORARY SECRETARY OF THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY; and Mr. HARRISON.

BOOKS RECEIVED.

1. On Winter Cough, Catarrh, Bronchitis, Emphysema, Asthma, etc. By Horace Dobell, M.D. London: 1866.
2. Tenth Annual Report of the United Lunatic Asylum for the County and Borough of Nottingham. Nottingham: 1866.

ADVERTISEMENTS.

Weiss's Illustrated Catalogue, containing nearly 800 engravings of Surgeons' Instruments and Apparatus, classified for their various purposes. Price, 5s.

62, Strand, London.

"This catalogue has many and great merits. It is modest, truthful carefully arranged, and extremely well illustrated. In the great majority of cases the name of the surgeon is appended to the modification which he has introduced, and frequently other makers' names are honourably attached to instruments which they first originated. These are large principles of honour which we are glad to see strictly observed in this catalogue."—*Lancet*, September 12th, 1863.

Croonian Lectures

ON THE

LOCALISATION OF DISEASE.

DELIVERED BEFORE THE

ROYAL COLLEGE OF PHYSICIANS.

BY

EDWARD H. SIEVEKING, M.D.,

PHYSICIAN TO H.R.H. THE PRINCE OF WALES, AND TO ST. MARY'S HOSPITAL; PRESIDENT OF THE METROPOLITAN COUNTIES BRANCH OF THE BRITISH MEDICAL ASSOCIATION; ETC.

LECTURE II. (*Continued.*)

PERMIT me now to turn to the consideration of another form of morbid action, in which the stomach itself, the prime organ of digestion, becomes the seat of disease. Let us for a few minutes consider simple ulceration of the stomach, and inquire whether that may be regarded as a primary local affection. At first sight it presents all the appearance of meriting that appellation. There is pain and tenderness at the epigastrium, well marked according to the exact locality of the ulcer; there is more or less pain after food, often amounting to intense suffering; there is vomiting, and the vomiting may be accompanied by hæmatemesis. The patient, from not being duly nourished, becomes emaciated and more and more exhausted, and death may end the scene. But, if we inquire a little more closely, we shall find antecedent indisposition of greater or less duration—if the patient be a young woman, the probability is that for one or more months the catamenia have been arrested or scanty, there has been a languid circulation, cold feet and chilblains, often more or less dry cough, and more or less absence of appetite and general debility; or there has been general lassitude, with inability to take proper food and an indisposition to attend to the ordinary duties of life, which sympathising friends attribute to indolence or want of energy and resolution, and which sends the sufferer to the chemist's shop or the cellaret, but does not seem to justify calling in the physician. Have we not all again and again been consulted about such local disease, which necessitated a prolonged sick regimen and medication, or which had already attained to such a point, that our indignation could scarce express itself in terms sufficiently polite to convey our opinion of the utter and almost wicked neglect of God's laws that had been incurred, sins, as the clerical apologist would say, not of commission but of omission? Fortunate are those in whom the destruction of tissue, the organic disease, is discovered before irreparable mischief is done; but more fortunate still are they who at the first symptom of indisposition receive and follow the advice that may anticipate new growth or destruction of tissue. There is a difference in the duration of the antecedent traceable symptoms of disease, according to the greater or less carelessness of a sanitary regimen; but they all—I speak under correction—agree in the broad fact, that long before the physician can diagnose ulcer of the stomach, there are palpable proofs of deranged digestion and irregular general nutrition.

Permit me, not to weary you with my personal experience, to lay before you a part of one of Dr. Brinton's cases. (*On the Pathology, Symptoms, and Treatment of Ulcer of the Stomach.* By William Brinton, M.D. 1857. P. 157.) E. S., an unmarried female servant, aged 22 years, had enjoyed good health as a child. She menstruated at the usual age, and continued to do so regularly till she came under observation on Nov. 13th, 1855. The flux had, however, become more and more scanty during the last five or six months, though it was only at the last menstrual period prior to her application at the hospital that its decrease amounted to complete amenorrhœa. About two years before her admission, she began to suffer from symptoms of severe indigestion; especially from capricious (generally deficient) appetite; pain in the region of the stomach and between the shoulders, usually coming on about an hour after eating; and irregular (mostly) sluggish action of the bowels. After about twenty months of these symptoms, vomiting, which had previously occurred but rarely, gradually became very frequent. And, at the end of about four months more, it increased to such a degree as scarcely to allow any meal to be completely retained by the stomach. This state was accompanied by a great increase in the severity of the pain, as well as by a considerable alteration in its character. Latterly, though it came on shortly after meals as an intense pain, it was almost continuous during the whole day as a dull burning soreness. With regard to the further progress of the case, it may be satisfactory to know that, thanks to the scientific treatment of an able physician, the patient entirely recovered, in spite of the long continuance and the severity of the symptoms. What more immediately concerns us is, that the details of her case, with reference to the antecedents of gastric ulcer, apply with but slight variation to all cases of the kind, and afford an indication of the importance of early rectification of all errors of nutrition tending to localise themselves in the stomach. We ought further to inquire why, if there is so close a resemblance between the fundamental conditions upon which all morbid action is based, there is a greater tendency to the localisation of disease sometimes in one, sometimes in another organ. The inquiry is a legitimate one; and I allude to it to show that I do not ignore its interest and practical importance. But to entertain the question as it merits, would demand much more time and space than are allowed me. I therefore return to my original argument.

Anatomical proximity justifies my passing from the stomach to the peritoneum. Time was, when peritonitis, idiopathic peritonitis, met us at every turn. What does morbid anatomy, skilfully read by our distinguished fellow, Dr. Habershon, teach us? Dr. Habershon states that he has ascertained by the analysis of 500 cases of peritonitis which occurred at Guy's Hospital, among 3752 inspections in twenty-five years, that not one could be correctly regarded as solely in the peritoneal serous membrane; he finds that the cases referred to are divisible into three classes: 1, those produced by the extension of disease from adjoining viscera, or excited by direct injury; 2, peritonitis connected with blood changes, as albuminuria, pyæmia, puerperal fever, erysipelas; and 3, peritonitis caused by nutritive changes of the system, such as struma or cancer. (See Dr. Haber-

shon's paper on the Etiology and Treatment of Peritonitis in *Med.-Chir. Transactions*, 1860.) It follows that, if peritonitis be not altogether a myth, it is but a rare occurrence; not, I believe, altogether unknown, but still so seldom seen as to justify a warning to the beginner to expect almost any other abdominal complaint than this. And what, again, is the pathological import of Dr. Habershon's researches, but that, as in pneumonia, as in gastric ulcer, so here, too, the nosological and the real entity are two different things, and that, to constitute peritonitis, we must have a series of more or less marked antecedent disorders; and that the peritonitis is the climax of nutritive derangements certainly not to be sought for primarily in the serous investment of the intestines? In the summary of conclusions with which Dr. Habershon favours us at the end of his paper, he dwells mainly on questions of treatment; but his first paragraph is so applicable to my general argument, and has so close a relation to observations that I have previously made, that I cannot resist quoting it. Dr. Habershon says that he considers his analysis of the Guy's Hospital *post mortem* examinations to establish, "that peritonitis is never idiopathic in its origin, and that we do not find any such instance as acute disease of the peritoneum coming on from mere exposure to cold. *In such supposed cases, the cold merely tends to render acute an already existing morbid state.*" I do not, I think, misinterpret this sentence by translating it into the language of the present argument, and saying that Dr. Habershon regards the peritonitis as a local expression of a general and antecedent derangement involving the elements of nutrition; but for this paraphrase I, of course, alone am responsible.

If we now turn our attention to the diseases affecting the parenchymatous organs situated in the abdominal cavity, what does modern medicine teach us with regard to the liver—to the kidneys—to the pancreas—to the spleen? As the attention of observers is directed to one or other organ, is there not a tendency at first to regard it as the *fons et origo mali*, its morbid conditions as essential and primary affections, and all other diseases as consecutive and dependent? What follows? As morbid anatomy gives precision to our knowledge, and we trace the relations between effects and causes, we arrive more and more at results analogous to those exhibited by Dr. Habershon in reference to peritonitis; the importance of the local disease falls away more and more, and the general condition of nutrition and metamorphosis of tissue advances to the foreground, enabling us to show a concatenation of conditions which did not appear at the first commencement of the inquiry. How many are the idiopathic affections of either of these organs? How many of the nosological entities of our class-books can we retain when we study them at the bedside, and with the light that modern physiology, chemistry, and pathology, shed upon them? In the pathology of the ancients, and particularly of Galen (we find Frerichs remarking), the liver and the portal system served as the starting point of manifold disturbances. (Frerichs, *Diseases of the Liver*; Dr. Murchison's Translation.) There were described, not only a host of anatomical and functional lesions of the organ itself, such as inflammation, abscess, obstruction of the ducts, and the different conditions resulting from intemperance, but a large proportion of constitutional diseases were referred to the same source. Abnormal conditions of the liver were regarded as the principal cause of changes in the constitution of the blood. Gradually, however, by the labours of successive inquirers, from the times of Galen to those of Frerichs and other contemporaries, the physiology and pathology of this important organ have been placed on a more correct basis. Our knowledge of the normal functions of the liver appears to be more precise than is its application to disease, owing to difficulties in applying our knowledge of its physiology to the investigation of its pathology, to which Frerichs forcibly alludes. But still, the more we extend our inquiries, one conclusion always appears to force itself upon us more and more, that any given disease of the organ has not an existence *per se*; but, to be fully explained and accounted for, must be traced back to some earlier state of perverted nutrition, arrested and vitiated metamorphosis of the tissues, acting perhaps through the nervous system, but more probably through the blood, upon the hepatic tissue. Let us see what can be learnt on this point in studying the idiopathic disease of the liver—κατ' ἐξοχήν—if there be one, hepatitis. It is scarcely known to us in its acute form in our temperate regions. I cannot do better than quote from one of the most careful scrutinies of medical statistics bearing upon tropical disease, a model for other inquirers, Dr. Morehead's *Clinical Researches on Disease in India*. After discussing the influence of intemperance in giving rise to the affection in such preponderating numbers in Europeans, he asks:

"Is hepatitis, with a tendency to run on to abscess, peculiarly related to the cachexia engendered by continued and lengthened influence of elevated temperatures? I believe," he replies, "it is so. It is very probable that future research will show, more distinctly than any data which I possess, that those who are exhausted and enfeebled by continued heat and its associated debilitating conditions are very prone to hepatitis; and that in such individuals the inflammation is very frequently excited by exposure to external cold; I mean, to such depression of temperature as suffices to influence bodies whose heat-generating power is low. But there is another question to propose in regard to heat. Is it ever the exciting cause of hepatitis, as it assuredly sometimes is of cerebral disease? The occurrence in the hot months of the year of hepatitis in plethoric Europeans, lately arrived in India, and with excreting functions deranged by free living, is probably sometimes best explained on the supposition that tropical heat is occasionally an exciting cause of hepatitis."

You perceive that in both these cases, the cold in the former, the heat in the latter, act, according to Dr. Morehead's opinion, only as exciting causes to the disease, in the same way that similar agencies aid in producing catarrh, as spoken of at the beginning of this lecture. The real efficient cause in either case is the derangement of nutrition, the accident of climate and habit determining the organ which is to suffer. It would lead us too far to go into an analysis of the circumstances associated with the production of the chronic diseases of the same organ—cirrhosis, fatty degeneration, hypertrophy, or waxy degeneration. If I have made out anything of a case in favour of acute hepatitis being essentially a disease consequent upon malassimilation or perverted metamorphosis of tissue, *à fortiori*, the argument applies to the morbid conditions just mentioned,

which, by the common consent of the profession, are already regarded as typical of deep-seated malnutrition. If the blood is unable to maintain the nutrition or the functions of the part, whatever it may be, inflammation or other disease, as Mr. Paget (*Surgical Pathology*, vol. i, pp. 15 and 312) well shows, are certain to follow. The question of acuteness or chronicity will depend upon the intensity of the perversion in the pabulum, the vital force of the patient, and the severity of the exciting cause.

Permit me now to direct your attention to the diseases of the kidney, with a view to a further elucidation of the argument. What number of diseases do we meet with in this important emunctory, which can truly be said to be idiopathic—to arise within itself? We hear of nephritis, as we hear of inflammations of every other part of the body; and probably, in the course of a long practical experience of disease, one or more cases occur within our own direct observation, which we cannot fully account for by the facts ascertainable in regard to antecedent derangements. But what is the bearing of the whole teaching of modern clinical research, from the time when Bright first threw the light of his genius upon so many previously unintelligible processes? The more we pursue the path of rigid induction, which, since Bright, has so well been trodden by Christison, by Johnson, by Frerichs, by Parkes, the more we satisfy ourselves that any given disease of the kidney is but an expression of anterior malnutrition pervading the system and residing essentially in the blood. That this view is more generally adopted than would appear at first sight, appears from the heading under which the most recent authority on medicine, Dr. Aitken, discusses renal disease. He entitles his section that is devoted to that subject, "Diseases in which Lesions tend to be localised in the Kidneys." This implies that he regards the disease, the primary morbid state, as something external to the organ in question; and that its localisation is a secondary result—the former the essential, the latter, if I may so say, the accidental feature. If we go to statistics for precise numerical information, the aspect of affairs is not materially altered, unless we choose to assert that it is only the secondary diseases of the kindney that find their way to the *post mortem* table. Dr. Chambers remarks on the difficulty with which the kidneys take on the inflammatory state, inasmuch as 2161 autopsies at St. George's Hospital yielded only forty-five instances. A summary of these cases shows inflammation of the kidney to have been due in twelve cases to pyæmic infection; in one case, to suddenly checked skin-disease; in five cases, to injury of the spine; in two, to lithotripsy; to a neighbouring abscess, in one; to diseased bladder, urethra, prostate, etc., in twelve; to the first stage of Bright's disease, in eleven; and to the presence of scrofulous tubercle, in one case. (Decennium Pathologicum, *British and Foreign Medico-Chirurgical Review*, April 1853.) This large field of observation, then, offers not one case in which there was not well marked antecedent morbid action in the system. If this is the conclusion forced upon us regarding nephritis, it is scarcely necessary to discuss any chronic renal affections, which, by common consent, are all regarded as the "effect defective" coming by the cause of vitiated blood. Is it otherwise with any functional disorder of the same gland? Do we not investigate the constitution of the urine in acute and chronic disorder, generally with the view to determining "changes which go on in the body"—whether those changes point more to the nervous centres, to the stomach, to the liver—but still essentially changes involving primarily nutrition, assimilation, and metamorphosis? The excretion of urea has long been regarded as the product of the disintegration of the nitrogenous tissues of the body, the nitrogen forming nearly one-half (46.667 per cent.) of the elements constituting urea. The quantity of urea eliminated varies in health according to the food, exercise, and general habits of the individual; but, if the Rev. Dr. Haughton's conclusions are adopted, it affords a direct measure of the amount of work performed by an individual. Dr. Haughton holds that the average tissue-change of the body in health is at the rate of two grains of urea during the twenty-four hours, for every pound weight, assuming that the body is at rest; but that the increase in the urea discharged is in the exact ratio of the amount and kind of work done. (See papers on the Natural Constituents of the Urine of Man, by the Rev. S. Haughton, F.R.S., *Dublin Medical Journal*, 1859 and 1860; also Parkes on *Urine*, p. 109.) In this variation of an important excretion we have one of the palpable securities for the preservation of health under the great variety of influences to which the human body is exposed. I am not in a position to assert the absolute correctness of Dr. Haughton's data. One objection raised by Dr. Parkes is, that he assumes all the nitrogen used in the work of the body to be eliminated by the kidneys. But, even if there be sources of error, it is impossible not to accept the results of Dr. Haughton's elaborate researches as at least approximately true. We should be the more disposed to do so, if we consider that they represent in a scientific manner the daily experience of mankind as to the relation between expenditure and force, and that they further indicate that correlation of the vital forces to which I have previously drawn attention. Thus Dr. Haughton calculates that the force which is equivalent to raising one hundred tons one foot high in twenty-four hours leads to a disintegration of tissue equal to 38.69 grains of urea. If a man weighing 150 lbs. perform an ordinary day's work, which is equivalent to raising about 258 tons one foot high, he will pass 100 grains of urea in addition to the 300 grains which were derived from the necessary metamorphosis of tissue. Whether this be absolutely correct, or only an approximation to the truth, there can be no doubt that, in the considerations presented by these and allied experiments, we possess some of the most important of all indications to a real appreciation of morbid phenomena. They offer us some of the earliest indications of variations in the relation between force and expenditure which constitute disease. If, by the use of the thermometer and allied methods, we are enabled to watch the actual course of vital phenomena, and with the test-tube and scales determine the results to which they lead, we have at once a measure of health and a means of recognising the disturbance of the balance between the forces that constitutes a deviation from the normal standard, or disease. At the same time, the balance between the different forces in the body affords (as we shall have occasion to see later on) the most correct indication

for the means by which health may be preserved and restored.

The last remarks have been suggested by the renal excretion, which is more readily used as a means of testing an individual's condition than other secretions and excretions; but it is evident that neither our physiology nor our pathology will be perfectly reliable, so long as we have not obtained the means of accurately estimating all the changes taking place in the body at the same time. It is scarcely conceivable, that human capacity will ever achieve so vast and glorious a result. For the present, we must be content with a distant view of our goal, and with a careful inquiry whether we have discovered and are pursuing the right path that leads to it, though our strength may be insufficient for the race.

[*To be continued.*]

Original Communications.

NOTES AND OBSERVATIONS ON DISEASES OF THE HEART AND LUNGS.

By T. Shapter, M.D., F.R.C.P., Senior Physician to the Devon and Exeter Hospital, etc.

The medical observer, who has had an extended practical acquaintance with diseases of the heart, must often have been struck with the fact that certain analogous departures from the normal action of this organ are, in some cases, associated with fatal tendencies, in others are proved to be consistent with a good average state of health; while others, again, yielding to the most careful physical examination but few, or even no, indications of disease, may prove to be unexpectedly fatal.

It may be assumed that those more obvious physical phenomena which the heart reveals, whether to the touch, to careful percussion, or to the attentive ear, as differing from what is usual in health, are due to departures, perchance temporary only, from the normal condition of this organ; and it may also be concluded, where these phenomena are found to be persistent, that they are due to alteration, as the case may be, in its structure or bulk, or to disarrangements of its valvular completeness.

These latter generally entail, sooner or later, by their disturbance of the animal economy, a fatal termination. Nevertheless, conspicuous and very remarkable exceptions occasionally present themselves, and the issue of life or death does not appear to be influenced by the inferred condition of the heart; while, on the other hand, the former may present themselves as very dangerous, and perhaps immediately fatal affections, as may also those cases occasionally met with, and which appear to be due to no structural alterations appreciable by careful examination, or, at any rate, to such as neither alter the size of the heart nor impede its blood-flow.

It is proposed, by reference to the notes of a considerable number of cases, to review some of the affections belonging to these several categories, and chiefly with the view of considering and determining their relative fatal tendencies. But, before doing this, I should wish to say some few words respecting the action of the heart in its relations to the circulation of the blood, and of the sources of the normal and abnormal sounds emitted thereby.

As regards the heart, it has appeared to me that the view of its action has been unnecessarily—I would even say erroneously—complicated by the general statement that the function of the auricle is that of a "propeller" of the blood into the ventricle. The simpler view that I would hazard is, that the ventricle is essentially the organ that, on the one hand, by expansion sucks in the blood, and, on the other, by contraction expels it; that the proper function of the auricle is, on the one hand, to contain a ready supply of blood for the expanding ventricle, and, on the other, a safety-pouch to counteract or equalise the backward strain caused by the contraction of the auriculo-ventricular valves.

I have elsewhere (*Medical Gazette*, Dec. 5th, 1857) ventured to state that, as regards the heart, the circulation of the blood is more simply effected than is usually considered to be the case; that, in fact, the heart proper is ventricular, and ventricular only; and that the circulation of the blood through the heart mainly depends upon, firstly, its ventricular exhaustion or suction power, and then, secondly, on its ventricular contraction, whereby it is indued with the function of propulsion.

The auricle, on the other hand, is rather to be considered as an appendage proper to the venous system, and not as appertaining or necessary to the ventricular heart; and therefore (without ignoring the influence, as a propeller of the blood, of the capillaries and of the veins generally, feeble though this influence may be, as also of the auricle, as portion of the venous system), auricular contraction is not an active agent in the movement of the blood.

The above conclusions are grounded on the fact, that the distension or greatest size of the auricle is not induced by a sudden influx of blood from the cavæ, but on the contraction of the ventricle, when there arises a retrograde pressure against the onward flow of the blood, caused immediately by the closure of the flaps of the mitral (or tricuspid) valve as these are propelled into the auriculo-ventricular axis; hence the blood then contained within the auricle is ponded or regurgitated back, and the greater distension of the auricle is effected. The relaxing of the valve, on the expansion of the ventricle, whereby the exhausting or suction power of the heart is exercised, immediately relieves the auricle of this, its fuller amount of tension. Its normal condition of a full, but not distended, vessel is then restored. In this state it continues during its period of rest to receive blood from the cavæ, and to deliver it into the expanding ventricle, till this latter, being again filled, again contracts upon its contents.

In the above we see exemplified, as regards the auricle, the phenomena of elasticity, rather than those of active muscular contractility; while the ventricle distinctly exemplifies the latter.

The normal state of the auricle is that of an elastic tube or vessel, capable, within certain limits, of expanding or contracting on the fluid it is called on to contain. Ordinarily full, it partially collapses as the blood is first drawn from it into the ventricle, on the expanding of this latter, immediately after its period of contraction has been concluded. The ordinary and, so to say, passive condition of the auricle is again disturbed at the moment of the closure of the auriculo-ventricular valves, when it becomes obviously distended, from containing, relatively, an increased amount of fluid. The adaptation of the auricle to these series of changes may fairly be assumed to be due mainly, if not entirely, to its elasticity, and not through the agency of any active inherent contractile power.

The very careful and valuable experiments of

Dr. Halford, and, previously, of Pechlin and others, fully confirm the above conclusions; for the heart was seen to expand as well as to contract, though no blood was furnished to it. Expansion, and hence a suction-power, is, therefore, a function as normal to it as the recognised one of contraction, by which it is universally allowed to be endowed with the power of propulsion.

Supposing the above view of the function of the auricle to be correct, it is then probable that the musculi pectinati act firstly in preventing undue distension, and secondly, after distension has been effected, in aiding towards restoring the auricle to its normal dimensions.

The above, doubtless, is not in accordance with the ordinary explanation of the function of the auricles, which is, that the auricles contract on the blood contained within them, and thus propel it into the ventricle. There are three cogent arguments against this conclusion. Firstly, it would assume that the auricle contained an amount of blood which should be somewhat more than equal to the capacity and the requirement of the ventricle on its expansion, and this, as must be admitted, it does not; secondly, the absence of a normal and regularly recurring pulsation in the jugular and larger veins; and, thirdly, the absence of any sufficient valvular apparatus at the venous entrance to the auricle, or where the venæ cavæ deliver themselves into the sinus. This latter alone would militate against the assumption of its being an active contractile organ; for not only is the absence of any such structural arrangement to such an end contrary to the whole principle of the circulation and the mechanism of its organs, but, in fact, the contraction of the auricles would as equally force the contained blood into the cavæ as into the ventricle.

The phenomena observed in those cases where there occurs, independently of valvular disease, an obvious pulsation in the jugular vein, indirectly confirms the whole of the above position. An undulatory motion is seen to be succeeded by the more distinct pulsation; and this pulsation is synchronous with the pulsation in the carotid artery.

Again: the ordinary explanation—that the dilatation of the ventricles is passive only, and solely caused by the forcible discharge, by the auricle, of blood into them, and thus forcibly effecting their distension—is not only inconsistent with the above view, but the structure of the auricle does not warrant such a conclusion: it has neither the general strength nor the character of fibre for the exercise of so large a power.

Without discussing what may be the motive power exercised upon the blood in its course through the veins—how much may be due to capillary force, and how much to an elastic or even to a contractile power proper to the veins themselves—I here hazard the opinion that the auricle fulfils two evident conditions; the one, in connexion with the venæ cavæ and sinus, of being the ready vessel of supply, whence the ventricle, or heart proper, receives that blood which, on its expansion, it requires; the other, that of being an elastic expanding vessel, and representing one of those enlargements which invariably accompany the valves of the veins, by which the blow of the suddenly contracting ventricle, and the consequent sudden closing of the valves on the incoming stream of blood, are compensated for. And I would further hazard the opinion, that any muscular power which the auricle may exert on the propulsion of the blood is only secondary.

Assuming this simpler view of the heart's action to be correct—viz., that the ventricles first act by process of exhaustion, so as to suck in the blood, and then by contraction propel it onwards—we will pass on to a consideration of the sounds, normal and diseased, thereby emitted.

[*To be continued.*]

REMINISCENCES OF A FOUR MONTHS' STAY WITH PROFESSOR A. VON GRAEFE IN BERLIN.

By A. Samelson, M.D., Manchester.

[*Continued from p. 357.*]

The concluding chapter of our recollections shall be a rapid survey of the *morbid occurrences* of interest, which we have noticed, and the measures of treatment preferred at the Clinique in various diseases of the eye and of its appendages. To this end we shall proceed in the order as the organs topographically succeed each other from before backwards, briefly relating at their proper places those few cases in point, which our scanty notes supply.

Starting, then, from the affections of the lids and their vicinity, we find that *Trichiasis* and *Distichiasis* are met either by the removal of the tarsal edge; or, as the case may require, the excision of separate hair-bulbs only; or, more generally, by the operative plan of Arlt and Jäsche, further modified by Von Graefe himself. The modification consists in the addition of a vertical incision, about two lines long, near each angle of the tarsus; mostly both, sometimes, however, only one of them, performed prior to the splitting of the ciliary margin. The union of these lateral incisions by sutures is the last act of the operation. The dissection of the triangular piece of skin from above the tarsal bridge, after it has been circumscribed by the knife, is effected with scissors. Sometimes a strip of integument, if still retaining the roots of some lashes, is yet separately removed from the tarsal border.

The customary operation for *Entropium* is by removal of a quadrangular piece of skin from below the inverted tarsal edge, and subsequent suture. The ligature plan does not appear to be practised.

Ectropium is more generally discussed by the operative transplantation of the integument, the triangular gap resulting from which is as much as possible lessened by the employment of sutures. The canthoplastic operation, or the excision of a wedge near the outer corner, are steps often collaterally adopted. In the case of a boy affected with organic ectropium of the right lower lid, which, though slight, extended over the entire length of the tarsus, and had arisen from long bygone bone-disease (a little fleshy growth in a depression at the outer angle still betraying the former fistulous opening), an incision an inch long was made, in direct continuation of the outer commissure; the lower lid was, by a tedious process, subcutaneously detached from its extensive adhesions far down the cheek, and so far as the ala nasi, until it was thoroughly moveable, when a small wedge near the outer commissure was removed from the lower lid, and the tarsal edges of both lids were pared with scissors a good way towards the middle of the palpebral aperture. The trial of adaptation giving a most satisfactory result, the gap caused by the excision of the wedge was first united by a thread at the tarsal margin, and five or six more sutures were added to close the transverse incision. The success was perfect. In some cases, more complicated blepharoplastic operations had to be resorted to.

Blepharoptosis is, in operable cases, combated by Von Graefe's own method, consisting in the removal of part of the orbicularis muscle, as well as of the in-

tegument, and subsequent joint elevation of both by appropriate sutures.

We saw a case of *Epicanthus* with bilateral ptosis in a boy still under treatment, already much improved by this plan, as yet performed on one eye only, subsequently to the epicanthus operation.

An *Encysted Tumour*, occupying the space between the inner angle of the right eye and the dorsum nasi of a little boy, was the subject of a lengthy and difficult operation, resulting in the complete removal of the cyst. The operation was undertaken with reluctance, and only on account of the obvious increase of the tumour, as these "dermoids" are by Von Graefe looked upon as a kind of *noli me tangere*.

Palpebral Ephidrosis is an affection which from time to time comes under the observation of Von Graefe, and of which we saw an example on both upper lids of a woman scarcely of middle age. There was no trace of eczema. Wiped clean, the skin of the lids was soon covered afresh with perspiration. The disorder is said to be a tedious one, and sometimes to associate itself with conjunctivitis; and this was, in fact, present in a moderate degree in the case just mentioned.

Obstruction of the Lacrymal Passages is generally treated after Weber's plan. In many cases of bilateral obstruction, we saw the incision made and the probe introduced on both sides in one sitting. The lower canaliculus is perhaps in nearly as many instances as the upper selected for operation.

Lacrymal Abscess is always extensively laid open; and obliteration, when it is thought to be indicated, is effected by means of lunar caustic. Very delicate probes or bougies of various sizes, coated with nitrate of silver, or compressed sponge, are other appliances contingently resorted to. A circumstance which we have heard Von Graefe, on various occasions, insist upon, is the frequent dependence of corneal affection on lacrymal disease, and the consequent necessity of attending to the latter if we wish to succeed in curing the former.

This short notice, in the main devoted to lid-affections, we conclude with a special reference to an ailment, in the bold and successful treatment of which we believe Von Graefe to be without a rival. The disease is *Blepharospasmus;* and the treatment consists in neurotomy. The nerves once traced on which the spasm depends—for mostly there is more than one at fault—they are in succession subcutaneously divided, and often a brilliant cure is at length achieved in these cases of long protracted suffering unrelieved by any of the before tried remedies.

A young lady, of slender build and languid appearance, had long had both her eyes affected with this trying malady. When we saw her first, the right eye was continually winking, and could not by any effort be kept steadily open. On the left side, neurotomy had already been performed thrice with final success. Digital pressure, at the same time on the right supraorbital and temporal nerves, but not on one or the other alone, made the spasm cease instantaneously, and the eye could be kept open. With the aid of chloroform, a fresh operation was performed. The neurotome was introduced a little above the outer angle of the right eye, carried subcutaneously along and close to the frontal bone about an inch and a half to the situation of the supraorbital nerve, the section of which, though vigorously performed, was only held to be reliably effected when evidence appeared of the artery having been likewise divided. The bleeding was readily stopped by compression with a pad of charpie. The operation over, pressure on the undivided temporal nerve alone sufficed to stay the spasm. The mere approach of chloroform had in this case been the means of inducing general convulsions; and these, when we saw the patient in bed at a later hour, were still continuing in a truly painful degree. The operation resulted in perfect anæsthesia throughout the territory of the divided nerve; and the same symptom was still observable on the left side as a consequence of the previous sections.

Another most strange case, which we shall briefly notice, was that of a country woman, some 50 years old, who appeared with her eyelids firmly pinched together, and in whom pressure successively on the following nerves—the supraorbital, temporal, infraorbital, and subcutaneous malar of each side—was altogether unavailing to break the spasm; when, at length, the finger introduced into the mouth, and, after some delay, correctly applied upon the lower maxillary nerve of the right side, succeeded by energetic pressure in opening the eyes of this poor woman, staring aghast at the scene before her—a wondrous spectacle, not without intense concern beheld even by such an adept in diagnostics as Dr. Joseph Meyer, who happened to be present. Pressure upon the inferior maxillary nerve of the left side had but little effect; whilst that on its fellow of the right, all-efficient as it was, proved exceedingly painful. The explanation was found in the fact that the right lower jaw was the seat of rather extensive bone-disease which had apparently resulted in the denudation of the nerve. The cure of the disease, obtained by appropriate treatment, removed the anticipated necessity of dividing the nerve. In the section of the latter, as Professor von Graefe hinted, the neighbouring artery would have had to be taken into serious consideration.

Literature bears witness that this subject of pathology has enlisted Von Graefe's interest from a very early period of his career, and he seems to have been most steady in his devotion. In one of his private waiting-rooms, a corner is occupied by a piece of elaborate wood carving—a large chest supported by trestles, with a chain and padlock in front, and having the dedication carved on it, *Eternâ gratitudine subcutaneus malæ*. It was, we heard, replenished with choice cigars, presented by an Italian gentleman who had been cured of his blepharospasmus by neurotomy. And having once entered so far on the path of what may be thought indiscretion, we venture to go a step further in stating that the Professor did not win his fair companion in life before he had rescued her from her troubles by a series of neurotomies. We saw a curious china cup, with a beautiful face painted on it, having the right eye covered by a delicate finger, while it looks bright enough out of the other.

Proceeding to the chapter of *Muscular Affections*, we shall, without dwelling on the notorious penetration with which paralytic disease of the muscular apparatus of the eye is investigated and dealt with at this seat of learning, confine our remarks to the subject of *Tenotomy*.

First, then, as to *Concomitant Squint*, our impression is that a single operation is not frequently considered to be all that is requisite, but that two operations, performed at varying intervals, are the rule; whilst a third operation appears but seldom to be found necessary; and a fourth, though we have once witnessed it, is of course a very rare exception. We have never seen both eyes operated on in one sitting. It is needless to say that Von Graefe, particularly in this province of eye-surgery, does not rest satisfied, more than can possibly be helped, with approximate results; as we might have stated when speaking of lid-operations, and as we shall see again in the chapter on cataract, so, more especially, in ten-

otomy as perfect an immediate result as can possibly be attained is invariably aimed at; and never is the task thought to be absolved while there remains any scope for perfection. It is, in part at least, owing to this punctiliousness, that we here meet with an uncommonly large number of tenotomies (mostly but partial) of the superior or inferior rectus, unhesitatingly resorted to wherever a noticeable discrepancy in altitude manifests itself. In these partial tenotomies, the interference with the tendinous insertion varies of course in degree according to the requirements of the cases; and sometimes but the merest filament of connection is preserved. After the tendinous attachment has first been more determinately snipped with scissors, delicate sawings with a minute scalpel serve further to attenuate the remaining band to the desired extent. Contrariwise, in tenotomy of the lateral muscles, the tendon is invariably severed *in toto* from its attachment; whilst the suture, of more or less potency, is the means of reducing an excessive effect, whether this, as it is in most cases, had been foreseen, or otherwise. This applies, in particular, to those numerous cases where a distribution of the effect over both eyes is preferred to the immediate result of one operation.

The number of tenotomies at this Clinique is, however, considerably swelled by the frequent adoption of the proceeding in cases of muscular asthenopia, dependent on insufficiency of the inner rectus. The object in these cases being in the main to neutralise the preponderance of the external rectus, the detachment of its tendon, the effect of which, however, requires frequently to be moderated by appropriate suture, is the means of restoring the equilibrium, since the complete restitution of the latter by the use of prismatic glasses is, in the majority of cases, either not practicable, or is yet aptly prepared for by preliminary performance of tenotomy. Very rigid inquiry into the behaviour of the lateral recti muscles, in near as well as in distant vision, and no less after than before the operation, is the indispensable condition of success in these cases, requiring, as they do, the most delicate handling. By the interposition of a prism of varying strength, with its base outwards, before one of the eyes, or, if one be particularly affected, before this, the degree of ascendancy possessed by the external rectus is ascertained, and therewith, at the same time, whether and to what extent the division of its attachment is called for. The frequently difficult question, whether parallelism is restored, or whether there exists yet some deviation from it in one or the other lateral direction, is decided by means of a prism of 12° held vertically before one eye, whose image of a distant object is thereby made to occupy a different plane in the vertical sense from that of the other eye, when it becomes apparent whether these two images vertically superposed on each other are homogeneous or crossed—*i. e.*, whether, and to what degree, there is now convergence; consequently, whether the effect of the tenotomy is deficient, satisfactory, or excessive. The unparalleled influx of patients suffering from muscular asthenopia, and the minute and triumphant care bestowed on their cases, must be ranked among the peculiar features of Von Graefe's practice.

No patient on whom tenotomy has been performed is dismissed from the room without having the customary protective bandage applied to his eye; a caution in behalf of which perhaps more might be pleaded than its beneficial influence on the ecchymoses only which are apt to arise from the operation. Much attention is also bestowed on the orthopædic management of the cases after tenotomy by means of suitably adapted goggles.

Of the thread-operation for extreme divergent squint, no more than two or three instances occurred during our stay. The advancement of the insertion of the antagonist by means of the suture appears to be considered sufficient in the majority of cases of this class. In a girl affected with a high degree of alternating divergent squint and greatly diminished mobility of the inner recti, there being also myopia=$\frac{1}{5}$, the operation was performed on the left eye as follows. The conjunctival incision was made two lines distant from the cornea; after tenotomy of the inner rectus, the breadth of conjunctiva remaining on the side of the cornea was undermined with scissors; the tendon of the outer rectus was detached; thereupon a piece of conjunctiva was removed from the inner lip of the conjunctival wound, and three sutures (instead of the more usual four) were applied. There still remained some divergence, which caused the necessity for another operation to be anticipated.

Passing to the affections of the conjunctiva and cornea, we find that, in the ordinary form of *Conjunctivitis*, weak solutions of nitrate of silver and acetate of lead are the applications widely preferred; the latter as an eye-drop, of the strength of two grains to the ounce. The abortive treatment by means of the strong solution of nitrate of silver appears much less in favour than it was at this Clinique in former times. Applications containing the sulphate of zinc or of copper are more rarely, and the bichloride of mercury still less frequently, employed. Alum or borax are reserved for the convalescent period of the affection. Tincture of opium is considered the specific remedy for a form of conjunctivitis, apparently of not unfrequent occurrence, which is characterised by much redness, but only moderate swelling, of the mucous membrane, with considerable pain of a grating or pressing nature, and by the absence of discharge.

To the treatment of *Phlyctenular Conjunctivitis* we have adverted before.

Trachoma is treated, as the cases require, now with the neutral acetate of lead in solution or in glycerine ointment, now with nitrate of silver, either in the form of glycerine ointment or of the mitigated pencil. A sulphate of copper ointment is occasionally ordered for home use. The application of acetate of lead in substance is deprecated.

In *Blennorrhœa Neonatorum*, the sovereign remedy is the mitigated caustic; scarification seems scarcely to be practised any more; implication of the cornea is met by sustained instillation of atropine; while corneal perforation is, on the whole, dealt with in the same manner as we shall presently see it treated in ocular diphtheria. The principal measures resorted to in this latter pernicious affection, which now appears never to die out entirely at Berlin, are, the transfer of the patient to a separate ward, rigorous occlusion by collodion-dressing of the sound eye, if one only be affected, and unremitting application of iced compresses. Incisions of the stiffly infiltrated mucous membrane are utterly repudiated. It is most rare for the cornea to escape implication, whilst in some cases it is doubtless idiopathically affected. When perforation, as is the rule, has taken place, the most thorough levelling of the ulcer is considered indispensable; the mitigated nitrate of silver is applied to the conjunctivæ of both lids (if their already more soaky condition warrants its use), and atropine is instilled; the morbid substance projecting from the ulcer is unsparingly removed with scissors; and this proceeding is repeated daily, so long as there is any occasion for it. Contingently, the lens, if pressing forward, is let out; and often some vitreous body is cut away in addition. This course alone is found to avail in

rescuing whatever little can be saved. Out of many cases witnessed, we shall relate the following.

In a girl, two years old, who was said to have been brought to the Clinique with both corneæ yet intact, whose left eye was now, however, already lost, and whose skin, near the outer angle of each eye, was affected with diphtheritic patches, the palpebral conjunctiva of the right eye was quite stiff and smooth—*i. e.*, in that condition which does not yield to cauterisation; and the cornea was perforated at the bottom. On eversion of the lids, the iris protruded—vascularised, infiltrated, a fleshy mass. Under chloroform, an incision was made with a Beer's knife through the protruded iris, and scissors were employed for the removal of the prolapse, when the capsule came into view, which was now opened with the cystitome. The eye being already less in size than its fellow, the exit of the lens had to be promoted by pressure with the curette, and, this unavailing, by slight dilatation of the corneal opening with the knife. After the evacuation of the lens, some of the vitreous body was removed three or four times with scissors. Fully the upper half of the cornea was yet preserved; the eye looked rather more promising after the operation; yet scarcely any hope was held out. Von Graefe then applied the compressive bandage, which, in such conditions, is regularly employed in alternation with tepid camomile fomentations. Death, which in most instances closes the scene, is looked upon as the only consolation in these distressing cases.

In *Blepharadenitis*, the customary topical remedy is the red precipitate ointment; but we have often seen the lunar caustic applied to separate hair-bulbs, after previous removal of the scabs hiding them; and the same application is resorted to in tylosis with slight eversion of the tarsal margin.

Pterygium and *Symblepharon*, so often occurring in combination, are mostly, and, as we have seen, efficiently, discussed by transplantation of conjunctiva, varied in its mode as the cases require.

During our stay, though we happened to be absent, a patient appeared with a *Polypus* under the lower lid, projecting from the conjunctival fold; it was immediately excised, on account of the trouble it occasioned.

Perhaps I may, lastly, touch on the item of *Neuroparalytic Ophthalmia*, by citing a case. In a patient, about thirty years of age, whose left cornea, characteristically transparent in its entire upper half, was perfectly insensible even to the touch of the finger, the disease was assumed to have arisen from basilar meningitis, caused by the smoking of a bad cigar. This origination was believed in, from the fact that a number of analogous cases had in course of time come under observation. Syncope had in this instance been the immediate effect of the arraigned cigar. There were still some symptoms present of facial paralysis: the tip of the nose slightly turned to the right; the forehead yet imperfectly wrinkled on the left side; the whistling faculty pretty well regained; there was also slight paresis of the left abducens; but no mydriasis, except what was due to atropine, though, in allied cases, the third nerve was said to have been affected. It was maintained that the affection was strictly basal; while the assumption of a central origin, which has been occasionally put forth in cases of the kind, was combated as erroneous. Electricity had in the present case been tried without avail.

Respecting the various affections more strictly corneal, we have to note the following few particulars. As regards, first, *Diffuse Keratitis*, signalised by an appearance of the cornea not unlike that of ground glass, Von Graefe's experience has not enabled him to verify Mr. Hutchinson's statements, fully believed to be borne out by observation in this country, relative to the very general dependence of the disorder on hereditary syphilis. The treatment is wholly expectant. In the course of from four to six months, the affection gives way, unless locally interfered with by active remedies. Atropine, as incapable of being absorbed by a cornea thus affected, is considered useless.

For the relief of *Pannus*, two proceedings are esteemed; viz., peritomy and iridectomy. Inoculation is well-nigh abandoned, owing to its results having been unpropitious in Von Graefe's hands; though he is far from discrediting the more fortunate experience of others, particularly Belgian ophthalmologists, with whom different conditions appear to favour the enterprise. Peritomy is not unfrequently practised; only a small ring of conjunctiva is removed, and the caustic, as originally recommended by Furnari, is dispensed with. The effects obtained are moderate. Of great interest we thought the insistance upon iridectomy, as necessitated in a good many cases of pannus by the coexisting slow iritis, which is very apt to be overlooked, yet, while it lasts, robs of their effectiveness whatever measures may be adcpted.

Dermoid Tumours, here not unfrequently seen, mostly astride on the corneo-scleral frontier, are successfully removed by dissection, which is not generally found necessary to be thorough.

A disease with which we were unfamiliar is corneal *Lymphangitis*. After injuries inflicted upon the membrane of Descemet, such as occur in the extraction of cataract, or while corneal abscesses are in process of absorption, but occasionally also apart from these circumstances, delicate grey tracks are seen in the cornea, separated by perfectly transparent spaces of a similar width to their own. In what Von Graefe considers as conjunctival lymphangitis, thick cylindrical cords are said to proeminate from the general level of the mucous membrane.

By the designation of *Retroleucomatous Abscess*, is understood the product of purulent inflammation affecting the iris which is in contact with the pseudocornea in adherent leucoma.

Some rather unusual occurrences were these. In a case where ashes from a cigar had come into contact with the eye, the corneal epithelium (anterior elastic lamina?) appeared rolled together, and was repeatedly removed with a Daviel's curette. Another case was seen of opacity occupying the lower half of the cornea, and bearing a striking resemblance to a precipitate of lead, although this metal had never come near the eye. The deposit reappeared again and again, in spite of repeated scraping. In a third case, an uncommonly tough and indolent morbid product, occupying part of the anterior surface of the cornea, was not unaptly likened to a corn.

By the denomination of *Acute Xerosis*, a small number of cases were distinguished, noticed at intervals, and to our knowledge only in children, where the cornea presented a dry, leaden, dead, as it were mummified aspect. It is an epithelial affection, and, in opposition to what is the rule with mucous membranes, consists in deficient restitution by fresh growths of the effete epithelia undergoing cornification. The affection appears to be linked to a thoroughly marastic and mostly fatal condition of the system.

Great *Attenuation of the Cornea* is another phenomonon to which, though it occurs but rarely, we had our attention directed a few times. In the eye of a little girl, in which the aperture resulting from paracentesis was from time to time reopened, the cornea, after the escape of the copious aqueous humour,

appeared in front of the pupil as thin as a poppy-leaf. The irregular astigmatism resulting from this condition affords proof of its existence. There is a little of the ground-glass appearance in the aspect of such a cornea, which is always in great danger, mainly because the conjunctiva seems to have no share in the production of the disorder.

A case of unusual interest, though, as to its principal feature, said to be not a very uncommon one, was that of a middle-aged working man, of tolerably robust appearance, who, entirely deprived of the sight of one eye, presented himself with the other likewise so gravely affected that little more than perception of light remained. The man had travelled to consult Von Graefe from the neighbourhood of the Columbia River, where he had left his family, those thousands of miles, all unattended. The left cornea, diffusely opaque throughout, was the seat of a staphyloma forming a bag-like diverticulum at its lower part. The case was on the point of being dismissed as hopeless, when oblique illumination, in the last instance resorted to, revealed a faint chance by proving the cornea to be more transparent than had first appeared. Von Graefe's experience has proved cases of this apparently desperate nature to do sometimes remarkably well in the end. Paracentesis was performed; when, mainly from the escape of too scanty an amount of fluid, it was inferred that the protruded lens was pushing against the cornea. This is explained in cases of the kind to depend on the following condition. The cornea having become ruptured some time, and remaining adherent in one direction only (in the present case upwards), the edge of the dislocated lens comes to lean against the cornea. The next step in this case was the formation of a corneal flap, removal of the lens, and excision of a portion of cornea. The case went on auspiciously, when very severe facial erysipelas supervened, which seriously compromised the progress already effected, and the traces of which had not entirely disappeared when I left; yet the hope was maintained of ultimately benefiting the case.

That fortunately rare form of *Ulcerative Disease of the Cornea*, in which a certain torpor of the organ combines itself with an obviously destructive, as it were phagedænic tendency, the ulcer being deep, irregular in shape, with abrupt edges, and spreading, is said to have proved controllable by systematic and vigorous compression, and by this method only.

The means preferred by Von Graefe for the purpose of diminishing the bulk of *Hydrophthalmous* or *Staphylomatous Eyeballs* sufficiently to render the adaptation of an artificial eye possible, is the ocular seton, the purulent choroiditis resulting from which secures the desired collapse of the organ. Abscission appears entirely to be set aside. We have, however, noticed that occasionally there is a necessity for repeated insertion of the seton, which, in a very refractory case, was at length applied in a coronal fashion, the thread being made to circumscribe the whole cornea.

[*To be continued.*]

The Use of Drugs. Dr. Jayne died in Philadelphia, on March 5th, of typhoid pneumonia, aged 66. About thirty years ago he established himself in this city as a druggist, and soon began the preparation and sale of proprietary medicines, from which he accumulated an ample fortune, a large proportion of which was spent in adorning Philadelphia with some of its finest stores and dwelling houses. (*Phil. Med. Rep.*)

Reviews and Notices.

Lectures on Animal Chemistry, delivered at the Royal College of Physicians. By William Odling, M.B., F.R.S., F.R.C.P., Lecturer on Chemistry at St. Bartholomew's Hospital. Pp. 165. London: 1866.

The six lectures of which this volume consists were delivered last year at the Royal College of Physicians by one of the most able exponents of the modern doctrines of chemistry within the ranks of the medical profession. In them Dr. Odling has attempted to shew the application of these advanced doctrines to the investigation of the phenomena which take place in living bodies, and of the action of medicines.

In the first lecture, Dr. Odling shews what is the proper province of chemical science, and draws attention specially to the fact that chemistry deals not merely with the present condition of bodies, but also with the changes that may occur in them. He notices, also, the great advances made in the chemistry of animal products; and mentions several substances, the product of natural metamorphosis of the animal tissues—such as urea, taurine, leucine, kreatine, tyrosine, etc.—which it has been found possible to build up artificially in the laboratory without having recourse to organic nature. He then turns, in the remainder of the lecture, to an exposition of the doctrine by which certain more simple combinations of bodies are recognised as types—those, for example, in which hydrogen combines in one, two, or three proportions with other elements. The remarks of the author in this place may be regarded as an epitome of those more elaborately put forth by Dr. Hofmann in his work on *Organic Chemistry*, which was noticed in the Journal last year.

In the second lecture, Dr. Odling treats of the Doctrine of Residues; Aplone and Polymerone Bodies; Organic Groups and Series. Here he gives the reasons which chemists have for believing that

"Highly complex molecules are built up of the residues of less complex molecules, which constituent residues, by a direct or indirect absorption of water, are capable of separation from one another, and reproduction in their isolated and perfect state. Accordingly, we regard highly complex or polymerone bodies as compounds formed by the union of less complex or aplone bodies with one another, the union being attended by an elimination of water. Now these aplone molecules, of which our constituent residues represent greater or less portions, are found either to have a very simple constitution, or to be associated with bodies of a very simple constitution, as members of one and the same organic family." (P. 30.)

Thus, for example, in the vegetable kingdom, salicin ($C^{13}H^{18}O^7$), by the absorption of water (H^2O), breaks up into saligenin ($C^7H^8O^2$) and glucose ($C^6H^{12}O^6$); and populin ($C^{20}H^{22}O^8$), absorbing two atoms of water, breaks up into saligenin, glucose, and benzoic acid ($C^7H^6O^2$). The same thing is held to occur in animal products. Thus, urea may be represented as a compound of carbonic and ammonia with elimination of water; palmitic and cetylic acids *minus* water constitute spermaceti; alloxan is represented by urea + mesoxalic acid—water; kreatine by urea + sarcosine—water.

In the third lecture, the author speaks of the Destruction and Construction of Complex Molecules; the Nature of Nitrogenous Compounds; and the Oxides of Hydrogen and Carbon. Here it is shown by Dr. Odling how the tendency of oxidation is to the breaking up of the complex into the more simple combinations; and conversely, how deoxidation tends to the formation of complex bodies out of simple ones. Herein lies the explanation of the fact, that in recent times the chemist has been able to build up —to put together synthetically—the more complex products, the artificial formation of which was a few years ago regarded as impossible.

The fourth lecture treats of the Forces concerned in Vital Actions; Actual and Potential Energy; and the Artificial Synthesis of Organic Bodies. Here the author introduces the doctrine of the correlation of forces, and their ultimate derivation from the sun; and shows the applicability of this doctrine both in the inorganic and the organic world.

"The vegetable organism is a machine in which the sun's energy is absorbed in the pulling apart of carbon and hydrogen from oxygen. The light and heat force emanating from the sun is rendered latent in the separated oxygen and carbo-hydrogen, just as human muscular force is rendered latent in the stretched cross-bow. When the separated carbo-hydrogen, in the form of some vegetable product, is recombined with the evolved oxygen, as in burning coal and wood upon the fire, or in consuming bread and oil and wine in the animal frame, the heat liberated in both instances is nothing more than the heat of the sun which had been stored up in the carbo-hydrate and oxygen respectively. Conversely, the animal frame is a machine in which the sun's energy is set free by the recombination of that oxygen and carbo-hydrate, in the pulling apart of which it had been absorbed or rendered latent. The plant may be regarded as a miser, or hoarder up; the animal, on the other hand, is a spendthrift, or dissipator, of the sun's force; but just as the miser is not a producer, or the spendthrift a destroyer of gold, so neither is the vegetable a producer, nor the animal a destroyer of force. All modern philosophy combines to prove that force, like matter, is indestructible. It may be accumulated, but not created; be dissipated, but not destroyed. The force of every kind, active or latent, existing in the earth, at any given moment, is only the sum of the force received by the earth from the sun in excess of the force radiated by the earth into space." (P. 75-6.)

It will be thus seen that he attributes all actions of the animal body to cosmical force. And he cannot recognise any explanation of the phenomena of life which depends on "vital" force in the sense in which it is most frequently accepted—apparently "a sort of internal, intransferable, immeasurable, self-originating power, which performs nutritive acts by its absolute will and pleasure," as if external force, direct or indirect, were never required. He would rather apply the term "vital" to the "potential energy of fat or muscle, capable by oxidation of being manifested in the form of heat or motion."

In another lecture, Dr. Odling makes a protest against the supposition that chemists and physicists do not recognise the distinctions between dead and living matter.

"I believe that chemists appreciate in its fullest extent what may be called the mystery of life, but they look upon the physiologists' explanation as a mere periphrasis—as only another mode of saying that dead matter differs from living matter because it is dead, while living matter differs from dead matter because it is alive. Chemists and physicists are well assured that, be life what it may, it is not a generator, but only a transformer, of external force." (P. 108.)

There can be no doubt as to the action of ordinary cosmical force in the changes which occur in living bodies; but, on the other hand, we cannot throw aside the idea that there is some regulating vital power, which, in the living body, animal or vegetable, determines and coordinates the changes, and maintains the simultaneously acting constructive and destructive processes in their proper relation to each other.

The idea of the action of cosmical force in the formation of products in organised bodies, is certainly, as the author points out, countenanced by the fact that the chemist can form many of these in his laboratory by artificial means; and that, with an improved knowledge of synthetic processes, the constructive power of chemical art is becoming more and more apparent.

"Seeing that the enormous number and variety of animal and vegetable compounds are produced out of carbonic acid, water, and ammonia, not by any peculiar vital force, but merely by the light and heat force of the sun acting through organic machinery, the question naturally arises whether the chemist may not effect in his laboratory a similar combination of deoxidised carbonic acid and water, either by a direct application of sun-force, or, indirectly, by the aid of those terrestrial transformations of sun-force which are so abundantly at his disposal." (P. 78.)

In the remaining part of the lecture, Dr. Odling gives a series of instances in which this question has been decided in the affirmative; and he describes the way in which the changes have been effected. Taking, for example, an associated series of homologous fatty acids and alcohols, he shows how by various processes it has for some time been possible for chemists to add to one or other alcohol an atom of carbon, thus producing the acid corresponding to the alcohol next in the series. Thus, the first alcohol of the series (methylic = $C H^4O$) is converted into the second acid (acetic = $C^2H^4O^2$), etc. Until lately, the power of chemists has been limited to the conversion of the alcohol into the acid; but recently, through the researches of Wurtz and Mendius, it has been found possible to pass alternately from the one group to the other—converting acids to alcohols, and alcohols to acids.

Of the great classes of alimentary substances which have been thus treated, chemists have been most successful with the oleaginous and the saccharine, especially the former. "The albuminous are still far beyond us; and no wonder, since their very constitution is not only unknown, but unsuspected." Dr. Odling, however, believes that it will be possible to reconstruct these artificially, so soon as their natural composition shall have been understood.

In the fifth lecture, the author treats of the Dynamic Value of Muscle-Oxidation, and the Intermediate Products of Tissue-Metamorphosis. After commenting on the quantivalence of heat and motion, he notices the perfection of the muscular tissue as a dynamic apparatus.

"Although the ratio of the amount of motion actually produced to that theoretically producible by the combustion of a given weight of muscle, has not, I believe, been satisfactorily ascertained, this much is certain,—that muscular tissue is, without exception, by far the most perfect of machines for manifesting the force liberated by chemical action in the form of motion. No artificial contrivance with which we are acquainted is at all comparable to it in economy—that is to say, in the proportion of mechanical work performed to the total force liberated. . . . It appears that by burning, or consuming, or oxidating a given weight of muscle in our bodies, we obtain a quantity of available motive force which would require for its production the combustion of at least five or six times its weight of coal in the most perfect steam-engine that ever was constructed.

"The superior economy of muscle over any artificial contrivance, as a motive machine, seems to depend in great measure upon the circumstance of the force liberated by its oxidation being expressed directly in motion, instead of first appearing in some intermediate form of energy. In a steam-engine, the combination produces heat, and the heat is afterwards transformed into motion; whereas, in muscular tissue, the combination first produces motion, which is afterwards, in many cases, transformed into heat. The force liberated by the combustion of the muscular fibre of the heart, for instance, is expressed directly in the contraction of its ventricles, and the consequent propulsion of the blood through the greater and less circulations. But by the time the blood gets back to the heart, it has given up all its motion, and requires to be again propelled by another contraction of the ventricles, and so on. Now, what becomes of the motion received by the blood at each contraction? It appears in the form of heat. The blood circulating through the vessels and capillaries undergoes a certain amount of friction. It is brought to a state of rest gradually by the hindrance to its motion, just as a bullet is brought to rest suddenly by the hindrance to its motion. In both cases, that which was motion becomes heat; and in the latter case, the quantity of heat finally produced by the friction of the blood is generated as truly by the combustion of the heart-fibre, as if we had burnt it directly in a furnace. In some cases, indeed, the oxidation of muscle within our bodies produces a direct liberation of heat instead of motion. In the case of a person lifting a weight, the combustion of his tissue is expressed in the motion of the weight; but, suppose he only attempts to lift a weight which is too heavy for him, there is then no production of motion, but, instead of it, a corresponding increase of temperature in the muscle. In tetanus, again, where the violent contraction of the muscles produces no external motion, their temperature has been observed to increase as much as six degrees centigrade or eleven degrees Fahrenheit above the normal state. Conversely, in the case of a man working a treadmill, although the amount of heat evolved from his person is absolutely larger, its proportion, relatively to the amount of tissue burned, is smaller than in the case of a person at rest, by a difference equivalent to the external work performed. But in fever, where there is a rapid destruction of tissue without any corresponding mechanical effect, we have a complementary manifestation of external heat." (Pp. 105-7.)

In the last lecture, Dr. Odling speaks of Uric Acid and its Congeners, and the Chemical Action of Alterative Medicines. In his remarks on the latter subject, he expresses his belief that the efficacy of alterative medicines is in great measure dependent on the readiness with which they undergo chemical change. It is rather curious, that the compounds of iron, mercury, and arsenic, which are habitually used as alteratives, are, because of their impressionability, used in the chemical laboratory; the mercuric, arsenic, and ferric, as oxygenants; and the mercurous, arsenious, and ferrous, as deoxygenants. Again, he contrasts chlorine and iodine. The compounds of chlorine are remarkable for stability, those of iodine for their mobility; and, while it makes all the difference whether we use free chlorine or chloride of sodium to obtain the effect of chlorine, either iodine or iodide of potassium may be used to obtain the effects of iodine. Phosphorus and arsenic, having a certain chemical relationship to each other, parallel to that between chlorine and iodine, are capable of being similarly contrasted as to the stability of their compounds and their activity when introduced into the body.

The effect of alkalies in promoting oxidation is also noticed. Dr. Odling believes that their action is in great part due to their increasing the tendency of carbon to become oxidised, "apparently because of the opportunity afforded by the presence of the alkali for the formation of salts instead of acids."

Independently of the excellent exposition of the results of modern chemical research which Dr. Odling has placed before the profession in these lectures, his remarks are deserving of attentive study on the part of physiologists, and of those who are engaged in investigating the action of medicinal agents on the human body.

A Manual for the Classification, Training, and Education of the Feeble-minded, Imbecile, and Idiotic. By P. Martin Duncan, M.B.Lond., F.G.S., Honorary Consulting Surgeon to the Eastern Counties Asylum for Idiots and Imbeciles; and William Millard, Superintendent of the Eastern Counties Asylum. Pp. 191. London: 1866.

A table appended to this work shows that, on an average, one person in every two thousand of the population of England and Wales is a "pauper idiot." The real proportion, however, must be even greater than this; for the idiotic and imbecile are to be met with in all classes of society. The condition of these unfortunate beings has, naturally, excited the sympathy of humane men in this and other countries—a sympathy which has not been altogether merely sentimental, but has manifested itself in attempts to raise "these lowly gifted members of the human family" nearer to the level of their fellow men. In Great Britain, France, Germany, Prussia, Holland, and the United States of America, this noble task has been undertaken by men who, though often little known to fame, deserve to be esteemed and venerated as true benefactors.

The authors of this work are, we are informed, the consulting surgeon and the superintendent of an asylum situated near Colchester, the object of which is denoted by its title, "The Eastern Counties Asylum for Idiots and Imbeciles." Of the history of this institution, and its extent, we have no information; but, if it is managed on the principles laid down in this work, we can only say that it is well managed; and that we are heartily glad to hear of its existence. Dr. Duncan and Mr. Millard

allege, as their reason for writing the work, that "a book on a rational system of education of the feeble-minded, imbecile, and idiotic, has long been required"; and state that, seeing the deficiency of knowledge which prevails in regard to the proper treatment of these unfortunate beings, and "believing that this unsatisfactory state of things arose from the want of sufficient and correct information," they offer the result of their experience.

The book consists throughout of practical directions; theoretical matters, except where absolutely necessary, being avoided, for the reason that the scientific history of idiocy is yet in an imperfect state.

The book consists of eighteen chapters, arranged as follows: 1. Introduction to the Classification of Idiots, Imbeciles, and the Feeble-minded; 2. Classification and Description; 3. General Principles of the Education and Training; 4. Education and Training of the Different Classes; 5. Attendants and Nurses; 6. General Requirements for the Education and Training; 7. Clothing; 8. Dietaries and Hours; 9. Bathing and Washing; 10. Drill, Gymnastics, and Special Exercises; 11. Speaking Lessons; 12. Toys, Pastimes, and Useful Employments; 13. Practical Hints on Mental Training; 14. Treatment of Bad Habits; 15. Instruction in Morals, Temper, and Religion; 16. Hints on the Medical Treatment; 17. Treatment of Poor Idiots; 18. Results.

In describing the general symptoms of idiocy and imbecility, previously to forming a classification of the cases, the authors point out as a leading feature in idiocy and feeble-mindedness the co-existence of inseparable mental and bodily deficiencies. The most common bodily defect is the want of muscular co-ordination. This is a very decided symptom. The shape of the head, the aspect of the face, and the amount of general deformity, cannot always be depended on; although there are some forms of head associated with profound idiocy.

"The defects of the mind in idiots have a very close relation to those of their bodies; and it may be stated as a general rule, that the greater the bodily defect the greater the idiocy. Moreover, it is a hopeful sign when a child very deficient in mind has good muscular powers, is able to run and to walk moderately, and has but few peculiar tricks or bodily defects. These defects require careful consideration in every case, because their alleviation and treatment must precede any regular system of mental training.

"As it is believed that a more or less permanent defect of one or more of the functions of the body always exists in idiots, the absence of anything of the sort in very stupid and apparently idiotic children is a proof that there is no grave nervous defect, but simply a temporary inability to learn." (P. 6.)

The defects and peculiarities enumerated as noticed in idiocy and its allied conditions are: dulness (sometimes morbid acuteness) of the sense of feeling; deficient ability to employ the sense of touch; absence or perversion of smell and taste; defective power of moving the eyes, defective vision (not necessarily blindness), squinting, etc.; more or less defect of voice in all cases; inability to retain the saliva or to close the jaws; irregularity of the respiration and circulation; voracious appetite; slow digestion; incontinence of urine and fæces; want of co-ordination of the muscles of the limbs; "to and fro" movements; general inertness; and defects in every mental gift, manifest in degree "from the infantile intelligence of some, to the weak and generally inferior intelligence of those who approach the lowest types of the perfect minded." Having commented briefly on these conditions, Dr. Duncan and Mr. Millard sum by saying that while

"There is a great scope of bodily and mental deficiency among idiots, imbeciles, and the feeble-minded, only a few defects are really perfectly characteristic of the states."

In their classification, the authors arrange the cases into congenital and non-congenital. Of the congenital, there are four classes.

The first class consists of *true idiots*—the lowest form, or "solitaries." Of these the authors describe the characters; and remark that

"From these symptoms of the varieties of the profound idiot, it will be observed that the excessive deficiency recorded by some writers is not thought consistent with fact. To find out the small gifts, time and study are requisite."

The second class of idiots—the most numerous—are defined as "having a slight amount of intelligence, being able to stand and walk a little, and often capable of slight instruction." These may, on growth or by proper education, pass into the third class, the members of which are characterised as being "able to walk, run, to use their fingers, to be made to attend slightly, to do easy mechanical work, and to feed themselves; memory and perception being very weak, and variable in power."

The fourth class consists of the "feeble-minded"; who may have been born idiotic, and may have belonged to either of the former classes, but have made an advance in bodily and mental power in consequence of ordinary growth or of applied education, or both. They are in advance of the third class in mind, in the power to walk, run, and jump well, to use their hands, to speak well, and to labour without constant supervision.

These classes are of congenital defect of mind. Next come four classes of non-congenital cases—imbeciles. In these the defective condition of mind and often of body has been induced by disease of the brain, hydrocephalus, injury, vice, etc.

Cases illustrative of the various conditions described are given by the authors.

We cannot follow the authors through the numerous details, the description of which form the bulk of the book. It must be sufficient to say, that nothing is considered by them too unimportant to be worthy of some advice being given in regard to it; and that the directions which they give for the treatment of the idiotic and imbecile bear the impress of good sense and of practical knowledge. In their concluding chapter, they give a caution against over-sanguine expectations; observing that the affliction cannot be completely removed, while the results attained are gratifying—varying, of course, in the different classes. The results which are described, and which are known to all who have had opportunities of observing the endeavours made to improve the condition of the imbecile and idiotic, are, as the authors rightly observe, "truly gratifying to every philanthropic mind."

We have very great pleasure in recommending this unpretending but valuable work to the notice of the profession, and of all who are interested in the subject which its authors have so well treated.

We are requested to remind members of the Association that the Annual Subscriptions became due on the 1st of January. They can be paid either to the Secretaries of the Branches; or to the General Secretary, T. Watkin Williams, Esq., 13, Newhall Street, Birmingham.

British Medical Journal.

SATURDAY, APRIL 14TH, 1866.

STATISTICS AS A GUIDE TO THE TREATMENT OF PNEUMONIA.

A SMALL volume just published by Professor Bennett consists essentially of a table which appeared in the fourth edition of his work on Medicine. It contains also a reply to certain objections which have been made to his method of dealing with the statistics of pneumonia.*

We have already at length stated our opinion as to the value of Professor Bennett's statistics; and must still abide by the reasons which we then gave in dissenting from them, as indicators of the value of any one particular remedy in pneumonia. What they do indicate, if they indicate especially any one thing, is the value of supporting the patient with food, etc., whilst lying sick with the disease. But surely this lesson is hardly one which the profession requires being taught at this present day—at least in England. Who is there of us who does not follow, or who has not for many years past followed, in the treatment of pneumonia, the same plan as that pursued by Professor Bennett? Much credit is doubtless due to him for having so long combated the antiphlogistic method; but surely the sustaining plan—food and stimulants—has now for many years been the established practice of the country. What, therefore, most of all surprises us in reading Professor Bennett's table of cases, is the very singular success with which it has met in his hands. We do not think that the experience of any other physician in this country will endorse the statement that "simple primary pneumonia, whether single or double, if treated by the restorative plan, is not a fatal disease"—that is, as the context implies, is never a fatal disease. "Surely," Professor Bennett adds, "105 consecutive cases, of which 26 were double, are sufficient to establish this proposition." Elsewhere he says, "Of cases of uncomplicated pneumonia 105 in number, not one has died, although many of these have been very severe, involving the whole of one lung in 15, and portions of both lungs in 26 cases." Success of such a kind as this—not a single death out of 105 consecutive cases of pneumonia—appears a most remarkable fact, when judged of by the results of the same treatment in other hands.

We have, therefore, a very important question to answer; viz., How comes it that, under the restorative treatment here—in London, for example—a certain percentage of cases of pneumonia assuredly die, whilst in Edinburgh, under Professor Bennett, none die? Wherein lies that difference in treatment which brings about the fatal result? We look in vain in Professor Bennett's work for any explanation of the difficulty; and yet the explanation is one of all importance; for in it lies the key to the life or death of a certain number of pneumonia patients —*i.e.*, if we accept unconditionally Professor Bennett's tables. To know this difference would be, according to Professor Bennett's results, to reduce positively to zero the mortality of pneumonia. Professor Bennett tells us, that the general results of "the last nine years' experience in the Royal Infirmary of Edinburgh exhibits a mortality of one death in seven and three-quarters." That is, as we read it, Professor Bennett's colleagues lose about twelve per cent. of their cases of pneumonia, whilst all his own cases recover. To know in what particulars the treatment of pneumonia in the Edinburgh Hospital under other physicians differs from that of Professor Bennett's would be, it seems to us, to gain knowledge of the highest value.

This difficulty has led us once again to examine Professor Bennett's table of cases; and we feel bound to say, that the nearer we examine it, the less do we feel satisfied with the deductions drawn from it by him.

Professor Bennett, let it be remembered, rests the demonstration of his success upon the results as shown by his table of cases. If his table, therefore, be defective, so likewise must be his conclusions; and that they are so, we shall now proceed to show.

In the first place, we note that Professor Bennett excludes from his 105 consecutive cases the "four fatal cases in which death was evidently caused by complications independent of pneumonia." We also note that "thirteen other cases in which, as the result of chronic, cerebral, spinal, cardiac, hepatic, renal, or other pulmonary disease (such as phthisis and chronic bronchitis), pneumonia appeared before death, adding a fatal complication to previously existing maladies. Not one of these can properly be considered as a case of acute or primary pneumonia." These seventeen cases he consequently excludes from his tables, and so leaves 105 consecutive successfully treated cases of pneumonia. But why, we must ask, does he exclude from his table of successful cases these complicated cases of pneumonia which

* *The Restorative Treatment of Pneumonia.* By Professor Bennett.

die, and yet include in them very many similarly complicated cases of pneumonia which survive? Why *exclude* the fatal case (No. 127) complicated with albuminuria and delirium; and *include* the successful case (No. 112) complicated with albuminuria and delirium? Why *exclude* fatal cases complicated with phthisis, and *include* many successful cases of pneumonia complicated with phthisis? Why *exclude* fatal cases complicated with cardiac diseases, and *include* successful ones? Why *exclude* fatal cases complicated with chronic bronchitis, and *include* the successful ones? Professor Bennett has not explained why he has done so; but surely explanation is necessary. It seems to us that, unless he give good and sufficient reason for this exclusive difference, we have a perfect right to add some of these fatal cases to his consecutive successful ones. And, if we do this, we find that the "restorative treatment" in Professor Bennett's hands has a result, not (as Professor Bennett would have it) of uniform and uninterrupted success, but very much the same as it has in other people's hands.

We could take other exceptions to this table, in reference to the diagnosis, etc., in some of the cases; but we hold the exception already taken, unless satisfactorily explained away, to be fatal to its reading in Professor Bennett's sense.

With regard to the effects of bleeding in pneumonia, Professor Bennett answers none of the objections which have been suggested for his consideration. His reply to those who recommend a moderate bleeding in the rare cases of pneumonia *where pain, dyspnœa, etc., are great and urgent*, is of a twofold kind. First, he says that he himself once recommended this very practice, but never now adopts it; and secondly, he objects to those who still advise and practise it as if they were advising and practising the old-fashioned "antiphlogistic practice"—as if they were advising the use of bleeding and starvation as a general practice in pneumonia—as if they were, in fact, practising something totally different from what he calls the "restorative treatment."

To the question put to him by Dr. Markham, What proof can you give that the loss of a few ounces of blood is dangerous in pneumonia? Professor Bennett, in a former edition of these tables, answered by a reference to Dr. Bell's table of cases. But this reference he has withdrawn; it having been satisfactorily shown to him that his reading of Dr. Bell's statistics was erroneous.

Driven from this position, he now answers Dr. Markham's question by saying that "when one person in every three died of pneumonia, the large number that recovered was constantly appealed to in support of the antiphlogistic practice; that bleedings to the extent implied by Dr. Markham may be practised with impunity, not to talk of benefit, is disproved by all known facts." What sort of an answer this reply is to the question, we leave our readers to judge.

Professor Bennett, again, does not answer the question more than once put to him: What possible comparison is there between one bleeding associated with the "restorative treatment", *in rare cases of very urgent pneumonia*, made solely to relieve dyspnœa, and the treatment where bleedings were adopted again and again, *in all cases*, to jugulate the pneumonia, and were associated with starvation, etc.? Until he has answered this question, we must be excused for saying that Professor Bennett has given no particle of proof to show that bleeding, practised as here inferred, is injurious in pneumonia. He admits that it often gives instant and great relief to suffering. And is it nothing to save a patient the agony of several days' tortured respiration? Is it nothing to free the play of those vital organs, when thus violently impeded, whose arrestment is, *pro tanto*, the arrestment of every function of the body? To Professor Bennett's reply, that such bleeding endangers life or prolongs convalescence, we answer, that of the *proof* of this statement he gives not a particle.

We have more than once had to regret Professor Bennett's mode of arguing; and we have again to do so. In this last publication, he refers to the fact of our having stated that his own table of cases might be taken to show the benefits of loss of blood in pneumonia. Our words were:

"We find that no fewer than twenty-five of those very cases (his own) which he employs to illustrate the dangerous effects of bleeding in pneumonia were actually subjected to *bleeding (by venesection, cupping, or leeching)*, the bleeding being of much the same kind and degree as that practised in Dr. Bell's cases." (British Medical Journal, Nov. 18, 1865, p. 532.)

Now, of these twenty-five cases, nine were bled, and sixteen cupped or leeched; and hereupon Professor Bennett remarks:

"It did not occur to me that such cases would have been referred to as illustrative of the effects of bleeding in pneumonia; but, as these have been ingeniously added by a critic to the nine previous cases, and *represented as twenty-five of my cases which were bled*, constituting 20 per cent. of the whole number," etc.

Professor Bennett, it will be observed, says we "ingeniously represented that twenty-five of his cases were bled"; that we, in other words, misrepresented the facts for the purpose of inducing our readers to believe that the blood had been taken by venesection. It is really difficult to understand how Professor Bennett, with our very words lying before him, "*by venesection, cupping, or leeching*," could venture to say that we exercised our ingenuity in making out that all of them were bled.

Besides, who would have thought that Professor Bennett, who now laughs at the idea of leeching and

cupping being set down as loss of blood in pneumonia, himself actually used, as demonstrative of the fatal effects of bleeding, the cases of Dr. Bell (already referred to), most of which lost blood only by cupping and leeching!

Professor Bennett, it must not be forgotten, rests his case wholly on deductions made from figures; and is therefore bound to be strictly accurate in his statement of facts. And surely, if results may be drawn from them, as Professor Bennett draws them, we have a perfect right, on his own principles, to affirm that his cases demonstrate the very opposite of his statement as regards the danger of loss of blood in pneumonia. At all events, inasmuch as 20 per cent. of his cases—the cases which demonstrate, as he considers, an unparalleled success in treatment—suffered loss of blood by venesection, cupping, or leeching, Professor Bennett can by no logic properly affirm that a moderate loss of blood in pneumonia is dangerous to life or retards recovery.

One more example, in conclusion, we will give of the incorrect results which figures may be made to give. In speaking of the *effects of bleeding*, Professor Bennett makes out that, of his nine cases which were *bled*, the average duration of the disease was *twenty-one and a quarter days;* whilst, of the whole number of *single uncomplicated cases* (seventy-three), the average duration was *thirteen and two-sevenths.* But why does he mingle together single and double cases of pneumonia in his calculations to show the effects of bleeding, and separate them in calculating the effects of the restorative treatment? Now we find that, of the nine cases bled, six were single; and, if six cases be worth anything at all, when used to show the comparative effects of not bleeding, against seventy-three cases, they ought evidently to have been separated, and calculated apart from the double cases. When this is done, we find that, instead of the average duration of disease, as showing the effects of bleeding, being twenty-one and a quarter days, as set down by Professor Bennett, the results are about as good as in the seventy-three cases referred to! Truly may it be said, that figures can be made to show anything.

Moreover, we might fairly take some other objections to details of these tables. For example, one column shows the date of the rigor in every case, whether it occurred five, six, seven, eight, nine, or even fourteen days before the patient entered the hospital! But does rigor invariably show itself in pneumonia, and so markedly that the patient can himself refer back positively in *every case*, and tell of its date with certainty? Surely not: and yet a great part of the value of Professor Bennett's tables depends upon this fixation of the disease; for from that reported sign he dates the commencement of the disease, and so calculates its duration.

Professor Bennett says that "the whole of this discussion indicates how necessary it is that we should emancipate ourselves from confident plausibilities and fallacious assumptions." May we not say that it shows also how still more necessary it is to free ourselves from the bondage of plausible statistics? Will not the profession as a body exclaim that Professor Bennett has arrived, spite of his figures, at fallacious assumptions, when he says that he has successfully treated one hundred and five consecutive cases of pneumonia? Will they not exclaim, *primâ facie*, on the *reductio ad absurdum* argument, that figures which show such results must be somewhere wrong? Will the profession accept the facts to which he appeals, when he says, "I appeal to the facts tabulated, as showing that both strong and weak individuals recover easily under restorative treatment, and that the amount of dyspnœa or the disease attacking one or both lungs in no way affects the mortality"? Will the profession accept these things as "sober facts, well attested and tabulated"?

THE NIGHTINGALE FUND.

The following analysis of the operations of the Nightingale Fund, from the *Pall Mall Gazette*, indicates the necessity for investigation into its present management.

"An analysis of the reports of the committee of the Nightingale Fund shows that more might be done by extending their operations and adopting a more economical scheme of management.

"The committee of the fund selected for the field of their operations St. Thomas's Hospital; a selection which has proved unfortunate, on account of the unsettlement of the hospital affairs. Only a part of the income of the fund has been expended, so that various sums have been annually invested out of income.

"The cost of the first year's operations was £1009:12; and the result was thirteen trained nurses. It appears that six out of the thirteen were taken on the staff of St. Thomas's Hospital, two were sent to country workhouses, the fate of two others was undecided, and the remaining three had returned to their homes 'for the present.' The cost of training these nurses exceeded £777, and, with the exception of the two workhouses which obtained each one nurse, St. Thomas's was the only institution which received any benefit. The second year, 1862, nine trained nurses appear to have been turned out at a cost of £700; of these, two were sent to country infirmaries, one to a military hospital, one to St. John's training school, the remaining five 'retained on the service of St. Thomas's.' In the third year, 1863, the abstract of accounts shows an expenditure of £600 (irrespective of midwifery nurses, of whom we shall speak hereafter), and it is impossible to learn from the printed reports that any results whatever, of value to the public, were achieved; for whereas the first report states that thirteen nurses had been trained, and the second adds nine more, the report for the third year only speaks of twenty trained nurses being then actually in employment. Twelve were, however, 'under training', the difficulties of the hospital having told this year on the nursing establishment; and at the close of 1864,

£745 having been expended, fourteen trained nurses seem to have been added to the total as the combined operations of the two years. Thus, in four years, thirty-four nurses had been trained—rather more than eight nurses each year. In 1865, eleven trained nurses were supplied at a cost of £950. The total number of hospital nurses trained in the five years seems to be forty-five, on whom were expended £4000, giving an average cost of over £88 for each nurse.

"Thus, the authorities of the richly endowed hospital of St. Thomas have not only had the gratuitous services of these nurses while probationers; but, after they had been trained at this great cost, have enjoyed a sort of monopoly among metropolitan hospitals of their services; six of the nurses so trained by the fund being absorbed at the end of the first year, and five at the end of the second year. The expenses of management are very great; and an extraordinary item of annual expenditure is, 'salaries of matron, medical officer, and sisters, £200'; so that St. Thomas's Hospital not only receives the valuable services of these boarded and lodged probationers during the whole period of training, and absorbs as many of them as it requires when fully accomplished, but receives, in the way of douceurs to its officers, fully a quarter of the whole amount expended in the work. We cannot but think that other London hospitals would have thought themselves fortunate in having the gratuitous services of the probationers in the wards without expecting either to be paid for training them, or to have so large a preferential interest in their services when trained.

"As to the midwifery nurses, a somewhat remarkable arrangement has been made, which seems equally to require reconsideration. It seems to have been assumed that all London, with its numerous lying-in hospitals and maternity charities, is inadequate to find cases for the experience of the nurses, and the funds have been employed to create a maternity department at a given hospital, and to defray the expenses of the support of the patients. In the year 1864, £410 is set down in the balance-sheet as having been expended in training midwifery nurses at King's College Hospital; but, on turning to the report of that hospital, it will be seen that of this sum £350 was paid to the treasury of the hospital for the maintenance of patients; that really only £60 was devoted to purpose of the fund—the training of nurses. Looking to the great want which exists for trained nurses throughout the country, in workhouses, infirmaries, hospitals, rural cottages, and city homes of both poor and rich, there seems to be good reason to ask the managers of the Nightingale Fund whether it may not be wise to consider a scheme in which the expense of management and collateral outlay have been so large, while the actual results have been so disproportionately small, and to ascertain whether other hospitals might not be disposed to give as efficient a training to the probationers at a fraction of the cost."

The *Lancet* gives a striking instance of the effects of "cheap medicine". It tells us that there is one, and probably only one, parish in London at the present time where vaccination is properly done; and there the medical man is paid 3s. 6d. per case. The new Vaccination Bill gives only 1s. 6d. for vaccination and 1s. for re-vaccination. But, then, if the Government can find medical men to do the work at that price, what more is there to be said?

It is satisfactory to find that Sir George Grey is inclined to listen to the Medical Council; because, from this, we may hope for an amendment of the Medical Act. The present "Act has been found ineffectual to enable persons requiring medical aid to ascertain who are qualified practitioners". The Council, therefore, seek to substitute the following clause for the present Clause XL of the Medical Act.

"Any person practising Medicine or Surgery, or being engaged in the treatment of diseases or injuries, not being registered under this Act, who shall take or make use of any of the titles or designations enumerated in Schedule A to this Act, or that of Physician, Surgeon, Doctor, Professor of Medicine, Professor of Surgery, or any other title, name, or designation used by or used to distinguish duly qualified practitioners in Medicine or Surgery, shall, upon a summary conviction, be liable to a penalty not exceeding twenty pounds for each offence."

If this clause be made law, it is believed that a stop may be put to the doings of a vast number of quacks who pretend to be legal "physickers". But a good many difficulties stand in the way of this clause. What is to prevent a man from calling himself doctor, if he really has a 4s. 6d. title of Doctor of Philosophy from the University of Krebsland? Or, again, what law can prevent a man putting the letters "Dr." before his name on a door-plate? And then there is the question of foreign practitioners to be dealt with. If they are not on the *Register*, are they to be prevented practising medicine in this land of free trade? And, besides this, there will be the London University in opposition, unless the Medical Council withdraw their refusal to admit its degree of Bachelor in Surgery to be placed on the *Register*. However, we may hope that the Medical Council and their lawyer may overcome these difficulties.

The visitors appointed by the Medical Council to visit the examinations of medical licensing bodies, have reported to the Branch Council. It is said that the examinations have been pronounced defective in two instances. When the Council meets, we shall no doubt be more fully apprised as to the nature of the defects, etc. The number of rejections of qualified candidates by the Chelsea army examiners indicates pretty clearly that there is something wrong somewhere in this matter of licensing.

During the past week, many actions against railway companies for damages to the person have been tried, and have been distinguished, as usual, by conflicting medical evidence. In a case at Bristol,

"Dr. Green and Mr. Prichard stated that they thought, if the plaintiff had three or four months in the open summer air, with rest, he would be restored. Mr. Humpage described the injuries. Among others was 'a tumefaction of the right orbit' (a black eye). The progress had not been so satisfactory as some of the doctors calculated. Mr. Barrett of Bath set the

he plaintiff's leg. He thought there was disease going on in the spinal cord. The case presented very grave features. The plaintiff might go on for years, with the symptoms getting worse and worse. He had made seventy-five visits to the plaintiff, for which he charged three guineas a visit. Dr. F. Brittan thought the dorsal vertebræ were affected. He considered the plaintiff to be in a state of recovery. Mr. Nathaniel Smith thought the plaintiff might suffer for a considerable time."

In another case, at Gloucester, we see some of our *magnati* pitted against each other in opinion.

"Dr. Elkington stated that the plaintiff was suffering from a nervous shock to the brain, and had indications of paralysis; and that his spine was injured. Mr. Cheshire said there was a slight extravasation of his right eye, arising from a shock received by the retina in the accident. Dr. Bell Fletcher thought there was a general affection of the nervous system of the brain and spinal marrow. Dr. Gilchrist of Torquay saw a general disturbance to the nervous system; and Mr. Erichsen, a subacute inflammation of the brain and irritability of the spine, with paralysis of the legs.

"On the part of the railway, Dr. Heslop of Birmingham thought that, though there was a general disturbance of the nervous functions, there was no organic disease of the spine or brain. Dr. Blount agreed with him. Mr. Haynes Walton, Mr. Pemberton, and Sir W. Fergusson gave evidence in support of the theory that the plaintiff's injuries were temporary, and not permanent."

The Medical Congress of France for 1866 meets at Strasbourg. It opens August 27th, and will last six days. Foreign medical men will be admitted members (without subscription) on application to the Secretary, Dr. Hecht, 42, Rue des Grandes-Arcades, Strasbourg. The following is the programme of subjects for discussion decided on by the Committee:—1. The Mode of Propagation of Cholera; 2. The Treatment of Constitutional Syphilis; 3. Ovariotomy and the Extirpation of Fibrous Tumour of the Womb; 4. Histology in its Relation to Pathology and Clinical Medicine; 5. Anæsthesia in Surgery. Whoever desires, by writing or verbally, to take part in the discussion of these special subjects, must give notice to the Secretary eight days at least before the opening of the Congress.

The appointment of Dr. E. Smith and Mr. Farrall to inspect the condition of the sick-wards of London workhouses is a sign that Mr. Ernest Hart's Committee has made a powerful impression on the official mind. We need not be too critical at the present moment; but we cannot help saying that there appears something very condemnatory of the present system in the fact of this official inspection. How comes it that, on such a vital point as this—the treatment of the sick—the Head Centre of the Poor-law requires information? How is it that his inspectors are not able at once to tell the exact state of the matter? In the last number of the *Fortnightly Review*, Mr. Hart explains the proposal of his Committee on Metropolitan Pauper Infirmaries. It is said, that individual workhouses cannot in every case remodel their own infirmaries; it would involve an outlay on the poorer districts which they could not bear. Nor, again, would it be satisfactory to allow each workhouse to improve its infirmary out of a general fund. There are thirty-nine workhouses; and it is unreasonable to suppose that each of these could establish a model hospital, such as it is proposed should be provided for the sick pauper. Besides, the cost of their management would be much greater than that of some six or twelve large central hospitals, under one general superintendence. It is also very desirable to separate the sick from the healthy pauper, and also to have a means of classifying and separating the sick, the lunatic, the lying-in, etc., which does not exist at the present moment. The idea of subsidising voluntary hospitals is, of course, quite out of the question. These hospitals were not raised for the pauper class, and have their own distinctive characters. We recommend those of our readers who are interested in this scheme to read the paper of Mr. Hart, wherein are clearly set forth the grounds upon which rests the scheme of the Committee for forming "Metropolitan Infirmaries for the Pauper Sick".

"Sticking to your friends" is an excellent quality, so long as, in doing so, you do no injustice to others. Beyond a certain point, however, the virtue degenerates into jobbery; and, if what the *Pall Mall Gazette* says be true, there can be little doubt that the Duke, in the case before us, has not been practising the virtue.

"The story runs, that the Commander-in-Chief, having already placed the surgeon of his old regiment as Medical Director-General of the Army, the veterinary surgeon as Principal Veterinary Surgeon of the Army, and the colonel as Inspector-General of Cavalry, was about to promote a son of another surgeon of that regiment to a vacancy in the Foot Guards, which, in the ordinary course of regimental promotion that has prevailed in those regiments from time immemorial, was now due to a surgeon of thirteen years' service. The Marquis of Hartington, while not denying that the intention exists at headquarters, explained it by referring to a special warrant said to have been submitted by the Duke to the Queen in 1860, and which substituted brigade for regimental promotion of medical officers. Strange to say, however, no such warrant has ever been promulgated publicly, or even communicated to the medical officers whom it affects so prejudicially by a retrospective action. Moreover, the only promotion which has been made among the medical officers of the Foot Guards since the date referred to has been regulated by the established regimental system. So that this mysterious and retrospective document has not only been framed and signed without communication with those it injures, but can be applied or withheld at will. The explanation is more than unsatisfactory."

We are happy to find that this question is again to come before the House on May 11th.

The surgeons of the Halifax Union have held a meeting and passed the following resolution.

"The medical officers are of opinion that 'vaccination-stations' should be provided in their several districts, at which they can attend; that the same should be publicly and periodically announced, in order duly to carry out the benefits of vaccination. It would, further, be a great boon to the public, if a board were placed outside every station, giving the days and time of attendance, together with the name of the public vaccinator. Much time, trouble, inconvenience, and misunderstanding would thereby be averted; and the vaccination of children would be more thoroughly carried out. To accomplish this would not cost much; moreover, it would afford to the people that patent information which is necessary, and would simplify and systematise the process of vaccination."

Thereupon a correspondence took place between Mr. Garlick, the surgeon of Halifax, and the Board of Guardians—the guardians eventually declining to pay for the rent of vaccination-stations. Thereupon Mr. Garlick addressed himself to the Poor-law Board, and from their Secretary received the following satisfactory reply.

"I am directed by the Board to point out that, in accordance with the contracts for vaccination which the guardians have entered into, and with the terms of the general order issued by the Board on the 30th November, 1853, the guardians are required, where it shall be necessary, to provide fit and proper rooms for vaccination and inspection. It follows, therefore, that where the guardians find it necessary to provide such rooms, the charge thereof must be borne by them."

Dr. Sharpey's five-years term of office as Medical Councillor having expired, the question arises as to his reappointment, or as to the appointment of another in his place. Dr. Sharpey is a Government nominee. As a rule, it is not advisable that these appointments should remain (through re-election) in the same hands; but, in the present case, the rule may well be broken; for it would be hard to find a man more competent to take part in the work of the Medical Council than Dr. Sharpey.

In anticipation that cholera will visit America this year, the subject is undergoing much discussion in that country. Professor Alonzo Clark is lecturing on Cholera; and, besides this, we are told that "some of the most intelligent teachers and writers in the profession are discussing the subject, in medical societies and in the journals." In this country, we appear to have come to the conclusion, either that we know all that is to be known about the treatment, or that it will be time enough to think of how to treat the disease when it comes amongst us.

Dr. Evans, the American dentist in Paris, has been made an Officer of the French Legion of Honour. During his stay in Europe, he has received decorations and honours from almost every monarch on the continent.

THE LATE SURGEON OF THE *ALABAMA*.

At a meeting of the Council of Governors of the Charing Cross Hospital on the 4th instant, a letter from Dr. S. B. Partridge, of the Bengal Army, dated Calcutta, February 8th, 1866, accompanied by a bill of exchange for £336 : 13 : 5, was laid before the meeting. The letter stated that that sum had been contributed by medical men in the Presidency of Bengal, for the purpose of perpetuating the memory of Mr. David Herbert Llewellyn, the late surgeon of the *Alabama*, whose heroic death in the performance of his duty elicited at the time a general expression of sympathy and regret.

The Committee of the Fund desired that the amount thus collected might be permanently invested in the name of the Treasurer of the Charing Cross Hospital for the time being, and the interest accruing from the investment be annually employed by the Governors of the institution, in whatever manner they might decide upon as being most likely to insure the perpetual commemoration of the late Mr. Llewellyn's name and career; but, whilst leaving the question as to the exact form which the memorial should assume to the decision of the Governors of the hospital, they wished to suggest the establishment, in connection with the Charing Cross Medical School, at which Mr. Llewellyn received his professional education, of a "Llewellyn Prize," to consist either of books, or of a medal, or of both combined.

The Committee further stated that, in raising this subscription, they desired to express no political or national sympathy with any party; but simply to evince the gratitude with which they desired to place on record their tribute to the memory of a member of their profession who died in the execution of his duty to the sick and wounded under his care.

The Council of the Charing Cross Hospital decided unanimously to accept the fund upon the conditions set forth in Dr. Partridge's letter; and they directed the Secretary to convey to that gentleman their sincere thanks for this substantial proof of the admiration of the medical men in the Presidency of Bengal of the noble conduct of the late Mr. Llewellyn.

THE VACCINATION BILL.

On Wednesday last, Mr. H. Bruce, in moving that the house go into committee on the Vaccination Bill, explained that its object was the consolidation of the existing acts relating to vaccination, and the introduction of certain amendments in the law for the purpose of establishing an efficient system of vaccination throughout the country. Mr. Henley and Sir R. Peel pointed out defects in the Bill. Mr. H. Lewis said the defects were too serious to be dealt with in committee of the whole house, and moved that it be referred to a select committee. This was seconded by Sir J. Jervoise, and supported by other members. Mr. Bruce consented to refer the Bill to a

elect committee, but upon the express understanding that the committee were not to interfere with the principle of the measure, which was the establishment of a compulsory and efficient system of vaccination. The Bill was then ordered to be referred to a select committee accordingly.

Association Intelligence.

REPORT OF MEETING OF COMMITTEE OF COUNCIL:

Held at Birmingham, April 5th, 1866.

PRESENT—Dr. Jeaffreson (in the Chair); Mr. Bartleet; Mr. T. H. Bartleet; Dr. Bryan; Mr. Clayton; Dr. Falconer; Dr. Philipson; Dr. Simpson; Dr. E. Waters; Dr. Westall; and Mr. T. Watkin Williams (General Secretary).

The following resolutions were unanimously passed.

1. That the members of the Committee of Council have heard with deep regret of the severe bereavement which has fallen upon their esteemed President, in the death of Lady Hastings; and that they beg him to accept the assurance of their warmest sympathy and condolence.

2. That the Treasurer's Financial Report be received, adopted, and published in the JOURNAL.

3. That Richard Faircloth, Esq., of Newmarket, be elected a Director of the Medical Provident Fund in the place of the late Dr. Herbert Barker.

4. That the Revised Laws of the Metropolitan Counties Branch be approved of.

5. That communication be made to all the Secretaries of the Branches of the Association as to the necessity of pressing on the Legislature, by petition or otherwise from their respective Branches, the importance of improvement in the Sanitary Laws.

6. That the Annual Meeting be held on Tuesday, Wednesday, Thursday, and Friday, the 7th, 8th, 9th, and 10th of August next.

T. WATKIN WILLIAMS, *Gen. Sec.*

Birmingham, April 9th, 1866.

FINANCIAL STATEMENT FOR 1865.

THE improvement in the finances of the Association, which was reported with so much satisfaction last year, still continues, and is increasing. The subjoined cash account shows that the balance in favour of the Association on the 31st of December, 1865, was £318 : 14 : 8½, against £243 : 16 : 8½ in December 1864. It should be observed that a sum of £50, due for distributing the JOURNAL in 1864, has been paid during 1865, in addition to a like sum due for the latter year. The accounts have been audited by Dr. Melson and Mr. Hadley, who certify to the correctness of the following statement.

1865.—RECEIPTS.

	£	s.	d.
Balance from 1864	243	16	8½
Subscriptions	2229	3	0
Arrears	105	0	0
Advertisements and Sales	655	9	3
	3233	8	11½

1865.—PAYMENTS.

	£	s.	d.
JOURNAL EXPENSES:			
Mr. Richards (Printing and Stamps)	1807	10	6
Mr. Richards (Directing, etc., *two years*)	100	0	0
Mr. Honeyman (Office Expenses)	103	4	6
Mr. Davidson (Commission)	63	1	9
Mr. Orrin Smith (Engraver)	15	16	0
Editor of Journal	200	0	0
Dr. Henry (Sub-editor)	50	0	0
Contributors	230	7	6
Dr. Henry (Salary, for work at Office)	50	0	0
EXECUTIVE EXPENSES:			
Secretary and Clerk	167	0	0
Secretary's Petty Cash	37	3	2
Branch Secretaries and Collectors	30	4	9
Leamington Reporter	16	16	0
Mr. Moore (Gold Medal)	21	0	0
Anniversary Expenses	3	17	3
Birmingham Stationer	18	8	10
Bank Cheque-Book	0	4	0
	2914	14	3
Balance	318	14	8½
	£3233	8	11½

CHARLES HASTINGS, *Treasurer.*

METROPOLITAN COUNTIES BRANCH: ORDINARY MEETING.

AN adjourned ordinary meeting of this Branch was held at 37, Soho Square, on Friday, April 6th, at 8 P.M.: ROBERT DUNN, Esq., in the chair. There were also present eighteen members.

Amendments of the Sanitary Laws. The discussion on the report presented from the Council at the meeting on March 23rd, was resumed.

Dr. STEWART recapitulated the reasons which had influenced the Council of the Branch in proposing the recommendations contained in their report.

The CHAIRMAN then read the first recommendation: viz.—

"That a speedy and inexpensive appeal should be provided from the decisions of local authorities; and that the body best fitted for a Court of Appeal is the Health Department of the Privy Council."

Dr. DRUITT asked whether it would not be better to make the recommendation one for appeal against local authorities in cases where they refused to act.

Dr. ALDIS (a visitor) thought the clause should apply to cases in which individuals considered themselves oppressed by the excessive action of the local authorities. The clause should be protective to some extent, as well as destructive.

Dr. STEWART said that the Council had had in view such cases as that referred to by Dr. Aldis; and they considered that if any one—for instance, a tradesman—were subjected to unreasonable demands on the part of the local authorities, he should have the right of appeal. He saw no objection to Dr. Druitt's suggestion, provided that its adoption did not prevent the right of appeal against excessive action. With regard to appeals from the decisions of police magistrates, it would be better for these to be decided in a public court of law; inasmuch as the decisions of the Privy Council would not form a precedent. He referred to the case recently heard before Mr. Woolrych, and was glad that an appeal against that magistrate's definition of food had been made. If the Court of Queen's Bench should decide in his (Mr. Woolrych's) favour, it would show the necessity of an alteration in the law.

Dr. DRUITT asked what kind of cases should be referred to the Privy Council; and Dr. ALDIS inquired whether it was proposed to give an appeal from the decision of magistrates in petty sessions.

Dr. STEWART said that an appeal to the Privy Council should be allowed in cases where, a complaint

having been made by an individual or individuals, the local authorities refused to act. At present, complainants generally hesitate to proceed as soon as the matter comes before the magistrates, because they cannot see the end of the trouble and expense to which they may be put by legal proceedings. As to the decisions of the country magistrates, he said there was very generally much equity in their decisions; while law with them was often of the rough and ready kind. A direct appeal to the Privy Council should be allowed from their decisions.

Dr. CHOLMELEY suggested that there would be difficulty in an appeal from justices of the peace to the Privy Council. It would be giving an appeal from a legal to a non-legal authority.

Dr. STEWART said that a direct appeal to the Privy Council would remove the difficulty. There was certainly great difficulty in drawing a distinction between police magistrates and country justices.

Dr. BURDON SANDERSON agreed as to the impossibility of creating an appeal to the Privy Council from existing legal authorities. He thought that the appeal should be against the local authorities where they refused to act. At present, in the country, if a nuisance is not removed, an individual may appeal to the Privy Council. They send an inspector, who reports on the case; and the Privy Council sends a letter of advice to the local authority. But the local board is not bound to carry out this advice. He would have the power of the Privy Council made compulsory in such cases; and would give them the power of doing what the local boards failed to do, charging the expenses on the local rates. A clause of similar import to this was to be found in the Vaccination Bill now before Parliament.

Mr. JABEZ HOGG thought that the great evil lay at present in the permissive character of the acts. One of the London police magistrates had informed him that, so long as the acts were permissive, they (the magistrates) would always interpret the law in such a manner as not to appear oppressive.

Dr. DOUGLAS did not see the necessity for an appeal, unless the existing authorities were superseded.

Dr. GIBBON said that it would, perhaps, be better to reconstitute the local authorities, and render them more efficient, thus removing the necessity for appeal. He referred to instances of local nuisance in which the authorities of the place had declined to interfere.

After some further remarks from Dr. STEWART and Dr. SANDERSON,

Dr. CHOLMELEY proposed—

"That the first recommendation be adopted, with the addition of the words—'with power to carry out their judgments.'"

Mr. HOGG seconded the proposal; which was carried.

Dr. GIBBON proposed, and Dr. HAWKSLEY seconded—

"That the second recommendation be adopted: viz., 'That the appointment of Medical Officers of Health and of Inspectors of Nuisances should be made, as in the metropolis, compulsory instead of permissive.'"

Dr. STEWART said that it appeared that, in 570 places in England and Wales under the Public Health Acts, there were only 92 medical officers of health. Of these places, 28 only had populations above 10,000; while 30 had populations varying from 214 to 3,000. Other large towns, such as Bristol, Sheffield, etc., had no medical officers of health, and only one or two inspectors of nuisances. Under the Poor-law Act, the deficiency was even greater. Sometimes the same person was surveyor, inspector of nuisances, and a member of the board of guardians; sometimes the relieving officer was the inspector of nuisances; and the machinery for carrying out sanitary improvements was often *nil*. The carrying out of the Diseased Meat Act depended upon the appointment of medical officers of health; and hence this Act was in many instances a dead letter. He anticipated that some struggle would be required to carry out the recommendation proposed to the meeting, on account of the local expense.

The resolution was unanimously carried.

Dr. HENRY proposed, and Dr. CHOLMELEY seconded, the adoption of the third recommendation—

"That the appointment and dismissal of Medical Officers of Health should be subject to the approval of the Health Department of the Privy Council."

The resolution was unanimously carried.

Dr. STEWART proposed the adoption of the following additional recommendation, which was seconded by Dr. HAWKSLEY, and carried.

"That a return should be yearly presented to Parliament of the names of the Medical Officers of Health and Inspectors of Nuisances throughout the country, and of the salaries paid to them."

Dr. STEWART proposed the adoption of the next recommendation—

"That in counties, the appointment of Medical Officers of Health should be vested in the justices, and that they should be paid out of the county rates." In many poor places, it would not be possible to pay the medical officer of health from the local rates. The appointments should be vested in the country justices; because, as was proved by the generally admirable character of the appointments made by them to county asylums, there was every reason to believe that they would not be privately influenced, and that their action would lead to satisfactory results.

Dr. BURDON SANDERSON seconded the proposal. He knew that many country practitioners were deeply impressed with the conviction that the adoption of such a recommendation would remove the difficulties often met with.

The resolution was carried.

Mr. HOGG proposed that the next recommendation be adopted, viz.—

"That the provision of local refuges for those labouring under contagious diseases should be rendered compulsory on unions and parishes."

Dr. STEWART seconded the proposal; which, after some remarks from Dr. GIBBON, Dr. DOUGLAS, Dr. MARKHAM, and Dr. SANDERSON, was carried.

On the proposal for the adoption of the next recommendation—

"That the early removal of persons labouring under such diseases should also be rendered compulsory"—

Dr. DOUGLAS and Mr. ALFORD objected to it as impracticable.

Dr. STEWART and Mr. HOGG defended the proposal. It was intended to be applied to cases where medical officers of health had the power of entry.

Dr. MARKHAM said that, if refuges were formed, they would in all probability be filled, and there would be no need for compelling persons to enter them. He thought, also, that the recommendation was objectionable on moral grounds. It would be wrong to separate parents from their children, if an objection to this were raised.

Dr. STEWART thought there would be a sufficient number of persons who would not enter the refuges, to render necessary the compulsory removal of those labouring under contagious diseases. He believed that the prevalence of contagious disease would in a few years be diminished if the recommendation were adopted and carried out.

The resolution, on being put from the chair, was lost.

Dr. GIBBON proposed—

"That the last recommendation—'That local

authorities should be required to provide carriages for the removal of such persons'—be adopted, with the addition of the words—'and means for disinfecting the dwellings, wearing apparel, etc.'"

The resolution was carried.

Dr. STEWART proposed, Dr. MARKHAM seconded, and it was unanimously resolved—

"That the Report and the Recommendations contained therein be adopted, as amended; that the Council of the Branch be desired to take such measures as may be necessary for carrying it into effect; and that they be empowered to invite the co-operation of the Committee of Council, and of the other Branches of the Association."

The meeting then adjourned.

The following is a correct copy of the recommendations in the form in which they have been adopted by the Branch.

1. That a speedy and inexpensive appeal should be provided from the decisions of local authorities; and that the body best fitted for a Court of Appeal is the Health Department of the Privy Council, with power to carry out their judgments.
2. That the appointment of Medical Officers of Health and of Inspectors of Nuisances should be made, as in the metropolis, compulsory instead of permissive.
3. That the appointment and dismissal of Medical Officers of Health should be subject to the approval of the Health Department of the Privy Council.
4. That a return should be yearly presented to Parliament of the names of the Medical Officers of Health and Inspectors of Nuisances, throughout the country, and of the salaries paid to them.
5. That in counties, the appointment of Medical Officers of Health should be vested in the justices, and that they should be paid out of the county rates.
6. That the provision of local refuges for those labouring under contagious diseases should be rendered compulsory on unions and parishes.
7. That local authorities should be required to provide carriages for the removal of such persons, and means for disinfecting the dwellings, wearing apparel, etc.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT MEETINGS.

THE third meeting for the ninth session, 1865-6, was held at the Infirmary at Gravesend, on April 6th, 1866; J. H. GRAMSHAW, M.D., in the Chair. Twenty-three members and visitors were present.

The Decease of three members was announced; viz., of Mr. Alfred Monckton, Mr. Henry M. Gould, and Mr. William Sankey of Dover. The meeting unanimously resolved that the sympathy of the members should be expressed to the friends of the deceased.

New Member. William Richard Edwin Smart, M.D., Deputy Inspector-General at Greenwich Hospital, was duly elected, subject to the rules of the Association as respects confirmation at the annual meeting of the Branch.

Two members of the Association were elected members of the District; viz., Dr. J. Braxton Hicks, F.R.S.; and W. P. Hoare, Esq.

Next Meeting. John Grantham, Esq., F.R.C.S., was chosen Chairman of the meeting to be held at Dartford on Friday, May 4th.

Communications. The following communications were read.

1. Unzer's question: "Do true Insentient Animals exist?" By F. J. Brown, M.D.
2. Induction of Premature Labour. By J. Armstrong, M.D. Dr. Barnes's caoutchouc dilators were exhibited.
3. Case of Gangrene of the Lung, and Union of two of the Segments of the Aortic Valve. By J. J. D. Burns, M.D.
4. A portfolio of dried Poisonous Plants was exhibited by Charles L. Allwork, Esq. The collection illustrates Mr. Johnson's work on this subject.
5. Mr. Matthew A. Adams exhibited a Piece of Iron equal in size to a small kidney-bean, that had penetrated into the Vitreous Humour, driving the eyelashes in front of it. The wound was behind the iris and ciliary ligament. The iron was extracted; but the eyelashes remain in the vitreous humour. The patient retains his sight.

Mr. Adams also exhibited a Piece of Flint that was taken out of an eyeball that was destroyed by the wound and the subsequent inflammation, previously to treatment.

He also narrated the sequel of the case of Anophthalmos that was exhibited at Gravesend in March 1865. (See BRITISH MEDICAL JOURNAL, May 20th, 1865.) The child died at the age of ten weeks. The appendages of the eyes were natural; but the eyeballs were absent, and the orbits were occupied by areolar tissue, fat, and a small quantity of pigment. Mr. Adams stated that he had seen the eyeball as small as a cherry (without blindness), and a gradation of sizes upwards.

Dr. Braxton Hicks observed, that he had met with a case of anophthalmos in a twin child.

6. Simpson's Cephalotribe was exhibited by Dr. Braxton Hicks, and its action was demonstrated upon a subject.
7. A Sacculated Urinary Bladder, taken from a man, was exhibited by Dr. Crook. There was no calculus. A perinæal abscess existed; but the prostate was not diseased.

Dinner. The members and visitors adjourned to dinner at the Old Falcon.

Reports of Societies.

ROYAL MANCHESTER INSTITUTION: MEDICAL SECTION.

WEDNESDAY, FEBRUARY 7TH, 1866.

THOMAS WINDSOR, Esq., in the Chair.

Obstruction of the Bowels by a Gall-Stone. Mr. W. HEATH showed a large gall-stone which had become impacted in the jejunum, and had caused death four days after seizure. A still larger one was found in the gall-bladder after death. Up to the fatal attack, the patient's health had been good, and she had never suffered from symptoms of gall-stones. It is a very rare occurrence for obstruction of the bowels to be caused by a gall-stone. According to Duchaussoy, out of 518 cases, only 14 were produced in this manner.

Cerebral Hæmorrhage in a Child. Dr. CRAWFORD related a case of cerebral hæmorrhage in a girl twelve years of age, who returned from her work in a factory, and went to bed at the usual time in apparent health. Early next morning, she complained of severe pain in the head. About 5.30 A.M., her sister spoke to her; and, receiving no answer, tried to rouse her, but could not. Dr. Crawford's partner saw her about six, when she was quite dead. The *post mortem* examination, ordered by the coroner, took place ten hours after death. The chest and abdomen showed no cause of death. On removing

the calvarium, the right hemisphere presented a deep dark colour, visible through the dura mater; and, when this was cut through, blood was seen to be extravasated over the whole of its surface. On further examination, a large clot was found occupying the whole of the lateral ventricle. This case was remarkable, from the youth of the patient, and the absence of any traceable cause for the rupture. No microscopical examination of the vessels of the brain took place.

Dr. SAMELSON showed the following cases.

Ethmoidal Mucocele. This case was first presented at a former meeting. An incision had proved the swelling to be produced by the formation of pus in the labyrinth of the ethmoidal bone and in the nasal cavity. Through a perforation of the inner wall of the orbit near its anterior border, the probe could, to a varying extent, be passed into the above cavities. The lacrymal passages were shown, by the insertion of a Weber's probe, not to be implicated. There was no pain or inconvenience felt, except what little was caused by the daily dressings.

Staphyloma Pellucidum, with Pyramidate Cataract. In the right eye of a girl, aged 20, was seen, across a tolerably transparent and greatly enlarged ectatic cornea, a very conspicuous cataractous shell, with its obtuse apex far forward in the anterior chamber, and with its base occupying the very wide pupil. The eye was now and then the seat of much pain, and had no perception of light. Any staphyloma operation whatever being declined, it was intended to extract the cataract, for cosmetic purposes. The left eye presented a very slight leucoma with pupillary adhesion, but was otherwise healthy.

Traumatic Subluxation of Lens. A mechanic, about thirty years old, received three weeks since a blow on his right brow, which resulted in a detachment of the suspensory ligament all round the outer periphery of the lens. The pupil was much dilated, and the iris very tremulous. On the eye being rotated to the extreme right, the black contour of the edge of the lens was distinctly perceived, leaving a crescentic transparency on its outer side. The fundus was normal. The patient read No. 2 Moorfields.

Modified Linear Extraction after Von Gräfe's New Method. A female patient, 77 years old, was operated on after this method on the 1st of September last. Her pupil was for the most part occupied by a very delicate gauzy membrane; yet she was able, with her cataract-glass of two and a half inches focus, to make out words of No. 1 Jäger, and read fluently No. 2 Moorfields.

Operation for Extensive Detachment of Retina. A girl, aged 16, was for some months already reduced to mere perception of light in her right eye, without assignable cause. The left eye was healthy. In the operation, which was made two days before the meeting, a good deal of watery fluid had been seen to escape along the inserted needle; and the present result of the operation was, that fingers could be counted at a foot and a half distance within a narrow portion of the outer half of the visual field.

Papers. Dr. SAMELSON read a paper entitled "Reminiscences of a Four Months' Stay with Professor von Gräfe." The first part only was read, referring to—1. The administration and arrangements of the in-patients' department; 2. The attendance on out-patients; 3. The remedial agencies employed; 4. The operations; 5. The lectures and teaching arrangements generally. 6. Dr. Samelson described Professor von Gräfe's new method of modified linear extraction, and showed the instruments employed in the same. [This paper is being published in the JOURNAL.]

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, MARCH 7TH, 1866.

ROBERT BARNES, M.D., President, in the Chair.

TWELVE gentlemen were elected Fellows of the Society. Professor Retro Laggati (of Milan), and Dr. Theodore Hugenberger (of St. Petersburg), were elected Honorary Fellows.

Specimens. Dr. TYLER SMITH showed a new Vaginal Speculum made for him by Messrs. Weiss. He considered it much more convenient than any other known to him. It was made in the form of a double duck-bill, the ends being in close apposition. The nuisance of having a plug for the sake of introduction was done away with.

The PRESIDENT stated that he had had a rod made after the fashion of the uterine sound for the purpose of Cauterising the Cervix Uteri, in the manner described by him at the last meeting.

Mr. BAKER BROWN, jun., exhibited a little boy, ten weeks old, born with Amputated Arms and Legs, but perfect in other respects. On one of the thigh stumps there was an appearance of toes, and on each of the stumps of the upper extremities was a distinct nipple.

Dr. MADGE showed a specimen of Fibrous Tumour of the Uterus. It measured fifteen inches in circumference, and weighed nearly two pounds. It had a pedicle, which was attached to the posterior wall of the uterus.

Dr. BARNES exhibited a specimen of an Encysted Fœtus, which had been removed at the patient's death, forty-three years after its escape into the abdominal cavity. He also showed a Mummified Fœtus, which had been expelled after the birth of a full-grown child.

Dr. BRAXTON HICKS exhibited a specimen of the Echinococcus, which had been discharged from the vagina.

Dr. WALKER, of Peterborough, read the history of a case of Ruptured Vagina during Labour.

Use of the Actual Cautery in Ovariotomy. By I. BAKER BROWN, Esq. The author observed that, on February 1st, 1865, he placed before the Society his first case of completed ovariotomy in which the pedicle was divided by the actual cautery. Since then, he had published ten or eleven more in the *Lancet;* and now he wished to relate his last eleven cases, and make some remarks on the use of the actual cautery. In the eleven cases the operation was completed, and all recovered. Mr. Baker Brown found that, in a few of the cases, the cautery was not sufficient alone, he having to ligature several vessels in the adhesions; and, in Case 6, the artery, which was bleeding, was from a very fat mesentery, and the superabundance of fat prevented the seared edge from puckering. He considered it highly necessary to have a properly-made clamp; also, it was advisable that the iron should not be too hot, a simple red heat being best, so as not to hurry the process of separation, but to bruise the pedicle by cutting it off slowly, and afterwards care must be taken not to disturb the stump. On one occasion, the author being anxious to see if the vessels were safe (after the cautery), gently rubbed the edges with a towel, when the crust was broken, and a small vessel bled. Of twenty-three cases of completed ovariotomy, the author had lost but two. He thought it must appear evident that this success had arisen from the use of the actual cautery.

Mr. Brown then presented a cyst and pieces of omentum from a patient operated on the day before, which showed that the whole omentum was so fat

hat the cautery would not act safely on the adhesions. In such cases, it was better not to attempt its use. The pedicle itself was safely removed by the cautery clamp.

CASE OF FIBRO-CYSTIC DISEASE OF THE UTERUS WHICH WAS MISTAKEN FOR OVARIAN DISEASE.

BY C. H. F. ROUTH, M.D.

The patient was a woman, aged 20. There were two large abdominal fluctuating tumours united by a large solid mass. These were diagnosed as multilocular ovarian disease by Dr. Savage, Dr. Greenhalgh, Sir W. Fergusson, and Dr. Routh. All advised operation, except Dr. Greenhalgh, who recommended delay. She was operated upon on November 16th, 1865. There were no adhesions of any consequence. The tumour was freely movable on the right side. On the left, it was bound down by the usual ligaments, and had become very dense and unyielding. Extirpation was thus impossible. Portions of the omentum were removed by actual cautery. The larger right cyst was punctured, and emptied of a quantity of pus, and the abdominal wound brought together. The patient scarcely rallied, was constantly sick, and died, after evidence of internal bleeding, in thirty-four hours.

The *post mortem* examination revealed that all the cysts were full of blood, vessels having given way in them, probably through the vomiting. The actually cauterised surfaces were quite shrivelled, and free from even an appearance of blood. The whole fundus of the uterus was fibro-cystic.

The importance of this case was brought out in the error of diagnosis. All the usual symptoms of fibroid disease were absent—namely, early fibroid hardness of tumour; absence of flooding; increased length of uterine cavity; absence of tubular souffle: and previous exploratory puncture would have only given exit to pus. Owing to numerous vascular trabeculæ in the tumour, death might at any time have resulted from simple puncture with the trocar. It proved the great efficacy of the actual cautery, even in a case of constant sickness following operation.

Mr. SPENCER WELLS said he fully admitted that in some rare cases it was very difficult, perhaps impossible, to arrive at an exact or positive diagnosis as to the nature of an abdominal tumour; but he contended that in the great majority of cases—in at least nine out of ten—it was quite possible to arrive as near the truth in this as in any other department of surgery. He admitted most fully that men of great experience, after carefully examining a case, would sometimes find it impossible, even with the help of an exploratory incision, to make a positive and complete diagnosis. In such a case as that narrated by Dr. Routh, the exact nature of a tumour might be doubtful even after its removal. But such cases were few and far between, and by no means opposed to the rule that in a large majority of cases of ovarian and uterine disease a very accurate diagnosis might be made. With regard to the use of the cautery in ovariotomy, the cases brought forward certainly proved that we had been taught an additional and successful mode of dealing with the pedicle. But they also convinced him that it should be an exceptional and not a general method. The number of cases in which ligatures had been also required, the accounts of the melting and flaming fat, the care required as to the precise temperature of the irons, the slowness of the searing, the effects of disturbing the eschar, and the very frequent suppuration in the abdominal wall, were very unsatisfactory. And the argument that because out of twenty-three cases only two had died, therefore this success was due to the use of the cautery, was clearly untenable; for it was a curious fact that of the last twenty-two cases of ovariotomy in which he (Mr. Wells) had been able to secure the pedicle by a clamp, only two had died, and one of these lived twelve days and died of cancer of the peritoneum, which was not detected before the operation.

Time not admitting of further discussion or reply from the authors of the papers, the meeting adjourned.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, MARCH 13TH, 1866.

JAMES ALDERSON, M.D., F.R.S., President, in the Chair.

NOTES AND OBSERVATIONS ON FEVER DURING SERVICE ON BOARD H.M. SCREW CORVETTE, "PYLADES," ON THE WEST COAST OF MEXICO IN THE YEAR 1860. (WITH MAP.) BY JOHN CADDY, M.D., SURGEON, R.N.

(*Communicated by* Dr. HODGKIN.)

AFTER referring to the previous services of the *Pylades* at Calcutta, at the time of the Indian mutiny, and the subsequent beneficial change produced on the crew by the climate of Vancouver's Island in 1859, the author gave a statistical statement of the fever cases on board, when on the west coast of Mexico in 1860, and drew inferences as to the greater liability of attack in the ratio of greater age, and of the excess in length of the sickness when treated on the coast to that treated in the ship.

The climates and geographical position of Mazatlan, Panama, La Paz, Guaymas, San Blas, etc., and the comparative lengths of their dry and rainy seasons, were then described. The *Pylades* arrived at Mazatlan in January 1860, and details were given of the first cases of remittent fever which occurred on board as they entered the Mexican tropics. Numerous cases of continued fever followed after February 21st, which were considerably added to by the occurrence of duties which involved much solar exposure, and the constant alternate landing of officers and men for duty on shore at San Blas, up to the beginning of June. The number of cases increased during the short passages between Mazatlan, La Paz, and Guaymas up to the end of September; but from that time the men's health improved as the cool season advanced.

The author then described the general symptoms seen in patients when first attacked, and the usual course of those developed as the fever increased. Only one case proved fatal. Black vomit was of rare occurrence, it being unknown in the fevers at the commercial towns of San Blas, Mazatlan, and Guaymas.

The author, in describing his treatment, which proved most successful, included fresh breathing-air, personal ablution, close cutting of the hair, full supply of cooling drinks (those made with the mineral acids being preferred), pouring of sea-water on the head, mustard sinapisms and chloroform liniments, and the giving of sesquicarbonate of ammonia in conjunction with chlorate of potash early in the fever, the ammonia having been suggested to the author by a previous West Indian experience in 1845-47, and at Calcutta in 1858. With the cessation of active symptoms, quinine and iron usually and speedily concluded the treatment of the cases. The value of the above treatment, the author said, he had been able to confirm by a subsequent ten months' service in the Gulf of Mexico, in 1862, and again among the West Indian Islands, in 1863, in H.M. screw frigate *Phaeton*.

Details followed of the total number and length of cases of fever in these later expeditions, and a summary of other diseases, which made up the total of 518 cases of sickness on board the *Pylades*, in 1860, concluded the paper.

A CASE OF LUMBAR COLOTOMY (AMUSSAT'S OPERATION,) SUCCESSFULLY PERFORMED FOR THE RELIEF OF A VESICO-INTESTINAL FISTULA.

BY T. HOLMES, M.A.CANTAB.

Ulcerated openings sometimes take place between the bladder and either the small or large intestine, which have no connexion with previous strictures of the gut, still less with cancer. In those cases in which the fæces come from the lower bowel, and are consequently more solid, great suffering is produced, and the formation of calculus in the bladder becomes exceedingly probable. In such of these cases as are not dependent upon malignant disease, colotomy, by diverting the fæces from the fistulous channel, may possibly enable the latter to close, and is, at any rate, necessary, in order to relieve the sufferings caused by the fæces passing into the bladder. The author read the notes of a case in which communication existed between the bladder and some part of the bowel, above the rectum, and in which Amussat's operation was performed eight months since; the patient being now in good health, and in a condition of tolerable comfort, with evidence of considerable contraction, if not complete closure of the fistula. References were also made to some other cases of communication between the bowel and bladder, with a view to support the opinions here put forward and the treatment adopted in the above case; and also with a view to the diagnosis of the seat of the communication with the bowel when out of reach of the ordinary means of examination.

A SPIRITUAL RECORDER. Mr. Recorder Chambers repudiates the words attributed to him by the press —"For my own part, I am rather inclined to believe in spiritualism." The words he used were these: "I cannot exactly say with the learned counsel, that I am an universal sceptic; for my own part, I am rather inclined to believe. But of spiritualism I know nothing whatever." The Recorder carefully avoids stating his disbelief in the thing; and certainly a not unfair inference of his words may interpret them to the meaning that he does believe in spiritualism. The reporter of the *Times*, we observe, adheres to his original version of the expression used by the Deputy-Recorder.

DEATH OF DR. ALLAN. We regret to announce the sudden death of Dr. James Allan, of Sheffield. The deceased was the youngest son of the late Robert Allan, surgeon, of Edinburgh. Born and nursed in the very lap of science, and with a taste for its attainments—especially chemistry—he was sent, after acquiring the usual excellent education of his native country in her local schools, to pursue his studies at the German University of Giessen, then becoming noted for the teaching of Liebig. He afterwards spent some time in the study of physics, under popular teachers, at Berlin. On returning to Scotland he became assistant to Professor Gregory, at Edinburgh. He subsequently became Professor of Chemistry at the Sheffield Medical School, the Collegiate School, and at the Wesley College, and in each situation he was alike beloved by his pupils, and respected by his tutorial colleagues. Dr. Allan was known to his fellows as a sound chemist, and as possessing an original and highly cultivated mind, and has left in the memories of his numerous students and friends a pleasant recollection of a good and generous life. (*Chemical News.*)

Medical News.

APOTHECARIES' HALL. On April 5th, 1866, the following Licentiates were admitted:—

Pratt, William Thomas Cassel, Newport, Monmouthshire
MacGowan, Alexander Thorburn, 5, Caversham Road, N.W.

At the same Court, the following passed the first examination:—

Barroll, George William, St. George's Hospital
Bately, John, Sydenham College, Birmingham

APPOINTMENTS.

*MUSHET, William Boyd, M.B., M.R.C.P., appointed Physician to the North London Consumption Hospital.

ARMY.

BELEMORE, Staff-Assistant-Surgeon A. J., to be Assistant-Surgeon Royal Artillery, *vice* T. Sharkey.
DAVYS, Staff-Surgeon J., from half-pay, to be Staff-Surgeon, *vice* W. Skeen, M.D.
LUNDY, Staff-Surgeon E. L., to be Surgeon 58th Foot, *vice* P. H. E. Cross.
SKEEN, Staff-Surgeon W., M.D., to be Surgeon 54th Foot, *vice* W. Poole.

To be Staff-Assistant-Surgeons:—

KERANS, Assistant-Surgeon W. R., Supernumerary to 11th Foot, *vice* A. J. Belemore.

ALEXANDER, W., M.D.
BRODIE, J. F., Esq.
CATHERWOOD, W. A., M.D.
CLARKE, E. J., Esq.
CONNELLAN, E., Esq.
D'ARCY, E. F., Esq.
JOHNSTON, W., M.D.
KILROY, P. L., Esq.
LOWE, R. W., M.D.
MACKINNON, H. W. A., Esq.
M'WALTERS, W., Esq.
MALLY, R., Esq.
MOUAT, G. B., M.D.
O'BRIEN, H. J., M.B.
O'REILLY, J. J., Esq.
PURDON, J. E., M.B.

ROYAL NAVY.

BELLAMY, George, Esq., Surgeon (additional), to the *Sutlej*.
BREKEY, John, M.D., Surgeon, to the *Cumberland*, for Sheerness Barracks.
EASTCOTT, Jas. C., Esq., Surgeon (additional), to the *Cumberland*.
EGAN, Francis, Esq., Assistant-Surgeon, to the *Cumberland*.
EGLES, Gabriel M., Esq., Assistant-Surgeon, to the Portsmouth Division of Royal Naval Marines.
FLANAGAN, James, Esq., Surgeon (additional), to the *Asia*.
HADLOW, Henry, Esq., Assistant-Surgeon (additional), to the *Wellesley*, for service in Chatham Dockyard.
HANDERSON, William, Esq. (*a*), Surgeon, to the *Wasp*.
MANSFIELD, Pierce, M.D., Assistant-Surgeon, to be Surgeon.
NEWTON, George B., Esq., to be Surgeon and Medical Storekeeper to the *Melville* Hospital Ship at Hong Kong.
PIERCY, Frederick, Esq., Assistant-Surgeon, to be Surgeon.
RAE, Peter M., Esq., Surgeon, to the *Acorn*.

BIRTHS.

BUCHANAN. On April 7th, the wife of George Buchanan, M.D., 63, Harley Street, of a daughter.
DURHAM. On March 30th, at 30, Brook Street, the wife of *Arthur E. Durham, Esq., of a son.
FITCH. On April 5th, at Chaddesley Corbett, near Kidderminster, the wife of *F. Fitch, M.D., of a son.
FITZPATRICK. On March 31st, at 39, Elgin Road, the wife of *John Fitzpatrick, M.D., Retired Surgeon Madras Army, of a son.
MACANN. On April 5th, at 22, King Street, Portman Square, the wife of Arthur B. Macann, Esq., Surgeon, of a son.
MORPHEW. On April 8th, at Sevenoaks, the wife of Augustus Morphew, Esq., Staff-Surgeon, of a daughter.
PERKINS. On April 2nd, at 7, Bentinck Terrace, Regent's Park, the wife of R. H. Perkins, Surgeon Bengal Army, of a son.

MARRIAGES.

*COOMBS, Carey Pearce, M.B., of Beckington, Somerset, to Mary Leslie, daughter of Wm. FRANKLIN, Esq., Coventry, on April 4.
CURE, Douglas Guillaume, to Katherine Susannah, youngest daughter of Hugh Welch DIAMOND, M.D., of Twickenham, at St. James's, Piccadilly, on April 7.
DRAKE, Thomas, Esq., of Stratford, Essex, to May, daughter of *William ELLIOT, M.D., Stratford, on April 4.
DUNCAN, John, M.D., Edinburgh, to Jemima, daughter of Alexander THOMSON, Esq., Manis, Tillicoultry, on April 4.
PUGSLEY, Lutley, Esq., Surgeon, of Wiveliscombe, to Susannah Risdon, daughter of the late Richard OATWAY, Esq., of Withycombe, at Old Cleeve, Somerset, on April 5.
STOCK, Charles Rankin, Esq., of Islington, to Emily, youngest daughter of Stephen WHITE, Esq., Surgeon, at St. Mary's, Kensington, on April 7.

DEATHS.

*Allardyce, James, M.D., Surgeon (half-pay), Royal Army, at Cheltenham, aged 84, on April 6.
Babington, Benjamin Guy, M.D., F.R.S., at 31, George Street, Hanover Square, aged 72, on April 8.
Brydone, James Marr, Esq., retired Staff-Surgeon Royal Navy, at Petworth, on March 29.
Galindo, Richard M., M.D., at 19, Noel Street, Islington, aged 72, on April 7.
Harland, William, M.D., at Scarborough, aged 79, on April 6.
Homfray. On March 31st, at Tredegar, aged 6 months, Henry Llewellyn, son of Charles A. Homfray, Esq., Surgeon.
Jones, William, M.D., at Lutterworth, aged 86, on March 27.
M'Kay. On March 25th, at Upper Clapton, Henrietta, widow of John M'Kay, Surgeon, of Edinburgh.
Mackenzie, William, M.D., of Calbo, N.B., at Edinburgh, aged 85, on March 28.
May, William, M.D., of Oporto, at Madeira, aged 56, on March 21.
Moon. On April 2nd, at Brighton, aged 14, Nathaniel Edward, son of Henry Moon, M.D.
Reid. On March 30th, at York Terrace, Regent's Park, Elizabeth Jesser, widow of John Reid, M.D.
Seaton, Thomas, Esq., Surgeon, at West Malling, Kent, aged 75, on March 24.
Steele. On April 7th, at Liverpool, aged 2 years, Caroline Edith, youngest daughter of *A. B. Steele, Esq.
Taylor. On April 4th, at Wargrave, Berks, aged 13 months, Sydney Morton, infant son of James Taylor, Esq., Surgeon.
Wylie, John Dick, M.D., Civil Surgeon, at Nynee Tal, North Western Provinces, India, on February 19.

Royal College of Surgeons. Mr. Hancock's lectures at the College will commence in June.

Cholera has broken out in almost all the districts of Bengal, where the scarcity of grain has been felt of late so severely.

Successful Surgery. Three successful cases of amputation at the hip-joint in London hospitals are reported at the same time by Mr. Erichsen, Mr. Holmes, and Mr. H. Lee.

Inspector of the Metropolitan Workhouses. Dr. Edward Smith, in conjunction with Mr. Farnall, is engaged in inspecting the infirmary wards of all the metropolitan workhouses, for the purpose of reporting upon the existing arrangements for the care and treatment of the sick poor.

Northern Counties Lunatic Asylum. A meeting of gentlemen interested in the establishment of a Northern Counties Asylum for Idiots was held on Monday, at the Town Hall Manchester. It was stated that the total subscriptions already received towards the institution amounted to £27,000, and £50,000 would be required. The subscriptions from this city amount at present to about £2000. (*Manchester Courier.*)

Medical Opinion by Telegram. The following opinion of Mr. Solly was sent to Rome by telegram, by one of the late Mr. Gibson's friends. It is a curious sign of the times in two ways—first, in the mere fact of such a means of transmission of medical advice; and secondly, in the extraordinary dread of bleeding a patient which exists out of as well as in the profession at this present time. The message was: "Mr. Solly thinks no bloodletting required, unless the head be hot and painful. Quiet and nourishment are indicated."

Munificent Gift. Mr. Peter Pantia Ralli, of Connaught Place West, Hyde Park, the eminent Greek merchant, has presented to the committee of King's College Hospital, through Dr. Priestley, the munificent sum of £6000, for the purpose of establishing a ward for poor sick children in that institution. The ward is to be called the "Pantia Ralli" ward, in memory of the late Mr. Pantia Ralli, the father of the generous donor. It will contain about a dozen beds. The whole of this liberal donation is invested in order to form the nucleus of a permanent income for the sick children's ward, and it is proposed to increase the number of beds as soon as additional subscriptions will permit.

Closing of a Roman Catholic Hospital. The Hospital of St. John and St. Elizabeth, Great Ormond Street, has been closed by the committee. The committee report that the expenditure for the past year has exceeded the income, and there is a debt due to their banker of £500. The patients remaining at the closing were removed to other hospitals or sent home, or removed to lodgings, and one child taken care of by a charitable lady.

Death of Dr. Thomas Hodgkin. A telegram, dated "Jerusalem, 5th April," has been received in London, announcing the death of Dr. Hodgkin at Jaffa, after a severe attack of dysentery. Dr. Hodgkin had proceeded to the East in company with Sir Moses Montefiore, on a philanthropic mission; and it may be remembered, that only a few months ago they visited Morocco together, and succeeded in inducing the Sultan to make large concessions to his Jewish subjects. He was in his sixty-eighth year.

Death of Dr. Babington. Dr. Benjamin Guy Babington died on Sunday last, in the seventy-third year of his age. The deceased was educated at the Charterhouse, whence he proceeded to Haileybury College, after which, in 1812, he entered the Madras Civil Service; but, after seven years' service, he returned to England in 1819, when he entered the University of Cambridge, and obtained his M.D. in 1830. In the following year, he became a Fellow of the Royal College of Physicians. For many years he was physician to Guy's Hospital and the Charterhouse, and is the author of many medical works.

University of Cambridge. The examinations for medical and surgical degrees in the present Term will commence on the 28th of May, at 9 A.M. Candidates for the degree of M.B. are required to signify the same to the Regius Professor of Physic on or before the 14th of May, and to send their certificates. Candidates for the degree of Master in Surgery are likewise required to send their certificates at the same time. A fee of three guineas is paid to the professor by each candidate when his name is sent in for the first examination for the M.B. degree. The classical subjects for the ensuing examination for the M.B. degree are:—*Hippocrates*—the 4th, 5th, and 6th sections of the *Aphorisms*; *Aretæus* "On the Causes and Symptoms of Acute Diseases" (the first six extant chapters of the 1st Book); *Celsus*—the 1st and 2nd Books.

Dr. John Harvey, of No. 31, Grosvenor Street, waited lately on Mr. Tyrwhitt to solicit his advice. He is the author of a work on the nervous functions; and, a copy of the *Worcester Herald* being forwarded to him, he found among the advertisements one of a book bearing the same title as his own, purporting to be written by a London physician. He procured a copy of it, and found that it was written by a person whose name is not in the *Medical Directory*, but it is in a book called *Quacks and Quackery*, reprinted from the *Medical Circular*. On looking at the title-page he found it different from that of his work—the title of his work being only used in the advertisement. Mr. Tyrwhitt said the applicant might go to the Court of Chancery for an injunction. Dr. Harvey said it would be perfectly useless to commence law proceedings against this person. The advertisement in the country papers was calculated to do him much injury, besides causing him great annoyance. Mr. Tyrwhitt, having looked at the books and the advertisement, said the matter clearly had the appearance of an attempt to deceive. The press would, however, afford the best redress, it being very hard that the applicant should either have to appeal at a great expense to the Court of Chancery or sit down and put up with the injury to his reputation.

The Newcastle-on-Tyne Obstetrical Society promises to be a very flourishing one. It has taken the larger and more appropriate title of "The North of England Obstetrical Society", many gentlemen in the northern counties having become members of it. It held its first annual meeting on March 14th.

Death of Professor Dick. We regret to announce the death of Professor Dick, Principal of the Edinburgh Veterinary College, which took place about seven o'clock on Wednesday night, at his residence in Clyde Street. The deceased gentleman, who was a native of Aberdeen, died, after three weeks' illness, of heart-disease, at the age of 73. Professor Dick studied medicine in Edinburgh University, and was a favourite pupil of the late Dr. Barclay. The Veterinary and Zoiatric College was founded by him in 1818. Professor Dick was secretary to the Royal Physical Society of Edinburgh for many years; and on retiring from the post, he was presented with a handsome silver claret-jug, in testimony of the value of his services in that capacity. At the outbreak of the cattle-plague, he was appointed government inspector of foreign cattle for the county of Mid-Lothian, in which duty he was assisted by Mr. Strangeways, Mr. Worthington, and Mr. Romanes. (*Scotsman.*)

Cholera in Germany. A letter from the Grand Duchy of Luxembourg says: "The greatest alarm prevails throughout this district, owing to the dreadful ravages made by cholera at Diekirch and the surrounding villages. Between the 1st and the 3rd the deaths amounted to 100, out of a population of only 2,000 souls. All the means hitherto employed to arrest the progress of the epidemic have been in vain. To purify the air large fires have been made in the streets, and the houses inundated with chloride of lime, but without effect. All who can are leaving the place. The disease made its first appearance at Clemenci, near Arlon, to which village, according to report, it was, brought by a workman from Paris. It soon spread to Mamer, Eich, Dommeldange, Weimerskirch, Luxembourg, and Diekirch, apparently following the watercourses."

Treatment of Sick Paupers. The following opinion as to the requirements for the proper treatment of sick paupers has been laid before the Poor-law Board. Having been requested to express an opinion of the principles which should guide any efforts to improve the State treatment of the sick poor in workhouse infirmaries, we beg to state that any scheme in order to be satisfactory should, in our judgment, be based upon the following principles:—I. The sick poor should be separated from the able-bodied paupers, and their treatment should be placed under a distinct management. II. In lieu of sick wards annexed to each workhouse, consolidated infirmaries should be provided, where the following rules of hospital management should be adopted under skilled supervision. They are those generally accepted in this and other European countries:—1. The buildings should be specially devised for the purpose of suitable construction and on healthy sites. The rules laid down by the Barrack and Hospital Commission may be consulted with advantage on this subject. 2. Not less than 1000 (and for particular classes of cases 1200 to 1500) cubic feet of air should be allowed to each patient. 3. The nursing should be conducted entirely by a paid staff, and there should be not less than one day-nurse, one night-nurse, and one assistant-nurse, for each fifty patients. 4. There should be resident medical officers in the proportion of not less than one for each 250 patients. 5. The medical officers should not have any pecuniary interest whatever in the medicines supplied, nor should they be charged with the duty of dispensing them. 6. A judicious classification of patients should be observed: the epileptic and imbecile, the acutely sick and the aged and infirm being treated in separate wards. 7. The aged and infirm, the chronically sick and the convalescent, should be provided with day-rooms separate from the dormitories. George Burrows, M.D.; James Clark, M.D.; Wm. Fergusson, M.D.; William Jenner, M.D.; James Paget; Edward Sieveking, M.D.; Thomas Watson, M.D.

Libel Case: Dr. Paterson, *v.* the Glasgow Morning Journal. In this case, which has been tried lately in the Scottish courts, the jury have found a verdict for the prisoner (or complainant), with one farthing damages. The libel was contained in a letter which appeared in the *Glasgow Morning Journal* after Dr. Pritchard's apprehension. In the communication reference is made to the anonymous letter which first informed the authorities of Pritchard's crimes, and the author is denounced as "a moral coward," who did not hesitate "to stab in the dark." Dr. Paterson's name is mentioned at the close of the letter, and he is asked "to come forward and clear himself." The author of the alleged libel was a friend of Dr. Pritchard's; and he addressed the editor to suspend public judgment, and, as he said, to evoke an acknowledgment of the act from Dr. Paterson, whom he believed to be the author. A correspondence took place as to the making of an *amende*, and giving up the name of the writer, but the parties could not agree. It came out in evidence that Dr. Greenlees was the writer of the anonymous communication to the authorities, and that he derived his information from Dr. Paterson, who, it may be remembered, was twice called in to visit the dying ladies. It was not, however, shewn that Dr. Paterson either knew of the fact of making the communication, or was responsible for its anonymous character, which was the point of the imputation in the alleged libel.

The Promotions of Assistant-Surgeons in the Guards. On Monday last, in the House of Commons, Mr. O'Beirne asked the Secretary of State for War whether the system hitherto followed in promoting assistant-surgeons to battalion-surgeons in the Foot Guards had not been regimental; whether there was any intention to change that system; and, if any change was to be made, under what warrant. The Marquis of Hartington said that, up to the time of the warrant in 1858, the system of promotions in the Guards was, no doubt, a regimental system; but in that year a warrant was issued for the medical service which conferred several advantages, as to pay and rank, on the medical department; and that warrant also recommended that the mode of promotion, as a general rule, for the rank of assistant-surgeons, should in future be by seniority in the service. In 1860, the question arose in regard to the surgeons of the household cavalry, whether the provisions of the warrant would apply to that branch of the service, and, after consideration, it was decided by her Majesty, on the recommennation of the Commander-in-Chief to the Secretary of State for War, that in the household cavalry and in the Guards also, in consideration of the surgeons having accepted the warrant, they should enjoy the advantages it conferred upon them. On the following day, Sir R. Anstruther gave notice that on the 16th of May he should call the attention of the house to the proposed alterations in the system of promotion amongst the medical officers in the brigade of Guards, and that he should move for a copy of the warrant or order of 1860, under which the alteration was made.

Croonian Lectures

ON THE

LOCALISATION OF DISEASE.

DELIVERED BEFORE THE

ROYAL COLLEGE OF PHYSICIANS.

BY

EDWARD H. SIEVEKING, M.D.,

PHYSICIAN TO H.R.H. THE PRINCE OF WALES, AND TO ST. MARY'S HOSPITAL; PRESIDENT OF THE METROPOLITAN COUNTIES BRANCH OF THE BRITISH MEDICAL ASSOCIATION; ETC.

LECTURE II. (*Concluded.*)

After this digression, *revenons à nos moutons*—the diseases of individual organs of the body. Our knowledge of the affections of the pancreas and spleen is still of the crudest kind. When we meet with oily dejections, we believe the former; when the microscope exhibits an unusual number of white corpuscles, we generally find the latter seriously disorganised. But we are not yet in a position to trace the diseases of these organs even to as early a point as we can those of other organs of the body. So far as we are acquainted with them, they occur only as expressions of deep-seated perversions of nutrition; and we possess, as yet, no means by which to recognise with certainty any early deviation in them from the normal standard, because we are unable to measure their functional activity in health. Time and space forbid our dwelling upon pancreatic and splenic disease; the more so as we should have to deal with hypothetical conditions, rather than recognised pathological data. If we were to enter upon uterine pathology, we should be in danger of treading upon a ground involving the risk, unnecessary for the present purpose, of hurting personal susceptibilities; otherwise it would suggest many important and interesting topics connected with our present argument. There are, however, other organs of the body, and many tissues, which offer well-marked illustrations of the doctrine I am seeking to enforce. Pathological, if not anatomical association, naturally takes us back from the kidneys, which have last occupied our attention at any length, to the very centre of organic life—the heart. How does disease manifest itself here? Is there any cardiac disease which may justly be termed a primary affection of the whole or any of the parts that constitute that most marvellous mechanism? What has been the great impulse to the study of cardiac disease, but the discovery that it is associated with certain states of malnutrition of a diathetic character? Anæmia, fatty degeneration, rheumatism, atheromatous degeneration, are a few of the prominent forms of malnutrition which, under certain circumstances, localise themselves in the heart, and are there recognised during life by certain physical signs; or, as is often the case, they do not manifest themselves locally until the effects are discovered on the *post mortem* table. The heart affords the most marked instance to be found, in the study of disease, of the protective power of the economy on the one hand, and the absence of that exact concordance between symptoms and actual derangement on the other, which *à priori* reasoning might have led us to anticipate. And, doubtless, it is a wise provision that comparatively trifling ailments often excite great alarm, while more serious maladies cause little apprehension in the affected person. But that does not alter the physician's duty to trace out cause and effect to their first origin, so as to obviate both the early functional disorder and the later organic degeneration. The experiments made by Dr. B. W. Richardson on the synthesis of disease illustrate well how at least one class of cardiac disorders is produced. The effects produced by his injections of lactic acid into the body of animals have been followed by results so closely resembling those due to rheumatic fever, that it is difficult to resist the conclusion that in both cases we have to do with an analogous mode of causation. But, whether or not we may accept Dr. Richardson's synthetic proofs as final, the whole course of rheumatic fever, with its more or less permanent effects upon the heart, sufficiently supports the present argument, in so far as it is essentially and primarily a disease of malnutrition and its local manifestations, accidental, or, at all events, non-essential sequelæ. If a friend in apparent health be suddenly stricken with death after a little extra fatigue or unusual emotion, and we find that the left ventricle of the heart has been ruptured, this appears unaccountable and anomalous, unless we bring a portion of this cardiac tissue under our microscope, and find, in the substitution of oily molecules for the sarcolemma, an indication of long anterior malnutrition of the heart, which the further study of analogous cases assures us is connected with general malassimilation, as evidenced by a close review of the past history, and a careful examination of other tissues and organs which prove to be involved in a similar degeneration. Medically speaking, such a termination appears an euthanasia; and, without entering upon a teleological argument, we cannot forbear remarking, that we have often been struck with the comparative freedom from suffering and anxiety in diseases that have a tendency to death, while the pain of anticipated evil so often harasses those whose maladies are of a trifling and removable character. Fear as well as pain often serve, like the cur that barks at the stranger, to guard and warn; but, like the cur, they often mistake a friend for a thief.

If we take the case of angina, and study it in nature or in that exquisite portraiture of disease given in the lectures of our President, we find an excellent illustration of the successive advances made in medical science—how, from the mere symptom of pain and dyspnœa, for which only the vaguest explanation could be assigned, we have gradually arrived at an understanding of a very complex series of changes indicating deep-seated nutritive derangement. We may be still compelled to admit, with Dr. Watson, that "very rare" cases occur in which no disease of the heart has been detected, because our range of vision or our methods are defective; still we are now satisfied that, in the great majority of cases, we shall find appreciable organic mischief, whether it be due to former rheumatic disease, to a gouty diathesis, or

to irregular and imperfect nutrition of some other form. How intimately the nutrition of the different tissues of the heart is associated, is best proved by the more or less permanent influence exerted by pericarditis upon the muscular tissue. Dr. Watson has himself pointed out how, although morbid conditions of the investing and lining membrane of the heart do not always compromise the life of the patient immediately, they are fatal at length in ninety-nine cases out of a hundred, through the alterations which they induce in the adjoining muscular tissue. These alterations, as Virchow demonstrated in 1858, are of a degenerative character, advancing, in the case of certain forms of pericarditis, from without inwards. It is not improbable that many cases of fatty degeneration, which now-a-days is so common a source of debility and death, may be brought about in this manner. At all events, these facts indicate how slow we must be, when we deal with a morbid condition, not to regard it as a primary and substantial form of disease, as persevering research generally leads us to an earlier and simpler form of derangement.

I do not willingly quit the trunk without saying something of phthisis in connexion with the subject under consideration. Here we have a local manifestation of nutritive derangement, which, perhaps more than any other of the murderous diseases that decimate our countrymen, is due to the influences of modern civilised life. The *Epidemics* of Hippocrates give a brief account of its chief symptoms; but the open-air life of his cotemporaries, and their windowless houses, obviated at least one of the great checks to a healthy tissue-metamorphosis—insufficient oxygenation of the blood. We have it in evidence that people may live in great poverty, and in every way but poorly supplied with the necessaries of life, and phthisis shall not invade their homes, so long as this imperfect construction shall allow the winds of heaven access to them. The remarkable immunity of the Western Highlander from pulmonary consumption, so elaborately demonstrated by my friend Dr. Morgan of Manchester, ceases when you take him out of his peat shanty and put him into a stone house with doors and windows. But, whatever the relative fatality of the disease in ancient and modern times, all observers appear agreed that the disease is mainly one of defective nutrition—arrested metamorphosis of the tissues—finding its local expression generally in that organ which in the individual claimed a special development of energy, calling out, like Tennyson's weary soul:

> "'Tis life whereof our nerves are scant;
> Oh life, not death, for which we pant;
> More life and fuller that we want."

So much is phthisis regarded by some as a disease of nutrition, that its earliest seat is placed in the stomach, and dyspepsia is stated to be its first stage. In principle I agree with these observers, though I would differ from them as to the fact that what is commonly called dyspepsia is by any means an uniform forerunner of pulmonary tubercle. The principle is this, that, long before the actual formation of the tubercular deposit, there is what has been termed by one of our very learned and energetic Fellows, Dr. E. Smith, a pretubercular stage, in which the vital powers are sapped at their very root by an imperfect depuration of the blood and an irregular or vitiated supply of the elements necessary for the support of the healthy tissues. Place such a patient under circumstances enabling him to meet both requirements—namely, to burn off the accumulating waste material, and to replace it by normal elements—and you get rid not only of your pretubercular, but also of your tubercular stages, and cure your patients as effectually as we can cure any disease. I for one have no hesitation in affirming the curability of phthisis, not from any theoretical considerations, but from what I have seen very often and almost in all ages, both during life and after its close. But I should have scant hope of such a result, were the treatment directed solely to the removal of a local irritation, though that irritation might justify remedial interference on account of the reflex injury accruing to the patient from that source. The nutritive derangement that leads to phthisis lies at the bottom of so many morbid states, localised in other organs besides the lungs, that a more clear and precise recognition of its earliest phases is most essential. An universal sympathy prevails; and as, in advanced tubercular consumption, all the tissues waste, so, in the earlier stages, the taint that leads to the fatal issue, if unchecked, may become so prominent in the stomach, the heart, the ovaries, the brain, as to completely mask the real issue. This may serve as one of many instances that may be adduced to show the injury done by specialism to the cause of scientific medicine. The speciality divides the body into a number of separate portions, which are apt to be regarded as independent of one another; whereas the intimacy of correspondence between all the different parts is so great, that the greatest danger is apt to result from the physician of one organ ignoring its fellow-labourers.

Modern scientific inquiry has placed the diseases of the cerebro-spinal system, so far as I understand them, on precisely the same footing as that which prevails in regard to other organs. The names of the different morbid conditions of the brain and cord may have been multiplied, because pathological anatomy has shown us that a greater variety of effects are produced by the fundamental elements of disease, than our predecessors were able to appreciate; but for all that our intimate knowledge of these various conditions is simplified, because, the more we know of them, the more the essentiality of the different morbid conditions disappears and their symptomatic character becomes more prominent; that is to say, we find that, as in the parts of the body previously discussed, a modification of nutrition precedes and underlies all spinal and cerebral disease; and it is in this modification that the unity of disease exists.

The surgeon of old who neglected to bleed his patient suffering from an apoplectic condition, acted wrongly, both scientifically and morally. Scientifically, because science taught him to regard all apoplexy as resulting from local congestion and general plethora; morally, because his convictions taught him to believe in the venesection as the only means by which such plethora could be reduced. He knew nothing of heart-disease or renal degeneration in relation to cerebral disorder, and still less of the nutritive perversions which in the first instance led to them. Red or white softening of the brain-tissue, embolism, fatty or atheromatous degeneration of the cerebral arteries, were to him hidden processes, and

his doctrine was, that sudden and violent symptoms must require an analogous procedure of cure, forgetting that the greater the disturbance in the balance of the forces the greater the call for extreme nicety in their adjustment to restore the normal condition. Whatever nosological entity we may examine individually in the nervous system, we are always reduced to the same conclusion—there is some long antecedent nutritive derangement, some arrest or change in the normal metamorphosis of the tissues, to which we are able to refer it with as much certainty as we can do anything in medicine. These antecedents the ancient surgeon or physician could not appreciate, because the means of doing so were not at his disposal. He saw a great conflagration, and concluded that the most violent measures must be necessary to extinguish it. Hence he established the vicious doctrine, *Melius anceps remedium, quàm nullum.* The antecedent nutritive changes necessarily vary according to circumstances and habits of the individual; the medical man no longer has one rule of treatment, but seeks for the exact nature of the fundamental and consecutive derangement in order to arrest the disease. The ancient routine resembled that of a watchmaker who always assumes that when watches go wrong, the mainspring is too powerful and wants toning down; we believe that the modern system may be compared to the clever mechanic who, having no preconceived theory on the subject of horological irregularity, searches for its causes in every part and constituent until they are discovered.

Whether we look to what are regarded as local diseases of the nervous system or as general affections, we find equally an antecedent nutritive derangement, often of very long date. The date here, as in other disease, is often traceable to a point long anterior even to the birth of the patient, if there be any truth in the doctrine of hereditary influence. For though the exact ratio of an hereditary influence may be difficult to settle in a particular case, it seems as impossible to avoid the conclusion, that morbid taints or impressions are sent on from parent to child, as it would be to deny the transmission of a resemblance in feature and character. To allude but to a single and insuperable difficulty, how would it ever be possible to ascertain the influence, alluded to, and made a great point of, by Goethe, in his *Wahlverwandtschaften*, which may be exerted by mental emotion affecting parents during the act of sexual congress upon their future offspring? We cannot estimate all the elements upon which hereditary influences depend, owing to the limits of our opportunities and powers; but the result is too palpable to escape the most superficial observer.

Under the term general diseases of the nervous system, I would class such conditions as hysteria, chorea, paralysis agitans, tremors, neuralgiæ, epilepsy, anæsthesiæ, hyperæsthesiæ, and the like. It can scarcely be affirmed that any of these have an independent existence; that they occur in any human being without being preceded by some nutritive derangement, to which, even in the present state of science, we could give a more or less definite name. My esteemed colleague, Dr. Handfield Jones (*Clinical Observations on Functional Nervous Disorders*, p. 482), has most strenuously advocated the view, that many of the indefinite nerve-derangements which meet us at every turn are a masked form of ague, or the expression of a minute quantity of miasm-poison taken into the system. I do not desire to dwell upon his theory; but it is quite manifest from his facts and arguments, that he holds the diseases in question to be the sequelæ of a deep-seated nutritive derangement affecting the vigour and tone of the tissues primarily, and not themselves the primary disorder.

I should weary you were I to bring forward, as could easily be done to almost any extent, illustrative cases of disease to enforce my argument. Your own extensive knowledge will readily supply the necessary facts to test it by. I might appeal to the dermatologist to tell us of the nutritive derangements that precede and cause and accompany the many affections of the skin, that are but too often cured to the lasting detriment of the patient, when their origin in the systemic nutrition is overlooked. I might go to high surgical authorities, and ask them to explain the origin of the great majority of the local affections that come under their notice, confident that malnutrition in one or other of its phases would appear in all their answers. Go to the ophthalmologist, and inquire how often the eye is diseased solely because of direct external injury, and how often the catarrh, the rheumatism, the gout, the albuminuria, the fatty degeneration, that has hold of the system, forms the substratum of the eyes' ailments.

Why the general disorder finds a local expression, is a question by itself. The answer is given in the great works that discuss the details of individual disease, so far as it can be given in the present aspect of science. We require, however, to know much more and more definitely the particulars of this relation; possibly the researches involved in the therapeutical action of remedies may aid us; at all events, in my next lecture, I propose to examine in how far our present knowledge of therapeutics lends countenance to the argument I have ventured, but too feebly and inadequately, to lay before you.

Decline of the Cattle-Plague. The ravages of this disease have happily abated very materially. The effect of the legislation of February has been, that the weekly number of attacks has been diminished to the extent of three-fourths, viz., from 18,356 to 4,653 in the comparatively short space of six weeks. It may be hoped that a continuance of the same repressive policy will have nearly annihilated the disease by the end of this month. At the close of October the number of beasts which had died from the disease was 7,912; at the close of November, 16,384; at the close of December, 41,491; at the close of January, 81,386; at the close of February, 117,664; and at the close of March, 121,571. The actual mortality in March would appear to have been thus reduced to 3,907. The number killed at the close of October was 6,866; at the close of November, 10,061; at the close of December, 13,931; at the close of January, 17,368; at the close of February, 26,135; and at the close of March, 48,508. The number killed in March would thus seem to have been 22,373, so that the pole-axe removed nearly as many beasts last month, as had been slaughtered previously since the commencement of the disease. The number which had recovered was, at the close of October, 848; at the close of November, 2,420; at the close of December, 7,045; at the close of January, 16,055; at the close of February, 26,106; and at the close of March, 29,741.

Original Communications.

THE ANTECEDENTS OF CANCER AND THE LOCALISATION OF DISEASE.

By Charles H. Moore, F.R.C.S., Surgeon to the Middlesex Hospital.

There is something startlingly decisive in the title of the Croonian Lectures for the present year. For, in undertaking an exposition of the "Localisation of Disease", an author assumes, or designs to show, the existence of disease before its establishment in an organ. Whether morbid processes begin as separate local entities or are induced by extraneous causes—whether, in fact, diseases are primarily local or general—is one of the most important questions of the day. It was accordingly with great interest that I expected, and with great pleasure that I heard, Dr. Sieveking's lectures on this subject.

The increasing exactness of our clinical and pathological investigations is having this effect, that diseases are more and more attributed to mechanical and intelligible causes, and are, consequently, divested of their former mysterious character. When pneumonia originates from the intrusion of trichinæ into the lung (Sieveking, on Thudichum, British Medical Journal, March 31st, 1866, p. 326), or peritonitis from the rupture of an obstructed thoracic duct (Cayley, Pathological Society, March 20th, 1866), the definiteness of the local cause in each case satisfactorily accounts for the localisation of the inflammation. If there are other diseases, the occasion of which is less obvious than these, experience thus far appears to justify the expectation that, by methods better adapted for the investigation than we yet employ, we shall be able eventually to penetrate into their occult origin, and to observe the direct action of each cause in the production of its morbid effect.

Whether this shall be so or not, it is surely premature to adopt the principle that all disease, not having an ascertained local cause, is of general origin, and thus to fix its source, though yet untraced, elsewhere than at the seat of the morbid process itself.

Of some diseases it is undoubtedly true, that their cause is derived from a remote part; but it is not thereby shown that all diseases thus originate. Least of all is it so shown of cancer. Whatever mischief the circulation of beer may inflict upon the kidney, or that of gin upon the liver; in whatever way malaria affects the spleen, or grindstone grit the lung (Greenhow, *Transactions of Pathological Society*, vol. xvi, p. 59); the cause in each case reaches the organ, acts in it, and acts throughout it. In cancer, on the contrary, neither is a prior cause demonstrable apart from the situation of the first tumour, nor is the outbreak of the disease common to the whole of an organ. The various anatomical relations of a cancerous tumour may indeed make it a cause of disease extraneous to itself; and so a mammary cancer may cause pleurisy, as trichinæ do pneumonia; or it may spoil the axillary glands, projecting its constituent particles by a convenient tube, as steel dust produces asthma. Thus, even cancer may be the remote source of a new disease; but the principle that all disease has a remote or general origin cannot be applied to the primary cancerous tumour itself. It is a local error of nutrition, for the general cause of which (if any exist) the evidence hitherto accepted is doubtful or inapplicable.

It is not from a presumptuous desire to criticise that I thus write; but in order to be aided in correctly stating my views on this subordinate subject of cancer. I have been somewhat unfortunate in the notice of my doings with which the press has sometimes favoured me. On one occasion an Introductory Address of mine, on the principles and objects of the life of a modern medical man, was reported to have been devoted to a contrast of Arabian and European surgery. To my great surprise, my paper read at Leamington in August last was thus referred to in a weekly journal; and my request to have so important a misrepresentation corrected was not complied with.

"Mr. Moore contended that no constitutional antecedents affected it; but that, when the disease appeared, its elements existed throughout the system, so that the extirpation of the cancer did not eradicate the disease, the elements of which still existed, and would crop out sooner or later." (*Reader*, Aug. 12th, 1865.)

My friend Dr. Sieveking, too, appears to me to have misunderstood what I have written in my *Antecedents of Cancer*; and he had certainly received an impression opposite to that which I intended to convey, when, in his generous notice of that essay, he thus expressed himself.

"After all, the author admits a constitutional predisposition; but he is unable to reconcile his experience of the progress of the disease with the ordinary terminology of science, which would term it morbid, though it disguise itself under the semblance of health." (British Medical Journal, March 24, 1866, page 300.)

I am at a loss to account for so strange a misconception of my meaning as is contained in these two statements of the Croonian Lecturer. That cancer is a disease, is morbid, that it is so throughout its progress, from its beginning to its end, I have no doubt. But that the persons in whom cancer occurs have had any prior constitutional ailment, to which that occurrence is due, I do doubt. As the disease has presented itself to me, its first aspect is that of faulty texture only, and not of one having any remote or general cause. Regarding justly the obscurity out of which cancer springs, Dr. Sieveking abstains from a positive statement as to its causation, and he includes it only generally among the diseases which have a constitutional source. His opinion is so commonly approved, that he had no need, even if his limits allowed him, to demonstrate the grounds of it; but I am anxious to be myself cleared of holding it. That opinion appears to me to be unproved, to have arisen from confounding the mere mechanical progress of the established disease with its antecedents, and to be subverted by various facts and considerations which I adduced in my paper. Accordingly, I do not admit any constitutional predisposition, unless (though I deny it) a general conclusion is involved in the exceptional fact that cancer, self-originated in one generation, is reproduced in succeeding ones. The very large majority of cancers spring up without traceable hereditary influence; and the very large majority of such instances of the disease, which are thus independent of the ancestry of the person affected, are also not transmitted to any of the offspring. For three patients affected with cancer, ninety-seven parents (who yet have a cancerous relative) and ninety-seven children go free. So little is any constitutional character of cancer discoverable in its inheritance.

Lest I should have failed to express in my own terms the opinion as to a constitutional predisposi-

tion which is sometimes entertained, I will quote the words of the last writer on the subject, Paul Broca. In the first volume of his new work on *Tumours*, he recites two cases in which the growth of cancer is alleged to have followed an injury. In one case, the disease was first noticed soon after a severe blow on the heel; in the other, after prolonged friction, combined with an injury, of the pubes. The author thus argues on these facts.

"In accounting for cases of this kind, we are obliged to admit the existence of a previous disposition in the economy, before the local accident which determined the formation of the tumour. The diathesis hovered, as it were, over the organism; and, though not yet manifested, it would doubtless sooner or later have established itself spontaneously in some organ or other. The local cause, provoking a morbid action at a particular point, and leading to the secretion of blastema there, drew to that point the action of the diathesis. Soon the secretion of the traumatic blastema was followed by that of a cancerous blastema, and the tumour was developed under the double influence of a local and of a general cause.

"Whatever be the value of this interpretation, it is certain that these two kinds of causes, local and general, may be associated, and may preside over the development of the same tumour. Side by side with such cases as I have last cited, where this double intervention is evident, there are others in which the two kinds of influence are equally probable, or equally doubtful. Amidst health the most flourishing, and in a part which has never suffered any appreciable injury, one isolated tumour spontaneously forms. In such a case, the observer is obliged to await the event in order to know whether the tumour constitutes the entire malady, or if it be only the product and manifestation of a diathesis.

"The diatheses which preside over the development of tumours" "are almost always the creatures of reason (*êtres de raison*), for they possess no proper symptom by which to reveal themselves before the appearance of the tumour. It is from the necessity of theory alone that we admit their existence, because without them it is impossible to explain the phenomena we attribute to them." (Broca, *Traité des Tumeurs*, 1866, tome i, p. 145.)

Against this notion of an antecedent cumulative cause of cancer, apart from the site of the first tumour, and distinct in time from its appearance, I ventured to address my arguments at Leamington. To speak of a diathesis coexistent with flourishing health, I cannot but deem a groundless assumption; and I still find it exercising a disastrous influence, when it begets uncertainty and excuses delay in the early management of the primary tumour.

THE CITRIC, ACETIC, AND CARBOLIC ACIDS IN CANCER.

By John Barclay, M.D., C.M., Banff, N.B.

The appearance in the *Lancet* of March 24th, 1866, of the report of a case of Cancer of the Tongue treated by Citric Acid, suggests to me the propriety of my publishing my experience of the same remedy, as also that of the acetic and carbolic acids, in the same class of cases.

In the beginning of September of last year, a paragraph was pointed out to me in a newspaper setting forth the wonderfully beneficial effects which had attended the use of citric acid as a remedy in a case of cancer; but I did not think of trying it, until a patient labouring under a large and excessively painful and cancerous tumour of the neck, behind the angle of the jaw, which from its size, situation, and the extent of its attachments, held out no hope of its successful removal by the knife, requested me to allow her to make a trial of the acid, as she said her clergyman had strongly recommended her to do so. I at once assented, thinking it could have little effect either for good or for harm. But when I called in a few days after, I was somewhat surprised to find that since she had applied a lotion composed of a drachm and a half of the acid, dissolved in eight ounces of water, she had had almost no pain in the growth. This I was the more astonished to hear, as nothing of the anodyne class seemed to have afforded the slightest relief from the pain before, with the exception of the hypodermic injection of morphia, and even this, she said, did not remove the pain so effectually as the citric acid lotion; and besides, the relief from the latter was much more permanent. This treatment was continued for some weeks, with the effect that the patient improved considerably in looks, health and spirits; and to show if this was really due to the change of remedy, I ordered her to discontinue the wash for a week, during which period of omission the pain returned with as great severity as before, compelling the patient to resume the application, which again brought relief along with it. It now occurred to me, remembering the solvent power of acetic acid over cancer cell walls, to try what effect that acid would have when applied to the tumour. By this time the skin had begun to give way, and a sore to develope itself on the surface of the growth. I therefore ordered vinegar to be applied, and was glad to find that this controlled the pain quite as well as the citric acid had done before. Dr. Manson, the Senior Surgeon of Chalmers' Hospital, in this place, who had used the citric acid lotion with equally beneficial results in another case of cancer (this time of the breast, and totally unsuited for excision from its extent, adjacent glandular enlargement, and the length of time it had existed) now changed it for the vinegar application, and he had no reason to be disappointed, for he found that its anodyne power was equal to that of the citric acid, and also that it possessed advantages which the acid formerly used by us possessed in a very much more slight degree. In the case of the wounds in the breast, which were numerous, and all partaking of the characters of cancerous sores in a most marked degree, it was noticed that after the application of the citric acid, the "thick, serrated and everted edges" did not seem quite so thick, serrated and everted as before, but looked thinner, softer and with less induration around them. But, and as I hoped would turn out to be the case, the application of the acetic acid lotion, gradually increased in strength from that of common vinegar upwards, produced in this way a much more marked effect, for the edges began to thin down much more rapidly, granulations of a seemingly healthy character arose in the centre of the wound, all fetor disappeared from the discharge, and even attempts at cicatrisation began to take place, sufficient in several of the smaller ulcers to close them in altogether.

The acetic in varying degrees of strength had now been used for a month in both cases, and looking back over this period, and over the month during which the citric acid had been used, to the condition of both patients previous to the use of these remedies, we were of opinion that not only had their state of health, and the appearance of the disease in each, not become worse, but that both had most sensibly improved. Both patients ate and slept much better than before, and were able to go about their usual household occupations with ease and comfort. The tumour in the neck had become decidedly less, there were attempts at a skin-forming

process at several points on the edges of the sore, and pain in it was reduced to a minimum. As for the case of the breast, the woman herself had so much improved in health, that it would have been difficult to recognise in her, the same thin, cachectic-looking creature of three months back, for her cachectic look had wholly disappeared, and no one by looking at her now, could have supposed that she laboured under a disease of such a serious nature, and which had progressed so far. The tumour itself was no larger than it was three months before, perhaps rather smaller, and several of the smaller sores had healed over entirely.

And now it was resolved to try the effect of carbolic acid in the above cases, and this was commenced on December 28th of last year. About this time, two other cases of cancer applied for advice. The one was an extensive tumour of the neck of the uterus, and implicating the whole of the vagina, accompanied by very great pain, and a most profuse and exceedingly fetid discharge. Indeed, so fetid was the discharge, that no one could stay even for a short time in the room with the patient. The other was an enormous schirrous tumour of the breast, of very rapid growth. It had been in existence only four months, and already it extended from the floor of the axilla almost to the sternum. The subject of it had been in one of the largest of our provincial hospitals, and had got nothing, either there or anywhere else, which gave her any relief from the extreme pain, and the horrible fetor of the discharge. The carbolic acid in the form of a very dilute lotion* was ordered in all four cases, with the following results.

In the case of the tumour behind the jaw, the lotion was about as effectual in relieving the pain as either the citric or acetic acid lotions. Applied in this weak state, its solvent effect was much the same as that of the citric acid; but applied in a more concentrated form, the effect was a most vigorous eating away of the tumour, and with much greater rapidity than by the two acids formerly used. But there were very feeble attempts at skinning under the use of the dilute carbolic acid in this case, and none of course when the strong acid was employed.

In the case of the mammary tumour, which had been treated before by the citric and acetic acids, the report was that the pain was as effectually controlled by the carbolic acid as by either of the other two; that under its use the "thick, serrated and everted edges" disappeared much more rapidly than with the other two; and that when the weak solution was employed, cicatrisation was seen going on over many of the sores, wherever the cancerous excrescences were eaten down to below the level of the surrounding skin. In the case of the disease of the uterus and vagina, the effect was equally striking; whenever the weak lotion was employed the pain almost entirely disappeared, and with it the horribly offensive discharge. The poor woman, from wishing herself dead, began to have her spirits raised, to eat and sleep well, and now no fœtor was perceived by those in the room with her. And the general improvement in her appearance was beginning to be visible when a severe attack of hæmorrhage nearly carried her off, since which time her progress towards recovery has been very slight.

A like result was obtained in the fourth case, that of the large mammary tumour. The pain, instantly on the application of the carbolic acid lotion, disappeared as if by magic, and the fœtor of the discharge was very much lessened. The tumour was extirpated a few days after the application of the acid, and the case has gone on well since.

Two or three more cases of cancer of the breast had the carbolic acid lotion applied, but the patients live at a distance, and no report has been received from them.

I may mention that, on treating cancer-cells under the microscope with acetic and carbolic acids in varying degrees of dilution, I found that in about equal strength the carbolic acid dissolved the cells much more rapidly and effectually than the acetic acid, and caused the nucleus also to disappear almost entirely when applied in a concentrated state.

From the above experiments with the three acids, then, it appears that they have about an equal effect in removing pain in cancerous growths; that the carbolic acid has a powerful effect in correcting the offensive fœtor of cancerous discharges; and that they all have a solvent effect on cancerous tissue—the citric acid least, the acetic next in degree, and the carbolic most powerful.

I hope that those who have tried these acids in similar cases, will publish their experience of their comparative efficacy, and that others may be induced to give one or all of them a fair trial.

* R. Acidi carbolici ℥iss–℥ii; spiritûs vini rectificati ℥i; aquæ ad ℔s. ii.

REMINISCENCES OF A FOUR MONTHS' STAY WITH PROFESSOR A. VON GRAEFE IN BERLIN.

By A. Samelson, M.D., Manchester.

[*Concluded from page* 385.]

Proceeding to the *Affections of the Iris*, we first notice the case of a *foreign body*, which had entered the anterior chamber, and was seen to ride, as it were, on the pupillary edge of the iris, setting up an irritation which called for its removal. This was effected by linear extraction; whereupon the attempt was persistently made to readjust the iris, which, in the preceding manœuvre, had been variously touched and moved towards the incision. As the pupil, however, could not quite be restored to its circular shape, a piece of iris was finally excised. We take this opportunity of mentioning the wonderment expressed by an elderly gentleman from this country, who for a short period attended the operations at the Clinique, in these characteristic terms: "But how is it? They here perform iridectomy for everything!" And, in fact, iridectomy has here even replaced Mr. Critchett's ingenious method of iriddesis. The latter, which was formerly practised by Von Graefe, has at his hands, as elsewhere, been found not to be a sufficiently innocuous proceeding, but apt to set up cyclitis. Of this we chanced to see an instance in the eye of a lady, on which an iriddesis had been made, apparently in due style, by another surgeon. Cyclitic disease had resulted, which now required the performance of iridectomy at Von Graefe's hands. A very small incision, so performed as to secure a long channel for the iris to travel through, is the means of making iridectomy answer all the purposes for which iriddesis has been recommended and had recourse to.

In all instances where either cosmetic or optical considerations require, and present circumstances permit, the excision of iris in an upward direction, this, in avowed imitation of the English example, is preferred. In the performance of iridectomy, unless synechiæ or other circumstances hinder, the iris is regularly made to follow the lance-knife out of the anterior chamber, in order to be spared the introduction of the forceps.

In regard to the *Affections of the Lenticular System*, our remarks will be confined to the item of *Cataract*. According to Von Graefe's experience, diabetes is of much more frequent occurrence in cases of cataract than appears to be generally received. He does not in his practice regard immaturity as an essential obstacle to the removal of cataract. The retrogressive condition of the latter is by him considered much more to darken the prospect of thorough success; and a form which he appears prognostically to dread more than any other is that of posterior cortical cataract, from its being mostly accompanied by other and more serious morbid changes. Among the local circumstances of inauspicious significance, it is especially the small-sized cornea which is looked upon with misgiving. In capsulo-lenticular cataract, the opaque capsule is pretty frequently removed by itself, immediately before the extraction of the lens. As regards instruments, in the bent cystotome, with its fleam, in the one specimen looking to the right, in the other to the left, we saw a most useful auxiliary for upwards extraction. The curette preferred for most purposes is a curved spoon, the construction of which is a sort of compromise between Waldau's and Critchett's instruments. Repeated introduction of the curette into the anterior chamber, which has here always been held in abhorrence, is most religiously abstained from. A very light but efficient kind of manacles, consisting of two firm bands, an inch wide, buttoned about the wrists, and fastened by a tape to the foot-end of the bed, is employed after cataract-extraction, to ward off injury by the patient's own hands.

A proceeding which seems to be in special favour with Von Graefe, and which we have witnessed in a pretty large number of cases, is the formation of what he calls a *diametral pupil*. This is obtained by superadding an upward iridectomy, mostly just before the act of extraction, to the iridectomy downwards performed some weeks previously; or *vice versâ*, as the case may be. A large vertical gap is, in eyes thus operated upon, seen to replace the former pupil. The proceeding is pointed out as the best means for thorough extinction of the action of the sphincter. It is needless to say that the plan is not wantonly adopted, but only resorted to in suitable cases. It appeared to us as a thing very apt to be carped at; but remembering, as we do, those unfortunate cases of extreme vulnerability occasionally met with in cataractous eyes, in which such a measure is most likely to prevent mischief, we think that others, remembering as much, will probably become not only lenient critics, but thankful imitators too. We give the following case. The patient had had extraction performed on his left eye. The imperfect result was ascribed to the influence of syphilis, which had not entirely left the system at the time of the operation. The right eye, now about to be operated upon, had likewise been the subject of iritis, as a residue of which, a synechial band appeared skirting the top of the large gap which appeared within the lower half of the iris, the product of a first iridectomy. A second and equally extensive one was now superadded, whereupon the capsule was dilacerated, and the cataractous lens attempted to be removed with the spoon. It issued in two parts, which, put together, showed the nucleus and the cortex immediately surrounding it to have come away complete. Much remaining surface-matter, however, was gradually expelled by pressure on the sclerotic with the spoon. The adhesion referred to had, in the act of dilaceration, been torn across with the sharp hook which, in this case, was preferred to the cystitome. Whenever the eye happens to jerk whilst the spoon is being introduced, the caution is observed and enjoined, quickly to follow the movements of the former, as the only chance of avoiding rupture of the hyaloid fossa.

Very exceptionally only, and then for the most part at the urgent desire of the patient, extraction is performed on both eyes in one sitting. We were told by Professor von Graefe himself of the case of a high dignitary, in which the faultless progress of the operation on one eye induced him forthwith to extract the lens from the other; this was equally accomplished without a hitch, when, nevertheless, both eyes were lost, so far as regards useful vision, by speedily supervening suppuration—an event which, manifestly arising from systemic causes, could not further be accounted for but by this vague assumption. On the other hand, we witnessed ourselves a most successful bilateral extraction in a Swedish parson, some 60 years old, of commanding presence, who, loth to extend his stay or undertake the long journey a second time, insisted upon having both eyes operated upon in immediate succession. Another case of bilateral operation, for congenital cataract, in a child, was the following. On the left eye, linear extraction from the outer side was resorted to; the iris prolapsed; dilaceration was effected with the hook; the capsule was found tough, and but very little lenticular substance was present, which, too, could not be completely evacuated. By dint of friction on the closed eyelids, the iris returned; but the pupil, noways duly black, did not quite resume its former regularity either. After this, discission, freely performed, was the method chosen for the left eye. Here, from a likewise very tough capsule, a much larger quantity of lenticular matter came forth, which now pressed the iris forward into the anterior chamber. Before the case was dismissed from the couch, a piece of iris was excised from the right eye.

Perhaps, further, of some interest are the following three cases of unilateral extraction. In the first, a middle-aged man, the operation was performed on the left eye, and, as usual, without chloroform. In this case, owing to the patient exerting his orbicularis muscle just at the most critical moment, some vitreous humour, though but a very moderate amount, escaped; and the pupil could not entirely be freed from cortical masses. The case, though not an extraordinary one, was instructive, in the operator's own opinion, as showing the usefulness of chloroform, if time will permit of its employment. The next case is that of a noble lady, of 65 years of age, whose left eye had, at the hands of an eminent German professor of ophthalmology, undergone the operation of iridectomy for glaucoma, in the course of which—chloroform not being used, which Von Graefe likewise but exceptionally employs in glaucoma—the capsule was injured. The traumatic cataract thus produced afforded evidence of the unmanageableness of the patient, whose case was beforehand pointed out to us as a most unpromising one. Before the anæsthetic told upon her, she gave continual vent to her anguish. A large upward iridectomy was made; and the capsule, although accessible from the original injury, was expressly dilacerated afresh. While inserting the spoon, the operator called our attention to this as the critical moment. The nucleus, together with a moderate quantity of cortical substance, came away, but was immediately succeeded by some vitreous humour; the play of the orbicularis just supervening when the cataract made its exit. Thorough narcosis had, again, not been induced. In this case, the operator held that the zonula had been ruptured before the operation. Only a scanty amount of vitreous humour, however, had escaped. The corneal wound was well adapted; but the pupil was not quite black, because occupied by blood.

Several times the eyelids were now widely separated, and the patient directed to look downwards, which did not lead to any further escape of vitreous humour. The right eye of the patient was the seat of chronic glaucoma, with a contracted field of vision; whilst in the left eye the visual field was normal; and on that account the operation was ventured upon. The case did well. In the third case, one of accidental cataract in a youth, in which chloroform was dispensed with, a glistening foreign body became visible after dilaceration and the escape of some soft lenticular substance. The foreign body was, together with some more solid cataractous matter, very carefully removed by the spoon, and the pupil remained perfectly clear.

In the hospital, I saw still a female patient, operated on before I arrived, with a pupil partly occupied by capsular remains, in the cataract extracted from whose eye a *cysticercus* had been found by Von Graefe —an occurrence of which we hear that no instance has yet been recorded.

We have seen every method of operation for cataract which is still in use practised at the Clinique, except, of course, reclination and depression; and we may perhaps add, except the method of Jacobson, as chiefly characterised by the induction of thorough chloroform narcosis prior to the steps of the operation. But what we have likewise failed to witness within the space of more than four months at Von Graefe's clinique is even a single case of flap-extraction. To account for this, at first sight, certainly very strange omission, we have to enter on the exposition of a method of operation recently excogitated and practised by Von Graefe, which, it is our belief, will be very generally appreciated, and, if approved by experience, form another solid accession to the wealth of ophthalmic surgery. At the last meeting of the Ophthalmological Congress at Heidelberg, Von Graefe has, we hear, made a communication on the subject; a substantial treatise on which will be published in the forthcoming volume of the *Archiv für Ophthalmologie*.* We have been fortunate enough to witness, as it were, the incubation of the new method; attend at its first trials; and observe its gradual perfection and thorough establishment. When we had witnessed at the Clinique a number of cases subjected to modified linear extraction, performed advisedly in strict accordance with the practice and precepts of Critchett and Bowman, we heard Professor von Graefe broach the idea—to throw or fling (as he colloquially expressed it) the lens out of the eye without the intervention of the cumbrous and anything but inoffensive spoon. Within less than a fortnight after this, we found him supplied with the instruments in his opinion requisite for the realisation of his idea. Thus provided for, proceedings commenced; and by rapid degrees perfecting and completing his armoury, in the course of about three months (at the end of which the long vacation set in) he had performed the new plan upwards of sixty times, at about forty of which we had the good fortune to be an intensely interested spectator. We have thus seen the hand of the operator, in the execution of a novel act, become more and more firm, until it had attained to the freedom habitually attending his surgical handiwork. During the first period of trial, we frequently heard him remind the bystanders that what they were witnessing were yet "*des essais.*" As regards the nature of the cases, perhaps only the first half of them were specially selected for the purpose. The object being a thorough and extensive trial of the merits of the new scheme, very soon every description of cataract, which else would have fallen within the scope of either flap- or spoon-extraction, was subjected to the new proceeding. In this, the administration of chloroform was but seldom deemed necessary.

The steps of the operation, as performed in my presence, were as follows. The eyelids having been separated by the stop wire retractor, and the conjunctiva at the bottom of the cornea seized with toothed forceps, the point of the knife devised by Dr. Waldau for the removal of prolapsed iris, the edge looking upwards, is inserted in the sclerotic, at the distance of half a line from the margin of the cornea and about half a line below the plane of its vertex. When the point has been moved straight on so far as to appear in the anterior chamber, it is directed downwards, and pushed on towards the pupil. As soon as the point is seen above the pupil, it is advanced in an upward direction until it has reached the spot directly opposite in a straight line to that where it first appeared in the anterior chamber; carried onward a little further, it is made to emerge through the sclerotic at the same distance as its insertion was from the cornea. The knife is now pushed on in an horizontal direction towards the great angle, until its edge has entirely cut through the corneo-scleral junction, when it is turned edge forward to divide the wall of conjunctiva which is still before it. For, the incision falling quite in the limbus corneæ, and often, we believe, lying altogether in the sclerotic, causes the conjunctiva to rise above the knife as if distended by emphysema, and thus a conjunctival flap to be formed. More or less bleeding, sometimes considerable, from the conjunctiva, is the immediate consequence. The length of the incision, according to Von Graefe's measurement on the dead subject, is from four and a half to five lines—*i.e.*, somewhat larger than any which can be produced by the largest lance-knife as employed in the Moorfields method; moreover, the course of the incision is more strictly linear than that of any obtainable by the lance-shaped knife. The next step in the operation is the laying down with iris-forceps of the conjunctival flap over the top of the cornea, in order to fully expose the incision. Thereupon the hand of the assistant glides under that of the operator to take hold of the fixing forceps, whilst the surgeon now seizes a pair of delicate forceps and scissors to remove a moderate piece of iris. This done, and the fixing forceps having been resumed by the operator, he clears the pupil, if necessary, from blood effused in front of it, lacerates the capsule extensively with the curved cystitome, and mostly endeavours to effect the exit of the cataract by gentle pressure with a Daviel's curette on the sclerotic above the incision. If this remain unsuccessful, he pushes a bent hook on the flat about two lines deep into the posterior cortex, whereupon the point of the hook is turned forwards, and, by a slight upward movement of the instrument, the cataractous lens is lifted out of the wound. This being accomplished, the fixing forceps and retractor are expeditiously removed from the eye. After a moment's waiting, the eyelids are again separated by the hands of the surgeon; and whatever is found to remain of cortical substance in the pupil, is, by alternate sliding over the globe of the upper and lower lids, made to issue as completely as possible. The reversed conjunctival flap having been returned to its original position, and the wound cleared by forceps of the filamentous coagulum which is very generally found to overlie it, the eye is closed and dressed with the protective bandage. The after-treatment does not in any respect differ from that generally observed after extraction. Of the

* The paper has since appeared, and a translation of it is in course of publication in the *Ophthalmic Review*.

three hooks in progress of time devised for the removal of the lens, the sharp one, calculated to penetrate into the nucleus, is but seldom called in use; the object of the new plan being rather to promote the gliding of the lens, if possible, by mere external pressure, than to draw it out of the wound. Again, of the two blunt hooks, the one presenting some surface, though differing in its mode of action from the sharp hook, is yet, for the same reason, but rarely employed; so that there remains only the blunt hook which is slender throughout as the instrument ordinarily used in lieu of the discarded curette. It is needless to say that, in the event of rupture of the hyaloid fossa, resulting in the escape of vitreous humour before the removal of the cataract, extraction is nevertheless insisted upon. It is then effected with the necessary despatch by means of the spoon.

Of the sixty operations before referred to, not one was an utter failure—*i. e.*, ending in the entire loss of vision; though we cannot doubt the success obtained in the various cases must have varied in degree. According to recent news, Von Graefe has performed upwards of one hundred operations on the new plan; and, amongst this total, there are no more than five or six cases requiring an after-operation, the remainder having furnished quite satisfactory results. The advantage of the proceeding appeared, in Von Graefe's view, mainly to consist in the precisely linear character and the peripheral situation of the incision, enhanced in value by its considerable length, and further by its subconjunctival position. As a point of much importance, in regard to the immediate consequences, we have heard him state that the prejudicial proliferation of the intracapsular cells, so habitually observed after scoop-extraction, appeared to be in a great measure discountenanced by the new proceeding.

As regards the technical steps of the latter, various points are, according to Von Graefe's own admission, borrowed from the proceedings of others—viz., Desmarres and Jacobson. What we know to be original is the mode of performing the incision on the one hand, and the supersession of the obnoxious spoon by the less offensive hook on the other. We have endeavoured to describe the operation as we have seen it performed. It may be and is not unlikely to have been modified in various points since. As the coming year will see the new method put to the test far and wide, the voice of the profession will ere long begin to be heard on its merits.*

We have but little to convey respecting the diseases of the deeper parts—viz., the vitreous body, choroid, retina, and optic nerve. The operations for *Glaucoma*, hitherto performed by Professor von Graefe, amount to upwards of nine hundred; in none of which a mishap, such as lesion of the capsule, has occurred. The employment of the Calabar bean extract has sometimes (as but very recently in the neglected case of the wife of a celebrated physician) been found useful in inducing a slight enlargement of the exceedingly narrow seam of iris not unfrequently met with, which in itself, however, is never considered an obstacle to operation, as the removal of a fair portion of iris remains always possible. The remark was made, that in some cases the operation proves unsuccessful because the lens, from rupture of the zonula, is luxated and leans against the iris, when extraction must be performed before a satisfactory result can be obtained. The employment for the incision of a Beer's knife is disapproved of, as well as the caprice of invariably performing the iridectomy upwards, in consideration of the danger involved in a sudden rotation of the eye in that direction; since, as a rule, chloroform is not administered in the operation.

In regard to *Opacities of the Vitreous Body*, it was urged that a certain description of them—those, viz., of a membranous character—are apt, from the difficulties of ophthalmoscopic examination, which, at all events, should be conducted by subdued lamplight, to be mistaken for folds of detached retina. At Von Graefe's hands, great success has attended the operative division of such-like veils suspended in the vitreous humour. In the performance of this operation, as well as in that of perforating the retina when detached from the choroid, the ophthalmoscope has recently been called in requisition. A Liebreich's ophthalmoscope, fixed in a spectacle-frame, enables the operator to guide his instrument within the vitreous space by the light reflected from the fundus. For the purpose of operating in this manner, it is necessary to place the lamp at a rather considerable distance, in order to lessen the angles of the reflex images.

The condition of the field of vision is, as in all other instances of amblyopia, from whatever source, also in the case of *Retinal Separation* invariably tested in both daylight and subdued lamplight, when the results of both kinds of examination are confronted. Often the photometer devised by Professor von Graefe is called in use to exactly determine the quantity of perception. After the division of detached retina, the eye is, within a very short delay, again submitted to examination, in order to control the immediate effect of the operation.

The uncommon occurrence of *Removal of a Cysticercus from the Vitreous Space through the Sclerotic*, after previous extraction of the lens, which took place during my stay, I was unfortunately, by illness, prevented from witnessing. The entozoon, which I saw after the operation, was presented to Dr. Desmarres of Paris, whose presence had been held by Professor von Graefe to be a fit opportunity for the performance of an act so interesting from its rarity.

As regards *Amblyopia*, in its various forms, there is the less occasion for dwelling on the subject, as the essential points of Von Graefe's views and practice are just now being published in the *Ophthalmic Review*. As of recent origin, we may mention the contrivance recommended by Von Graefe for the use of amblyopic patients in the visual exercise ordered them in suitable cases; it consists in the combination of two convex glasses, fixed at an inch distance from each other in a tube which is provided with a handle. The two lenses are by their combined focuses to represent a single convex lens of shorter focus. The advantage of the combination is, that it enables the patient to read at a greater distance, while the spherical aberration is lessened. For the recovery of joint vision, where a chance remains, the use of the stereoscope is prescribed, as lately recommended by Jamain. The rather frequent occurrence in *actors* of a bad form of amblyopia, mostly, it appears, of spinal origin, although not exactly like that attending tabes dorsalis, seems to have inclined Von Graefe to regard it as a form *sui generis*, arising apparently from a co-operation of causes peculiar to the calling of the patients.

In some cases of *Amblyopia, with Concentric Contraction of the Visual Field*, we have had the opportunity of verifying the good effect of repeated bloodletting from the temple by means of Heurteloup's artificial leech. In *Neuro-retinitis*, characterised by

* From a communication received a month since, I learn that, in his last fifty cases, Professor von Graefe has been able entirely to dispense with the hook, effecting the removal of the cataract by mere external pressure (the so-called "slide-manœuvre"). Chloroform had of late been hardly employed at all in the operation, and escape of vitreous humour occurred in five or six per cent. of the cases only.

the well known *plaques*, the employment of this remedy is, however, expressly warned against as likely rather to do harm than good.

Of *Syphilitic Retinitis*, two forms are distinguished. In the one generally known, the retinal opacity appears as though it were splashed from the locality of the papilla, and is often exactly limited to the interspaces of several neighbouring vessels, beyond the extreme of which nothing morbid is to be found. The whole appears, so we believe Von Graefe has it, as if a greasy finger had been carried over the affected part. The other form, very rarely seen, is characterised by a delicate white stippling, which skirts the vessels in close proximity to the macula lutea, but does not extend so far as the papilla. In this form, the morbid change is held principally to consist in the sclerosis of nerve-fibres.

A phenomenon of interest ophthalmoscopically, because rarely met with, to which we had our attention once directed, was the appearance of an ecchymosis in the fovea centralis.

In reference to the defects of refraction, we have only to relate the proceeding observed in the selection of glasses in cases of *Astigmatism*. The first step is to determine whether the astigmatism is positive or negative. The patient is directed to look at the largest among Jaeger's test-types, suspended about twenty feet distant; alternately convex and concave cylindrical glasses (say of 14 inches' focus) are rotated before his eye, in order to ascertain the position of the glass which affords the best correction of the defect. The positive or negative nature of the astigmatism thus determined, stronger or weaker glasses are tried for the purpose of ascertaining its quantity. If now the acuity be found not yet to be normal, the question remains to be solved in the ordinary way, whether the patient's eyes, while provided with the appropriate cylindrical glasses, are, besides, ametropic in one or the other sense. This being likewise established, glasses of the proper focus are ordered, to be ground spherically on the one and cylindrically on the other surface.

Injuries of the Eye are at Berlin, it appears, observed in less number than in our great manufacturing centres. Accordingly, sympathetic ophthalmia also seems to be of less frequent occurrence—amongst the town population at least. We saw a case, but rarely occurring, though not unexampled we were told, in which, during some operation, an eyelash had slipped into the anterior chamber, and set up iritis, which was followed by sympathetic iritis in the fellow eye. The eyelash was removed, and the patient, a boy, made a good recovery. In another case, a piece of metal had pierced the cornea, so that its extremity was discovered to project from the posterior surface of the cornea into the anterior chamber. Its removal, insisted upon and finally achieved, was perhaps, of all the operations we have witnessed at the Clinique, the one most trying the endurance of the operator, who found it necessary, before dismissing the patient from his hands, to perform an iridectomy as the last step of the operation. In his judgment, the occurrence was one of sufficient gravity to make it the subject of a clinical lecture. The case did very well. A most singular case of accident also occurred, in which a solid and rather sharp-edged piece of iron, three-quarters of an inch long, was extracted from the eye, in which it had lodged for eight or ten days unnoticed, although the traumatic cataract had, on account of the irritation it caused, been removed from the organ. The foreign body was first detected by its point pressing against the sclerotic, which it caused to bulge out much in the shape of a partial staphyloma. Lastly, we were shown a case of accidental cataract, the effect of some concentrated mineral acid, without there being a trace observable of an injury inflicted either upon the cornea or the sclerotic. Professor von Graefe remarked that a number of cases of the same origination had in course of time come under his notice.

Enucleation, in the rapid performance of which, though chloroform is regularly administered, Von Graefe appears to take some pride, is usually effected in two minutes. Yet he prefers to make the conjunctival incision close to the cornea, as securing a better condition of the stump, although the operation can be accomplished more expeditiously by dividing the conjunctiva nearer to the insertion of the muscles. The suture, after the removal of the bulb, is dispensed with. Immediately before the division of the optic nerve, the stump of the external rectus is laid hold of with strong forceps. In case of enucleation on account of malignant tumour, the nerve is advisedly cut a few lines further back than usual. In one case, before the nerve came to be divided, the retina was plainly felt to have undergone ossification: in the division, the nerve was heard to creak under the scissors.

During our stay, the rare case was once seen of *Congenital Anopia—i.e.*, total absence of eye-globes.

In fine, we have to refer to a disease which perhaps cannot as yet be classified. We mean *Exophthalmic Goître*, of which several instances occurred. The insufficient relaxation of the levator palpebræ muscle—a symptom first pointed out by Von Graefe—is the phenomenon on which he relies for diagnosis in incipient or yet indifferently marked cases. We took an opportunity of bringing such a one, in a young lady, before him, when he judged it to undoubtedly be an instance of the malady in question. The remedy preferred is iron; besides, a trial of the continuous electric current is advised, which is said to have proved successful in Remak's hands. In the case just referred to, iron was for a time employed, apparently with good effect, when the patient removed for a while to a country-place, affording natural and slightly chalybeate baths, of which a number were taken, while concurrently she made use of whey in the morning. Nothing, however, availed so much as a course of thorough milk-diet, thanks to which she returned after a couple of months almost perfectly cured; at all events, able to work again, and very stout, whilst she had been extremely thin when she left. The catamenia also, which had been absent for nearly a year, have since returned.

I have thus brought my fragmentary recollections to a close; and it only remains for me, in a few words, to sum up my impressions. Far from underrating any desert, and without disputing the positive claims of mediocrity itself, in our present state of being, I think we have but the more reason to take it as a special favour in life's vicissitudes, if we are admitted for a space to dwell in the atmosphere of genius. Professor von Graefe cannot, in regard to his inquiry and experience, be upbraided with reticence. He has published a great deal; has fed many a studious mind with useful and suggestive lore; and has, by his literary productions alone, helped to call forth a host of earnest and industrious labourers, practical as well as scientific. But there is, in the immediate outpourings of his mind, a pregnancy, an inspiratory power, which, during the short period of little more than twelve years, has perhaps done for science and humanity as much as his writings. And having so far dwelt on the intellectual manifestations of a great mind, what is to be our comment on the ethical character of its working? We shall not endeavour to improve upon his friend, Mr. W. Bowman, who, with inimitable felicity, has vindicated for Pro-

fessor Von Graefe "the transparent candour of his disposition."

[The reading of this paper, which was finished in November last, before the Manchester Medical Society, was unavoidably postponed from the December meeting of the latter to its next ordinary meeting in February; hence the tardy publication.]

Errata. The following corrections should be made in the former part of Dr. Samelson's paper.

Page 383, col. 1, line 18 from bottom, *for* "homogeneous", *read* "homonymous".

Page 385, col. 1, line 32, *for* "cornea", *read* "zonula".

Reviews and Notices.

Transactions of the Ethnological Society of London. Vol. iv. New Series. London: 1866.

We welcome with pleasure this new volume of *Transactions*, published by the Ethnological Society of London, and strongly recommend its careful perusal and study to our readers, many of whom, we feel assured, must be interested in ethnological researches. It contains a series of highly interesting papers, twenty-seven in number, read before the Society, during the presidency of Sir John Lubbock. Of these, four are from its present venerable president, Mr. Crawfurd, the Nestor of the Society; but with whom advanced age gives no evidence of declining mental vigour. The subjects are: 1. On the Supposed Stone, Bronze, and Iron Ages of Society; 2. On the So-called Celtic Languages in reference to the Question of Race; 3. On Cannibalism in Relation to Ethnology; and 4. On the Physical and Mental Characteristics of the Negro. Mr. Crawfurd is an earnest and able advocate for the polygenetic hypothesis of the origin of man; and, in all these papers, we need scarcely say, that the views which he holds are set forth, with great force of argument, and supported with a vast array of facts, as might well indeed be expected from a man of Mr. Crawfurd's great learning, and from his vast and varied experience of mankind, acquired in those Eastern countries, where peculiarities of circumstances influencing the character of man are in their greatest activity and most strikingly exemplified.

We are glad to notice that Professor George Busk and Mr. R. Dunn are contributors to the volume. They are both Vice-Presidents of the Society. Professor Busk has two papers: 1. An Account of the Discovery of a Human Skeleton beneath a Bed of Peat on the Coast of Cheshire; 2. Description of Two Andamanese Skulls—respecting which, he justly remarks that they constitute a very interesting and important addition to our knowledge of the cranial configurations of the Andaman Islanders.

Mr. Dunn's paper is on Civilisation and Cerebral Development; and we cannot help thinking that those of our readers who were interested in the abstract which appeared in our pages at the time when the paper was read before the Society, will now be glad of the opportunity of studying this paper *in extenso*. The influence of civilisation upon the development of the brain in the different races of man, is a most interesting and important inquiry; and it is one, judging from what has been contributed by him to our own pages, that is well suited to the author's habits of thought and inquiry.

The volume abounds with papers of interest, but on which, we regret, our space will not permit us to dwell. We may mention those of Mr. Wallace, on the Progress of Civilisation on Northern Celebes; of Dr. Rae, on the Esquimaux; and of Mr. Markham, on the Arctic Highlanders—as well worthy of careful perusal. The erudite paper, On the True Assignation of the Bronze Weapons, by that distinguished archæologist, Mr. T. Wright, the Honorary Secretary of the Society, has already called forth another, in reply, from Sir John Lubbock, the author of *Prehistoric Times*, and is full of archæological interest. But the paper of all, perhaps, the most calculated to excite the greatest interest, in the mind of the general reader, is that on Stonehenge, by Professor S. Nilsson of Sweden. He says truly that there is something mystical and solemn in these remains of antiquity. They have been attributed to the magic arts of Merlin, as the Cathedral of Lund in Sweden was supposed to be erected by Finn the Giant. Whether he has hit upon the true interpretation, the reader must judge for himself; and we strongly recommend to his serious and deliberate study Professor Nilsson's theory on the origin of Stonehenge, as a temple dedicated to the Sun by a people who were worshippers of Baal.

Dr. J. Moore Neligan's Practical Treatise on Diseases of the Skin. Second Edition, revised and enlarged. By T. W. Belcher, M.A., M.D.Dub.; B.M., M.A.Oxon.; Fellow, Censor, Examiner in Materia Medica and Medical Jurisprudence for Arts, and Honorary Librarian, King and Queen's College of Physicians in Ireland, etc. Pp. 526. Dublin: 1866.

This volume, Dr. Belcher informs us, contains the substance, generally the very words, of the edition issued in 1852 by the late Dr. Neligan; but an addition of above a hundred pages has been made, and "the discoveries of medical science and the opinions of the best authorities" from 1852 to the present year, have been added in their proper places. The result of Dr. Belcher's own experience has been given where it has specially confirmed or differed from that of Dr. Neligan.

Among the additions made to the work, are notices of the following diseases: rubeola, scarlatina, variola and its allies, furunculus, anthrax, malignant pustule, and lepra Hebræorum; and a full description of elephantiasis, morphie (of Brazil), frambœsia, morbus Tauricus (the leprosy of Astrachan), Aleppo evil, ngerengere, pellagra, and morbus Addisonii.

The previously useful treatise of Dr. Neligan has been decidedly improved by the process of revision and addition which it has undergone at the hands of Dr. Belcher; and we can cordially recommend it to our readers as one among the modern works of merit on skin-diseases from which they may derive profitable information.

Scurvy appears to be on the increase in our mercantile navy, rather than on the decrease. Its existence, of course, proves that the sailors, hygienically, are improperly treated—ill-fed, or ill-lodged.

Progress of Medical Science.

ANATOMY, PHYSIOLOGY, & PATHOLOGY.

Results of Myocarditis. Dr. Julius Klob, of Vienna, relates two interesting cases; one in which a perforating abscess was formed; and another where induration took place, producing tumours. These results he attributes to myocarditis.

Case I. *Myocarditis with Perforating Abscess at the Apex of the Heart: Pericarditis: Remains of apparently Embolic Encephalitis: Old Pleurisy on the Right Side: Hæmorrhagic Erosion of the Stomach: General Dropsy.* J. M., aged 71, was admitted into hospital on February 1st, 1865. Little information could be obtained regarding the patient's history; but he appeared not to have previously suffered from articular rheumatism, or from inflammation of the thoracic organs. In April 1864 he became gradually affected with difficulty of breathing and with cough, to which were added œdema of the feet and increasing debility. In September there was some improvement, but soon he again became worse. On admission, there was œdema of the whole body with the exception of the head and neck: the skin, especially of the limbs, was cold and slightly cyanotic; the veins of the neck were greatly distended; there was moderate ascites. Examination of the chest discovered effusion in the right pleura, reaching in front as high as the third rib, and behind to the spine of the scapula. On the left side the lung was pushed forward, so that the beat of the heart could not be felt. Loud rhonchi were heard. The sounds of the heart and vessels were clear. The liver reached a hand-breadth beyond the ribs, and was painful. The urine was scanty and concentrated; it was not albuminous. The prominent subjective symptoms were severe dyspnœa, obliging the patient generally to sit up, great weakness, loss of appetite, and great restlessness at night. On February 10th, the heart's beat was felt near the axilla in the sixth intercostal space. On auscultation laterally, a weak blowing murmur was alone heard. The dropsy increased gradually in spite of diuretics and other medicines, and the patient died on March 10th. Some days before death, he had transient hæmaturia.

On *post mortem* examination, the brain was found to be generally anæmic, with some effusion of serum. The cerebral hemisphere contained several roundish cavities as large as or larger than hempseeds, filled with serum, and lined by a fine pale grey network, outside which was a very thin yellow membrane. The pleural cavities contained about eight pounds of clear yellow serum. The right lung was pushed inwards and upwards, and had pale œdematous false membranes at the apex. Backwards and outwards, the lung was bound to the costal pleura by an adhesion of the thickness of two fingers, which contained also some of the parenchyma of the organ. The right lung was entirely enveloped in, and compressed by, false membrane, so that it could be distended but little by inflation. The lung was anæmic; it contained some air at the upper part, but the lower lobes were quite empty of air. The left pleura presented only partial thin deposits of false membrane, which connected together the lobes. The upper lobe was anæmic, soft, and rich in pigment; the lower lobe was void, through compression of both air and blood. The pericardium was distended to a spherical form, and very vascular: its whole inner surface, especially the layer, was covered with a soft visceral pale yellow false membrane, thicker in some parts than in others. The cavity contained about a pint of flocculent, muddy, purulent fluid, of a dirty brown colour. The heart was cylindrical in form, and lay almost horizontally, the apex being nearly in a line with the left axilla. The left ventricle was remarkably hypertrophied. On opening it, more than the lower half was found to be shut off by the upper part of a thin walled sac, consisting of coagulated fibrine. This sac was about a line and a half thick, and reached higher where it was in contact with the septum; its upper surface was dark red with a pale reticulated marking, while its inner surface was broken into soft yellow shreds. On dividing the sac, there escaped a dirty reddish, thickish, flocculent fluid; and the whole lower part of the ventricle was found to be lined by a continuation of the membrane, which adhered closely to, and was firmly intertwined with the columnæ carneæ and their reticulations. From that part of the wall of the sac which was nearest to the septum, there extended into the cavity an amorphous, soft, partly broken down fibrinous coagulum, of about the size of a duck's egg. On removing the false membrane from the inner surface of the ventricle, the endocardium was found to be nearly everywhere thickened, and of a milk-white colour; and, especially at the lower half of the septum, it was destroyed in spots of about the size of a linseed, sometimes confluent, the base of the erosions being formed by the muscular substance, which was pale and friable. Separate portions of the reticulations, especially at the upper part of the septum near the aorta, were transformed into thick, white, hard cords. At the apex, the endocardium together with the subjacent muscular tissue was entirely broken down into an extremely friable œdematous tissue, of a dirty yellowish grey colour, over which was stretched the pericardium, discoloured, flabby, and perforated in several places. The muscular wall of the left ventricle was nearly three *centimètres* thick near the base. The musculi papillares were large, and in the anterior one were some spots of softening, streaked with dark red. The muscular substance in other parts was rather easily friable, of a pale brown yellow colour, and some spots pale yellow. The mitral valve was healthy. The left auricle was large, and its walls were thickened. There was excentric hypertrophy of the right ventricle, but it was comparatively smaller than the left. The tricuspid valve was normal; the semilunar valves of the pulmonary artery were very large and weak, and abundantly fenestrated: the aortic semilunar valves were somewhat thicker. The aorta was somewhat distended and thick; there were spots of calcareous deposit on its lining membrane, beneath which the muscular layer had undergone fatty degeneration. The blood contained in the heart and large vessels yielded only a little œdematous fibrine. On microscopic examination, the muscular substance of the left ventricle was found to be in an advanced stage of fatty degeneration, and towards the apex there was granular degeneration and suppuration of the intermuscular connective tissue. In the right ventricle, the fatty degeneration was less advanced.

Case II. *Marasmus: Hæmorrhagic Exudation into the Left Pleural Cavity: Round indurated Tumours and Hypertrophy in the left side of the Heart: Chronic Endarteritis: Calcareous Deposits: Atrophy of the Kidneys: Gall-stones: Slight Dropsy.* On September 23rd, Dr. F. Kiemann examined the body of an unmarried female, aged 60, who had suffered from gout, and died in a state of exhaustion from hæmorrhagic pleurisy. The body was small, and much emaciated. The left pleural cavity contained about ten pints of

dark red bloody serum: the heart was somewhat pushed towards the right side; the lungs were pressed towards the mediastinum. The left lung was firmly adherent posteriorly to the costal pleura. The free portion of the pleura was lined with a yellow, very soft, false membrane, of about a line in thickness, with large areolar spaces on the surface. The substance of the lung was compressed, so as to be nearly empty of blood and air: the larger bronchial tubes contained mucus and epithelium. At the apex was a contracted cicatrix, from the base of which a dark grey ramified induration projected into the upper lobe, and there enclosed a mass of about the size of a bean, and of the consistence of mortar. The remaining part of the lung was plentifully infiltrated with thick frothy serum. The pericardium contained three ounces of clear serum: its parietal layer was lined by a thin false membrane, which, at a point as large as a dollar on the anterior surface of the left ventricle, had a tendinous consistence. The heart was somewhat elongated: the less ventricle was hypertrophied, its cavity somewhat dilated. Its walls were throughout rather thicker than ordinary; and in these were felt two apparently sharply defined lumps, of about the size of pigeon's eggs, one lying near the septum, beneath the anterior transverse sulcus, the other more deeply, towards the left margin. On section, they were seen to be less defined than they felt; they had somewhat of the appearance of an uterine fibro-muscular tumour with large meshes, and consisted of whitish fibres arranged for the most part in a radiating manner. The meshes contained a less dense tissue, having a pale muscle colour: the radiating trabeculæ soon became thin, and were lost in the intramuscular areolar tissue. Both internally and externally the tumours were coated with a layer of normal muscular tissue, from one-fifth to one-fourth of an inch in thickness. The muscular tissue of the heart was in general moderately firm, and of a pale red brown colour. The right auricle and ventricle, and the valvular apparatus, were healthy. The gall-bladder contained about forty calculi. The kidneys were small. The uterus was small and atrophied; the ovaries were contracted. There were no traces of cicatrices on the external genital organs, or in the vagina. Microscopic examinations of the tumours found in the heart, showed broad woolly processes of cellular tissue, radiating from a centre, and thus forming a coarse structure, with long meshes, having thin longitudinal septa arranged concentrically. There was also a second very fine network of areolar tissue, consisting of fibres having a pale contour, with scattered nuclei. The meshes of this network were irregular in form, generally roundish, and filled the meshes of the network first described. In single points of the coarser network there was seen a remarkable proliferation of nuclei by division, in some parts forming masses which nearly filled the meshes. No development of intercellular substance showing a transition to cellular tissue could be found. Among these parts were found the remains of the muscular tissue, arranged in a radiating manner, in the form of pigmentary masses, and collapsed portions of sarcolemma, refracting light strongly, but not charged by iodine and sulphuric acid. At the periphery of the tumour were seen, between the layers of areolar tissue, muscular fibres, some single, others united into fasciculi, but mostly in a state of fatty degeneration. The partitions of areolar tissue between these gradually became indistinct, and were lost among the muscular fibres. (*Wiener Med. Wochenschrift*, February 21st and 24th, 1866.)

MEDICINE.

Treatment of Typhus. Dr. Edward Long Fox of Bristol sums up an able paper, on the question "Where should Typhus be treated?", with the following conclusions.

1. It is impossible to check the spread of typhus in a crowded locality, without taking away the patients from their own homes.

2. The admission of such cases to the wards of a general hospital must impair the advantages of such an institution, by necessarily restricting the number of beds it might otherwise contain.

3. No general hospital in the United Kingdom is fitted by its construction for the admission of such cases into the wards with other patients.

4. No hospital regulations are possible, which could prevent the spread of typhus, if admitted into general wards.

5. The death-rate of typhus is lower when such cases are separated, than when they are mixed with others.

6. In the former case the tendency to the spread of the disease amongst other patients is materially diminished.

7. By treating typhus cases in special fever hospitals, although the danger to officials is very great, yet the danger to the community is much lessened, from the fact that the number of attendants affected, compared with the number of cases treated, is very small.

8. Under certain regulations the danger to the nurses in such special hospitals may be lessened.

9. As a conclusion of the whole question, typhus cases are better treated in the general wards of an hospital than at their own homes; better still in separate isolated wards of a general hospital than when mingled with other patients; best of all in separate institutions, with an entirely distinct staff of officers.

10. In a separate institution, situated on high ground, with 1750 cubic feet of air for each patient, a large lateral space between the beds, and good ventilation and drainage, the death-rate of typhus, though varying accordingly to the idiosyncrasy of the epidemic, may be considerably diminished. (*Edinburgh Medical Journal*, January 1866.)

Vaccination. To prevent the chance of a syphilitic vaccination, Dr. Pacchiotti recommends the following rules: 1. Examine carefully the child from whom the lymph is taken. 2. Try to learn the state of the parents' health. 3. Choose, in obtaining the lymph, such children as have passed the fourth or fifth month, as hereditary syphilis, in general, appears before that age. 4. Do not use the lymph after the eighth day of the existence of the vesicle, as the lymph on the ninth and tenth days becomes dull by mixture with pus, which latter may be of an infectious nature. 5. In taking the lymph with the lancet, avoid hæmorrhage, as there is less danger with pure and transparent lymph. 6. Do not vaccinate too many children from the same supply.

Venesection in Cholera. Cholera is undergoing much discussion in America at this moment. Some remarks made in the Philadelphia Medical Society we quote as strongly corroborative of Dr. G. Johnson's views. At a meeting in October of last year, Dr. G. Hamilton said that, whatever diversity of opinion may exist as to the intimate nature of cholera, one marked pathological condition, profound passive congestion, is obviously present in nearly every violent attack. The congestion of cholera is of too much sig-

nificance to attempt to sever its connection, however obscure, with the exhausting serous discharges that more especially arrest our attention; and it must be borne in mind that many fatal cases of cholera have occurred in the East and upon the plantations of Louisiana, without the usual serous discharges. So long as the heart, lungs, and spinal marrow remain passively congested, so long must every portion of the organism partake of this condition. He believed it not desirable to attempt a forced secretion of bile by the use of calomel, as is so often done. One of the first objects should be to produce reaction of the vascular system; that is, to restore a normal circulation of blood to the arterial system. The practice of many of those who have had most to do in the treatment of Asiatic cholera, shows that no single measure has produced more benefit than venesection. Yet, this measure is most unpopular at the present time, and consequently not likely to receive that consideration which the experience just alluded to would seem to demand. To suppose that the abstraction of a few ounces of blood, so carbonised as to be almost unfitted for the purposes of life, if not positively deleterious, would depress the strength of the patient, is both illogical and contrary to experience. Dr. Robert Burns said that in 1832 and 1849, he adopted the practice described by Dr. Hamilton. In 1849 he was himself seized with cholera. A deathly sickness pervaded the body; but with the assistance of his wife, he succeeded in taking from his arm some sixteen ounces of blood. The feeling of relief which followed that venesection was one never to be forgotten. The skin had been cold and cramps were coming on, but the moment the blood flowed, immediate relief was felt; he then took a dose of calomel and opium, followed by castor oil, and in a few days had completely recovered. This course he afterwards pursued in every case. But, while practising venesection freely, he did not omit other measures. If he arrived in time, that is before the collapse, he invariably bled the patient. By venesection, the heart and large venous trunks were relieved, and the chyle was again enabled to enter the circulation. He thought the profession had yielded too much to the popular ideas of the day. The lancet furnishes the medium for relieving the venous congestion. (*Phil. Med. Exam.*, March 17th, 1866.)

SURGERY.

Dislocation of the Humerus on the Dorsum of the Scapula. An instance of this rare form of dislocation is recorded by Dr. John Hamilton. On March 23rd, he was asked to visit a gentleman at Rathgar, who had had a fall from his horse. He found a strong muscular man, about 38 years of age, lying on his back in bed, supporting the left forearm with his right hand. A glance at the left shoulder led to the conclusion, that the shoulder was dislocated, but the deformity was not that of the dislocation downward into the axilla, or that forward under the clavicle. The acromion appeared prominent, with a flatness below it, as in those dislocations; but this was only in front, it was full behind, constituting a prominence. The elbow, too, was close to the side, and the axis of the humerus went upwards and outwards, external to the situation of the glenoid cavity. The anterior wall of the axilla, formed by the great pectoral muscle, looked flaccid, and felt quite soft and relaxed, and the fingers could be readily passed under acromion into the vacant space left by the departure of the head of the humerus from the glenoid cavity. The most convincing proof, however, of the nature of the dislocation was the head of the humerus forming a round tumour on the back of the scapula below the spine. Its shape could readily be felt, and the motions of circumduction or rotation given to the arm perceived to be communicated to it. The reduction was easy. As the patient lay on his back, Dr. Hamilton seized the wrist, and with his heel in the axilla, drew steadily downwards and outwards and then inwards towards the centre line of the body. The head of the bone slipped into its socket with an audible snap in less than a minute. The heel was placed in the axilla in this case, not as in the dislocation downwards, to be a fulcrum on which the humerus acts as a lever, or to push the head of the humerus towards the glenoid cavity, but simply as a counter-extending force. (*Medical Press and Circular*, March 11th.)

MIDWIFERY AND DISEASES OF WOMEN.

Double Uterus and Vagina. Dr. Rabe relates the case of a healthy woman, aged 20, who was admitted in May 1865, into the Town Hospital of Dresden, for blennorrhœa and excoriations of the vulva. She had menstruated since sixteen. The external genitals were normal, but the hymen was wanting. The vagina was double, the lower end of each half being provided with a hymen-like fold of mucous membrane. In the summit of each vagina was a small firm vaginal portion of uterus, each possessing a small transverse os. The uterine sound passed freely into the left os uteri, but only slightly into the right, so that it remained doubtful whether the body of the uterus had two distinct cavities. (*Monatschr. für Geburtskunde*, and *Brit. and For. Med.-Chir. Rev.*)

Forty Cases of Artificial Premature Labour. Dr. Simon Thomas, of Leyden, relates forty cases in which labour was artificially induced. The indications were chiefly contractions of the pelvis; and these were determined less by the histories of previous labours than by accurate measurements expressly made. Thus, in five cases, the patients were primiparæ. The first method employed was to place a bougie for a short time a few inches between the uterus and the membranes, changing it every day for a larger one. Labour only came on in ten days, and the forceps was used. In another case Kiwisch's douche was used. Labour followed in five days. The mother died of pyæmia. In other cases the bougie was used, or the douche; generally days elapsed before labour. Afterwards Krause's method, the leaving an elastic catheter in the uterus, was used. The time expended was from six to ninety-two hours, the majority taking from twenty-four to forty-eight hours. Of the thirty-two children born after Krause's method twenty-five lived; of the thirty-two mothers, twenty-five had a quite natural puerperal history; four died of pyæmia or endometritis. (*Brit. and For. Med. Chir. Rev.*)

Apparent Vicarious Menstruation. The subject of Mr. d'Andrade's case was a stout, healthy Parsee lady, aged 18. She had menstruated regularly from thirteen to fifteen and a half, when the catamenia became first irregular, then ceased, being replaced by bleeding at the gums and nose, and vomiting of blood. Menstruation returned; no pregnancy. Mr. d'Andrade observed blood to ooze from the healthy skin of the left breast and of the right forearm. The blood exuded showed red and white globules under the microscope. The skin-hæmorrhage recurred every month or two. Subsequently blood oozed from the forehead. (*Trans. of Med. and Phys. Soc., Bombay*, and *Brit. and For. Med. Chir. Rev.*)

We are requested to remind members of the Association that the Annual Subscriptions became due on the 1st of January. They can be paid either to the Secretaries of the Branches; or to the General Secretary, T. Watkin Williams, Esq., 13, *Newhall Street, Birmingham.*

British Medical Journal.

SATURDAY, APRIL 21ST, 1866.

THE PURSUIT OF HEALTH UNDER DIFFICULTIES.

In correcting a mistake into which we fell, and redressing a wrong we committed, in our last article on this subject, we present to our readers an apt illustration of the difficulties with which the non-legal reader of our Health Acts has to contend. We charged the legislature with having conferred on the provincial health-officer (by Sect. XIV of the Local Government Amendment Act, 1861) a right of appeal to one of Majesty's Secretary's of State, which is expressly withheld from his metropolitan brother. We founded our statement on the clause which provides that "where the sanction, consent, direction, or approval of the General Board of Health is deemed requisite .... to the due exercise of *any of the powers* vested in any Local Board of Health or Board of Improvement Commissioners, *such powers or any of them* shall and may be henceforth exercised with and under the sanction, etc., of one of Her Majesty's principal Secretaries of State, in lieu of" that of the General Board of Health. It appears, however, that the powers referred to in such general terms are only "borrowing and mortgaging powers"; and that there was nothing further from the intention of Parliament than to protect, by that clause, any medical officer of health from cruel tyranny and injustice on the part of any local authority. Let it then be clearly understood, that our lawgivers have exercised a noble impartiality in revoking the privileges granted to medical officers of health by the Public Health Act 1848, and in placing all such officers, metropolitan and provincial alike, in absolute and unconditional subjection to the local authorities, who, in a moment of temper, may dismiss, without appeal, any man, however distinguished in his profession, and however faithful as a public functionary.

Having rendered this act of justice to the legislature, let us follow up our former remarks upon the officers of health and inspectors of nuisances by stating some facts which, we confess, have startled us not a little. We beg our readers, while they bear in mind the favourable estimate we have formed of the sanitary views of those populations which have voluntarily placed themselves under the Public Health and Local Government Acts, attentively to consider the following figures. We have lying before us a useful volume,* published, as the title-page informs us, by "Knight and Co., Publishers by Authority to the Poor-law Board, and to the Home Office, for the purposes of the Local Government Act 1858." We conclude, therefore, that we may accept its facts and statements as in the main authentic and trustworthy. The Poor-law lists, which take up two-thirds of the volume, give no information as to the existence or non-existence of health officers or inspectors; but forty-one pages are occupied with a list of 570 "places under the Local Government Act 1858 and Public Health Act 1848, with names of officers, population of districts, etc." The population of these places varies from 214 to 200,000. The Public Health Act 1848 makes the appointment of inspectors of nuisances compulsory; yet, in *fifty* places subject to its provisions, it would seem that there are no such officers. *One hundred and fifty-three* have each one; *sixteen* have two; and *four* have three inspectors of nuisances, holding no other office; while, in *three hundred and forty-seven*, one man holds the double office either of surveyor and inspector of nuisances, or of inspector and collector, or unites in himself all the three offices of surveyor, inspector, and collector. We observe, also, that no fixed relation subsists between the number of these officers and the population. Thus Cuckfield, in Sussex, with its 800 inhabitants, has two; while Brighton, Bradford, Merthyr Tydfil, Nottingham, Portsmouth, and Sunderland, with populations varying from 50,000 to 106,218, have no more than two. Towyn, in Merionethshire, with 2,889, and Heage, in Derbyshire, with 2,286 inhabitants, have each two; Allerton, in Yorkshire, with 2,400, and Kirkheaton, also in Yorkshire, with its 3,011 inhabitants, have each three; while Kingston-upon-Hull, with 117,000, has no more than three; and Preston, with 85,000, Bristol ("city and county"), with 154,093, and Sheffield, with 200,000 of a population, only *one!* That these are not exceptional cases will appear from the following list, selected from among 111 towns, each of which, with a population exceeding 10,000, has no officer of health, and only one inspector of nuisances. Indeed, in some of them—*e. g.*, Bilston, Gateshead, Ipswich, South Shields, Stalybridge, Willenhall, and Woolwich—the single inspector, having, we presume, a sinecure, is also surveyor; and the inspectorship of Huddersfield, with its 25,000 inhabitants, is reported "vacant".

* *The Union, Parish, and Public Health Officers' Pocket Almanac and Guide* for 1866.

	Population.		Population.
Bilston	25,000	Plymouth	62,821
Bolton	73,924	Reading	25,045
Bury	39,000	Shrewsbury	22,055
Carlisle	32,000	South Shields	35,239
Derby	50,609	Stalybridge	24,866
Dover	24,970	Stockport	60,000
Dudley	44,978	Swansea	41,893
Gateshead	25,568	Tipton	28,872
Great Yarmouth	30,000	Tynemouth	34,111
Halifax	37,015	Wakefield	23,181
Hastings	20,000	Warrington	28,000
Huddersfield	25,000	Willenhall	20,000
Ipswich	37,719	Wolverhampton	60,858
Macclesfield	36,095	Woolwich	41,693
Norwich	74,891	Worcester	32,528
Oldham	72,333	York	40,551

Such being the state of matters, as regards the number of inspectors and the duties nominally assigned to them, in places under the Public Health Act, one cannot avoid the suspicion that many of these officials may be, in more senses than one, "not strong enough for the places" they hold. Of what use are two noses and pairs of eyes among the abodes of thirty, fifty, eighty, a hundred, or a hundred and twenty thousand human beings? What man with a fractional part of a conscience would undertake, *single-handed*, to cope with the infinity of nuisances incidental to a city containing a hundred and fifty-four or two hundred thousand inhabitants? And if such be—though it almost passes belief—the condition of places under the Public Health Act, how can we resist the inference that, in a multitude of places under the Poor-law Board, of whose sanitary arrangements we have no record, the Nuisances Removal Act is a dead letter? We have been informed on good authority, that, in the rural unions, the guardians usually appoint their own relieving-officers as inspectors—sometimes without any, sometimes with a very trifling, addition to their salary, in the form, perhaps, of a Christmas-box—and even this only in a minority of the unions. What else was to be expected? By the Act 1860, which repealed the compulsory provisions of the Act 1855, guardians are free to appoint inspectors or not, just as they please.

Next, as regards officers of health. We quote again from Knight's *Almanac*. In *ninety-two*, or as nearly as possible *one-sixth*, of the places enumerated, these officers have been appointed; but the distribution of them is exceedingly irregular. Thus, there are in Yorkshire nineteen; in Wales, thirteen; in Lancashire, nine; in Staffordshire, seven; in Essex, four; in Cheshire, Durham, Hampshire, and Northumberland, respectively three; showing a total of sixty-four within the boundaries of the Principality and of eight English counties, and leaving twenty-eight as the scanty allowance for twenty-one counties, in which they are scattered here and there by twos and units, for the most part in places of comparatively small population. Thus, of the entire number, twenty-nine, or less than one-third, are in places whose population exceeds ten thousand; while one hundred and eleven towns, with populations ranging from twenty to two hundred thousand, have, according to this table, no officers of health at all. Of the remaining sixty-three health-officers, thirty reside in places with populations varying from 214 to 3,000. Some of the contrasts which strike the eye in glancing over the alphabetical list are very curious, and show how faithfully our present permissive system reflects the zeal of some and the apathy of other places. Thus, the parish of Bilbrough in Yorkshire, with 214 inhabitants, has its officer of health, as well as its inspector of nuisances; while its next neighbour, Bilston, with 25,000, rests contented with one man as surveyor and inspector. Again, Kingston-upon-Hull thinks it enough to employ three inspectors for its 117,000 inhabitants; while Kirklington, with a population of 580, has not only an inspector of nuisances, but also an officer of health. The parish of Panteg, in Monmouthshire, which has an officer of health and an inspector, has only 2,828 inhabitants; while Plymouth, with 68,821, has only one inspector. Sheffield, with a population of 200,000, is content with one inspector; while the township of Shelley, also in Yorkshire, with 2,000 inhabitants, has both an inspector and an officer of health. We cite these instances, as we find them, from the only available source, so far as we know, that is open to us; and if, trusting to quasi-official statements, we have given currency to any inaccuracies, we invite, and shall gladly welcome, correction.

It will be noticed that these tables, to which we have referred so largely, do not include some of the greatest centres of population in the kingdom; *e.g.*, the metropolitan districts, with their forty-five zealous and active health-officers, whose reports are printed yearly, as the Act directs, by the different vestries and district Boards. As to the condition of Birmingham, Manchester, Leeds, and Newcastle-upon-Tyne, which, we suppose, carry out their sanitary arrangements, like Liverpool, under local Acts, by Health Committees of the Town Councils, we are entirely in the dark; and we shall be happy to be furnished, by our readers in any or all of them, with such documents or authentic information as shall enlighten our ignorance. We conclude, from all the facts we have stated, that, in the words of the resolution adopted by the Metropolitan Counties Branch on the 6th instant, a return should be yearly presented to Parliament of the names of the medical officers of health and inspectors of nuisances throughout the country, and of the salaries paid to them. It would be well to know, on official authority, those places where such functionaries are merely nominal and receive little or no remuneration, and those, above all, where there are none. We likewise conclude that the appointment of efficient sanitary offi-

cers should be made compulsory; for not only does our general sanitary progress depend on them, but it must not be forgotten that, without thoroughly efficient officers of health or inspectors of nuisances, the very important Act passed in 1863, with respect to the seizure of diseased and unwholesome articles of food, cannot be carried out at all. Who would entrust such summary powers as that Act confers to an ordinary relieving-officer or Poor-law collector, or submit without an inward sense of wrong to their exercise by such incompetent officials? One other inference seems to flow naturally from the foregoing facts. It is clearly not among small and rural populations alone, if even chiefly, that we may look for strong opposition to effective measures of sanitary reform. Many of our large and wealthy towns are the most flagrant, perhaps they will also be the most pertinacious offenders.

SCHOOLS OF NURSING.

A REPORT, just issued, of the "Bristol Nurses' Training Institution and Home", gives an outline of three years' experience, since the commencement of that Institution. Similar Schools of Nursing have been formed at Bath and Liverpool, with success enough to show, in confirmation of the experience of St. John's House, and, indeed, of every like scheme, that a necessity long felt is thus receiving a practical solution. A demand for good nurses is at present more imperative than ever, and justly. Every practitioner must have felt that not only the comfort, but also perfection in treatment, of his patient, is frequently marred by the injudicious kindness or blundering ignorance of amateur nursing; and now, happily, the public has at last awakened to the humane aspect of the question. People are beginning to understand that, for the sick artisan at home, the dispensary surgeon's best science can avail little if there be not some one to carry out the treatment, as neither District visitor, Bible-woman, nor Scripture-reader can do. Even in most general hospitals, at the present moment, the less said about the *system* of nursing the better. Still more urgent is the question of nursing sick paupers in Workhouse Infirmaries. Again has our profession dragged those old horrors before the public gaze—

"non ragioniam di lor, ma guarda e passa"—

for we may perhaps take for granted that, at length, even Boards of Guardians are to be found who recognise an unfitness in the sick-nursing given to their destitute fellow mortals by ignorant, tipsy, or dirty and superannuated charwomen.

Moreover, we think that an increasing tendency to view the (proximate) phenomena of disease, as mostly remedial efforts of Nature, to be watched, directed, or freed from opposing causes, and by no means to be perpetually checked and stamped out, is making every surgeon and physician more and more conscious of the value of good nursing. Especially does this hold true in diseases which run an obviously definite course, or in injuries for which position of the body is determined without apparatus. In such cases, it is difficult to overestimate the value of kind and intelligent management from hour to hour.

We have been led to these remarks by the briefly sketched history of a School of Training for Nurses, which is thus summed up:

"In March 1863, a small house was taken, and put under the care of a Lady Superintendent; four pupils were admitted, and their training was at once begun. They learned the art of nursing by daily attendance at the Infirmary or General Hospital. Cookery for the sick was taught them in the Home, in which their evenings were spent; and here the many qualifications essential to a good nurse, of manner, habits, and character, were carefully cultivated. The first year was one of training only; in the two succeeding years, whilst others had been admitted, these first pupils had become nurses, and exercised their calling wherever their services were required.

"This is the general plan of the work, which has remained unchanged, except in a few minor details. Sixteen pupils have now been trained; two have left us, and our present staff of nurses consists of fourteen."

The great primary difficulty is to secure fitted persons either to be trained as nurses, or who, belonging to a superior class, can effectually undertake supervision as sisters or superintendents. Practically, this must be done by two or three individuals, who make the success of the Home their business. The sum required to start this Nurses' Institution (about £1,000) appears large, while annual subscriptions to the amount of at least £135 seem required to maintain it. Now, as the nurses employed in private families earn a guinea a week, and are in great request, the concern ought, apparently, to be self-supporting. If its scale were larger, this might be the case; for the apparent anomaly of a subscription-list is provisionally needed to meet the expense of the training-period of nine months—*i. e.*, the pupil-nurse's board, lodging, clothing, and wages, while as yet she earns nothing.

There is no reason why every large town possessing a hospital should not have also a training-school; and, when a sufficient number of nurses have been found and trained, the entire nursing of hospital or workhouse may, of course, be included in the scheme, under lady-superintendents or "sisters", who have themselves been instructed.

In the short experiment of three years at Bristol, besides the production of a staff of fourteen nurses, a trained nurse at the command of the parochial surgeon has been provided for Clifton; also another for a district in Bristol; and a third is soon to be added; while a similar system has been undertaken at a distance. Amongst other things, during a severe endemic of typhus in a Bristol suburb, nurses were at once provided for temporary hospitals. Any

wealthy person can thus pay for a nurse to attend upon a poor family; or an Association can pay for nursing, through this channel conveying proper food or other comforts to, the sick poor of a district; and there are surely few better modes of exercising benevolence, while great help is also afforded to the medical attendant.

Lastly, our professional brethren will one and all appreciate the advantage afforded by a Nurses' Home, to which they can always, *at the shortest notice*, send for a trained nurse, who shall be selected for the particular case by the practised tact of a lady-superintendent, to whom the nurses' character and powers of body and mind are thoroughly well known.

These nurse-training schools will, we trust, rapidly spring up all over the country. Under the fostering care of our professional brethren, they will supply a great defect in medical treatment; and, more than this, they will open a means for the exercise of the best benevolence on the part of many of our educated countrywomen, who will gladly avail themselves of the high vocation.

THE SICK PAUPER AND THE POOR-LAW SYSTEM.

The expression of opinions obtained from Mr. Villiers by the very influential and important deputation which waited on him last Saturday, can leave little doubt in the minds of any one, that a very great reformation must be made in the treatment of the sick poor. However guarded Mr. Villiers was in his official reply, it is clear that he himself feels that the mismanagement of the sick poor which, in many instances, is systematically carried on throughout the country, can no longer be permitted. The blow first struck in the metropolis, and for which the profession has undoubtedly to thank the *Lancet* Commission, cannot fail to be eventually felt over the whole country.

We do not wish to be hard upon Mr. Villiers when he is inclined to assist in the good work; but it may be well to note some remarks of his which seem very much to inculpate his Board in having so long been a party to the sustaining and carrying out of a system, in which feeling and humanity have been ruthlessly sacrificed to a cold-blooded political economy. Mr. Villiers does not dispute the truth of the statements—of the bill of indictment against the system—brought before him; in fact, he tacitly accepts them as true. But how does he square this with a proper conduct of his Department? How comes it that, with his Poor-law inspectorial staff, he was ignorant of the things disgraceful to humanity which were ordinary proceedings carried on in workhouse infirmaries? It really seems to us that the Poor-law Board mounts the stool of repentance with a vengeance, when Mr. Villiers admits "that the management of the sick in metropolitan workhouses is unsatisfactory; that the buildings are in some cases inadequate, the medical attendance insufficient, and the nursing merely nominal."

Mr. Villiers may say that he is not responsible, but that the guardians are, for such a repugnant state of things; but if this be so, then the public may fairly ask, of what use is this Poor-law Board, with all its high paid functionaries? According to Mr. Villiers, it is no business of his whether the sick are or are not properly treated. When some especially outrageous case of cruelty and horror strikes upon the public ear, then Mr. Villiers issues his decree, and an inspector goes through the farce of a minute inquiry, which ends in no general reform of the base system, but in the sacrifice of a subordinate scapegoat. And then, when all the row is over, the system which has produced the outrage is still allowed to continue without reproach.

Now, in this very case, we should like a reply to the question, If the Poor-law Board had done its duty, would there have been any necessity for their now instituting an inquiry into the management of the sick in workhouse infirmaries? What right had this supervising board to be ignorant of the facts brought to light by the *Lancet* Commission? Mr. Villiers says that it would require probably special professional knowledge to understand the defects of the infirmaries, etc. Why, then, has he all these years past neglected to appoint a medical man as inspector who could understand them? Mr. Villiers seems to us to have admitted too much. In accepting as true the deputation's resolutions, he has admitted the neglect or incapacity of the Board over which he presides. The Board has left to others, to a voluntary commission, to do the work which was especially its own—to supplement its shortcomings. More than this. By being the silent patron of the system, and the Government agent for carrying it out, the Board is, it seems to us, in a great degree *particeps criminis* in this huge work of neglect, mismanagement, and cruelty. By not exposing, it has fostered and given it patronage.

We have no reason to doubt that the official inquiry now being made by Dr. Smith and Mr. Farnall will be full and searching. Whether the Board will publish the entire report of the results obtained, time will show. This much at least is positive—that now for the first time the Poor-law Board have put themselves in the position to learn the truth, by having a medical man Poor-law inspector. At the same time we must add that, inasmuch as this inquiry was set on foot by pressure from without, and inasmuch as the Poor-law Board and system stands very much on its trial, it would have been much more satisfactory to the public, and more fair, if some other medical men, not connected with the Board

and appointed by the Workhouse Sick Committee, had been invited to take part in the inquiry. It is to be regretted that Lord Carnarvon did not make this suggestion to Mr. Villiers.

Since the above was written, the *Times* has attacked the subject, and seems to hold a similar view of the Poor-law Board's negligence.

"By their own showing, the Poor-law Board have neglected these evils too long. The guardians, it should be remembered, are not the only persons to blame in this matter. If the present revelations are all true—and Mr. Villiers is not surprised at them—they ought to have been officially known to the Poor-law Board a long time ago; and there should have been no necessity for the exertions of private gentlemen in order to force official attention to them. It is to be hoped that the Board will now make up for their past omissions by a vigorous effort to reform the abuses they have at at length been forced to acknowledge."

Dr. Gibbon, in his Health Report of the Holborn District, speaks as follows of the Vaccination Bill.

"A Bill to amend the Statutes relating to Vaccination in England has been introduced into the House of Commons by the Government, and read a second time. At the present time, when small-pox is prevalent, every one feels that it would be a great blessing if vaccination could be made universal. The provisions of this Bill are almost identical with those of former Acts on the subject; and I fear that, if it become law, it will do little to promote vaccination. I may mention that it still prescribes an elaborate and costly machinery for effecting a registration of all vaccinated children. The attempt to do so has now for years proved futile; and even if a complete register could be made in every subdistrict, it would be worthless: the only use it could be put to—a use, by the way, it never has been put to—would be to check the fees of the public vaccinators. The only registers of vaccination ever consulted by the medical examiner for schools, army, navy, insurance companies, or the medical officers of health, are the arms of the examinees, where, if it has been successful, it is always found legibly registered. Even in the case of legal proceedings, in the absence of a medical witness, it is unnecessary; for the *onus probandi* lies upon the accused; and the Act provides that certificates of successful vaccination shall be given, free of charge, by the public vaccinator. If this attempt at registration were given up, the Government might make the other provisions more effective."

It is gratifying to note that the Governors of the Lincoln Dispensary have a full appreciation of the value of the services rendered by their medical officers. At their annual meeting,

"It was resolved, 'that a sum of £50 be set aside and appropriated as a remuneration to the two physicians of this institution.' It was also resolved that a gratuity of £15 be presented to Mr. D. Garnham for extra services during the last nine months of acting as house-surgeon to the Dispensary; and that the salary of the future house-surgeon be increased from £100 to £120 *per annum*."

We have been told that medical men would fall in public esteem if they were paid for their services; but here is an exact proof of the contrary. The Report shows that the Governors of the Lincoln Dispensary have the highest regard for the medical officers of it.

The Admiralty authorities have just been addressed by the Council of the Royal College of Surgeons of England, on the claims and grievances of members of the profession holding appointments in the Royal Navy and the Army. The Council of the College has sent a copy of the following resolution unanimously agreed upon at a meeting on the 13th inst.

"That the Council, in acknowledging the receipt from the Secretary to the Admiralty of the Report of the Committee appointed to inquire into the whole question of the rank, pay, and position of the medical officers of the army and navy, beg to express to the Lords Commissioners of the Admiralty, the Secretary of State for War, and His Royal Highness Commanding-in-Chief, their cordial concurrence in the recommendations contained in that Report; and their belief that these recommendations, if fully carried out, will obviate the objections at present felt to entering the medical service of the army and navy."

"That the Council further desire to express their opinion that the adoption of these recommendations will induce a better educated class of medical candidates to seek admission into these services than hitherto, and will thereby tend to promote the health and efficiency of Her Majesty's military and naval forces."

The Epidemiological Society has issued the following letter addressed to the profession.

"London, March 1866.

"Sir,—In the event of an outbreak of cholera in this country, the first practical question for the consideration of the profession will be, how to make adequate provision for the reception and treatment of the poor when stricken with the disease; and what kind of accommodation should be preferred, as most calculated for the benefit of the patients, and least likely to endanger the public health. The public will naturally look for some expression of opinion on so important a subject to those who, from study and experience of the disease, may be in a position to give the results of their practical knowledge. The President and Council invite your attention to the three following questions, and would feel much obliged if you will favour them, at your earliest convenience, with answers thereto.

"I. Can persons suffering from cholera be admitted into the ordinary wards of general hospitals or infirmaries without danger to the health of other patients?

"II. Can cholera-patients be admitted into special wards, set apart for the disease, in general hospitals and infirmaries, without undue risk of the extension of the malady to the other inmates of the institution and their ordinary attendants?

"III. Do you deem it necessary that special hospitals should be provided for the reception of persons attacked with cholera? and that such persons should not, on any conditions, be admitted into general hospitals or infirmaries?

"I have the honour to be, sir,

"Your obedient servant,

"J. N. Radcliffe, *Hon. Sec.*

"N.B.—Replies to be addressed to the Honorary Secretary, 70, Guilford Street, Russell Square, London, W.C."

Dr. Pitman has resigned his appointment of Physician to St. George's Hospital. His connection with the hospital as Assistant-Physician, Physician, and Lecturer on Medicine, as well as on Materia Medica, extends over a period of twenty years. Although not compelled to vacate his office under the present laws of the hospital, as he was elected before they were enacted, he has thought it right to do so; so that his juniors may have the opportunity of enjoying all the advantages of the appointment. Dr. Pitman carries with him the esteem and regard of every one connected with the hospital and school. He retains the Registrarship of the Royal College of Physicians; and we hope that the College may long have the benefit of his great experience and tact. Dr. John Ogle, who has been Assistant-Physician for nearly ten years, offers himself as a candidate to succeed Dr. Pitman. For the office vacated by Dr. Ogle, there will be doubtless no lack of candidates.

The famous St. Pancras Guardians still keep themselves conspicuously prominent. Miss Burdett Coutts, as a ratepayer, has written them a very severe letter of remonstrance on their doings. The Guardians, in reply, say to Miss Coutts, that they regret she has made complaints about the treatment of the poor without proper previous inquiry. They also passed a resolution complaining that the Archbishop of York still persisted in "maligning the authorities of St. Pancras." And, to wind up their impertinence, Mr. Ross, and other gentlemen, denounced the whole proceedings of Lord Carnarvon and Committee as a scheme on the part of medical men to "make snug little berths for themselves, and medical schools to practise upon the poor."

We observe that the Guardians of St. George's parish have addressed to the Poor-law Board a very warm protest against the appointment of Mr. Farnall as an inspector to inquire, on behalf of the Poor-law Board, into the state of metropolitan workhouse infirmaries. This is so far lucky; and we hope the occasion will be seized upon, so that some independent person, nominated by Lord Carnarvon's Committee, may be associated with Dr. Smith in the place of Mr. Farnall.

Mr. Campbell De Morgan, in a paper reprinted from the *British and Foreign Medico-Chirurgical Review*, recommends the use of the chloride of zinc in surgical operations and injuries, and especially in operations for the removal of cancerous tumours.

The statue of Laennec has already been commenced, and will figure in the Exhibition of 1867. M. Lequesne is the artist. It will eventually be fixed in Quimper, Laennec's own country district.

TREATMENT OF THE INSANE IN AMERICA.

A report was submitted to the State of New York, and is published in the *Transactions of the Medical Society* of the State. The committee, of which the late Dr. S. D. Willard was chairman, prepared a series of questions, which were sent to medical men in each county. The following are some of these responses.

Albany county. 155 lunatics in poor-house asylum. The asylum was built to accommodate 31, but there are 103 in it. This is the almshouse asylum of the capital of the State.

Alleghany co. 21 insane patients; none are without the privilege of coming to the open air every day, unless the keeper is absent; some of the cells are quite bad, and the atmosphere in them very bad. Vermin were found in some of the beds. A county physician visited the lunatics about once a month.

Broome co. 21 lunatics; 5 under constant restraint by handcuffs or otherwise; whipping seldom resorted to; only attended to by other paupers.

Cattaraugus co. 17 insane; the violent locked up in a dark room; no bathing tub; in some beds two persons. Straw is used for bedding, and changed as often as it becomes foul.

Cayuga co. 29 insane, among 75 paupers; house calculated for 30 persons; deficient ventilation. At time of examination, two cells were occupied, with one violent and destructive lunatic in each, filthy in a superlative degree, their excrements spread over the floor, on walls, and over their persons; with no means for ventilation or change of air, the stench at their cell-door was excessively offensive.

Columbia co. 27 lunatics, 127 inmates; no bath-tub; cleanliness, ventilation, and uniformity of heat in winter not observed. Twelve sleep on straw, without bedsteads. Females have a change of under-garments every week; the males none; none had had stockings during the winter. They do not receive any medical attendance at all, nor care of any sort with reference to ultimate recovery. Confirmed lunacy and hopeless idiocy is their fate.

Delaware co. The cells are 4 by 8 feet, made of rough material, the doors of rough hard wood plank, three inches thick, with a diamond hole in them, 7 by 9 inches, which is the only source of light and air.

Madison co. 25 insane of 94 paupers; no bathing-tub; 18 sleep on straw, without bed or bedding. Straw changed once a week, and these lunatics, with their "bodies besmeared with their own excrements, not allowed to come daily to the open air, eating in the same filthy apartments, are not washed from one year's end to another." Cells 4 by 6 feet, with no ventilation. "A bad stench" issues from them. Three males were in a state of nudity; 14 had neither shoes nor stockings during the winter. Females wore only chemises.

Niagara co. Strait-jacket, or leather muff, as restraints, and whip sometimes used to enforce discipline.

In *St. Lawrence co.*, whipping and confinement in cages is resorted to, to subdue the violent insane. At night ten are confined in a single cell; sexes not separated.

"It is unnecessary," adds the *Philadelphia Medical and Surgical Reporter*, "to further enumerate this catalogue of shamefully inhuman treatment of the insane. One thousand three hundred and forty-five insane are confined in the poor-houses of New York in this manner, of whom 386 are capable of more or less labour."

THE LONDON SICK POOR.

On Saturday afternoon (April 14th) a large body of noblemen and gentlemen attended at the Poor Law Board, Whitehall, as a deputation from the meeting which was held a few weeks since at Willis's Rooms with respect to the condition of the sick poor in workhouse infirmaries.

The deputation was received by the Right Hon. C. P. Villiers.

Lord Carnarvon observed that there was not a single sentence in all the resolutions passed at the meeting held at Willis's Rooms which was not distinctly borne out by facts. The medical attendance was insufficient, the buildings were proved to be unhealthy, and the staff of nurses was nothing like proportionate to the wants of those who were in these places. There was no hope of improvement being effected in the workhouse infirmaries by those who had the administration in their hands; and they now came before the right hon. gentleman to appeal to him, as President of the Poor Law Board, and as representing Her Majesty's Government, to deal with a state of things disgraceful at once to society and to the administration of the law.

The Archbishop of York spoke of the manner in which Boards of Guardians defied the authority of the Board; and said, amid loud cheers, that the public would never rest contented until the Poor-Law Board had more powers over these guardians.

Dr. Rogers, the medical officer of the Strand Union, expressed the hope that the inquiry being made by the Board would be full and free, and said that he knew, as medical officer for ten years of an union, that the reports published were as to workhouse mismanagement greatly within the truth, for the public, instead of being simply disgusted, would be horrified if the whole truth could be known.

The Earl of Shaftesbury urged that the inquiry being made by the order of the Poor-Law Board ought to be conducted by independent medical gentlemen.

Mr. Ernest Hart stated that the *minimum* of space which ought to be allowed in hospitals was nearly two-thirds more than is given in almost every London workhouse infirmary.

The President could give no definite reply to the propositions. He felt, and he was sure the public must feel, deeply indebted to this association for the inquiries which had been instituted, and for the effective manner in which the results of those inquiries had been made known in the effort to reform the system of which they complained. He felt bound to say that he had seldom known a more humane and Christian-like labour undertaken than that of improving the condition of the sick in the workhouse infirmaries of this great city. Many of the things which the association had observed had not taken him by surprise, for cases had often, too often, arisen in these houses, and come before the Board, showing that the hospital arrangements of the houses were still very defective, and, indeed, he was not indisposed in consequence to agree substantially with the terms of the resolution passed at the meeting, namely, "That the present management of the sick in the metropolitan workhouses is unsatisfactory; that the buildings are, in some cases, inadequate, the medical attendance insufficient, and the nursing merely nominal." Referring to the statements with respect to the inquiry instituted by the Board, he said, the fact that the inquiry was being carried out by Dr. Smith and Mr. Farnall, guaranteed that it would be full and impartial. An inquiry had certainly been made, but it was, in one sense, private in its character. He alluded to that instituted by the proprietors of the *Lancet*. He begged to say that he had never questioned the capacity or the good faith of the gentlemen who had made that inquiry, and he had yet to learn that there had been any overstatements in the cases they had apparently established. He feared, however, that the difficulty in this case was not so much in getting at the truth, as in giving effect to the remedy suggested. He was certainly not prepared to dispute the conclusions at which the deputation had arrived; and the remedy proposed was, he understood, that there should be six separate hospitals for the sick at present lodged in the metropolitan workhouse infirmaries. The meeting must not lose sight of the fact that such a scheme involved a great change in the principle upon which the poor were now maintained in this country. That charge was now local, whereas this scheme would treat the sick poor as belonging to the whole metropolis. He did not say it would be wrong on that account; but the system was one of which the community was extremely tenacious. There had always been a difficulty as to the hands in which the administration of the Poor-Law should be placed, and the great dread of the legislature had been that there would be lax and wasteful expenditure, if the administration was not in the hands of those directly interested in the economy of the funds. Some guardians performed their duties with judgment and humanity, but, as the chief duty which they had to perform was what was termed "to keep down the expenditure," it was somewhat of a chance when guardians were found possessing all the qualities required for a wise administration of the law. The right hon. gentleman said he thought that, if the House of Commons would alter the present system of rating in the metropolis, it would do so for the sick poor, and have a general rate, as in the case of the casual poor. He concluded, amid loud cheers, that, though he could not pledge the Government in the matter, he could assure the deputation that nothing should be wanting on his part in recommending the propositions for favourable consideration.

THE VACCINATION BILL.

At a Special Meeting of the Sussex and Brighton Medico-Chirurgical Society, held on April 11th, 1866, G. F. Hodgson, Esq., President, the following resolutions were passed.

1. This Society decidedly approves of Compulsory Vaccination.

2. This Society would urge that, in consideration of the knowledge and care required of the medical man in practising Vaccination in the safest and most efficient manner, and of the amount of his time which must be consumed in filling-up and signing so many certificates and returns, the fees of eighteen pence and two shillings and sixpence respectively proposed in *Clause* 5, should be increased to two shillings and sixpence and three shillings and sixpence.

3. This Society would urge that the Bill should provide for every medical practitioner (when not acting as a public vaccinator) being entitled to charge a fee to any parent or other person for every certificate that he may be required to give. (See Clauses 17 to 19, 22, and 28.)

4. This Society would recommend that *Clause* 31 should be made more stringent by rendering it imperative that every parish, or union, should provide

a special and proper vehicle for the removal of the infected, which vehicle should also be obtainable on hire by any private individual for the like purpose.

5. That a copy of these Resolutions, signed by the President, be forwarded by the Honorary Secretaries of the Society, to Mr. Bruce and Mr. Baring (the promoters of the Bill), and to the members of the borough and of the county, accompanied with a request that they will all give them their gracious and best consideration and support.

Association Intelligence.

SOUTH EASTERN BRANCH: WEST KENT DISTRICT MEETINGS.

THE next meeting will be held at the Union House, Dartford, on Friday, May 4th, at 3.50 P.M. John Grantham, Esq., F.R.C.S., has consented to occupy the chair.

Dinner is ordered at the Bull Hotel for 5 P.M.

Dr. Richardson has consented to attend the meeting, and will exhibit his method of inducing Local Anæsthesia.

FREDERICK J. BROWN, M.D., *Hon. Sec.*

Rochester, April 17th, 1866.

SOUTH EASTERN BRANCH: EAST SURREY DISTRICT MEDICAL MEETING.

THE next meeting will be held at the Crystal Palace, on Friday, May 11th, at 4 P.M.; Dr. Hetley of Norwood in the chair.

Communications will be read by Dr. Moxon (Guy's Hospital); Mr. Berney (Croydon); Mr. Whitling (Croydon); Dr. Walters (Reigate); Mr. Sargant (Redhill); and by the Secretary.

Dinner will be provided at 6 P.M.

HENRY T. LANCHESTER, M.D., *Hon. Sec.*

BATH AND BRISTOL BRANCH: ORDINARY MEETING.

THE fifth ordinary meeting of the session was held at the York House, Bath, on Thursday evening, April 12th; F. BRITTAN, M.D., President, in the chair. There were also present thirty members and five visitors.

Paper. The following paper was read.

On Death by Imbibition of Chloroform. By E. C. Board, Esq. (The paper will be published.)

The Sphygmograph. Dr. BALTHAZAR W. FOSTER of Birmingham gave a most interesting description of the use and application of the Sphygmograph; and fully answered all the questions which arose during an animated discussion, in which Drs. Davey, Tunstall, Falconer, Brittan, and Swayne, took part.

A vote of thanks was unanimously afforded to Dr. Foster for his able treatment of this subject.

The late W. Hutchins, Esq. The PRESIDENT drew the attention of the Society to the loss the Branch has sustained by the death of their most respected friend and active member of the Council, Mr. William Hutchins of Keynsham; and it was unanimously resolved, that a letter of condolence should be forwarded to his bereaved family.

Local Anæsthesia. Mr. CHARLES GAINE exhibited the apparatus for local anæsthesia introduced by Dr. Richardson, and explained its different modes of application.

Reports of Societies.

WESTERN MEDICAL AND SURGICAL SOCIETY.

FRIDAY, MARCH 2ND, 1866.

GEORGE POLLOCK, ESQ., President, in the Chair.

Double Femoral Hernia. Dr. MARTYN related a case. Miss P., aged 70, of spare habit, had been healthy generally, except that she suffered from a swelling in each groin. As these swellings disappeared occasionally, and did not give her pain, she attached no importance to them. On Jan. 4th (Thursday), she awoke in the morning with violent pain in her belly and with sickness. The sickness and pain continued more or less until Dr. Martyn was called in (Monday evening, Jan. 8th). There had been no movement of the bowels or passage of wind *per anum* from the time of the attack.

Dr. Martyn found his patient walking about the room, holding her belly with her hands, and stooping much. This posture, coupled with the history of the attack, he considered, marked the case as one of strangulated bowel. She had taken two or three doses of purgative medicine. The quantity vomited had been very great, but, so far, not feculent. Placing the patient on the bed, he found a lump in the site of the crural canal on each side; that on the left of the size of a walnut, that on the right a little larger. The left was hard, and felt like an enlarged gland; it afforded no impulse on forced cough; was not tender. The right was also hard; but there was a slight impulse and some tenderness. The belly was tender; pulse quick; tongue brown and dry. He could not reduce the swelling by taxis; and then urged that an operation should be immediately performed, but the patient would not consent. He then applied an ice-bag to the more tender hernia, gave opium, and ice to swallow.

January 9th. The patient suffering much less; sickness scarcely any; but in the evening of this day some feculent matter was discharged from the stomach.

On the 10th, Dr. Martyn operated, selecting the right groin as the seat of the stricture. The result justified him. He found here a knuckle of intestine tightly strictured, and some omentum. The bowel was very dark, but still shiny. He divided the stricture, and reduced the bowel. Chloroform was given. The patient vomited soon after. She then improved very much; became comfortable and warm; and slept and took food. She passed wind *per anum*; but there was no stool.

On the third day, the wound became offensive. She gradually grew worse, and some vomiting returned. A little water was injected; but no motion followed.

On the fourth day after the operation, she passed no water, became sleepy, and died comatose on the sixth day.

POST MORTEM EXAMINATION. The left hernia consisted of old omentum alone. On exposing the bowels, some were seen to be full and some empty. There was evidence of inflammation, some adhesions, etc. The full bowel was of a dark chocolate colour down to the part strictured; here the bowel was free, near to the crural ring; the contents evidently had not passed the strictured part. The bowel at this point was of a much darker colour; and had doubtless suffered too much from the original stricture to perform its function. The strictured part of the intestine was shewn to the Society.

The PRESIDENT remarked that the case was one of the greatest interest, from the fact that an irreducible femoral hernia existed on both sides. He had only met with one such instance. In such cases, when the patient is unable to guide the surgeon as to the seat of the stricture, and other signs are obscure, great judgment is demanded as to where to operate. He further said that the operation in strangulated femoral hernia could scarcely be too early done; he would not defer it after sickness sets in.

HARVEIAN SOCIETY OF LONDON.

THURSDAY, MARCH 15TH, 1866.

J. WALKER, Esq., Vice-President, in the Chair.

ON THE DUALITY OF VENEREAL ULCERS.

BY A. COLOMIATI MEREDYTH, M.D.

AFTER remarking that it was clear to him that a new poison had been introduced into Europe at the close of the fifteenth century, the author observed, that the opinion that the differences observed in chancre were due to the peculiar idiosyncrasies of the person, state of his health or constitution, susceptibility or non-susceptibility to the reception of the diseased condition of the tissues in which the virus has been deposited, and source from which it has been obtained, was untenable. He agreed with M. Bassereau, that the influence of the temperament was only truly seen in the form of the symptoms, their progress, course, and greater or less disposition to give way to, or to resist, treatment. The analogy between vaccinia and syphilis held good only for the first stage. Beyond the first stage, they were not similar, inasmuch as the vaccinal diathesis was no longer inoculable when the vesicle was transformed into a pustule; whereas syphilis was inoculable in all its forms, even in the blood derived from a syphilitic patient. Dr. Lindman had inoculated himself two thousand two hundred times with soft chancre, which showed that this chancre was totally distinct from the infecting variety. Consequently, syphilisation rested on the most fallacious foundations. The soft and hard chancre being found by experience to be completely different pathological entities, there was nothing remarkable in finding them sometimes coexisting. Such cases did occur, and had been justly named *mixed chancres*. A soft chancre could be inoculated upon a hard chancre, and would produce a mixed sore. Professor Boeck's practice rested on a fallacy.

Mr. JAMES LANE was of the same opinion as he was twenty years ago, before the work of M. Bassereau was written; namely, that there was an unity of syphilitic poison. Syphilisation was every day showing the unity of the virus. Some weeks ago, he wanted some fresh matter to syphilise a patient, and took some pus from two sores, existing on two individuals; the first being a soft sore, and the other a typical hard chancre. The matter from the first he inoculated on the one thigh, and that from the hard on the other thigh of the patient. The results were precisely similar in appearance, etc. Over and over again, too, we saw the hard sore inoculated on persons affected with syphilis; the point being, that the hard sore required first to be irritated in order to make it secrete pus. Again, he had found that it was sometimes very difficult to inoculate the soft sore, contrary to what had been said.

Mr. GASCOYEN avowed himself a partisan of the school of unity, and thought that the source had much to do with the form the ulcer assumed. If matter were taken from a soft sore existing on a syphilitic patient with constitutional infection, it was often followed by infection of virgin subjects inoculated by it. He could not agree to the newly created chancre mixte, which he thought was a creation of the imagination in order to get over such difficulties. Dr. Martyn and others had given cases of soft sores followed by secondary symptoms. A soldier in the Lock Hospital had a soft sore on the penis. Matter from this sore trickled down to the thigh; and a hard chancre was formed there, although the parent sore was soft.

Mr. COULSON was a disciple of the dualistic school. Neither Mr. Lane nor Mr. Gascoyen had explained away the arguments made use of by that school, although it was easy for them to give difficult cases to solve. Inoculations from hard chancres had always produced hard chancres on virgin subjects. Syphilisation had certainly shown that some hard chancres might be inoculated from, but others could not; and Dr. Bidenkap had failed in Paris to get any result from hard chancre. Now this was not the case with the soft chancre: here there was scarcely any trouble. He thought also that the history of syphilis pointed to the introduction of the hard sore at the end of the fifteenth century.

Dr. C. DRYSDALE said that, as a general rule, there could be no doubt that persons who contracted constitutional syphilis did so from persons who had suffered from constitutional symptoms or hard sores, which subsequently gave rise to these. When wives were infected by their husbands, he had almost always found both with secondary eruptions. Still it was impossible to prove that the soft sores never gave rise to secondary symptoms, since the best observers had seen such cases. Syphilisation certainly had demonstrated that hard chancres were inoculable on persons with syphilis. Of this there could not be any question among persons who had witnessed Professor Boeck's practice at the Lock Hospital. The matter from indurated sores could not be inoculated from for so long a time as that from soft sores. Probably the poisons were the same; but the intensity of the inflammation in soft sores prevented the entrance of the virus into the capillaries.

Mr. DE MÉRIC hardly knew to which camp he belonged. If we listened to the dualists, the poison of syphilis had only existed three hundred years. During a portion of this time M. Ricord had worked; and it was certainly curious that he should not have noticed what had latterly been so strenuously maintained by M. Bassereau. He distrusted all elaborately cut theories. The dualistic theory was very enticing, if we left out of our minds the possibility of incubation. He thought that, at the present age of the question, it was impossible to arrive at any positive conclusion. There might be something in the age of the person, etc., who was infected, which influenced the result. Everything did not lie in the phenomena we had already witnessed. Ricord himself mentioned the body of the individual infected as one part of the causation of the form of the ulcer. There might also be increased resistance in some persons. The creation of the mixed sore had caused much confusion; and he did not feel inclined to pay much attention to this hybrid sore. In short, both theories satisfied the mind; but there were weak points in both, which it required the devotion of future inquirers to clear up.

Dr. BROADBENT was very strongly inclined to dualism. He believed that, when inoculation had been made from hard chancres, it was really soft chancre which had been inoculated. As to the analogy between vaccine and syphilis, it was very imperfect. In America, scabs were used for vaccination; and, if a scab could produce a perfect vesicle, what analogy was there to syphilis in vaccine?

Mr. R. W. Dunn asked Dr. Meredyth whether he had not met with cases where secondary symptoms had followed soft sores. Mr. Dunn had met with such cases in his practice. He had, *e. g.*, a patient at present, a gentleman whom he was treating for constitutional syphilis, who had been told by an eminent surgeon that his sore was a soft one, and that he would not have any secondary eruption. Six months after this prognosis, secondary symptoms appeared—eruptions on the skin and ulcerated sore-throat.

Correspondence.

TREATMENT OF CHOLERA.

Letter from George Duplex, L.R.C.P.

Sir,—In your leading article of April 7th, you (very properly, I think) ask your professional brethren what, in the event of a re-visitation of cholera during the present year, "they are prepared to do?" "how do they intend to treat the disease?" and "have we derived any practical experience from our past acquaintance with cholera, to guide us to something better than the barren, haphazard, empirical practices heretofore employed?" I think there can be no doubt that the public will fully expect that the profession has, in the interval from the last outburst of the disease, made itself somewhat better acquainted with its pathological history and amenability to treatment than has yet characterised its past proceedings. I think, and earnestly believe, that Dr. Johnson has fulfilled a large portion of this expectation. As far as I am able to judge, the pathological conditions he describes explain the nature of the symptoms which we recognise as collapse; and the accumulated facts which we have now in our possession all tend to prove the rationality of his treatment.

I address you, therefore, in the hope that I may be able to suggest some mode of obtaining the opinions of the whole body of the members of the Association, either as to assent or dissent to Dr. Johnson's views. Numbering over two thousand, I think we might obtain a fair average of the opinions of the whole of the medical profession on this subject. As to the mode by which this might be accomplished, it appears to me there would be no great difficulty. If the secretary of each Branch of the Association were to obtain from every member, his assent to, or, in case of dissent, his reason for rejection; and, if you would kindly undertake to classify the opinions and give the result, it might form the basis of some further practical proceedings.

In this way, perhaps, we may arrive at some combined and well understood action when the enemy appears at our gates; and nothing but a sincere conviction that the time has arrived when not only we shall be expected, but that it is our bounden duty to prepare for the next visitation of this fell disease, has induced me to trouble you with this suggestion.

I am, etc., George Duplex.

60, Torrington Square, April 10th, 1866.

[Dr. Duplex's suggestion is well worthy the attention of the profession. Dr. Johnson has put the subject in a position such as will enable a distinct issue—either of agreement or disagreement—to be arrived at. We believe, that the discussion of his pathological views of cholera would lead to most important practical conclusions; that it would, for example, be the means of putting an end to a great deal of that experimental practice which has been hitherto, and may be again, resorted to. The essential and all important feature in Dr. Johnson's position is, that it gives us a definite pathological condition against which to direct our efforts. He takes us out of the vague and indefinite, and sets us face to face with the positive. If it teach us little as to the specific cure, it at all events prevents us from doing worse than nothing. Editor.]

POOR-LAW MEDICAL REFORM AND VACCINATION.

Letter from Richard Griffin, Esq.

Sir,—Permit me, through the medium of your columns, to say a few words on the subject of the Vaccination Bill, which, most of your readers are now aware, has been referred to a Select Committee of the House of Commons. A member of Parliament, in writing to me on the subject, said: "By this morning's papers you will see the fate of the Vaccination Bill, which had not a single friend in the house." Yet this very Bill had passed a second reading without a single word being said against it; proving most incontestably that the check given to a Minister of the Crown is due to our profession, and in no small degree to our Association, which, so far as I know, was the only body that sent a pamphlet on the subject to each member of Parliament. I have written to the Select Committee, requesting to be allowed to give evidence; and I trust other gentlemen will do likewise.

I am, etc., Richard Griffin.

12, Royal Terrace, Weymouth, April 16th, 1866.

List of Subscriptions recently received. F. C. G. Allerton, Tadcaster, 5*s.*; O. Andrews, Monmouth, 10*s.*; J. M. Woollett, Monmouth, 10*s.*; James Paget, Harewood Place, Hanover Square (not union), 42*s.* By Mr. Prowse: R. Cresswell, Merthyr Tydfil, 10*s.*; W. S. Wyman, Dunmow, 10*s.* 6*d.*; A. B. Thompson, Epping, 10*s.* 6*d.*

LOCAL ANÆSTHESIA BY ETHER-SPRAY.

Letter from Thomas M. Greenhow, M.D.

Sir,—The gratification naturally felt by Dr. Richardson at the success of his process for the production of local anæsthesia cannot be otherwise than very great; and every member of the profession must have pleasure in awarding to him the merit due for so great a desideratum in the practice of surgery.

Dr. Greenhalgh's case of Cæsarean section may, at present, be looked upon as its crowning triumph. But, with your permission, I shall gladly be allowed to ask Dr. Richardson whether it might not be applied, if not in a more important, in a different and more frequent class of cases. Most surgeons have had occasion to lament the unsuccessful issue of operations for the removal of scirrhous, cancerous, or other malignant tumours, in consequence of the almost certain return of the disease either before or soon after the healing of the wound. Such operations have, therefore, become much less frequent than formerly. Nor have escharotics—the painful device of most cancer-curing quacks—been more successful. It appears, from the now pretty large experience of Dr. Richardson, that the rapid evaporation of ether, by temporarily freezing the part to which it is applied, deprives it of sensibility; and that, after a short time, it returns to its natural condition—the circulation being re-established, and sensibility restored. Whether this process is at-

ended with pain, as in the case of benumbed fingers rom cold, we are not informed.

But the question I would put to Dr. Richardson is his: If local anæsthesia can be produced so quickly y the application of ether for a few seconds, might ot the vitality of the part be destroyed by the continuance of the process for minutes or even for a onger time? If a scirrhous tumour could in this way e deprived of life, it is probable that the natural rocess of separation would soon be established, and, eing encouraged by the use of antiseptic poultices, he whole diseased part be thrown off by the process f sloughing. If any portion should still remain, the urther application of the ethereal vapour would robably destroy it, and in the end leave a healthy urface to be healed by the restorative efforts of Nature. The accuracy with which Dr. Richardson is nabled to direct and limit the jets of ether would reatly favour, if necessary, its repeated application n the cases referred to.

Should this hint be acted upon by Dr. Richardson r others, it would be interesting to be informed, hrough your JOURNAL, with what results.

I am, etc., T. M. GREENHOW.

Chapel Allerton, Leeds, April 15th, 1866.

[We have ourselves made the same suggestion to he surgeon of a London hospital where cancerous liseases are largely received, and trust ere long to hear that the action of the ether-spray on the parts has been tested. EDITOR.]

LETTER FROM JOHN THORBURN, M.D.

SIR,—As any additional details bearing on the success of Dr. Richardson's anæsthetic will doubtless e welcome, I may inform you that I have within he last few days had two good opportunities of esting it.

The first case was an operation for femoral hernia, performed by Mr. Bowring on Friday last. In this ase, there was no pain felt, except a little dragging while the bowel was being returned; and the case has done very well.

The other was one of ovariotomy, performed today by Mr. Braddon. It is not my place to describe he operation, which will probably be described by Mr. Braddon himself as ably as performed. At his request, I applied the anæsthetic, using a triple jet. The first production of insensibility was considerably delayed, owing, I believe, to the presence of some fatty matter on the skin from previous applications. The external wound was painless; and, though the adhesions to the intestines turned out, unfortunately, to be very numerous and strong, there seemed to be very little pain from beginning to end. The spray was made to follow the knife throughout. The operating was very delayed, and the strength at one time seemed to be at a very low ebb. For my own part, having had some experience in the exhibition of chloroform, I have no hesitation in saying, after seeing the whole operation, that I feel very thankful chloroform was not administered. The opinion of all present was, that it would very probably have proved fatal.

The public and the profession have reason to be highly grateful to Dr. Richardson for his great boon, though I have no doubt that ere long the instrument will be greatly improved, the principle remaining the same. I am, etc.,

J. THORBURN.

Manchester, April 17th, 1866.

PROPOSED CHILDREN'S HOSPITAL AT CHELSEA. The establishing at Chelsea of a Hospital for Children under 15 years of age, has been proposed.

Medical News.

ROYAL COLLEGE OF PHYSICIANS OF LONDON. At a general meeting of the Fellows, held on Monday, April 16th, 1866, the following gentlemen, having undergone the necessary examination, and satisfied the College of their proficiency in the science and practice of medicine, surgery, and midwifery, were duly admitted to practise physic as Licentiates of the College:—

Brooke, Thomas Thornilly, Stockport
Dunn, George Carr, 17, Stanley Gardens, W.
Ellery, Henry James, St. Stephen's-by-Saltash, Cornwall
Garman, John Cooper, Wednesbury, Staffordshire
Griffiths, Richard Samuel Purnell, 11, Dudley Place, Harrow Road, W.
Hicks, George Augustus, Torquay
Hoffmeister, Wm., M.D. Heidelberg, Cowes, Isle of Wight
Lynch, Jordan Roche, 12, Horbury Terrace, Notting Hill, W.
Slaughter, George Monlas, Fort Pitt, Chatham
Wise, Thomas, Castletown, Isle of Man

At the same meeting, the following were reported by the examiners to have passed their primary examination:—

Ash, Robert Vacy, St. Mary's Hospital
Barroll, George William, St. George's Hospital
Burton, George Earp, Liverpool
Edwards, Edward Noble, Guy's Hospital
Giles, William Betts, Guy's Hospital
Hallett, Thomas George Palmer, University College
Lucas, Richard Clement, Guy's Hospital
Maddox, Wm. Gordon, University College
Timmins, John Aaron James, St. Bartholomew's Hospital
Wiseman, John Greaves, Guy's Hospital

APOTHECARIES' HALL. On April 12th, 1866, the following Licentiates were admitted:—

Bailey, Thomas, 4, Gough Street North
Hay, Thomas Bell, 43, Caledonian Road
Lorimer, John, Carlton Hill, St. John's Wood

At the same Court, the following passed the first examination:—

Timmins, J. A. J., St. Bartholomew's Hospital

APPOINTMENTS.

ARMY.

MOORE, Staff-Surgeon F. W., to be Surgeon 2nd Dragoon Guards, *vice* T. F. Wall.
WALL, Surgeon T. F., 2nd Dragoon Guards, to be Staff-Surgeon, *vice* F. W. Moore.

ROYAL NAVY.

PICKTHORN, Geo. R., M.D., Assistant-Surgeon, to the *Challenger*.
POTTER, Robert, M.D., Assistant-Surgeon, to the *Prince Consort*.
RICKARD, Henry, Esq., Assistant Surgeon (additional), to the *Seringapatam*, for Naval Hospital at the Cape of Good Hope.
ROBERTSON, Angus, Esq., Assistant-Surgeon, to be Surgeon.
WATSON, Alexander, M.D., Surgeon, to the *Challenger*.

VOLUNTEERS, (A.V. = Artillery Volunteers; R.V. = Rifle Volunteers):—

CAYZER, T., Esq., to be Surgeon 15th Lancashire A.V.
EVERS, C., M.D., to be Assistant-Surgeon 15th Lancashire A.V.
HICKS, R., Esq., to be Honorary Assistant-Surgeon 2nd Cinque Ports R.V.

BIRTHS.

DAVIDSON. On April 7th, at Devonshire Place, Wandsworth Road, the wife of C. Montgomerie Davidson, Esq., Surgeon, of a son.
FELCE. On April 6th, at Launceston, the wife of *Stamford Felce, L.R.C.P.Ed., of a son.
HARVEY. On April 7th, at 31, Grosvenor Street, the wife of John Harvey, M.D., of a son.
HICKMAN. On April 11th, at 1, Dorset Street, the wife of William Hickman, M.B., of a son.
MASON. On April 14th, at Woolwich, the wife of R. Mason, Esq., Surgeon, of a daughter.
NOYES. On April 14th, at Lee, Kent, the wife of H. G. Noyes, M.D., of a son.
RUSSELL. On April 5th, at Accrington, Lancashire, the wife of William Smyth Russell, Esq., Surgeon, of a son.
SHEPPARD. On March 7th, at Ashford, Kent, the wife of William Sheppard, Esq., Surgeon, of a daughter.

MARRIAGES.

JOHNSON, Thomas B., Esq., of Hull, to Mary Elizabeth, eldest daughter of James HANKS, M.D., Snaith, Yorkshire, on April 5.

SPAULL, William Henry, Esq., third son of Barnard Spaull, Esq., Surgeon, of Kensington, to Maria, daughter of the late Charles MICKLEBURGH, Esq., of Montgomery, on April 12.

WARD, William P., Esq., Surgeon Royal Artillery, to Eleanor, eldest daughter of Henry BURNAND, Esq., of Cuckfield, Sussex, on April 10.

WELCH, Charles H., M.D., of Clapton, to Ellen Faulkener, only child of the late Isaac F. SLATER, Esq., of Graham's Inn, at St. James's, Clapton, on April 10.

WINTLE, Richard Prior. Esq., Surgeon, to Catherine, youngest daughter of the late John MACKICHLAY, Esq., Surgeon, of Merron, Surrey, at St. Barnabas, Kensington, on April 12.

DEATHS.

BOGG, John, Esq., Surgeon, at Louth, Lincolnshire, aged 66, on April 15.

BROWN. On April 13th, at Adelaide Lodge, Hove, Brighton, aged 38, Maria Sarah, wife of R. Brown, M.D.

BURROWS. On April 14th, at Glasgow Barracks, of scarlet fever, aged 27, George Herbert Burrows, Lieut. 21st N. British Fusiliers, eldest son of *George Burrows, M.D., F.R.S.

CLARKE, Edward Stephen, M.D., at Richmond Hill, near Dublin, on April 3.

COLSTON. On April 12th, at Harleston, Norfolk, aged 65, Lydia C. N., widow of John Colston, Esq., Surgeon, of Bishops Stortford.

FINCH, William, Esq., Surgeon, at Slough, aged 34, on April 9.

HARRISON, George, Esq., Surgeon, of 65, Grosvenor Street, aged 60, on April 12.

KELSON. On April 15th, at West Hackney, aged 33, William Mortimer, eldest son of *George Kelson, Esq., of Sevenoaks.

*MAY, William Henry, Esq., at Leicester, on April 9.

PARSONS, William A., Esq., Surgeon, at Leamington, aged 65, on April 4.

REYNOLDS. On April 11th, aged 74, Hannah Mary, wife of William Reynolds, M.D., of Coed-du, Flintshire.

SEYMOUR, Edward James, M.D., F.R.S., at Charles Street, Berkeley Square, aged 70, on April 16.

STEDMAN. On January 26th, at Oxford, Canterbury, New Zealand, aged 45, Harriett, widow of Silas Stilwell Stedman, M.D.

WOOTTON, William, Esq., Surgeon, at Harrold, Bedfordshire, aged 63, on April 9.

THE EMPRESS EUGENIE on the 9th inst. presided over a meeting at the Tuileries of the Société de Charité Maternelle, founded for the purpose of aiding the wives of working men during and after their accouchement.

ROYAL COLLEGE OF SURGEONS. During the past fortnight, 216 gentlemen have gone through their primary examinations at the above institution in Anatomy and Physiology. Last week 9 were referred first day, 4 second, and 6 on the third day—total 19, out of the 108 candidates, failed to acquit themselves to the satlsfaction of the court, and consequently were referred back to their studies for three months.

THE ODONTOLOGICAL SOCIETY held its monthly meeting at 32, Soho Square, on the 2nd instant. Dr. Rottenstein of Paris sent for exhibition a stomatoscope for illuminating the mouth, as well as the larynx, by galvanic means. A paper was read by Mr. Sydney Longhurst, on "Lateral Abnormalities". The irregularities of the lateral incisor teeth, the frequent additional number, their absence, their being occasionally germinated, and their tendency to produce abscess of the palate, were the chief points considered.

THE JACKSONIAN PRIZE. The Council of the Royal College of Surgeons has just awarded one of the Jacksonian Prizes to Mr. William Paul Swain of Devonport, a member of the College, for his essay on "The Diseased Conditions of the Knee-joint which require Amputation of the Limb, and of those Conditions which are favourable for Excision of the Joint; with an Explanation of the relative Advantages of both Operations, as far as can be ascertained by Cases properly authenticated." It does not appear that any competition took place for the other prize subject, on "The Relative Value of the various Modes of Treatment of Popliteal Aneurism."

MURDER OF AN AMERICAN ARMY SURGEON, Dr. W. A. Garden, Surgeon United States Army, was brutally murdered recently at Brownsville, Texas. His murderer was a partially intoxicated soldier, and this was his third homicidal act since he had been in the service.

SURGEONCIES IN THE GUARDS. On Monday Colonel C. Lindsay asked the Secretary for War whether he would state the reason of the proposed change of system in the promotion to the rank of surgeon in the brigade of guards; whether the existing system of regimental promotion had ever been known to fail, and what public advantage was likely to be derived from the proposed change. The Marquis of Hartington said it was impossible to give within the usual limits of an answer to a question, the information which the hon. and gallant gentleman required. The hon. baronet the member for Fifeshire (Sir R. Anstruther) had given notice of his intention to move for papers on the subject, and it would, he thought, be more convenient, not only to his hon. and gallant friend, but to those other members, who, he knew, took an interest in it, that anything like discussion upon it should be postponed until that motion was brought under the consideration of the House.

AN ANATOMICAL MUSEUM: YOUNG *versus* HAMILTON. An action was tried as the *Nisi Prius* at Westminster, before Mr. Justice Mellor, on April 17th, to recover damages for wrongful treatment. The plaintiff was a farm labourer, in Surrey, and the defendant proprietor of an anatomical museum, at 404, Oxford Street. Passing along Oxford Street in June last, the plaintiff went into the defendant's museum, and as he had some spots about his face, he was asked what was the matter with him. He replied that he was not altogether right, upon which he was taken in the consulting room, stripped and examined. The defendant told him he was suffering from the effects of a bad disease. A discussion took place about the price, when plaintiff said the defendant agreed to make a perfect cure for five guineas. Plaintiff gave defendant half a guinea, had a bottle of physic, and gave sixpence for a small book. He returned afterwards and paid the remainder of the money. He took the medicine, but got no better. Defendant then said he must have six guineas more. Plaintiff called him a blackguard, and, after some conversation, defendant said he would act like a man, and make a perfect cure of him; the money was ultimately paid, and the plaintiff went on taking the medicine, but got no better. Defendant then said that he must have nine guineas more before he could make the cure, observing that he was charging moderate, as he often got forty guineas for effecting a cure. Plaintiff again called the defendant a blackguard, said he had no more money and left. Plaintiff afterwards called on the defendant and told him how ill he was, but that he had no more money. Defendant asked him in and to sit down, and at his request he had another bottle of medicine. When he said how ill he was, defendant said it served him right, and that if he had liked he could have given him medicine that would have killed him in a minute. Plaintiff, however, had another bottle. Mr. Justice Mellor.—What, after what he had said about killing you in a minute? Plaintiff.—Yes, I wanted to see what he would do. He gave the defendant half-a-guinea for the medicine. He took a little of it, threw some of it away, and gave the remainder to Mr. Donahoo, a medical man in the Westminster Road. The medicine made the plaintiff weaker every day; it made his mouth and gums sore, and his teeth loose,

d he "swelled out as big again as he should have en." He earned three shillings per day wages, d when under the defendant's treatment he was able to work for a month. Mr. Donahoo proved at he found the plaintiff suffering from excessive ivation, and his general health much debilitated; analysed the contents of the bottle, and found it contain a strong preparation of bichloride of ercury. It was a very trifling case, and, in his inion, the plaintiff had not been properly treated. iere was no need of the use of mercury. He atided the plaintiff about two months and cured n. His charge amounted to between £8 and £10. ie learned Judge, in summing up, said that if the y believed that the defendant undertook to cure the aintiff he was bound to perform his contract. No man sense or learning in the profession would make such bargain; but only the practisers of such an abominle system of quackery as that followed by the dedant. The plaintiff was first shown the symptoms a certain complaint; and then, when he was a fit bject of credulity to work upon, he was told that five guineas he could be perfectly cured, and ving paid that sum he was induced to go paying ier moneys. The plaintiff was entitled to recover ck the money he had paid and his loss of time and e doctor's bill; besides something for his suffering. e jury returned a verdict for the plaintiff—mages, £60.

OPERATION DAYS AT THE HOSPITALS.

NDAY.....Metropolitan Free, 2 P.M.—St. Mark's for Fistula and other Diseases of the Rectum, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

SDAY. .... Guy's, 1½ P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.

DNESDAY... St. Mary's, 1 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.

URSDAY.....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Great Northern, 2 P.M.—London Surgical Home, 2 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.

DAY..... Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

URDAY..... St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1·30 P.M.—Charing Cross, 2 P.M.—Lock, Clinical Demonstration and Operations, 1 P.M.—Royal Free, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

EETINGS OF SOCIETIES DURING THE NEXT WEEK.

SDAY. Royal Medical and Chirurgical Society, 8.30 P.M. Dr. John Harley, "On Hydatid Disease of the Liver." Papers by Mr. Toynbee or Mr. Durham (if time).

TO CORRESPONDENTS.

All letters and communications for the JOURNAL, *to be addressed to the* EDITOR, 37, *Great Queen St., Lincoln's Inn Fields, W.C.*

MUNICATIONS.—To prevent a not uncommon misconception, we g to inform our correspondents that, as a rule, all communicaons which are not returned to their authors, are retained for ublication.

RESPONDENTS, who wish notice to be taken of their communiions, should authenticate them with their names—of course, t necessarily for publication.

HUGENBERGER exhibited at the Obstetrical *soirée* the forceps Richter of Moscow—the identical instrument by which the esent Emperor of Russia was helped into the breathing world.

LITTLEJOHN's Report on the Sanitary State of Edinburgh is admirable document, and full of instruction. It may be reded as a type of what reports of this nature should be.

A STUDENT going up for his classical examination, would be glad to have the learned editor's opinion, whether "*Multos Mercurius supra Stygem conduxit*" should be translated "Mercurius led many over the Styx", or "mercury made many people hop their twigs", or "cut their sticks". Apothecaries' Hall, April 1866.

DR. BROWN AND THE NAVAL MEDICAL SERVICE.—SIR: I regret to see that Dr. Brown, to whom the Army and Navy Medical Services are so much indebted, should have taken in any way as personal to himself your criticisms on his *Comments*. I cannot for my part see in your articles any terms that reflect either upon the personal honesty or the sincerity of Dr. Brown. And this, which is the general opinion, will, I trust, be felt by Dr. Brown himself on further consideration. I am, etc., R.

[We believe it is quite unnecessary for us to add, that there is not a word in the articles referred to which reflect in the slightest degree either upon the "sincerity" or "honesty" of Dr. Brown. EDITOR.]

LOCKYER AND HIS PILLS.—In Saint Saviour's Church, London, on a couch, and in a semi-reclining position, with right hand under chin and left hand holding a book, there is a full-sized carved figure of a man, with very large mouth and "ferocious" wig. Carved on front of the couch is "*Deceast* April ye 28th Anno Do. 1672 aged 72." Then, on a tablet posterior to the figure, are the following lines:—

"Here Lockyer lies interr'd enough his name
Speaks one hath few Competitors in fame
A name Soe great Soe Generall may Scorne
Inscriptions wch doe Vulgar tombs adorn
A diminution 'ti's to write in Verse
His Eulogies wch most mens mouths rehearse
His Virtues & his Pills are Soe well known
That Envy can't confine them Vnder Stone
But they'l survive his dust and not expire
Till all things Else at th' Vniversall fire
This Verse is lost his Pill embalms him Safe
To future times without an Epitaph."
"Restored October 1711."

COMMUNICATIONS have been received from:—Mr. WILLIAM COPNEY; Dr. SIEVEKING; THE HONORARY SECRETARY OF THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY; Dr. FREDERICK J. BROWN; Dr. SAMELSON; Mr. DUNN; Mr. GRIFFIN; Dr. JOHN BARCLAY (Banff); Dr. STEWART; Dr. MARTYN; Mr. CHARLES H. MOORE; Mr. STONE; Mr. SYME; Mr. SWETE; Mr. ROBERT H. M'KEAND; Dr. T. M. GREENHOW; Dr. FELCE; Dr. TAAFFE; Dr. GIBBON; Mr. W. P. SWAINE; and Mr. COLLYNS.

BOOKS RECEIVED.

1. A Few Words of Advice on the Buying and Selling of Medical Practices. By J. B. Langley. Second Edition. London: 1866.
2. Annual Report of the Manchester and Salford Sanitary Association, for 1865. Manchester: 1866.
3. Transactions of the Ethnological Society of London. Vol. IV. London: 1866.
4. The Report of the Ordinary Medical Officers, and the Inspector and Director of the Public Hospital, Kingston, Jamaica, for the Year 1865. Kingston: 1866.
5. Gleanings and Remarks on the Gas Question. By G. Glenny. Hammersmith: 1866.
6. Memorandum for the Sanitary Committee of the Board of Police of Glasgow. By the Medical Officer of Health. Glasgow: 1866.
7. Comments on the Recommendations of the Committee appointed to Inquire into the Position of the Medical Officers of the Army and Navy. By F. J. Brown, M.D. London: 1866.
8. The Sixth Annual Report of the Convalescent Society for Newcastle-upon-Tyne and the Counties of Northumberland and Durham. Newcastle: 1866.
9. On Imperfect Digestion. By A. Leared, M.D. Fourth Edition. London: 1866.
10. On the Curability of Certain Forms of Insanity, Epilepsy, Catalepsy, and Hysteria in Females. By Baker Brown, F.R.C.S. London: 1866.
11. Cattle-Plague. Report of Mr. Daniel Stone. Manchester: 1866.
12. The Trades of Sheffield as influencing Life and Health, etc. By J. C. Hall, M.D. London: 1866.

ADVERTISEMENTS.

Kent County Ophthalmic Hospital.—The office of House Surgeon being vacant, candidates are invited forthwith to send their applications and testimonials to the Surgeon. Salary £100 per annum, with coals, gas, and attendance.

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Croonian Lectures

ON THE

LOCALISATION OF DISEASE.

DELIVERED BEFORE THE

ROYAL COLLEGE OF PHYSICIANS.

BY

EDWARD H. SIEVEKING, M.D.,

PHYSICIAN TO H.R.H. THE PRINCE OF WALES, AND TO ST. MARY'S HOSPITAL; PRESIDENT OF THE METROPOLITAN COUNTIES BRANCH OF THE BRITISH MEDICAL ASSOCIATION; ETC.

LECTURE III.

Mr. President,—It may be stated as an axiom, that any comprehensive theory of morbid action, to be true, must give and find support in a corresponding theory of therapeutics. In the present state of science, any perfect harmony is impossible; but, in conducting an argument like the one I have ventured to place before this distinguished audience, I should regard an essential element in the consideration neglected, did we not inquire whether or not our present knowledge of the action of remedies, and our prevailing practice in the treatment of disease, give aid to the doctrine or discountenance it. Whether or not I have succeeded in placing my views before you in an acceptable light, I cannot but state, *in limine*, that the bearing they have upon therapeutics, and the reciprocal support which the treatment of disease gives to them, appear to me of utmost importance in presenting a means of harmonising some of the contradictions that impede the inquirer in his search after truth. Doubtful as are so many questions regarding the action of drugs, all that is positive in the treatment of disease seems to me to countenance the views I am seeking to propound as to its nature. Anxious as I am not to make dogmatic assertions, I fear lest the very nature of the subject lays me open to a charge of dogmatism. So many different views have always prevailed with regard to the action of medicines, and so few facts are even now known explanatory of their action, that no system of therapeutics can yet be constructed that is at all likely to have a permanent existence. No one can have earnestly studied his profession without feeling that the materia medica and therapeutics present the most feeble point in our fortress.* But we shall not strengthen it by ignoring our weakness; and to discuss the materials (if a continuation of the simile be permitted) which form that particular embrasure, at the proper time and place, can only, it would seem, increase self-knowledge and facilitate improvement.

I will not weary you with a long recapitulation of the former lectures; but, as some gentlemen may this day honour me with their presence, who have not listened to my previous observations, I may briefly remark that I have tried, by reference to what we know of disease and what appear to be the prevailing views of some of the many eminent students of the present day as to the nature of the various diseases that come under our notice, to show that they are devoid of that essential character which our nosological nomenclature imparts to them. In analysing some of the more prominent and best known morbid affections, the conclusion has forced itself upon me, that the localisation of a disease is always a secondary and accidental circumstance, depending upon a variety of causes; the primary and essential phase being a perversion of nutrition, brought about by the ingesta, by an arrest of the metamorphosis of the tissues, or by some influence operating upon the emunctories of the body. The morbid product being generated has a greater or less affinity for individual parts of the body, by virtue of which it fixes itself and becomes the first stage of the local process; or, setting aside this theoretical affinity, we may say that the product is arrested in some organ or tissue, in consequence of an injury or weakness in which the part has become involved. I adduced, among other illustrations, the unique case of Mr. Ford's South African, who lost a large portion of his lung in consequence of a penetrating wound of the thorax, and recovered without a bad symptom. Owing to the perfect health which the individual enjoyed at the time of injury, no reaction of a morbid kind occurred; and, as life could go on without the portion of the lung removed, and the powers of nature sufficed to throw it off, a recovery took place, such as would have been impossible, had the least taint or weakness existed in any tissue of the body. On the other hand, I may appeal to your individual experience to show how universally disease of the head, or the chest, or the abdomen, occurs as a sort of cumulative effect of irregular, unhealthy, unphysiological habits, producing in the system combustible material ready for ignition by the spark, but equally ready to be expelled or neutralised, if duly recognised and attacked. Bring the spark, and the disease lights up—only so far local as one or the other organ exhibits a larger congeries of symptoms, attracting greater attention, and therefore receiving a characteristic name. As no two human beings are identically alike in any one feature, so they differ in regard to the exact changes that precede typical disease, and the conditions or symptoms that characterise it. This endless variety of morbid phenomena militates strongly against the essentiality of disease; and they can only be understood by going back to the very earliest evidence of a deviation from health that we are able to reach.

It has long appeared to me that, by a symbolical representation of disease, we may render clear to ourselves the exact scope and object of therapeutics. I hope that the illustration I am about to give may not suggest the idea that I have any intention of joining the iatro-mathematical school. A formula, like a sketch, will sometimes realise a thought in a manner that long explanation will fail in rendering clear.

Health may be represented by the ordinary succession of the first letters of the alphabet, $a+b+c+d$ $e+f$. So long as no material derangement occurs, the various forces retain their due relation and equilibrium; nutrition, growth, change, and repair of tissues continue in their normal course; and the individual is capable of the greatest possible power of resistance to external influences, and at the same

* I trust that, in a brief space of time, we may not be called upon to make this admission, if the views opened out by Dr. Bence Jones's remarkable discovery regarding the fluorescence of the animal tissues, and of the presence in them of quinine or an analogous substance, be correct. (See *Proceedings of the Royal Institution*, April 1866.)

time of the greatest amount of physical labour and enjoyment.

The first disturbance likely to occur, except in the case of external injury or a poison introduced from without, consists in an alteration of the relation in the various elements that constitute health. The balance is disturbed; and this state of things may be fitly represented by changing the order of the letters, $b+d+e+a+f$, or to any other irregular sequence calculated to typify the new condition. No new element has been introduced; no essential element has been withdrawn from the body. We are on the border-land, as it were, between health and disease; and there is in this state, perhaps, more danger from the *nimia diligentia medici*, than from his neglect. However, its recognition is often most important, because the restoration of the equilibrium is easy; while, if the balance be not restored, more palpable and serious deviations ensue, and the susceptibility to the reception of external poisons, or the generation of internal equally deleterious agents, is fostered. In the active warfare of life, the constant tension of all the powers keeps most of us in or near this borderland. We are constantly in danger of disturbing the healthy balance; and, but for an inherent power of rectifying herself, Nature would soon be wrecked on the shoals and quicksands of human ignorance. On the other hand, we must not decline the responsibility of seeking to gauge the capabilities of man, and, by care and caution, training him to use his bodily and mental powers to the utmost, placing his talent to the greatest usury, short of inducing a disturbance in the equilibrium sufficient to constitute disease and to interrupt the work of life. The terms implying the disturbance are necessarily relative. What is over-fatigue to one is healthy exercise to another. The congestion of a part, induced by certain occupations, may be necessary to the healthy nutrition of the part here, while there it would be disease. The food necessary for the support of the healthy mariner would prove a source of severe dyspepsia in the sedentary clerk. We have, therefore, no absolute measure of health or the balance of the forces of the body in man, whose relations and conditions vary as much as the lineaments of his face. But we have general principles to guide us; such as, that for the production of a certain effect, a definite expenditure of power is necessary; and it would be as futile to expect long life, vigour, and activity from an ill-fed, over-worked human being, as it would be to expect a pocket-pistol to produce the effect of an Armstrong gun, or a one-horse-power steam-engine to compete with one of a hundred horse power. It is in general principles that we must seek the indications for special methods. We know enough of the structure and functions of the body to place the individual in whom this elementary balance has been disturbed in a position to recover it. The whole range of sanitary science is nothing else than an endeavour to teach mankind in what manner they may most completely preserve the normal balance of the forces; but, unfortunately, though much has been achieved, the non-medical community is not yet sufficiently imbued with the advantage of science over quackery of every sort. We may console ourselves with the assurance that progress, to be deep and lasting, must be slow; and we may also find comfort in the suggestion not long since made by Professor Owen, that as, in the middle ages, astrology and alchemy were patronised by the public, who would now look upon them with scorn, so at the present day medical science is still labouring under the stigma of ancient dogmatism, and but slowly emerging into that species of confidence which true science alone commands. In sanitary science lies at present our main strength. We are here prophets, with as great certainty as is obtainable in any scientific prognostications. We know the amount of air, food, clothing, and work generally suitable to the maintenance of health; and we know that, if these conditions exist, nothing but the culpable neglect of God's laws can entail disease.

The indication for therapeutical interference in the first class of morbid conditions, that I have represented by a simple derangement in the sequence of the first letters of the alphabet, is essentially comprised in the rule to place the body in such a position as to enable it to recover its normal condition. Nature here is all-powerful, if artificial checks and restraints are removed. Medicines are probably altogether unnecessary, except as an indirect means of securing obedience. Rest, so eloquently urged by Mr. Hilton as a condition of restoring health, is here generally the main element of treatment; while attention to diet and regimen in all its phases will complete what science demands of the medical man, that he may secure perfect nutrition of his patient's body. If, by any of the agents ordinarily regarded as medicines, he be able to promote these objects, they should certainly be employed; but in many instances they will more probably interfere with, than promote, healthy nutrition. If, in consequence of overstrain of the mind, a condition of the brain be induced unfavourable to sleep, rest alone may suffice to restore it; but the addition of a dose of morphia, by checking the hyperæsthesia, and possibly by arresting the metamorphosis of the tissues, may and will accelerate the process. If the Christmas festivities cause a disturbance of the digestive powers, they may rectify themselves, if left alone, with an abstemious diet; but a rhubarb draught will certainly here also accelerate the return of health.

The first category of morbid conditions, depending upon a mere disturbance in the equilibrium of the forces, is generally found to precede and imperceptibly blend with the other two categories, for which I would suggest an algebraical symbol. The two categories would be characterised either by a withdrawal of an existing, or the addition of a new, element.

The first of these might be represented thus: $a+b+c—(d+e)$, or $b+c+d+e—a$. The withdrawal of one of the elements can scarcely occur without more or less turmoil among those that remain; so that, even more decidedly than in the first category, we now see the well-marked phenomena of disease varying according to the particular element that is removed in the first instance; in the second, according to the organ or organs in which a localisation takes place. Owing to a malnutrition that may date back to the different stages of infancy or even of uterine life, the blood loses the due proportion of a salt of iron, and we have to deal with a case of anæmia calling imperatively for a chalybeate preparation. Perhaps it has not been given in due time, and our patient, if a young woman, may next present an irregularity and even suppression of the cata-

nenia. We subsequently find that, owing to the absence of the depurating period and a general functional debility, the carbonaceous and other combustible constituents of the blood are not properly burnt off, and tubercle is deposited in the lung. A new series of phenomena now set in, with which we at present have nothing to do. Here, so far as we are able to judge, the absence of the salt of iron was the particular feature in the malnutrition of the body, to which we may refer all the subsequent phenomena of disease. But although, by supplementing it in the first instance in a proper manner, we might have prevented the subsequent stages, it by no means follows that the secondary and tertiary morbid conditions would be amenable to the same measures. In the same way as iron, so fibrine, phosphoric acid, fat, gelatine, or, in fact, any of the tissues or constituents of the tissues of the body, may be removed in excess; and clearly our object must be to obtain a certain measure of these particular changes. We seek it approximatively at present, by the symptoms which our patient presents. Indirectly, too, we ascertain it by the analysis of the secretions; while we measure the amount of disturbance by the thermometer, the pulse, the expression. As one element is removed in excess, so the other will preponderate unduly, according to the relation normally existing to the one that is taken away. It seems perfectly legitimate to assume that, as the excessive elimination of a certain tissue is likely to occur more through one organ than another, so also the localisation of disease may depend upon this excretion; while, according to the law of *contrecoup*, the predominating excess in another direction may induce local disease in an organ occupying a position, as it were, at the opposite side of the circumference of the vital circle. This balance between individual organs is constantly seen in practice; and we avail ourselves of the known law to produce therapeutic effects which are among the most certain and effectual that science can boast of. It would lead us too far to enter into further detail; and your own experience will readily suggest the examples.

With regard to the therapeutic proceedings to be adopted in the category generally, it is self-evident that, if we can determine the exact element of tissue which is being removed, and the removal of which constitutes the disease, our duty consists in restoring that element. We are able in a few cases to demonstrate the entire series of phenomena in so positive and scientific a manner, that we are justified in assuming that an analogous process occurs in at least some other morbid processes, in which some of the links, though not all, necessary to a stringent proof, are wanting. In idiopathic anæmia, we know that a definite proportion of iron is wanting in the blood; and we find that the symptoms accompanying this condition yield in the exact ratio in which the powers of the system assimilate more iron. Whether that iron come from food, or from the druggist, matters not; though, practically, we know that the patient's strength is frequently insufficient to extract iron enough from the diet, and therefore wise men have not yet, and we may safely say, never will, entirely discard the contents of the *Pharmacopœia*. We know nothing about the *modus operandi* of many of our remedies that we most rely upon. The whole class of bitters and stomachics, and especially quinine, possess a hold that no scepticism will loosen; but what do we know of their action, except by the effects which they produce? I cannot but think that, when our knowledge shall be more profound, we shall find that they supply some element that is actually absent in those diseases in which their effect is but seen.* I cannot believe that quinine cures ague by a catalytic effect, or we should not find that so much depends upon the increasing magnitude of the dose, according to the duration and severity of a seizure. It is not the bulk of the spongy platinum which determines the ignition of hydrogen that impinges upon it; nor the quantity of gluten introduced into the vat of must upon which depends the fermentation that yields the Βακχικόν δώρημα; but the amount of ague-poison that yields to ten or twenty grains may and does refuse to take its departure at the bidding of smaller doses of two or four.

However little we may know of the exact manner in which some of our remedial agents produce their effects, certainly all that are available in the category of disease which we are now discussing produce their effects solely, so far as they accelerate or promote the nutrition of the body, in some way or other; and none do so without the patient being duly supplied at the same time with the nourishment appropriate to his condition. It does not, however, follow that, because we may cure disease without medicine, *sensu strictiore*, by placing the individual under circumstances which favour repair, therefore we do wisely in eschewing the additional aid of medicine; but we must be careful to obtain the correct indication, and to find out the medicinal agent which shall either supply the defective element more readily than the food, or enable the digestive organs to extract it more readily from the food. Medicines are constantly used for both those purposes, with the most certain and beneficial and expeditious results.

The last of the three categories to which I would request your attention is the converse of the one of which we have just now spoken. In the second, the morbid condition consisted in the removal of one of the normal elements of the body; we now review a class of diseases in which a foreign element finds its way into the body. The formula, accordingly, would run: $a+b+c+d+x$ or y. The foreign element or poison necessarily soon causes a perturbation in the normal elements; and, on the other hand, the reception of the poison is much facilitated by any derangement already existing. The poison itself may be of the most varying character; and the indication here would be to find an antidote for the poison, to cause it to be eliminated, or to give the constitution the strength necessary to resist its effects. Practically, here again the question resolves itself mainly into one of nutrition. The medical man often unconsciously seeks only to place his patient in the best position calculated to enable him to resist the influences of the poison, the powers of Nature decomposing or eliminating them. It is doubtful whether we possess any agent which, like the reagent of the chemist, neutralises or decomposes any animal poison directly. Of all the vaunted specifics, none perhaps has ever enjoyed so large and ancient a reputation as mercury in the treatment of syphilis;

* This was written before I had any knowledge that Dr. Bence Jones's experiments appear to give direct proof that, in the diseases cured by quinine, the remedy supplies a normal element of the body, unduly removed or neutralised by the disease.

and yet what is our position in regard to this matter even at the present moment? Whatever may yet be elucidated by that at first sight alarming and repulsive process, syphilisation, it certainly is in evidence that inveterate cases of syphilis get well under it, after the failure of the ordinary metallic treatment; and that patients who have been effectually syphilised are less liable to relapses and to syphilitic affections of the brain, the liver, and other internal organs, than those treated in the ordinary manner. The effect of the process would appear to lie in producing a series of ulcers on the surface of the body, in which the receptivity of an individual exhausts itself; while the internal nutrition can be carried on in the most perfect manner, so as to support the cutaneous process. Patients who undergo this method, far from succumbing and resembling patients suffering under metallic influence, appear fresher, plumper, and more vigorous, in spite of the increased local disorder that is intentionally generated. Whether eventually we may find another and more perfect means of neutralising the syphilitic poison, our preconceived notions have certainly received a shock by the carefully performed experiments on repeated inoculation recently made by Professor Boeck at the Lock Hospital. The inoculations, far from lighting up and increasing the constitutional taint, appear to rouse a power of resistance from within, which, after a time, throws off the poison more effectually and persistently than the measures upon which we have hitherto relied as our best allies. As, however, this matter is still *sub judice*, I will not lay much stress upon it; but, having seen and watched the progress of many cases, I could not resist adducing what to me appears a remarkable fact in confirmation of my argument.

I prefer, however, to rely rather upon those general views with regard to the treatment of disease which appear to me to prevail among the teachers of clinical medicine of our country, and upon which more or less we are all acting.

[*To be continued.*]

The Cholera on Board the England. Letters from Halifax state that cholera broke out among the German emigrants on board this vessel during her passage from Liverpool. She left the Mersey on the 28th of March, and Queenstown on the 29th, and she had then over 1,000 passengers, of whom 400 were Germans, on board. On the fifth day after leaving Queenstown, cholera appeared among the steerage passengers, and raged with great virulence despite the efforts of two doctors, who were fortunately on board. By the time the England put into Halifax the deaths were 46; and in two days after her arrival they had increased to 140. On the 11th of April, when letters left, there were twenty-five deaths per day. The whole of the deaths were among the steerage passengers and the crew; among the latter there were five deaths. The authorities at Halifax took prompt measures to alleviate the condition of the sufferers, and at the same time to prevent the spread of the disease. The Admiral sent down the hulk *Pyramus* as hospital ship, and the governor eighty tents, in which the healthy survivors were encamped on Macnab's Island. The *England* has been placed in the care of Messrs. Cunard, of Halifax, and they are fumigating her as rapidly as possible. It is supposed that the outbreak of the disease is due to the dirty habits of the Germans and their great consumption of sauerkraut.

Illustrations
OF
HOSPITAL PRACTICE:
METROPOLITAN AND PROVINCIAL.

MANCHESTER EYE HOSPITAL.

EXTRACTION OF SOFT CATARACT BY SUCTION.

By R. H. M'Keand, Esq., Surgeon to the Hospital.

Some few weeks past, I had the pleasure of meeting at the house of a mutual friend (Dr. Crompton of this city) Mr. Teale, jun., of Leeds, and had some conversation with him upon the subject of his recent publication *On Extraction of Soft Cataract by Suction*. He had with him his suction-curette, and accompanied his remarks with a request that I would give the little instrument a trial. Having an opportunity afforded within a brief period of operating upon four subjects, as detailed below, out of compliment to him, I thus early publish the result of each. No inflammatory or objective symptoms of any kind occurred to mar the operation, and the little patients discarded entirely upon the third day the isinglass-plaister, applied after the operation to prevent movement of the eyelids.

Mr. Teale's instrument was procured from Messrs. Weiss; but, after using it the first time, I thought the curette might with advantage be made smaller, which was done by Messrs. Hunt and Roskell, jewellers, and I found the reduction advantageous in the three other cases.

I think the profession much indebted to the revival of this operation through the hands of Mr. Teale. The result in these four, my first trial cases, has so much delighted me, that in my individuality I beg to thank him.

Case I. Ada W., aged 5, was admitted a patient of the Eye Hospital, on March 7th, 1866, with cataract in the left eye—the result of a blow two or three years ago. The cataract was quite soft, and the pupil could be fully dilated with atropine.

March 10th. *Operation.* The patient having been put under the influence of chloroform, a broad needle was introduced through the cornea at the outer part opposite the margin of the dilated pupil. The capsule of the lens was then freely ruptured, and Teale's suction-curette introduced, and the whole of the cataract withdrawn without the slightest difficulty, leaving a perfectly clear pupil. The eye was then closed with tissue-plaister, and a compress-bandage applied.

March 12th. There was hardly any irritation in the eye; and the pupil was quite clear, except close to the inner margin of the iris, where a very small portion of capsule was seen. Two days afterwards, the eye was free from all irritation. As the patient had never been taught to read, the amount of vision could not be accurately ascertained; but, with the aid of a convex glass, she was able to distinguish very small objects, such as pins, etc.

Case II. Elizabeth E., aged 7, was operated upon on March 14th, 1866, for soft cataract in her right eye. In this case also, Teale's suction-instrument was used, and the whole of the lens removed without accident.

March 16th. The eye was entirely free from inflammation. The pupil was moderately clear; but one long band of capsule passed across it, and consequently interfered with vision, so that the patient could distinguish only large letters.

Case III. James P., aged 12, was operated upon March 14th, 1866, for soft cataract in the right eye, e result of an accident six weeks previously. There s a considerable opacity of the cornea close to its ner margin, to which the iris was adherent. The pil, however, dilated moderately well under atro- ie. The cataract was successfully removed by ans of the suction-curette, the patient being under e influence of chloroform. No irritation whatever lowed; and a week after the operation, the patient s able to read the finest print (No. 1 Jaeger's test pes), using a convex glass.

Case IV. Thomas B., aged 8, was struck with a k on the forehead, on February 10th, 1866. A tnight afterwards, his parents observed something ite in the pupil of his left eye. On admission arch 14th), the lens was entirely opaque, and a gle iritic adhesion was seen at the upper part of e pupil; the latter, however, dilated pretty well der atropine. Extraction was performed, under loroform, in a similar manner to the other three es, and was followed by the same excellent result. e boy had never been taught to read, but could dily discern very small objects.

FARRINGDON GENERAL DISPENSARY.

CASE OF SYPHILIS TREATED BY SYPHILISATION.

Under the care of R. William Dunn, Esq.

Mrs. J., aged 44, had been ill for some weeks, suf- ing from pain in passing urine, and a swelling in right groin. This swelling she expected to burst; lid not do so, but nearly disappeared one night; l the morning following, when at the water-closet, passed a large quantity of stinking matter. She l never had any rash upon her skin. She had n examined by a medical man, but no disease had n detected.

first saw her on June 20th, 1865. She was then fering from ulcerated tonsil, the ulcer being cir- ar in shape with elevated edges. She still com- ined of pain when she passed urine; felt very ak; pulse 120. She would not allow an examina- n to be made. I suspected that this was a case of philis, from the fact of having attended her hus- d some little time previously for an infecting sore. rdered her a grain of quinine three times daily, l a chlorate of potash gargle.

une 23rd. She was no better. A patch of rupia l appeared upon her head; and she had an ulcer- n on her right thigh of the size of a crown. She s ordered to take five grains of iodide of potassium lecoction of cinchona three times a day; and to nitric acid gargle.

uly 7th. The patch of rupia on the scalp had erated, but the ulcerations had not spread. The oat was very much better. She was going into country. The medicine was continued.

uly 29th. I heard to-day about her. She had been ing with a medical man. The ulceration had eased very much; on the scalp it was so deep t the bone was exposed. The throat was quite l. She was still taking the iodide of potassium, dressed the ulcers with nitric acid lotion.

ug. 14th. I heard to-day that she was at East- rne. The ulcers were healing. She was still ing the iodide of potassium.

ept. 22nd. She had returned to town, much se, having patches of rupia all over her body, but cipally on the back. The ulceration on the scalp thigh had healed; but she had large sloughing rs on the calf and ham of the left leg. She had flesh, felt very ill, could not sleep at night, and lost appetite; pulse 150. I ordered her to have five grains of citrate of quinine and iron every four hours; a grain of powdered opium at bed-time; and good diet, with wine, beer, and brandy.

Sept. 28th. The ulcers were still sloughing. I applied the arsenical paste of the Skin Hospital *Pharmacopœia* to them. She cried a great deal; did not sleep at night; pulse 130. The remedies were continued.

Sept. 30th. The ulcers were clearing; she felt a little better. I ordered nitric acid lotion to be applied to the ulcers, and the remedies to be continued.

Oct. 10th. She had a sloughing ulcer on the chin, both insteps, and the right ham. Pulse 160. She felt very ill; vomited her food. I ordered her ten grains of bismuth every four hours; and ice and brandy.

Oct. 20th. The ulcerations were increasing. I applied the arsenical paste to them. She felt very ill, and cried all the day; had no appetite; and did not sleep; pulse 160. She was ordered to continue the bismuth.

Oct. 25th. She was no better, and felt very ill. Pulse 160.

Oct. 27th. Professor Boeck kindly saw her to-day with me. He thought that, although a very bad case, she would receive benefit by syphilisation. He commenced with three inoculations on each side of the chest. She was at this time in a very weak state; so ill that I did not think she would live. She vomited her food; and had sloughing sores on her legs, feet, and face, and patches of rupia scattered more or less over the whole body. The pulse was 180.

Oct. 30th. The inoculations have taken. Six more were made on the chest; and the same was done on Nov. 2nd.

Nov. 5th. The last inoculations had not taken; and Professor Boeck inoculated from the previous ones.

Nov. 8th. New matter was used, and six inoculations were made. The same number were also made on the 11th, and again on the 14th.

Nov. 16th. The last inoculations had not taken. Twelve inoculations were made with new matter; six on the chest and three on each arm. Twelve inoculations were made on the 19th, and again on the 23rd and 26th.

Nov. 29th. Eighteen inoculations were made; six on the chest, six on the arms, and three on each leg. There was decided improvement in her health; the pulse was slower; the ulcers were healing; and she had gained flesh.

Dec. 2nd. Eighteen inoculations were made; and the same number was repeated on each of the following days: December 6th, 9th, 13th, and 17th.

Dec. 20th. I commenced to inoculate. The ulcers were nearly all healed. Her appetite was much better; she had gained flesh; pulse 96. She felt much better and stronger.

Dec. 23rd. Eighteen inoculations were made; and the same number on the 26th.

Dec. 30th. The inoculations on the chest had not taken. New matter was applied to the chest in six places; old matter to the arms and legs.

Jan. 2nd, 1865. The inoculations on the chest had not taken; those in the arms and legs had. Twelve inoculations were made.

Jan. 5th. New matter was applied to the chest; old matter to the arms and legs.

Jan. 8th. The chest had not taken; the arms and legs had.

Jan. 11th. New matter was applied to the chest; old matter to the arms and legs.

Jan. 14th. She was not so well. Twelve inoculations were made.

Jan. 17th. She felt very poorly, vomited her food again, and had no appetite; pulse 160. She had an

attack of rigors to-day. Twelve inoculations were made.

Jan. 18th. She was much worse, delirious; pulse 180. The skin was hot and dry; the tongue dry and coated brown. She refused her food; passed her urine and fæces under her. I ordered her Hogarth's essence of meat; ammonia, chloric ether, and bark.

Jan. 19th, 20th, and 21st. She was improving, but still very weak; pulse 150. Two large bed-sores had formed, one on the sacrum and the other on the right hip. She was inoculated in twelve places.

Jan. 24th. The arms had not taken, but the legs had.

Jan. 27th. She had become jaundiced, and vomited her food again. The bed-sores were increasing. From this time till Feb. 5th, she gained a little strength, but the pulse kept very high the whole time. From that date she began to get worse, and died on February 9th.

Remarks. This is the first case treated by syphilisation in this country which has died; but the patient was, I consider, in such a bad state when Dr. Boeck first commenced to syphilise her, that she most likely would have died; and it was a curious fact that, as soon as the inoculations commenced to take well, her health began to improve. The pulse became quieter, and she gained flesh; and I thought she would quite recover. From Jan. 5th till about the 18th of the same month, she had a great deal of mental excitement, also great grief, crying all day long. This caused a loss of appetite. From Jan. 18th, she did not improve, although the cause of her mental anxiety was removed. Her pulse was below 120. On the 21st, the large bed-sores made their appearance, and she became jaundiced on the 27th. On the chest, it will be perceived, I could obtain no positive results from Dec. 20th; and, the last inoculations on the arm showing that the disease was gradually being overcome, I do not consider that the woman's death was due to the disease under which she was labouring; but that, if we could have removed all cause for mental excitement from her, and kept her mind in a comfortable state, and prevented the bed-sores from forming, this case, instead of terminating fatally, would have been successful. To Professor Boeck my best thanks are due for his great kindness in treating this case of mine during his sojourn in London; and I do not think that he thought when he left town, that any other than a successful result would follow this mode of treatment.

Increase of Insanity. Dr. Stiff, Superintendent of the Lunatic Asylum, Nottingham, in his last report, just issued, makes the following pertinent remarks: "The admissions, 109, are 20 in excess of the previous year, the females predominating. A certain amount of this increase is probably coincident with that of the general population of the county, and the remainder may be accounted for by other circumstances. In the first place, persons formerly considered proper to be confined were comprised under the heads of lunatics, insane, or dangerous idiots; names of narrower and more definite signification in practice than that of unsoundness of mind, substituted in recent Acts of Parliament. Persons suffering from acute and chronic diseases of the brain, the delirium of drunkenness and of typhus fever, the aged becoming childish and troublesome, imbecile children, and even those labouring under delirium in their last illness, are occasionally certified as proper cases to be taken care of in the Asylum. The apparent undue increase of insanity of late years may, therefore, in part be ascribed to an extension of the term defining it, rather than to any spread of the malady itself."

Original Communications.

IMPAIRED VISION FROM MENTAL WORK.

By Haynes Walton, Esq., Surgeon to St. Mary's Hospital, and to the Central London Ophthalmic Hospital.

Impaired Vision and Partial Paralysis of some of the Muscles of one Eye, arising out of Excessive Mental Work. Treatment by Medicine, etc., and by Operation. Recovery.

This case is interesting in itself, and instructive as one of a class. It is rather out of the ordinary course of ophthalmic practice, required thought respecting the treatment, and imposed much responsibility in operating.

Nearly two years ago, an Asiatic, 20 years old, was sent to me by a surgeon, because the sight of the left eye was imperfect. He was here for education, and had been a very laborious student. Possessing high mental power, and having a strong desire to distinguish himself more and more at the examinations of his college, he knew no bounds in working. Now, he was feeble, and his circulation very languid. He had difficulty in applying himself, and the mind quickly fatigued, obliging him to desist. His appetite was small. His religion forbade stimuli.

The ocular defect consisted in inability to read small type, and mistiness of sight, and occasionally double vision. There was slight ptosis, and the pupil was a little dilated and inactive, but there was no palpable loss of action, or paralysis of any of the other muscles supplied by the third pair of nerves, although there must have been alterations in the optic axes at times, through irregularity in the muscles, to produce the double sight.

There was nothing abnormal in the interior of the eye, beyond the physical state, so often associated with near sightedness, if such can be so called.

Before I speak of the treatment, it may be well to allude to the chief source of the nervous motor supply to the orbital muscles; that is, the third nerve, called also motorius oculi. It presides over five out of the seven muscles; the upper and smaller division being given to the rectus superior, and to the levator of the eyelid. The under supplies the rectus internus, the rectus inferior, and the obliquus superior. More than this; for, through the filament to the ophthalmic or lenticular ganglion, a centre of supply of nerves, motor, sensory, and sympathetic to the eyeball, it gives filaments to the ciliary muscle and to the sphincter pupillæ of the iris.

Then there are pathological peculiarities connected with this nerve, that must be known to be able to understand what may happen. The nerve-trunk may be entirely diseased, and all the muscles dependent on it quite paralysed, in which case there will be complete ptosis, or dropping of the upper eyelid, and fixed eversion of the eyeball, external squint, because it is pulled outwards by the rectus externus, which is not paralysed, because supplied by the sixth nerve; and dilatation of the pupil; and loss of the accommodating power of the eye. But there may be slight general paralysis, in which case the symptoms are less marked. Then only some of the branches of the nerve may be affected when the muscles supplied by them will suffer, and some of which may be more affected than the others. To speak, therefore, loosely of paralysis of the third pair of nerves, and in a general way

oes not give a correct idea of the nature of the aralysis. It is necessary to define the degree and xtent of it. In the case before me the levator only as markedly, but yet slightly paralysed, and the ilatation of the pupil was not very marked; and hese, together with loss of power in the ciliary uscle, could not, as I suspect, have been the whole auses of the imperfection of the sight.

I commenced my therapeutic measures by forbidding a continuation of study, and gave full directions bout all that I deemed necessary as to food, exercise, musement and sleep, and prescribed a tonic course f medicine.

The restoration of vision was the first improvement oticeable. He could read as well as with the other ye, and the general mistiness had disappeared. The tosis then was removed, and the double vision was nly very occasional. So then, after all trace of isease of the motorius oculi nerve had passed away. or there was no longer evidence of any paralysis of he parts supplied by it, as I could determine, the ymptoms of double vision remained. At this time, lso, about six weeks from the commencement of my reatment, my patient's general health was much mproved, but he could not yet study, as several rials proved that his brain was too weak, and I adised him to travel about with a friend, to see new laces, and to amuse himself. It is hard to induce a tudent with this intense passion for study, to give p his work altogether. A few weeks of recreation uch recruited the mental power, but repair was not et complete, and a trip to India was resolved on.

A year later this gentleman again presented imself to me. He had been in India all the while, nd had abandoned study. He had married, but ever consummated, from inability, although when n England, and also on his voyage to India, he hought himself virile. His mental power was now s good as ever, and the eye was well except in one articular, the double sight. After reading for ess than an hour, double vision came on, and so roubled him that he was obliged to desist for a hile, or to cover one or other of the eyes. He was ow aware that it was the result of slight eversion of he eye. Without reading, he could manage by erely looking sideways at an object in a certain osition to produce the optical defect. I examined im more carefully than ever. The double image as lateral and vertical, being to the side, and above ne object looked at. It seemed clear that a weak inrnal rectus muscle, arising out of defective nerveorce, whereby there was occasional eversion, was the ief origin of the disturbance. Mr. Z. Laurence, ho saw this gentleman, came to the same conclusion. nder certain tests I could detect a defective interal rectus. I determined to try the effect of general eatment, alcoholic stimuli, and galvanism. These easures were used for nearly three months, and ith no result. The question of dividing the exrnal rectus was now entertained and discussed. he chief objection was the risk of producing interal squint, because ordinarily the eyes were parallel, nd therefore the balance of muscular power was almost erfect. After weighing all the points, and making eductions from the result of my operations on the cti muscles, into the details of which I shall not ter, I operated under chloroform.

It was rather mortifying to find, when the effects the chloroform had passed over, that my patient quinted inwards, and that there was constant uble sight in a new direction, with other confusion vision. A far worse state was established. A ry few days, however, shewed an amelioration and ave hope for the cessation of the new trouble. arallelism of the optic axes was then daily more nearly established, and at last acquired, when double vision was quite lost. There was ultimately normal sight.

SUCCESSFUL REDUCTION OF DISLOCATION OF THE HIP, BY MANIPULATION.

By G. N. Collyns, M.R.C.S., Moreton Hampstead.

On March 26th, 1866, A. C., aged 17, a well developed muscular youth, whilst struggling with another lad, slipped and fell, his antagonist falling on him. On attempting to rise, he found that he could only rest on his knee, and was unable to stand. Assistance having been procured, he was removed to his home in a cart, and put to bed. His parents, not considering that anything serious was the matter, did not send for a medical man until the following morning, (the accident having happened at 9·30 p.m.) when, finding that he was in great pain, and that there was considerable swelling of the right hip, they requested Mr. Nosworthy to see him, who, not feeling quite satisfied as to the exact nature of the injury, asked me to examine him. On putting him in the upright position, the shortening of the limb with inversion of the foot and knee were sufficient to convince us that dislocation of the hip upwards, on the dorsum ilii, had taken place; and, on careful examination, we detected the head of the bone in its new situation. Having settled this point, we had next to determine what treatment to adopt, and not being provided with pulleys, etc., I suggested that we should make trial of Dr. Reid's plan of reduction by manipulation; we accordingly put our patient under the influence of chloroform, and placed him on a hard mattress on his back; I then, kneeling on the bed, flexed the leg on the thigh, carrying the knee upwards and inwards, till the thigh, being fully flexed, touched the front of his chest; then placing one hand on the knee and grasping the foot with the other, I forcibly abducted the limb, and brought it into a straight position. Whilst abducting the limb, I distinctly felt the head of the bone rotate, and we had the satisfaction of hearing it return into the acetabulum, with a loud crack.

Remarks. The facility with which reduction was accomplished in this case, after a delay of fourteen hours, is, I think, worthy of being recorded, as it may be the means of inducing others to adopt the same mode of treatment, which certainly possesses many advantages over the old one of pulleys, girths, etc., inasmuch as it can be done without any delay, and without a number of assistants, and with much less trouble and expenditure of time; in this case, the reduction was accomplished in two minutes.

Death from Chloroform. Dr. J. Smith, Surgeon Dentist to the Edinburgh Royal Infirmary, in the *Edinburgh Monthly Journal* affirms that fatal deaths from chloroform are, for the most part, to be attributed to the fault of the administration. "We find," he says, "deaths associated with chloroform naturally separating themselves into the two distinct divisions of those arising from avoidable and those due to unavoidable causes, the avoidable causes are numerous and varied, while the unavoidable are of a range very limited if not invariable in their nature. The former class tells, of course, not so much against the administration as the administrator of this agent. The remainder forms an interesting series, probably all belonging to cases whose condition, altogether apart from anæsthesia, was unsuspectedly near to death, and where the chloroform acted merely as the touchstone of their hold on life."

Reviews and Notices.

On the Curability of Certain Forms of Insanity, Epilepsy, Catalepsy, and Hysteria, in Females. By Baker Brown, F.R.C.S.(Exam.), etc. Pp. 85. London: 1866.

We are not going to attempt a criticism of the operation recommended in Mr. Baker Brown's book; for we confess that it is beyond our knowledge. Mr. Brown proposes a cure for "epilepsy, etc.," in females, which is entirely new to us. We have heard of cases of epilepsy in which the testicles have been removed by way of cure; but of excision of the clitoris and nymphæ as a cure of that disease, etc., in females, we know nothing, except what we learn from Mr. Brown's book. Indeed, we are greatly surprised to read in the very opening lines of it these words: "I do not for one moment wish it to be understood that I claim any originality in the surgical treatment herein described." Surely the credit of this operation belongs wholly and solely to Mr. Brown. In what other work, medical or surgical, is excision of the clitoris, etc., recommended as a cure for epilepsy, etc.? That the treatment is original, moreover, is shown by the fact that Mr. Brown himself, throughout his book, speaks of it as "my operation."

Mr. Brown seems desirous of throwing the praise of it on Dr. Brown-Séquard, to whom the work is dedicated. The perusal of Dr. Brown-Séquard's Lectures, Mr. Brown says, first led him to think of "peripheral nervous excitement" as a cause of diseases—led him, in fact, to the conclusion that nervous affections complicating "diseases of the female genitals depended on peripheral excitement of the pudic nerve."

Thus enlightened by physiological experiment, Mr. Brown proceeded to put his conclusion to the test, "by removing the cause of excitement"; viz., the clitoris and nymphæ. This operation, he now says, he has again and again performed; and the results are such as to convince him, "that all unprejudiced men must adopt, more or less, the practice which I have carried out."

"Peripheral excitement of the branches of the pudic nerve" gives rise, Mr. Brown's theory is, to disease, which "may be divided into eight distinct stages—the eighth stage being arrived at, by gradations more or less distinct, directly from No. 1.

"1. Hysteria.
"2. Spinal irritation.
"3. Epileptoid fits, or hysterical epilepsy.
"4. Cataleptic fits.
"5. Epileptic fits.
"6. Idiotcy.
"7. Mania.
"8. Death."

"Death is indeed the direct climax of the series." Consequently, as the disease is progressive and ends in death,

"It is important to arrest the disease *ab initio*, and the treatment is the same whether we wish to cure functional disturbance, arrest organic disease, or, finally, if we have only a chance of averting death itself."

Mr. Brown then describes the symptoms of "the disease."

"The patient becomes restless and excited, or melancholy and retiring, listless, and indifferent to the social influences of domestic life. She will be fanciful in her food, sometimes express even a distaste for it, and apparently (as her friends will say) live upon nothing. She will always be ailing, and complaining of different affections. At first, perhaps, dyspepsia and sickness will be observed; then pain in the head and down the spine; pain, more or less constant, in the lower part of the back, or on either side in the lumbar region. There will be wasting of the face and muscles generally; the skin sometimes dry and harsh, at other times cold and clammy. The pupil will be sometimes firmly contracted, but generally much dilated. This latter symptom, together with a hard cord-like pulse and a constantly moist palm, are, my son informs me, considered by Mr. Moore, Colonial Surgeon of South Australia, pathognomonic of this condition. There will be quivering of the eyelids, and an inability to look one straight in the face. On inquiring further, there is found to be disturbance or irregularity in the uterine functions, there being either complete cessation of the catamenia, or too frequent periods, generally attended with pain; constant leucorrhœa also frequently existing. Often a great disposition for novelties is exhibited, the patient desiring to escape from home, fond of becoming a nurse in hospitals, *sœur de charité*, or other pursuits of the like nature, according to station and opportunities.

"To these symptoms in the single female will be added, in the married, distaste for marital intercourse, and very frequently either sterility or a tendency to abort in the early months of pregnancy.

"These physical evidences of derangement, if left unchecked, gradually lead to more serious consequences. The patient either becomes a confirmed invalid, always ailing, and confined to bed or sofa, or, on the other hand, will become subject to catalepsy, epilepsy, idiotcy, or insanity. In any case, and more especially when the disease progresses as far as these latter stages, it will almost universally be found that there are serious exacerbations at each menstrual period.

"On personal examination, the peculiar straight and coarse hirsute growth; the depression in the centre of the perinæum; the peculiar follicular secretion; the alteration of structure of the parts, mucous membrane taking on the character of skin; and muscle having become hypertrophied and generally tending towards a fibrous or cartilaginous degeneration; will all be recognised by the practitioner who has once had his attention drawn to these subjects."

Mr. Brown never operates before puberty. Under chloroform, "the clitoris is freely excised by scissors or knife—I always prefer scissors." The wound is then firmly plugged with lint. Opium is introduced into the rectum, and the patient carefully watched. No stimulants are allowed. In a month, the wound is healed; "and it would be difficult for the uninformed, or non-medical, to discover any trace of an operation." The patient rapidly improves; but "it cannot be too often repeated, that this improvement can only be made permanent in many cases by careful watching and moral training, on the part of both patients and friends."

Hereon we must remark, that Mr. Brown would have done well to have anticipated a difficulty which will, doubtless, at once present itself to his readers. If "careful watching" and "moral training" be a necessary part of the cure of "the disease", it may be asked, would not moral training *minus* excision

f the clitoris effect the cure? Mr. Brown mentions he case of a lady who had been for twenty years ' under very many eminent practitioners", but was till uncured. He operated, and the beneficial results vere "most marked". "Yet, in a few weeks after he left our hands, irritation, resembling pruritus, radually returned, and with it the other old symp-oms." This surely means that in a few weeks after Ir. Brown's operation the lady was as bad as she vas before; and, in fact, derived no more benefit rom him than she had done from the other "very nany eminent" men spoken of. Mr. Brown says hat in all future cases he had the patient "kept for long time under careful medical watching", etc. 'eople, therefore, will argue, as the case now stands, hat "medical watching" may effect the cure *minus* he operation. They will say, a case like this rather roves the operation to be superfluous. There is learly a hiatus here in the argument to be filled up y Mr. Brown.

Another hiatus in the details is this. Mr. Brown oes not define clearly—*i. e.*, in set terms—the cases ı which his operation is needed. From the cases he ives, and from the theory necessarily involved in ıe operation, we suppose that he performs it in order) prevent masturbation; but if so, surely this essen-al fact should have been expressly stated. No oubt, the details of Mr. Brown's cases show that hat he calls, theoretically and euphoniously, "peri-ıeral excitement of the pudic nerve" means mas-ırbation; and that it is for the cure of this vice ıat his operation is performed. But, still, there ıould have been left no possible grounds for the er-ıneous assumption, that hysteria and masturbation 'e synonymous terms.

It has long been an established fact, that onanism :actised to the extent supposed by Mr. Brown will :casion all the various nervous disorders named by m—will, in a word, produce hysteria, etc., spinal ritation, epilepsy, and even insanity. Mr. Brown, erefore, to have been strictly logical, should have ıtitled his book, "The Curability of Masturbation ıd its Sequelæ."* The operation is not a cure ther for hysteria, or epilepsy, or catalepsy, etc., ıt a cure for masturbation, which is their provoca-re. These nervous phenomena (as we understand em) are the results of the masturbation; just as asarca is the result of kidney-disease, or ascites of er- or heart-disease. But no one would (in our esent state of knowledge) in such cases speak of ring ascites or anasarca. Mr. Brown, in medical nguage, does not cure the epilepsy; he cures the asturbation which provokes the epilepsy—removes cause. So long, to be sure, as we are ignorant of e cause of an epileptic seizure, we are forced, ough our ignorance, to speak of treating the epi-sy; but no longer. Every medical man will see e importance of this distinction; and it becomes ecially important in a work of this kind. The finition marks out clearly the object of the opera-n.

Again, as we have already said, an objection may be taken to Mr. Brown's cases, that they do not show how much of the cure belongs to the operation and how much to the "after careful watching", etc.

The depraved habit for which the operation is performed indicates a defective morality; and, therefore, it might be fairly argued that the operation and the "after careful watching" might act as moral instruments of cure—as a powerful shock, temporary at all events, to the nervous system. The wound produced by the operation, the large loss of blood which Mr. Brown in some cases encourages, the abstinence from stimulants, and careful watching, might *à priori* be judged capable of arresting for a season the ordinary current of an hysterical patient's ideas, and so of improving her condition. Moreover, that "careful medical watching, and good nursing for a long time after," may go far permanently to break the baneful habits of the vicious, seem reasonable enough. But then, unfortunately, Mr. Brown does not show that these remedies *minus* the operation would not, in many cases at all events, be equally successful. We do not deny that a powerful effect may be produced by the operation; but then, if it be, what proof have we that it may not be of a moral rather than of a reflex nature?

Besides this, we have no proof, in a very large number of his cases, that the cure is of a permanent kind. That a patient should be admitted into the Surgical Home, have the operation performed, and should leave cured of her "hysteria" in the course of a few weeks, is no satisfactory proof that she has been permanently cured.

We will give a few of Mr. Brown's as cases illustrative of our remarks.

"Case II. Jan. 7th, 1861. Single, aged 21, had been ill two years. Had been eleven weeks in a general, and thirteen weeks in a special hospital, and been treated for uterine disease.

"On examination, the uterus was found to be quite healthy. There was, however, evidence of excitation of the pudic nerve.

"Jan. 10th. The clitoris completely excised.

"Jan. 16th. Is much better.

"Jan. 31st. Discharged from the Home cured. Is quite well in her health, having lost all aches and pains, and being able to defæcate without the slightest uneasiness."

"Case V. Dec. 9th, 1861. A widow, aged 55. Has fissure of rectum, bad digestion, and excitable. On Dec. 12th, the operation for fissure of rectum was performed. Being, however, still sleepless, excitable, and irritable, questions were asked which showed that a further operation for removal of another source of irritation was advisable." On Dec. 24th, she was therefore operated on; slept well the next night; became cheerful and quiet; and on Jan. 6th was discharged quite well.

Case VI. April 1862. H. D., aged 23, single. Has been always ailing, and in nearly every London hospital; hysterical. "Evidence of continual irritation of the pudic nerve." "Operation as usual." Much better of the sickness after operation; but "never received permanent benefit, being a regular impostor. She was discharged incurable."

But why an impostor, if she "had evidence of continual irritation of the pudic nerve"; this irritation being the very disease for whose cure the operation is performed?

Case VII. April 13th, 1862. Miss M., aged 42,

Since the above was written, we see that Professor Braun of una has, in the March numbers of the *Wiener Medizinische chenschrift*, published papers on this very subject. The title of m indicates clearly his view of the operation, "The Cure of Mas-bation by Amputation of the Clitoris and Nymphæ". Dr. Braun s:—"I do not hesitate in cases of habitual onanism, especially widows and particularly in cases where the vice has produced chical disturbances, to recommend the operation. I consider," dds, "that the amputation by galvano-caustic is preferable to knife, as thereby bleeding is prevented."

long ailing. No congestion of uterus; but "evidence of peripheral irritation of the pudic nerve."

April 17th. Usual operation. Rapidly improved. Has not been so well for many years.

May 13th. Left the Home, being cured of all her bad symptoms.

Now we say of this class of cases: first, that there is no proof of their cure reaching beyond the few weeks they are in hospital; and secondly, that as we see some hysterical females cured in a few weeks in hospitals without excision of the clitoris, there is no proof that the operation was the cause of the cure here.

Passing away from the simple cases of hysteria to the more serious cases of epilepsy, catalepsy, etc., we admit that some of these indicate remarkable effects produced by the operation. Indeed, it is impossible to pass over the results without special note. We are bound to take these cases—operated on, Mr. Brown tells us, in the Home, openly before the whole profession—as the expression of facts. We may, if we please, reject Mr. Brown's theory of "peripheral excitement of the pudic nerve", and may prefer to think the moral and physical influence produced by the operation as the efficient factors in the cure; but still the cases remain. For example:

Case xlviii. 1863. Mrs. M., mother of three children, aged 30. Menorrhagia; had a great distaste for her husband; a separation spoken of; believed she would go mad; made every one at home unhappy; a great sufferer.

"On more minute examination, I found irritable clitoris and labia, a painful fissure of the rectum, with great relaxation of the sphincter ani, which, on inquiry, was found to be caused by the frequent introduction of her finger, with a view to peripheral irritation. At her own request, she had long been separated *à mensâ* from her husband, on account of her great distaste for him and cohabitation with him.

"I pursued the usual surgical treatment, which was followed by uninterrupted success; and, after two months' treatment, she returned to her husband, resumed cohabitation, and stated that all her distaste had disappeared; soon became pregnant; resumed her place at the head of her table; and became a happy and healthy wife and mother. She was in due time safely delivered, and has ever since remained in perfect health."

Case xliv is one told by Dr. Diamond, under whose care the patient was as a lunatic. Dr. Diamond himself approved of the trial of the operation, which was performed on May 27th, 1861. From the day of the operation, she began to mend.

"July 3rd. She has gradually improved, and become more natural in her habits; sleeps soundly; takes her meals. Her friends remark on her improvement. Her mental condition is, however, still weak. Every one who has been in her company, including the family medical attendant, notices the extraordinary change that has taken place in her since your operation."

Mr. Brown adds to Dr. Diamond's report, that he has often heard since of the "lady as perfectly well. In 1865, I was consulted on the propriety of her marriage, to which I gave my full consent."

There are other cases in the book which indicate that the operation had good results.

Mrs. O., for instance, in 1862, had been ill for five years, ever since her marriage; disliked her husband, always lay upon a sofa, and had medical advice. Mr. Brown operates; she loses all her hysterical symptoms, and in six months comes to town with "a tumour, which greatly frightened her"; the tumour was pregnancy. In 1865, she was again pregnant.

Case xxxiii is one of cataleptic fits of six years' standing. She is admitted into the Surgical Home in August 1865. She had many fits in the Home. She is operated upon, and improves; and in October is dismissed. In 1866, she remained well.

We have not space to discuss Mr. Brown's theory of "peripheral excitation". We do not consider it well founded either in physiology or pathology; and we doubt if Dr. Brown-Séquard would accept it as a satisfactory exposition of his views on the subject. But we can afford to pass by the theory of a diseased state, if we only get a cure for it. And we trust that the further experience of the profession may confirm the statement, that excision of the clitoris is capable of curing any of the forms of catalepsy, epilepsy, or insanity.

Mr. Brown will not be surprised that the profession should ask for wider information on the subject. While admitting that his cases show the operation may be of value in certain forms of nervous disease, we cannot help suspecting that Mr. Brown has considerably exaggerated its value. Indeed, any one who has read the last Annual Report of the Surgical Home, will not have failed to note that a regrettable spirit of exaggeration attaches generally to the doings of its medical officers.

We feel bound also to observe, that a serious medical work on the subject of Female Masturbation should bear on its outward *facies* none of those characters which belong to the class of works which lie upon drawing-room tables. There surely was no necessity that this little book should not only bear its title with the author's name on its back, but also have a sort of title-page in gilt letters also with the author's name spread over its side. Mr. Brown is not responsible for the doings of his publisher; but still he will, we hope, in future have the objectionable feature to which we allude removed.

Practical Observations on the Intellectual, Sanitary, and Medical Treatment of the Deaf and Dumb. By Henry Samuel Purdon, M.D., Fellow of the Anthropological Society of London. Pp. 93. Belfast: 1866.

Belfast is one of the places in the kingdom which possesses an institution for the reception of the deaf and dumb; and this circumstance apparently, has led Dr. H. S. Purdon to direct his attention to the condition of these imperfectly gifted beings, and to collect and lay before the profession such information as he believes may be of interest or service to those who have the care of them. This little work contains seven chapters, in which the author describes the following subjects. 1. Historical Sketch of the Deaf and Dumb; 2. Conditions of the Ear, with Remedies proposed for their Cure; 3. Manifestations of Disease in Deaf Mutes; 4. Diseases to which the Deaf and Dumb are peculiarly liable; 5. Medical Treatment; 6. Sanitary Management; 7. Dietetic Regimen.

Dr. Purdon has collected a great deal of information, statistical and other, from a number of gentlemen having experience in the management of deaf and dumb institutions. The author does not pretend

to give a full and complete treatise on the subject, such, for instance, as those which have been published by M. Valleroux and other writers; but he has arranged the facts collected by him, with his inferences therefrom, in a manner which is likely to give some very instructive information to those who wish to know something regarding the treatment of the deaf and dumb.

On Winter Cough, Catarrh, Bronchitis, Emphysema, Asthma; with an Appendix on some Principles of Diet in Disease. A Course of Lectures delivered at the Royal Infirmary for Diseases of the Chest. By Horace Dobell, M.D., Physician to the Infirmary, etc. Pp. 182. London: 1866.

The seven lectures of which this volume consists contain Dr. Dobell's opinions on a very common and annoying disorder, to the elucidation of the pathology and treatment of which he has devoted much time and care. The examination of a large number of cases of winter cough, Dr. Dobell says, enables them to be classified in five groups; viz.:

"Cases in which there are physical signs of emphysema, and not of bronchitis, and in which there is no history of previous bronchitis. 2. Cases in which there are physical signs of emphysema, and not of bronchitis, but in which there is a history of previous bronchitis. 3. Cases in which there are physical signs of bronchitis and not emphysema. 4. Cases in which there are physical signs both of emphysema and of bronchitis. 5. Exceptional cases, in which there are not physical signs, either of bronchitis or of emphysema."

The most prominent conditions, therefore, are bronchitis and emphysema; and it is important to learn in what relation these stand to each other and to the winter cough. The manner in which emphysema is produced is considered; and Dr. Dobell gives his reasons for believing that it is caused by forcible expiratory action, producing its effect either at once or gradually. Those causes which act by at once overstretching the air-cells are, violent expiratory acts, as defæcation, lifting weights, etc., performed with a closed glottis; and convulsive expiratory acts, such as in whooping-cough, croup, etc., when of undue force or opposed by undue resistance. Those by which the air-cells are gradually overstretched are, ordinary acts of coughing, sneezing, nose-blowing, or respiration, when the outward current of air is obstructed; and ordinary coughing, sneezing, or nose-blowing, when portions of the air-cells are deprived of their normal support.

Each of these causes is commented on in detail by the author, and illustrated by cases.

In the third lecture, Dr. Dobell describes what he believes to be the means of diagnosis between spasmodic and non-spasmodic narrowing of the air-passages. The former, he says, is denoted by an abnormally high-pitched inspiratory sound, not accompanied by a corresponding change in the expiratory sound; and the latter by a high-pitched long expiratory sound. These signs, however, he admits, are liable to fallacy, from the influence of pieces of secretion adhering to the walls of the tubes, and producing deceptive elevation of pitch; or from transmitted sounds. Dr. Dobell states further, that in cases of emphysema with bronchitis, he has found the expiratory sound prolonged in 69 per cent.; and that, at the same time, it was raised in pitch in 74 per cent. of the cases in which it was prolonged; and further, that it is often so changed in catarrh even before distension of the air-cells has been produced. The raising of the pitch of the inspiratory sound, he says, enables one to safely predict relief from antispasmodics.

The theories of the production of emphysema through degeneration of the pulmonary tissue, and by inspiratory action, are examined by Dr. Dobell, and held by him to be unsatisfactory.

In the fourth lecture, Dr. Dobell examines those cases of winter cough in which emphysema has not been produced; viz., those arising from bronchitis, and exceptionally from *post* nasal catarrh, follicular disease of the pharynx, ulceration of the edges of the soft palate, elongated uvula, and chronic recurrent laryngeal catarrh. The lecture contains also some interesting statistical information as to the causation of colds and winter cough and their mutual relations.

Short-breathing, with special regard to its duration and recurrence, and its causes, is examined in the next lecture; and the author examines the influence on bronchitis and emphysema, of conditions of life, climatic influences, and genealogy.

The last two lectures are occupied with the subject of treatment. The author's conclusions in regard to this point are in great measure founded on the statistics of causation which have been developed in the preceding lectures; and from his remarks practitioners may obtain some very useful information.

The Year-Book of Pharmacy; a Practical Summary of Researches in Pharmacy, Materia Medica, and Pharmaceutical Chemistry, during the year 1865. Edited by Charles H. Wood, F.C.S., formerly Demonstrator in Chemistry in the Laboratory of the Pharmaceutical Society; and Charles Sharp, late Librarian to the Pharmaceutical Society of Great Britain. Pp. 175. London: 1866.

This *Year-book* consists of a compilation, from various sources, of matter of interest, arranged under the heads of Materia Medica, Pharmaceutical Chemistry, Pharmacy, Pharmaceutical Formulæ, Therapeutical Notes, and Lists of Books and Journals. It contains, in a small space, a large amount of varied and more or less useful information.

The Trades of Sheffield as influencing Life and Health, more particularly File-Cutters and Grinders. By J. C. Hall, M.D., F.R.C.P.Ed., Senior Physician to the Sheffield Public Hospital and Dispensary, etc. Second Edition. Pp. 24. London: 1866.

This is a second edition of a paper read last year before the National Association for the Promotion of Social Science, and of which an abstract was given in the British Medical Journal for October 28th, 1865. The labours of Dr. Hall in endeavouring to produce an improvement in the management of the Sheffield trades have been long continued and earnest, and we trust that they will be attended with success. We heartily recommend this contribution to sanitary science to the consideration of both the profession and the public.

Progress of Medical Science.

SURGERY.

Mr. Carden's Method of Amputation. Mr. Syme, in the *Edinburgh Medical Journal* for April 1866, bears important testimony to the value of a method of amputating, described by Mr. Carden of Worcester, in a paper published in the British Medical Journal for April 16th, 1864.

About two years ago (says Mr. Syme), Mr. Carden of Worcester communicated a method of performing amputation at the knee, which he had employed long and extensively with great success, but which was rather coldly received, probably from being at variance with preconceived ideas on the subject. So long as a good muscular covering of the bone was deemed essential for constituting comfortable stumps for the thigh, the proposal of a single integumental flap naturally excited an unfavourable feeling; and as there is reason to believe that it still continues to render the operation unpopular, instead of being regarded as one of the greatest improvements in modern surgical practice, I beg to offer the following testimony in its favour.

When I began to amputate at the ankle, and found the great advantage of dividing the bone through its cancellated texture, it naturally occurred that the same consideration was applicable to the knee, and that, when circumstances permitted, amputation should be performed here, rather than through the thigh, with its dense shaft and medullary texture. But, unfortunately, not being then aware of Mr. Carden's plan, I formed a covering for the bone by cutting it from the calf of the leg, which proved very inconvenient, and so counterbalanced the benefit anticipated, that this operation soon fell into disuse. Mr. Carden, pursuing quite an opposite course, made a semilunar incision in front, from side to side, with its convexity nearly over the tuberosity of the tibia, and reflected the flap of skin thus formed, so as to expose the muscles above the patella, where what remained of the limb was divided transversely. The popliteal artery, and any of the small branches that required ligature having been tied, the ample covering of integument was brought down to its place, where, being secured by sutures, it lay without any tendency to retraction, or requiring the restraint of bandages, while the dependant opening afforded a free vent for the discharge of matter. No trouble was experienced in the after treatment, and the stump proved eminently serviceable, since the skin over the bone, instead of becoming thinner, acquired additional thickness, so that the patients could rest upon it, just as they do after amputation at the ankle.

But the advantages of this operation are not limited to its facility and satisfactory results in the event of recovery, since its great claim to respect and confidence is the safety that attends its performance. This I believe mainly depends upon the dense bone and medullary texture not being concerned; but, however explained, certainly presents a most remarkable contrast to the danger which attends amputation of the thigh. Professor Lister of Glasgow, who, I believe, has the merit of having introduced Mr. Carden's operation in Scotland, drew my attention to this most important circumstance, and, in a letter which I had from him lately, with reference to five cases in which he had operated, says, "In three, I believe, no other mode of amputation could have saved them, and two, I have not the least doubt, must have died had the thigh been amputated."

Mr. Lister's experience, and a conversation which I subsequently had with Mr. Carden on the subject, induced me to resolve that the first opportunity which presented itself should be taken to perform the operation. While thus inclined, I was requested, on the 19th of September last, by Mr. Annandale, in absence of Dr. Gillespie, to see a patient in the hospital, who had been admitted with both of his legs completely shattered by a large mass of iron falling upon them. It was obvious that he must die if the limbs were retained, and no less so that amputation of both thighs would in all probability prove fatal. I therefore suggested that Mr. Carden's operation might be performed, which was accordingly done by Mr. Annandale, with the most satisfactory result, as will appear from the accompanying photographic representation of the patient, who was 53 years of age.



Soon after this, on the 23rd of October, I was requested by Dr. Mackenzie, of Kelso, to see a young farmer, whose life was in great danger. It appeared that while on horseback, during the race-week, he had been struck by the shaft of a cart in the crowded street, with such violence as to cause a fracture of his leg. There was no wound, but the limb suddenly swelled and became cold, with dark discoloration. Inflammatory symptoms succeeded, with corresponding constitutional disturbance, and on the fourth day it was generally supposed that the case must prove fatal from spreading gangrene. But Dr. Mackenzie thought that amputation might still afford a chance of escape; and although the prostration was extreme, with a pulse hardly to be felt, so that cutting through the thigh must have been almost certainly and speedily fatal, I proposed to operate at the knee, and did so without delay, when it appeared that the posterior tibial artery had been ruptured at the seat of injury. The patient was no sooner relieved from the mortified limb than he began to improve, and, through careful nursing, made a good recovery with an excellent stump.

On the 4th of November, Dr. Hislop, of North Berwick, requested me to see a clergyman who had been confined to bed for more than twelve months, by disease of the knee-joint, with no prospect of improvement, and constantly increasing weakness. It seemed that skin and bone naturally predominated in the constitution of his frame, and, that from long-continued exhaustion little else of it remained. I should therefore have regarded amputation of the thigh as a most unpromising procedure, but with my recently acquired faith in the knee operation, felt no hesitation in performing it. Everything went on favourably afterwards, and the reverend gentleman speedily regained his health, with a comfortable stump.

On the 1st of January, W. M., aged 32, was admitted into the hospital on account of a compound fracture which his leg had sustained on the railway. An attempt was made to save the limb, apparently for a time with some prospect of success; but on the 9th, from the amount of discharge, and the extent of shattering, which was revealed by the ulceration and sloughing that had taken place, it became obvious that amputation afforded the only chance of escape. I therefore operated at the knee; and although the circumstances were most unfavourable for recovery, I had the pleasure of seeing the patient gradually improve in health, with the prospect of a good stump.

A boy, aged 6, was admitted into hospital on the 20th of January, with mortification of the foot, from a railway injury, and threatening of gangrene extending up the leg. I amputated at the ankle in the hope of arresting the mischief in progress, but with only partial success, since inflammation affected the periosteum, so as to cause necrosis of the whole tibia, and establish profusely discharging sinuses above as well as below the knee. The patient then became so extremely weak that his case appeared to be hopeless, and would, I believe, have proved to be so had we not possessed a milder alternative than amputation of the thigh. I removed the limb at the knee on the 14th of this month, and the operation was followed, instead of sinking, by such an improvement of condition as encourages us to look for the most satisfactory result.

Soon after his double amputation at the knee, Mr. Annandale had a patient, in private, suffering from disease of the knee-joint, who was so exhausted by hectic, bed-sores, and profuse discharge, that amputation of the thigh seemed to afford no prospect of recovery. He therefore amputated at the knee on the 25th of October, with the almost unlooked for result of complete recovery.

Dr. Joseph Bell, who takes charge of the surgical clinical wards in my absence, admitted a patient on the 26th of January, who had suffered a compound fracture of both legs, on the railway then in progress of construction at Queensferry, whence he had been brought all the ten miles in a cart. One limb was shattered beyond the possibility of recovery, the other being less seriously injured. The former was amputated at the knee, and the latter so successfully treated that the man is now able to walk on it with the assistance of crutches.

From what has been said, I trust it will appear—

1. That Mr. Carden's operation is less dangerous to life than amputation of the thigh.

2. That the execution, ligature of vessels, and after treatment, are simple and easy.

3. That the resulting stump is comfortable and serviceable.

These considerations will, I trust, meet with due attention, and tend to promote the adoption of a procedure destined, I feel assured, to supersede amputation of the thigh, which, notwithstanding all the attempts to improve it, has so long remained an opprobrium of surgery.

ANATOMY, PHYSIOLOGY, & PATHOLOGY.

Tinea. Parasitic disease, says Dr. Tilbury Fox, or, as he has named it generically tinea, consists of three distinct components, which must be recognised, if the physician would cure his patient well and quickly. 1. A certain state of soil: in speaking of the polymorphism of fungi, he noticed that each fungus appeared to require each its special kind of pabulum. 2. The access of air, and the presence of heat and moisture, the conditions necessary to support the life of fungus. 3. The introduction from without to and action upon the body of the vegetable germs. These points Dr. Fox maintains in an interesting paper on the Action of Fungi in the Production of Disease. (*Edinburgh Med. Jour.*, April 1866.)

Vegetable Parasites. Mr. Jabez Hogg, in a paper on Vegetable Parasites, gives the following conclusions. 1. There exists but one essential organism, a fungus whose spores find a soil common alike to the surface and the more secluded parts of the human or animal body. 2. Variations in skin-diseases associated with parasitic growth are due to differences in the constitution of the person affected; to the moisture, exudation, soil, and temperature, under which the development of the fungus takes place. Consequently, it is neither correct nor desirable to separate and classify them as "*parasitic diseases of the skin*". 3. Parasitic growths vary but little in any case, and then only in degree, not in kind; some soils appearing to be better suited than others for their development, that furnished by the eruptive or secreting surface being in every way the most congenial; while diversity of form, in all cases, arises from growth taking place either upon a sickly plant, a saccharine solution, or an animal tissue. 4. Fungi generally excite chemical decomposition in the soils on which they feed, and it is the exclusive province of a certain class, when spread on the surface of an albuminoid, saccharine or alcoholic, or slightly acid liquid, to develope and grow, and during growth to give rise to either the alcoholic, acetic, or putrefactive fermentation. (*Microscopical Journal.*)

MIDWIFERY AND DISEASES OF WOMEN.

Acetate of Lead in Uterine Hæmorrhage. At a meeting of the Medical Society of South-Western New York, Dr. C. K. Irwin read a paper on Acetate of Lead in Uterine Hæmorrhage in Heroic Doses. He recommends its use in doses of one, two, or three drachms, which, he stated, were as free from danger as if given in doses of so many grains, and with the effect of controlling the hæmorrhage, completely, in an instant. Dr. Irwin, in his practice, had always used the acetate of lead in these large doses, without having lost a patient from hæmorrhage of the uterus. It is not necessary to confine its use to cases of full period, or where the placenta had been delivered, as its action will be to cause immediate expulsion of the contents of the uterus, and it can be used in cases of violent hæmorrhage from polypus, hydatids, abortions, retention of placenta, or almost any case requiring prompt and heroic action for the suppression of uterine hæmorrhage, except in cases of placenta prævia. (*Buffalo Medical and Surgical Journal.*)

We are requested to remind members of the Association that the Annual Subscriptions became due on the 1st of January. They can be paid either to the Secretaries of the Branches; or to the General Secretary, T. Watkin Williams, Esq., 13, Newhall Street, Birmingham.

British Medical Journal.

SATURDAY, APRIL 28TH, 1866.

DECLINE OF THE CATTLE-PLAGUE.

SCIENCE, we some months ago prophesied, would one day be justified in her dealings with the Cattle-Plague, despite of the abusive ignorance of the *Times*. The justification has come sooner than we expected. Up to February last, the disease constantly progressed. But in February the legislature accepted in part the recommendations of science; and from that moment the disease has steadily declined. In the week ending Feb. 17th, there were more than 18,000 cases of Cattle-Plague returned. In the week ending April 7th, there were only 4008. Five-sixths of the evil, therefore, have disappeared.

It is amusing to note how the *Times* now quietly sums up the mischief for which it is mainly responsible.

"These results confirm the view taken by the Royal Commissioners in autumn last. We could do nothing with the disease in the way of treatment; but the isolation of infected animals and the suspension of cattle traffic produced an instantaneous effect. In a single week, the number of reported attacks dropped from 18,000 to 11,000; and from that time to this the decline has continued, till the numbers have been brought down to 4,008. We might have saved ourselves much loss if we had adopted the recommendations of the Commission at an earlier period; but the delay had this advantage—that it enabled us to bring many systems of treatment to the test of experiment. We have ascertained that this murrain is not the small-pox, and that it cannot be prevented by vaccination or controlled by inoculation. Homœopathy was of no avail against it; and, though one or two remedies were applied with some apparent success, it must be concluded, on the whole, that we know of no cure for the Cattle-Plague. Henceforth we know how only to deal with it. We must do as they do in Prussia and Hungary—prevent the dissemination of a poison to which we know no antidote. Had the murrain been 'stamped out' last summer, we should have saved many thousand head of cattle; but we should not have been convinced of the incurability of the disease."

We need not stop to point out the series of ignorant fallacies involved in this attempted exculpation of itself by the *Times*. It had already been proved to demonstration, over and over again, that there was no remedy of any avail in the treatment of the disease. Centuries of experience of the dire Plague had already proved this much. The *Times* may have dropped a few scales from its eyes; but science is no better informed on the subject now than it was when the disease first appeared in Smithfield last year.

We may have learned the fact by positive experiment, that Cattle-Plague is not small-pox; but, in justice to our forefathers, it should not be forgotten that this very question, "Is Cattle-Plague Small-Pox?" was debated in the Philosophic Society of Padua more than a hundred and fifty years ago; that a learned report on the subject was drawn up by the then Professor of Medicine; and that the question was answered decidedly in the negative. As we have also already argued in these pages, and before the question was finally decided by experiment, the whole history of the disease tells distinctly against the idea of its being small-pox.

Our readers will do justice to the capacity of the writer who tells us that "homœopathy was of no avail against it." And we trust also that the public at large will do justice to the journal which, after ridiculing and falsifying the report of the French veterinary surgeon and of the French minister who adopted it, after persuading the public that the Cattle-Plague was born in the filth of London cow-sheds, after abusing and vilifying medicine and science, now tacitly admits that medicine and science are quite in the right—that the only way to cure the disease, is to prevent its spread "as they do in Prussia and Hungary." Why does the *Times* omit to say, *as they did in France?* But we have nevertheless our reward. If we have lost some 100,000 head of cattle, "we are now convinced of the incurability of the disease." Printing House Square has had its hecatombs, and is at last convinced! It was our French friends who suggested that the British Lion is sometimes led by asses. What will they say when they come to tell the moral of this tale?

THE announcement that the Medical Council will again assemble in May does not greatly excite either the hopes or the anticipations of the profession. Last year the Council assembled, and sat even in Holy Week, in order that it might operate on Parliament; but, nevertheless, it then obtained in that high quarter no benefits for the profession. The profession have, from an uniform experience of some seven years, been so well drilled into the idea that the Council can relieve none of their woes, that they will probably express no surprise if the Council leave medical matters at the end of May 1866 where it finds them in the beginning of May 1866. The *Pall Mall Gazette* thinks it, at all events, a subject of congratulation to the public, that the doctors themselves have to pay all the expenses of the affair! That journal actually chuckles over this side of the

business. If the doctors like to pay £1500 or £2000 *per annum* in order to let their great men meet and talk in London, why should not they be indulged in the innocent pastime, so long as they pay for it themselves? What the Council will effect in May next, we shall in due time tell our readers. We shall, indeed, be happy to record anything to its credit, when the day arrives which will enable us to set down an item on that side of the balance-sheet. At present, the balance lies all on the debtor side. And yet surely this great Council of Medical Education has, or ought to have, the power to effect some great good. To regulate the medical education of the country is a splendid business, if it were only done. But, alas! so far from our education advancing, there are people who think we are retrograding in the matter; that, in fact, the number of badly educated medical men who issue from our Examining Boards is on the increase. And if, indeed, people want something like a proof of the fact, they are referred to the rejected of the army and navy candidates. Assuredly there must be something sadly defective in a system which produces such fruit as the Chelsea examinations exhibit. Probably at least one-half of the medical candidates who offer themselves for the army service examinations are found unfit for admission even on the very lowest terms; and yet these very candidates have already obtained both a medical and a surgical diploma from Examining Boards—have been declared by two separate licensing bodies fit men to practise medicine and surgery, *hic et ubique*. We take this broad fact—this undoubted truth—and we ask, Is the Medical Council unable to cope with such an evil? The revelations made by Dr. Parkes of the profound incapacity of a large number of our diplomatised men must be still ringing in the recollection of the Medical Council. The Council has only to prosecute the inquiry still further in the direction pointed out by Dr. Parkes, and we are satisfied, from what we have heard, that it will obtain evidence enough to show even still greater evils than those told of by Dr. Parkes. Surely here is a large work for the Council to do, when it has the proof before it that Examining Boards so grievously neglect their duties.

In bringing before the profession Dr. Richardson's method of local anæsthesia, we said that it would probably be found of much more extended use than appeared at first sight. Further experience has most fully confirmed this view. Dr. Richardson stated, in his lectures at the College of Physicians, that he had already obtained an etherised caustic of most destructive powers; so that we now possess an agent for the painless removal of morbid growths in parts where the knife cannot reach them, as well as in superficial parts. Dr. Richardson has also obtained a most powerful styptic—a spray of etherised perchloride of iron. He stated that he had cut the throat of a rabbit, and by means of this agent had instantly arrested the flow of blood by causing its coagulation. The effects of the cold-producing spray in removing localised chronic neuralgia appear to be very remarkable. Dr. Richardson related a case in which neuralgia of the supraorbital nerve of a severe kind, after having existed for many weeks, had been instantly and permanently removed by the ether-spray. We think we were not exaggerating when we said, many weeks ago, that this ether-spray anæsthetic was the most important addition made for many a day to our therapeutical agents.

A SPECIAL meeting of the Governors of St. George's Hospital, at which the large number of ninety-four were present, was held on the 20th instant, for the purpose of considering the question of the introduction of "sisterhood" nurses into the hospital. It had been recommended by a Committee, that two wards should be entrusted to the care of the Sisters of St. Peter's Home, Brompton; and the adoption of the report of the Committee was proposed and ably supported by Mr. John Abel Smith. The discussion, however, soon passed from one on nursing to one on religious views, a large number of the Governors having a dread of any alteration savouring of "High Church" principles. It was strongly urged by those desirous of a change, that the hospitals of King's College and University College afforded ample evidence of the efficacy of the new system, as well as of the absence of any objectionable religious interference on the part of the nurses. All argument in this direction was of no avail; and the proceedings ended with the passing, by a large majority, of an amendment to the effect that the Committee be requested to report on the best means of introducing a training system for nurses, with the assistance of a committee of ladies. We trust that the introduction of an improved system of nursing into St. George's Hospital will be delayed for only a brief period.

At the ordinary meeting of the Society of Arts on the 18th instant, Dr. Thudichum read a highly elaborate and instructive paper on "Diseases of Meat as affecting the Health of the People". The first class spoken of was that of specific diseases, capable of being communicated to man. Of this he recognised only one example—malignant pustule or anthrax; and, admitting the fact of the communication of the disease through wounds, he did not find sufficient evidence to warrant the belief that man could be infected by eating the flesh of animals so diseased. Nor was there any satisfactory evidence of injurious effects to health arising from the use of the flesh of animals which had diseases of a second

category—those which did not produce the same specific disease in man, such as pleuropneumonia. At the same time, he thought it reasonable "that all meat upon which the evidence of disease can be discovered should be condemned; and that all meat coming from diseased animals, if allowed to be sold at all, should be caused to be offered as such in the market, although it be of ordinary appearance." The third class of diseases of meat which he noticed was the parasitic; and in it he gave a full account of trichinæ, their origin, development, and effects; and, *inter alia*, mentioned the remarkable fact (which, however, appears to require further confirmation), that trichinæ may exist alive in the encapsuled state for thirty years. Thorough cooking of meat was recommended as the only means of destroying the parasites. The reading of the paper was followed by some remarks from Dr. Cobbold and the Chairman, Professor Owen.

By the direction of Earl Granville, Mr. Helps, the clerk of the Privy Council, has addressed a circular to the mayors of the various outports in the kingdom, on the subject of cholera. He desires that the attention of the local authorities be called to instructions issued in August 1859 and again in July 1865; and states that

"The progress which the disease has made in Europe since the date of the last-named letter, and the fact that, from information received to-day, cases of Asiatic cholera have occurred at Rotterdam and in its vicinity, have again called attention to the importance of not neglecting any means of arresting the progress of the disease, if it should be introduced into the United Kingdom; and I am, therefore, directed to reiterate the precautionary suggestions contained in the above-mentioned letters, and to repeat the expression of a hope that means will be provided for the reception and medical treatment of any poor seamen or other persons who may, on their arrival in this country, be found to be suffering from cholera."

The seventh annual meeting of the Association Générale de Prévoyance et de Secours Mutuels des Médecins de France was held on the 8th and 9th inst., under the presidency of M. Rayer. The affairs of the Society were reported to be in every respect in an improving and highly satisfactory condition.

M. Béhic, the French Minister, has prepared, and Napoleon has approved, a long Report "concerning recompenses to be given to persons who have performed devoted acts of benevolence during the late epidemic of cholera." Letters of congratulation in this Report are to be addressed, amongst others, to the English Consul at Constantinople. The Legion of Honour is to be distributed with a very liberal hand.

Professor Balassa, on behalf of the physicians of Hungary, addressed Professor Oppolzer, on his reappearance after an attack of fever, in a Latin speech, which has since been published. It is entitled *Gratulatio Recuperatæ Valetudinis*. It is signed, "Magnifici Domini, Professoris Meritissimi cultores perpetui."

THE LATE BENJAMIN GUY BABINGTON, M.D., F.R.S.

On the 8th instant, died, in the seventy-third year of his age, of suppurative inflammation of the kidneys, Dr. Benjamin Guy Babington, formerly Physician to Guy's Hospital.

Dr. B. G. Babington was the son of Dr. William Babington, a physician of some eminence in the earlier third of the present century. Dr. W. Babington was, like his son in after years, physician to Guy's Hospital; and lectured there on Chemistry and the Practice of Medicine. He was one of the first Vice-Presidents of the Medico-Chirurgical Society (1805), and was President in 1817. He died in 1833; and a statue to his memory stands in St. Paul's Cathedral.

Dr. B. G. Babington was born in 1794. His commencement of public life was as a midshipman in the Royal Navy, in which capacity he served at Walcheren and Copenhagen. Very soon, however, he gave up the naval profession; and, after passing through the necessary two years' curriculum at Haileybury, entered the civil service of the East India Company, and was appointed in 1812 to a situation in the Madras Presidency. He resided in India seven years; and then returned to England on account of impaired health; having in the meantime become an accomplished scholar in the Sanscrit, Tamul, and other oriental languages.

On his return, he decided to embrace the profession of medicine; and, after studying at Guy's Hospital and at Pembroke College, Cambridge, took the degree of Bachelor of Medicine in 1825, and that of Doctor in 1830. In 1831, he was elected a Fellow of the College of Physicians.

At an early period of his professional life, Dr. Babington was appointed Physician to the Deaf and Dumb Asylum. In 1837, a vacancy occurring, through the resignation of Dr. Cholmeley, in the medical staff of Guy's Hospital, he was elected assistant-physician; overcoming on that occasion his opponent Dr. Hodgkin, to whom long and assiduous labour had given strong grounds for competing for the honourable post. In 1840 he became full physician, with Drs. Richard Bright and Thomas Addison—men whose names are historical in medicine—as his colleagues. He does not appear to have lectured much in the school; but in the wards he was a careful clinical teacher and a successful practitioner. After a connection with the hospital during eighteen years, he resigned his physicianship in 1855.

Dr. Babington was a Fellow of the Royal Society, and a member of the Royal Medical and Chirurgical Society, of which latter he was elected president in 1861 and 1862. He devoted much attention to the study of epidemic diseases; and, when the formation of the Epidemiological Society was proposed in 1850, he took a warm interest in the plan, and became the first President of the Society—a post which he held with honour during many years.

Dr. Babington was the author of a number of valu-

ble contributions to medical literature. The profession is indebted to him for the translation of ecker's classical work on the *Epidemics of the Middle ges*, and also of Feuchtersleben's *Medical Psychology*, ublished by the old Sydenham Society. He contriuted also various papers on scientific and practical bjects to the *Guy's Hospital Reports;* and to the *edico-Chirurgical Transactions* and the *Cyclopædia Anatomy and Physiology*. Among his papers, are vo valuable essays on the Blood; one on Morbid lood, in the *Cyclopædia;* and Some Considerations ith respect to the Blood, in the *Medico-Chirurgical ransactions*.

Dr. Babington died at his residence in George reet, Hanover Square. He leaves three sons; either of whom is in the medical profession.

THE LATE THOMAS HODGKIN, M.D.

HERE can be but few, if any, men in the medical rofession who have been more universally esteemed an Dr. Hodgkin, or who have more thoroughly deerved respect. In times past, a hard working and ble pathologist and physician; always, and especially in late years, a sincere and judicious promoter the good of his fellow-men; an accomplished holar, and a consistent Quaker and Christian, Dr. odgkin has passed away while engaged in one of ose philanthropic enterprises which were most conenial to him. Of him, the peaceful Friend, as well s of the warrior who falls in battle, it will stand in e memory of man that he died at his post.

Thomas Hodgkin was the son of a member of the ociety of Friends, residing at Tottenham in Middlex. He was born on January 16th, 1798; and, unr the guidance of his father, who was engaged in uition, became a sound Greek and Latin scholar. o these linguistic accomplishments, he added afterards the power of writing and speaking French, erman, and Italian.

In 1823, Dr. Hodgkin took the degree of Doctor of edicine in the University of Edinburgh; and, in 825, he became a member of the Royal College of hysicians of London. The fellowship of this College, from conscientious motives, he always deined.

Dr. Hodgkin was in 1825 appointed Curator of the useum of Guy's Hospital, and Lecturer on Morbid natomy in that institution. Of the knowledge and dustry which he brought to bear on the performce of his duties as Curator, testimony remains in e numerous pathological specimens with which the useum was enriched by him, and in the Classified atalogue which, at the end of more than thirty years, id so far maintained its character of excellence as to available as the groundwork for a more extended ublication of the same kind, rendered necessary by e increase of material in the museum. Dr. Hodgn's labours at Guy's very naturally led him to hope r one of the more important appointments in the aff of the hospital. Accordingly, when in 1837 a acancy occurred, he became a candidate for the post of assistant-physician; but was defeated by Dr. Babington. Subsequently, he became attached to St. Thomas's Hospital, and had an opportunity of exercising his judgment in the remodeling and renovation of the medical school; in which he undertook the duties of Curator of the Museum and Lecturer on the Practice of Physic. He was also one of the earliest members of the Senate of the University of London, and retained the office during his life.

Dr. Hodgkin was a member of numerous scientific and other societies in this country, and on the continent and in America. A zealous student of ethnology, he contributed much towards the present sound position of the Ethnological Society, of which he several times filled the chair, and was latterly, for several years, one of the vice-presidents. He was also a vice-president of the Geographical Society. Dr. Hodgkin was for many years a member of the British Medical Association; and, when it was the Provincial Medical and Surgical Association, was for some time one of the Council.

Among the contributions which Dr. Hodgkin made to medical literature are some works which bear a strong mark of honest hard work and intellectual talent: such as his *Lectures on the Morbid Anatomy of the Serous and Mucous Membranes;* his Catalogue, already referred to; and his translation of Edwards on the *Physical Agents of Life*. The medical periodicals of the last thirty years contain also a large number of papers from his pen, among which are several well worthy of perusal, in the pages of this JOURNAL.

Always leading a life of unostentatious piety and self-negation, and ready in all seasons to aid in works having for their end the good of mankind, Dr. Hodgkin devoted himself still more closely in his later years to philanthropic labours. On several occasions, he travelled to the East in company with the noble-minded and benevolent Hebrew, Sir Moses Montefiore, for the purpose of aiding in the relief of the Jews from their miseries. One mission to the Sultan of Morocco had been attended with success; and it was while engaged in another journey to the Holy Land that Dr. Hodgkin was seized, while at Jaffa, with dysentery, of which he died on April 5th, at the age of 68.

In the world of science, Dr. Hodgkin will be remembered as one of the pioneers of pathology in Great Britain; and as an accomplished and observant physician. Among men of all nations and all callings, wherever his name becomes known, it will be received and treasured in remembrance as the name of "one who loved his fellow-men."

A POLITICAL ECONOMY PRINCIPLE. Mr. J. S. Mill, in his *Principles of Political Economy*, says: "Whilst a man who is intemperate in drink is discountenanced and despised by all who profess to be moral people, it is one of the chief grounds made use of in appeals to the benevolent that the applicant has a large family, and is unable to support them. Little advance in morality can be expected, until the production of large families is looked upon in the same light as drunkenness."

THIRD ANNUAL REPORT OF THE CORONER FOR CENTRAL MIDDLESEX.

On March 21st, a meeting was held at the rooms of the Social Science Association, at which Dr. Lankester read an analysis of inquests held from August 1st, 1864, to July 31st, 1865. The chair was occupied by Dr. Farr. The facts brought forward were tabulated under the heads of natural deaths, accidental deaths, suicides, homicides, and deaths from unknown causes. The total number of inquests was 1246; being 25 less than in the previous year.

Dr. Lankester drew attention to the importance of the Coroner's Court in deaths from preventable diseases—those propagated by poisons; shewing that, although it had not been usual to hold inquests upon these cases when a medical certificate of death had been given, there was no doubt that not only the coroner had the power, but that it was his duty to hold inquests in such cases. In many cases of zymotic disease, the cause was so obviously dependent on neglect or deficiency, that it was only necessary to call public attention to the existence of these causes at once, to put an end to the spread of disease. It was much to be regretted that the coroner was so seldom informed of the occurrence of cases of this kind. In numerous cases, inquiries had been held with the best possible results, One of the most powerful aids provided by the law for arresting the spread of preventable disease, was the Coroner's Court.

In the group of accidental deaths, 45 occurred in one year from burning. Of the 144 deaths during the last three years, 51 had occurred to males and 93 to females. Six males and 35 females above twenty years of age had been burned to death. The principal causes of death from burning amongst females and children under five years of age, were—1, the neglect of using fire-guards; 2, the inflammable nature of linen and cotton clothing; 3, the prevailing fashion amongst women of wearing cotton dresses distended by crinoline.

Of all the causes of death of infants under one year old, suffocation in bed was the most frequent, as shewn by the following list of verdicts in inquests held on infants under one year of age:—Suffocation in bed, 113; other accidents, 10; deaths from natural causes, 112; still-born, 20; infanticide, 61; deaths from unknown causes, 14. The cases of suffocation had increased from 90 and 92 in the previous years, to 114 in the present year. The causes of this large amount of destruction of infant life were—1, ignorance; 2, carelessness; 3, overcrowding; 4, overwork; and 5, drunkenness.

Amongst the class of accidental deaths from mechanical injuries, those by vehicles in the streets were the most frequent. Public attention had been called to the frequency of these cases, by the Registrar General; 200 fatal cases having occurred in the streets of London, in the year 1865. Dr. Lankester made the following suggestions, of the direction in which effort might be made to diminish these accidents. 1. Regulations with regard to the rate at which vehicles should pass over recognised crossings for foot-passengers, and turning round the corners of streets. 2. More active police interference with vehicles driving at a rapid rate through any of the streets of London. 3. The erection of bridges or subways in the more frequented streets, that foot-passengers might pass without the liability to injury from vehicles. 4. The encouragement to the utmost extent of railway traffic underground, by which the streets would be relieved of their present crowded state. 5. The widening of small streets, and the construction of new lateral streets leading from one great thoroughfare to another, so as to relieve the traffic of the great thoroughfares. 6. The abolition of obstructions in greatly frequented thoroughfares, such as Temple Bar in Fleet Street, Middle Row in Holborn, and many others.

The verdicts of suicide in 1864-65 were 77. In the poisoning cases, the poisons used were the most easily obtained, opium, cyanide of potassium, and oxalic acid. In the last three years not one case of poisoning by arsenic occurred.

Deaths from homicide, infanticide, and manslaughter, amounted to 77. This statement did not alone indicate the probable amount of wilful destruction of infant life; for, in the table of deaths from "unknown causes," there were 14 deaths of newly born children. In all cases these were children found dead in the streets or other exposed places. In 1863, Dr. Lankester held 84 inquests on newly born children; in 1864, 100; in 1865, 114. In a certain number of these inquests the children were found dead with their mothers, and another portion were stillborn.

Dr. Lankester observed that there was a great difference of opinion in coroners' juries, or perhaps among coroners themselves, on the question of how these newly born children came by their death. Thus, in the eastern division of Middlesex, of 405 inquests held in 1864 on children under one year of age, there were but 13 verdicts of wilful murder, or about 1 in 31 inquests. In western Middlesex there were 90 inquests on children under one year of age, and 20 verdicts of wilful murder, or more than one in four. In central Middlesex there were 348 inquests held on infants under one year, and 60 verdicts of wilful murder, or about one in five. In the City of London the proportion is one in thirty, and in the City and liberties of Westminster, one in twenty. In the counties of England the disproportion is greater still. The number of verdicts of wilful murder for the whole of England and Wales in 1864 was 203. Of these 99 were delivered in Middlesex. Thus there was one child-murder in the whole of England and Wales for 170,000 of the population, one in 20,000 of the population of Middlesex, and one in 12,000 of the population of the central and western districts of Middlesex.

The principal features of the 174 cases in which verdicts of wilful murder were returned in the central district of Middlesex during the last three years, are the following. 1. In all cases the children have been found exposed in the streets, or found in ponds or canals, under circumstances which leave no doubt that they have been cast away to conceal the fact of their death. 2. In a very large number of cases, the children are newly born; they present no indications of ordinary care having been taken of them, bestowed on children born dead, when women are surrounded with proper assistance in childbearing. They all gave indications of having been born alive. 3. With two, or perhaps three exceptions, there has been no attempt made to tie the umbilical cord; indicating that the child has not been stillborn, or that its birth has been regular, but that the child has been born without assistance, and that the mother has been ignorant of the ordinary precaution of tying the cord. 4. A certain proportion of the children have died from hæmorrhage from the untied cord. It is sometimes urged that the woman might be taken with the pangs of labour before she was aware of it, and, she being too feeble to call assistance, the child dies in consequence. It is, however, quite as easy to kill a person by neglect as

by violence; and it is always presumable in other cases that the neglect was intentional. In this class of cases that the coroner's jury are always inclined to give the benefit of the doubt, to the unknown mother. It seems, however, that there are cases in which the suspicion of wilful murder is very great, and that women thus neglecting their offspring should take their trial. 5. All the appearances of suffocation are presented in another class—children suffocated by neglect. They are not removed from their mother, and are either suffocated in the discharges of their mother, or for want of fresh air under the bed-clothes. 6. In a large proportion of cases the dead body bears marks of violence. In one class of these cases the child has evidently been suffocated by violence. The features of the face show marks of compression, or finger-marks are plainly seen. Frequently ligatures are found tied round the throats of children, or foreign substances are stuffed into the mouth. There can be little doubt that in these cases the child has been wilfully murdered. The appearance of having been washed, in connection with the signs of suffocation, points to drowning as the means of death. In another class of cases, the child presents marks of blows and severe injuries. These cases, when fully investigated cannot fail to produce the impression that the child has been murdered. In both these groups of cases, the most preposterous theories are sometimes offered to account for ligatures around the throats of children, and for fractured skulls; and juries deliver verdicts against the conclusions of common sense and reason.

If the bodies thus found dead with marks of neglect and violence were grown-up persons, there is little doubt that verdicts of wilful murder would be returned. Practically, the law deals differently with murdered newly born children, and with adults. The law requires that a child who can be murdered must be proved to have been "fully born;" *i.e.*, it must have entirely left the passages of its mother; and the difficulty of this is so great, that a woman, when tried for the murder of her newly born babe, has seldom been convicted. A woman may destroy the life of her child whilst being born, and, presenting herself before a magistrate, can say, "I destroyed this child before it was fully born, and, having now stated the fact, I can neither be prosecuted for the murder of the child or the concealment of its birth." Another anomaly is, that the production of the dead child is regarded as proof that the birth of the child has not been concealed.

We cannot regard the verdicts of coroners' courts as the true indication of the amount of destruction of newly born infant life. Every impartial inquirer must be convinced that the amount of child murder is even greater than the highest rate of accidents in any part of the country; and that, so far from calculations based upon the verdicts in Central and Western Middlesex being exaggerations of the amount of the crime, they really fall far short of affording an adequate idea of its extent. The fact of there being no attempt at the registration of still-born children leaves open a wide door for the destruction with impunity of infant life. If the high estimates made of the frequency of this crime be too high, even the low estimate of it afforded by the coroners' verdicts of wilful murder throughout the country presents a sufficiently grave aspect. The two great legal difficulties in the way of punishment at present are, first, the requirement of proof that the dead child was fully born, and, second, the punishment of death for the commission of the crime when proved. In regard to punishment, Dr. Lankester quite agrees with the propriety of the recommendations of the Commission on Capital Punishment in the following extract:—

"13. Our attention has been called to the frequent failures of justice in cases of infanticide. The crime of infanticide, as distinguished from murder in general, is not known to the English law. The moment a child is born alive it is as much under the protection of the law as an adult. 12. We have considered whether the failure of justice, which undoubtedly often occurs in such cases, may not be obviated by some change in the law which shall add to the protection of new-born children. The principal obstacle which now prevents the due enforcement of the law is the extreme difficulty of giving positive proof that the child alleged to have been murdered was completely born alive. 15. We have given this important and difficult subject our serious attention, and we have arrived at the opinion that an Act should be passed making it an offence, punishable with penal servitude, or imprisonment, at the discretion of the court, unlawfully and maliciously to inflict grievous bodily harm or serious injury upon a child during its birth, or within seven days afterwards, in case such child has subsequently died. No proof that the child was completely born alive should be required. With respect to the offence of concealment of birth, we think that no person should be liable to be convicted of such an offence upon an indictment for murder, but should be tried upon a separate indictment. The accused should not be entitled to be acquitted in either of the above cases if it should be proved on the trial that the offence amounted to murder or manslaughter."

The law of punishment is not, however, the most satisfactory way of preventing crime. Systematic attempts should be made to remove the causes of crime; not in the interests of the children alone, but also in the moral and physical interest of the mother herself. Besides, the manifest danger to the life of the woman from secret delivery would be prevented. In several cases where women have been detected after infanticide, they have lost their lives. In every civilised society the art of the midwife is recognised as a means of saving human life; but in the cases of infanticide the woman is alone. There is no doubt that the pain and anxiety of discovery tends to the fatal end in cases where women have been detected, and it would be unfair to conclude from the number of fatal cases how many may die who have borne and destroyed children undiscovered. Dr. Lankester calculates that amongst those discovered at least one in six have subsequently died.

The remedies which have been proposed, short of punishment, to prevent infanticide, may be divided into legal and social. Amongst the legal measures are the Bastardy Laws. The difficulties of making the father legally responsible for his offspring are so great that, practically, few women avail themselves of these laws. Such a change in the law as should compel men more generally to support their children would not only remove one great temptation to infanticide, but would save the life of both the woman and of the child. Many women break down in health and strength, and some commit suicide, under the attempt to support themselves and their children. Under the same circumstances the child suffers and dies. The number of illegitimate children on whom inquests are held is much greater than on legitimate children, in proportion to the number born. Thus of the children under one year on whom inquests were held in 1865, 186 were legitimate and 153 were illegitimate.

The social remedies are various. In the first place stands the improvement of the morality of the sexes. In the great majority of cases the perpetrator

of the crime is the mother, who is usually employed in domestic service. In fact, it seems almost impossible that any other class of women can be implicated. Where girls are living at home or in lodgings, their condition is discovered long before the birth of the child; and where the existence of pregnancy is once known, there is seldom any attempt at the destruction of the child. It is almost essential to the perpetration of this crime that no one should be aware of the fact of the pregnancy, or the birth of the child. These conditions can only be generally secured when women are in domestic service. If any good is to be effected by operating on the minds of those directly concerned, it must be by addressing this class of young women and their seducers. The revelations of the Coroner's Court are not so positive with regard to the fathers of these children as their mothers; but, at any rate, the large number of child-murders and illegitimate children afford a sad indication of the want of morality in the sexes.

Another remedy which has been proposed is that of protecting the women who have been seduced, and who are willing to place themselves in institutions where they may be taken care of during their confinement, and their offspring afterwards brought up and cared for. A number of institutions having this object in view are now before the public, and they no doubt do a certain amount of good by protecting women from the temptation of destroying their offspring. The objection urged against these institutions is, that they encourage immorality by affording a refuge to those who have gone astray; but, if it can be proved that the greater crime of murder has been prevented by overlooking the lesser sin of incontinence, the supporters of these institutions are justified in their endeavours to lessen the crime of infanticide.

Another class of institutions take care of the child independently of the mother. These, known by the name of Foundling Hospitals, exist in various parts of the continent of Europe. It is stated, with a considerable amount of evidence, that where these institutions exist the crime of child-murder is comparatively unknown. At the same time, the fearful amount of mortality amongst the children renders it almost a question as to whether the saving of infant life by their existence is of any account at all. The answer, however, may be given, that it is probably better that the child should be lost in the attempt to secure its life, than that a large number of women should be living with the consciousness of having sacrificed their offspring.

Amongst social remedies, there is no doubt that the kindly superintendence of young women in domestic service by their mistresses would often prevent the concealment of their pregnant condition and the temptation to destroy their offspring. It must be obvious to all that the extensive prevalence of such oversight in families would go far to prevent a crime which is most frequently perpetrated, not in the homes of the poor, but in those of the middle and upper classes of society in England.

The American Miss Nightingale. Miss Dix has resumed her special work of looking after the welfare of the insane. During the war she has devoted herself to the care of the soldiers in the military hospitals.

A Convalescent Home connected with the hospital at Edinburgh, is to be erected at Corstorphine. It is intended to accommodate forty-four inmates. The cost of the building will be about £12,000. The expenses will be defrayed by a gentleman who does not wish his name to be known.

LOCAL ANÆSTHESIA; AND SOME NEW ETHER COMPOUNDS.

In his last lecture on "Physical Researches in Pathology and Therapeutics," delivered before the Royal College of Physicians on Friday, 20th April, Dr. Richardson took up the subject of "Heat and Cold as Therapeutical Measures." In treating of extreme cold, after defining its local application as its chief value, he paid a warm tribute to Dr. James Arnott, who introduced it as a remedy. "The labours of Dr. Arnott," said the lecturer, "have been to me for many years past a delight and profit, and I am convinced that as time rolls on they will appear to all earnest medical scholars with the same logical power." Dr. Richardson also passed in review the labours of Mr. Thos. Wakley, who had attempted to improve on Dr. Arnott's method. These labours, which Dr. Richardson thought had not been sufficiently known or appreciated, were directed to the chilling of air by passing it through tubes surrounded with ice and salt, and were most ably conceived. Next the lecturer dwelt on Demarquay's plan of dropping ether upon the skin and blowing away the fluid; and finally, having given to all who preceded him a hearty recognition, he glanced at his own researches, and gave a history of his local anæsthetic method, from its commencement two years ago until the present time.

In describing the mode of using ether-spray, especially for operations, Dr. Richardson said that the following conditions were required.

1. It is essential that no obstruction lie in the way of the perfect and even application of the ether-spray to the part to be operated upon. The application is therefore not absolutely certain when made to the lower back teeth, or when used for cavities such as the rectum. On the skin, however, there is no obstacle; and, by enlarging the apparatus, incisions of any length may be carried out painlessly.

2. In the next place, it is essential that the anæsthesia should be produced with the greatest possible rapidity. If the anæsthesia be delayed over two minutes there is sometimes a slow reaction, and there is always unnecessary pain in the production of the anæsthesia. Further, if the anæsthesia be delayed, it cannot be carried so deeply; but if it be quick, then, after the whiteness of skin which marks anæsthesia has appeared, the cold may be continued until a surface at least an inch thick has been rendered insensible.

Dr. Richardson then proceeded to remark that of late he had rendered his process still more useful by combining with it a caustic and a hæmostatic process. He had produced an ether charged with hydrofluoric acid gas. This ether, when sprayed upon a part, was intensely caustic; but, owing to the cold it produced, was not painful in application. He proposed to call this preparation "Fluor Ether". It would be found useful in cases where morbid growths had to be removed, but where the knife could not safely be employed.

He produced, further, two "Hæmostatic Ethers". One of these was made of absolute ether—xyloidine, tannin, and a little alcohol; the other was composed of absolute ether saturated with a persalt of iron. Dr. Richardson took some defibrinated and slightly putrid blood that was exceedingly fluid, poured it into evaporating dishes, and then directed his styptic ethers in spray upon the blood. The blood in a few seconds became a firm

clot. He said that these styptics, thus widely diffused in spray, and combined with the cold produced, acted with such force on freshly drawn fibrinated blood, that no bleeding surface could, in his opinion, fail to come under their influence. In fact, there was no hæmorrhage they would not check where they could be brought to bear upon the bleeding part.

In a previous lecture, Dr. Richardson exhibited another ether which he had made by acting upon absolute ether with concentrated peroxide of hydrogen. This ether is strongly ozonised, and, dispersed in a room as fine spray, renders the air of the room, if the temperature be under 65°, active to Schonbein's test-paper in every part. This ether, which is colourless, and which may be poured upon a cambric handkerchief as harmlessly as eau-de-Cologne, has an aromatic ethereal odour. It powerfully deodorises. He proposes to call it "Ozonic Ether." The Hæmostatic Ethers are called respectively Xylo-styptic and Ferro-styptic Ethers. They have been made with great care by Robbins and Co., of Oxford Street.

Association Intelligence.

SOUTH EASTERN BRANCH: WEST KENT DISTRICT MEETINGS.

The next meeting is appointed to be held at the Union House, Dartford, on Friday, May 11th, at 4 P.M.

Dinner is ordered at the Bull Hotel for 6 o'clock.

Dr. Richardson has promised to attend, and give a demonstration of his method of inducing Local Anæsthesia.

FREDERICK J. BROWN, M.D., *Hon. Sec.*

Rochester, April 24th, 1866.

SOUTH EASTERN BRANCH: EAST SURREY DISTRICT MEDICAL MEETING.

The next meeting will be held at the Crystal Palace, on Friday, May 11th, at 4 P.M.; Dr. Hetley of Norwood in the chair.

Communications will be read by Dr. Moxon (Guy's Hospital); Mr. Berney (Croydon); Mr. Whitling (Croydon); Dr. Walters (Reigate); Mr. Sargant (Redhill); and by the Secretary.

Dinner will be provided at 6 P.M.

HENRY T. LANCHESTER, M.D., *Hon. Sec.*

Correspondence.

EPIDEMIC, EPIZOOTIC; FEVER, CATTLE-PLAGUE.*

LETTER FROM DRAPER MACKINDER, M.D.

SIR,—If there be a time when the whole mind of the nation should be concentrated on a special object, and the collective energy and wisdom should be aroused to immediate and consentaneous action, it is surely now, when our health, and strength, and wealth, and happiness, are jeopardised by the ravages of a fearful pestilence. Cholera, fever, cattle-plague, plague, the whole tribe of such diseases, kindred or non-allied, come we know not whence or how, and, like an enemy in the dark, play their sad tricks while we are yet rubbing our swollen eyes. History records the events of the past, and points out the achievements—the deeds of men; and is it too much to assert that we have profited by the experience and teachings of our ancestors, and that we shall bequeath to posterity some trusty guides to help them on their prying way? Things once regarded as simple have been demonstrated to be compound, and the element of to-day may be decomposed to-morrow; and though we cannot always seize and isolate the atom so destructive to life, we may, perchance, ere long, and wonder at the dulness of the earlier hour. The veil of mystery obscures but awhile, for the eye of philosophy will peep in; and though yesterday, to-day, and to-morrow may seem but the same, before the clock has again told the advance of time, the sought may have been found, the hidden may have come to light, the fog may have past away, and all become serene.

"Felix qui potuit rerum cognoscere causas."

A series of circumstances conspire to form and modify an epidemic. A persistency of such weather as we had last year, may exercise considerable influence over the electro-magnetic condition of the earth's surface, change the polarity of the nerve-cell, interrupt organic action, impede function, accelerate disease; for in organic life there is no such thing as standing still—all is action, and every arrest of such action is a deterioration of health. Decomposition, or the rearrangement of elements, begins the moment life ends; and the devitalised or dead material becomes the pabulum whereon the parasitic germ reposes, feeds, and propagates its kind. Now, all organic things are subject to this law of change, and each and every must obey; and there can be little doubt that the atmosphere we breathe is highly charged, though inappreciably to our present aided sight, with the multifarious seeds or cells of the never-ending forms of life. Death precedes a change of life; but the death may be of a part so small as to escape our attention, nevertheless, it is death; and the sagacious parasitic embryo, watching for a new abode, seizes the decomposing point, luxuriates on its nauseous food, and waxes into developed form. This form, once possessed of territory, may or may not be easily dislodged. It lives and weds, has a progeny large, becomes a colony to order indisposed, ferments dissension in the enemy's land, permeates every nook and corner of his home, seizes the storehouse where his sustenance is lodged, and at length, after endless torment or pain, saps the foundation of the godlike man.

"Imperious Cæsar, dead and turn'd to clay,
Might stop a hole to keep the wind away."

As a proof that things exist which we cannot see, we need but bear in mind the sense of smell. Particle after particle of some sweet or some offensive thing please or offend, as the case may be; the nerve is impressed we know not how, but are conscious of the blow. Again, the ear,—who can see the wave of sound on its way to the tympanum, with its tale of joy or woe? and yet we know it is there. And so myriads of tiny living cells are always before our eyes—aye, and in them, too—without our being conscious of their presence.

Hence the necessity of keeping our bodies in the full vigour of health, of our early attention to the first signs of disease, and of removing from us, as far as possible, such things as are known to weaken the functions of life. Pure air, pure water, daily exercise, clean skins, warm clothes, and good food, are indispensable.

Whether special diseases do or do not move in cycles, I will leave the learned in such matters to determine; but there can be no doubt about the fact of the past year having been one, the epidemic character of which has been strongly marked, so strongly, in-

* The greater part of these remarks were written for the Lincoln Medical Society in January last, but the author could not attend the meeting.

deed that, instead of the average dozen, I and my assistant, Mr. Vaughan Carnley, attended upwards of four hundred cases of fever, varying in character and intensity from mild continued to fatal typhus and *yellow;* whilst the people who suffered from intractable pustular disease were verily a legion. Attributable mainly to early, vigorous, generous, and sustaining treatment, and the removal, as far as we could effect it, of all depreciating influences, our percentage of mortality was very insignificant.

Misfortunes seldom come alone. The great plague of 1665 was followed by the great fire of 1666; fever accompanies famine; the epidemic in cattle is treading on the heels of the epidemic in man; famine, alas! may again appear, and the worst of plagues soon follow; and then, perchance, a monster fire may be invited as the most potent means of "stamping out".

The fever to which I alluded has passed away, but another fever has come; this attacking the animal, that man; and all our faculties of observation and reflection are now being put to the severest trial. The cattle-plague is in our midst, stalking with giant stride, and slaying its victims without pity or remorse; and who that has the power to think and the will to act can stand aloof whilst this frightful hydra is doing its accursed work? Though small may be the contribution of anyone, knowledge being a tree of tardy growth, the aggregate of the multitude may suffice for the end desired. With this feeling, sir, I am encouraged to pen my thoughts, hoping to do some good; and though I may not be able to illume the enlightened, being myself so far from the source of light, I may perhaps succeed in adding one little spark to the general conflagration.

What is this cattle-plague? How is it propagated? What are the indications of treatment?

By whatever name we designate the disease, the cattle-plague is a fever of the adynamic type, closely allied to or forming the connective link between small-pox and typhus, and it is propagated by atmospheric dissemination, infection and contagion. The air, as it sweeps along in gigantic waves, dipping and rising and dipping again, deposits the molecules or sporules with which it is charged; and thus deposited and with a determination and strategy worthy a better cause, these molecules or sporules at once manifest their power, not only of wonderful multiplication, but of provoking by catalysis disunion among the elements of our material frame.

Not anywhere and everywhere, however, is this power displayed; for, where the vital activity of the part is normal or healthy, the presence of these parasites is wholly innocuous. By death they live, and they flourish at the expense of our well-being. Every person or thing affected becomes a centre or focus of intensity, influencing all within a given radius; and, as such centres or foci are multiplied, so must the radius of influence be extended. The bigger the magnet, the greater the power. With respect to treatment the indications are—

1. To remove all predisposing causes.
2. To treat the disease in its earliest stage.
3. To prevent infection and contagion.

1. Everything which lowers vital action predisposes to disease, be it impure air, impure water,* want of food or overfeeding, want of warmth or overheating, want of exercise or want of rest. Any or several of these and other causes may require attention, and proper measures should be thoroughly considered and carried out that the standard of health may be maintained.

2. To treat the disease in its earliest stage is, as a rule, in all serious complaints, the only way to success; and during the existence of an epidemic the sagacious physician is always on the alert; he watches the vane, takes note of the sky, and marks the mercurial bulb. The first change in the pulse, the look of the eye, the altered gait, the disrelish of food, the want of rest, the shiver, the skin, the hair, all, some, or every one, at such a season, point with more than Fitzroy certainty to the coming storm. Action is demanded, and that forthwith, and no mean temporising either; for the enemy is formidable, and we must meet him with a bold and determined front. The telluric element or epidemic tension we cannot control; for that is beyond our grasp, and can only be rectified in Nature's laboratory. But the early recognition of the physical perturbation will enable us to place our cattle in a position of diminished impressibility.

Remove the affected animal to a warm, well-ventilated and dry place, the temperature being regulated by the condition of the skin; it being a matter of great importance that internal congestion should be antagonised by whatever may determine to the surface. Relieve the primary constipation by an aperient of linseed oil and turpentine; sustain the failing powers by nutritious and stimulating liquid diet—gruel, milk, and whiskey in liberal doses; check sporular development and further decomposition by the administration of creasote, carbolic acid, or the sulphites; and improve the condition of the blood and nervous system by full and *frequently repeated* doses of ammonia, ammonia and nitrate of potash, and chlorate of potash and perchloride of iron, with quinine, arsenic, or strychnine, as circumstances may indicate.

"*Frequently repeated*" I have emphasised, because it is a matter the importance of which is not understood by the public generally. One or two doses daily are thought sufficient; whereas medical men know well that, in order to obtain the full benefit of any remedy, the doses should be so regulated that a second may be given before the effect of the first has ceased, such effect being generally of short duration. Everybody knows that more power is necessary to start a load than to keep it going, and a moment's hesitation might lose a battle.

The diarrhœa should be arrested by the ordinary astringents—gallic acid and starch, *per os et per anum*, the mineral acids, opium, acetate of lead, turpentine.

With such a course of treatment, *early* and *thoroughly* carried out, I believe many beasts may be saved. But there must be no trifling, no playing at doctor, no medication in despair; all must be done earnestly, hopefully, heroically, and under the direction of the trained veterinary. Complications can only be treated by those who understand them.

Though somewhat out of order, I will now give what I regard important, the *Treatment by Anticipation.* This is very simple. Do not overfeed; for to overfeed is to enfeeble, and to enfeeble is to invite disease. To each trough of water out of which the

* Dr. Snow's investigations on "The Mode of Communication of Cholera", and the "Broad Street Pump", are familliar to many. The cholera was very bad in Gainsborough; and the people often drank the unfiltered water from the river into which the sewage ran, taking it frequently, as I have seen them, within a few feet from the mouth of a drainage pipe! Two of my fever patients, who died recently, drank of water from wells in which sewage percolation has been detected; one of them lived in the town, and the other in the country; and I have had some cases of fever in a house caused by the bursting of a pipe from a neighbour's watercloset, and others in houses abutting on untrapped sewers and common privies. Some of the worst cases of typhus I have witnessed occurred in a rural cottage where there was a wet crewyard within a few feet of the well from which the drinking water was taken. As with man, so with beast; like cause, like effect. See the investigations of Dr. Herbert Barker on *Malaria and Miasmata;* and those of Dr. John Lowe on the "Yeast-Plant"; and Dr. Moffat on "Ozone" and "Carbolic Acid".

cattle are drinking add four to six ounces of the chlorate of potash, four to six ounces of carbolic acid, and half to three-quarters of an ounce of hydrochloric acid, two or three times a week. Give plenty of fresh air and—the open field.

Retrovaccination, or inoculation with the cow-pock matter from human beings, has been recommended on the supposition that the cattle-plague is bovine small-pox; but the identity of these diseases has not been established; or rather, from the absence of the prophylaxis which recent vaccination affords, we must conclude that the relationship is distant.

At the very earnest request of their owners, I thoroughly vaccinated many beasts. All were successful in six or seven places; but no protection was thereby given. Indeed, in spite of the law which seems to regulate zymotic diseases, their co-existence being very infrequent, some of these vaccinated beasts were the first to be seized with the plague. In the human subject I never saw a case of small-pox following recent successful vaccination: except once, when vaccination was performed during the latent period of the variola, and the two poisons ran their course contemporaneously. During an epidemic of small-pox a few years ago, I attended about two hundred cases, but not one of them had been successfully vaccinated within a period of seven years. In my own house all above seven were re-vaccinated, except the housemaid, who objected; and she unfortunately took the disease and died. None of the others were affected, though five or six children were constantly passing the room in which the illfated woman lodged.

I have had two papers sent to me—the *Natal Witness* for July 6th, 1860; and the *Natal Mercury* for November 29th, 1864. In the former, milch cows and calves, advertised for sale, are said to have been "thoroughly inoculated"; in the latter, "Inoculated Treck Oxen" are offered for auction at "Tattersall's". Why have the cattle been vaccinated there, and what has been the result?

3. To prevent infection and contagion, as a first precaution, all large herds should be *subdivided as much as possible before the pestilence manifests itself*; and when attacked, the diseased should be immediately separated from the healthy cattle, and then such disinfectants should be used and such general safeguards should be adopted as the experience of scientific rational and practical men may have found to be beneficial; such as chloride of lime, gas-tar, large fires, fresh air, cleanliness, phosphorus, carbolic or cresylic acid, and fumigation with sulphur. Of course the alvine dejections and other discharges should be disinfected and at once removed.

Insulation is doubtlessly correct in all contagious diseases and emphatically so in this; but insulation to the exclusion of all treatment, and to the extent which some think necessary, is, I humbly think, as questionable as it is impracticable at the present time. For, by insulation, as now interpreted, all moving things should be destroyed and man himself should not be allowed to touch his brother man. I have heard it repeatedly stated that the veterinary who attends a case of cattle-plague should not visit anyone else's stock, though miles away. The wife of a poor man, not many miles hence, was very ill, and her husband was sent for the doctor; and for this labour of duty and affection the anger of a great magistrate was kindled; for the man had passed from an infected to an uninfected district. The life of that poor woman was, of course, of little import to an alarmed financial world, but to the poor man, her husband, it was more than all the world besides. A gentleman, the other day, met some farmers on business; he took their money, but he objected to the shake of hand—that hearty farmer-shake; and he said he should go home in a new suit of clothes—a bran new suit—for fear of cattle infection! How did the same gentleman manage to get rid of the fomites, which, at that moment, were haply laughing in his lungs? He ought to have inhaled some disinfectant.

I fear, sir, we are running riot with our calculations, and ought to return to school to correct our *reduction descending*.

We may isolate our cattle a mile from the public road, impound the beggar at the door, forbid the skilled man admittance to our shed, and discharge the thoughtless youth for wooing our neighbour's maid; but we cannot shut out the wind! The hares, the partridges, the ominous magpies, the crows—what of them? And then the hounds, and that wicked fox? Reynard is sure to know the spot, and, to satisfy a naughty spite, will run across the contagious field!

Scarlet fever, small-pox, typhus, cholera, are surely as bad as the cattle-plague, and the *cattle* they attack equally valuable; but whoever thought of leaving the worst of any such cases to their own helpless fate, or of branding the physician, the nurse, or the watching friend, with the *noli me tangere* of the plague of yore? Though the treatment yet adopted has not been successful, are we to jump to the conclusion that no cure can be found? Or, as we do not now talk about curing fevers, is it impossible to control the disease—to pilot the sufferer through the storm? Small-pox slew more than the sword prior to the discovery of the immortal Jenner. Lime-juice—a simple thing indeed—has saved the lives of thousands; yet it was but the other day its medicinal properties were understood, or rather, that the cause of scurvy was made familiar to all. Quinine and opium, what boons are they! And chloroform, the thrice blessed companion of the surgeon's knife, not quite a hundred generations old, shall it be now ignored? Even so apparently trifling a thing as the way to boil a potato—for health's sake, I mean—was unknown until the illustrious Dr. Baly pointed it out! And, nearer to our day, the cause of the coagulation of the blood was a problem unsolved till Richardson dipped the pen. A strange disease has visited our shores—formidable, no doubt, and very fatal; but what evidence have we to prove that the secret workings of this stranger are inscrutable to man? Rome was not built in a day, nor the Thames Embankment either; but time saw the accomplishment of one; and time, I hope, will see the completion of the other. And time, a little more time, will teach us that the mind of man is able to comprehend all it is necessary that we should know. But action, hopeful and determined action, must be the passwords to success.

Having expressed a desire to see any cattle that might be stricken with the cattle-plague, I was invited by Mr. Chapman, veterinary surgeon and inspector, to meet him at Mr. Casswell's, at Harpswell, on the 4th of December last. On my arrival, I found four affected beasts in three open sheds, all very bad, and one about to be slaughtered. They were all very cold, though some bags were put on one of them, and the shed in which it stood was afterwards partly closed. All looked in a semi-stupified and prostrate condition. The eyes were very dull; the conjunctivæ much congested, as were also the lining membrane of the nose and mouth, and most probably the whole alimentary canal, and a part, if not all, of the bronchial surface. In the mouth, there were aphthous and gangrenous patches. The horns and skin were very cold, the latter being damp and clammy. The hair was nearly erect, and devoid of stiffness. There was also a copious offen-

sive discharge from the eyes, nose, and mouth, and excessive serous purging. Percussion yielded dulness over nearly the whole thoracic region of one calf, the worst, the respiration of which was especially quick and laborious. In all, the pulse was very feeble. I saw no rash.

With the permission of the owner, and in order to see the *immediate effect* of remedies thrown into the circulation, I operated on these four beasts as follows, assisted by Mr. Chapman and Mr. Holmes; the former opening the jugulars. I shall describe the cases according to Mr. Casswell's inventory, and in the order of severity, beginning with the mildest.

I. *Red Cow.* Sickened Dec. 1st. Into the jugular vein of this cow I injected two ounces of Beaufoy's chlorinated soda and two drachms of strong solution of ammonia, in ten ounces of warm soft water, with decided improvement.

II. *Barr's Cow.* Sickened Dec. 1st. Into the jugular vein of this cow, two drachms of chlorate of potash and two drachms of hydrochloric acid, in ten ounces of warm soft water, were slowly thrown; the cow seeming to all present improved thereby.

III. *Brindle Calf.* Sickened Nov. 30th. Into the jugular vein of this calf, two drachms of strong solution of ammonia, in ten ounces of warm soft water, were injected with such decided improvement that the dose was at once repeated.

IV. *Steer.* Sickened Nov. 30th. One grain of strychnine, dissolved in half an ounce of dilute phosphoric acid, and ten ounces of warm soft water, were injected into the cellular tissue near the shoulder; and, after waiting half an hour and finding no evidence of absorption, two drachms of strong solution of ammonia, in ten ounces of warm soft water, were thrown into the jugular, and with apparent benefit.

No. I died Dec. 6th; No. II died Dec. 5th; No. III recovered; No. IV, the one with congestion of the lungs, died in about fourteen hours—the one which recovered being that into the jugular vein of which the ammonia was twice injected.

It would not evidently be fair to state that after such treatment but twenty-five per cent. recovered, since this was but an experiment—a *dernier ressort*—all the four cases having been pronounced hopeless. Moreover, the treatment indicated was not supplemented; for I had not an opportunity of seeing the cattle again, and had not quite made up my own mind as to what should be done.

I have not had the good luck to see a *post mortem* examination; but Mr. Chapman informs me there is congestion throughout the alimentary canal, with dark grumous patches in the small intestine; the rumen being always full.

Mr. Chapman has favoured me with the following list of 700 animals inspected and attended by himself and Mr. Holmes. All were in absolute contact with the disease; 500 were attacked; 150 died; 200 were killed; 130 recovered; 20 are now under treatment, and hopes are entertained of the recovery of all.

Mr. Holmes has attended a great number of animals independently of those furnished by Mr. Chapman; but I am not in possession of his statistics.

Mr. Chapman's treatment has been tonic, stimulant, and sustaining, and of late more energetic and very successful—six out of eight of his recent decidedly bad cases having, he says, recovered. He now gives hydrochloric acid, perchloride of iron, and chloride of lime, and copious draughts of ale; gruel, ale, and linseed-cake, being the prescribed diet.

I have just seen six fine calves and a bull which were ordered to be shot; but which, by a *thoroughly sustaining course of medication and nursing*, are now quite well. Fifteen others in the same yard were shot. Two miles thence, there are eight fine beasts doing well. These also had been condemned; fourteen in the same yard were shot. Seven miles off, in another direction and in another district, there were sixty-two beasts in one small yard; of these fifty-eight were shot, and four of the worst were reprieved and recovered. Of these one, said by its keeper to have been the worst case, was dragged out to the place of entombment for the purpose of being annihilated. But the night was dark and dreary, and the place was dreary too; and none but the ghosts of evil men ought thither to have assembled. So thought a wise and kind-hearted man; for, ere the midnight watch was over, the poor beast had been dragged back to its desolate shed to wait the return of day. Meanwhile (the said keeper informed me) he made his patient warm, applied mustard to its skin, and, in consequence of the purging, he gave half a pint of laudanum. The beast improved, grew warm, and showed more life; and, after another similar dose, it gradually regained its strength. Many more cases of recovery have come to my knowledge, and help to affix the brand of iniquity on indiscriminate slaughter.

The history of the origin of the cases experimented on is as follows. A calf bought at the Gainsborough Mart on October 24th or 25th, 1865, of a man who said it had been bred in the neighbourhood, but who subsequently confessed he had bought it of a dealer, though he had had it a month, sickened about the 30th October, and died a fortnight afterwards. Two other calves began a week after the first calf, and died three days after it. Four yearlings began Nov. 22nd; three died on the 28th, and one is still living. Six calves began November 29th, and four more by December 2nd; of these, six died, four on December 1st, one on December 2nd, and one on December 3rd.

Though this particular calf, bought of a jobber, was the first, I believe, to be affected with the cattle-plague in this locality, it by no means proves, in the absence of more positive evidence, that the disease was conveyed by contagion; and, however suspicious the circumstance, we ought to disabuse our minds of all prejudice until absolute contagion can be demonstrated.

That the cattle-plague is a most contagious disease, every proof has been offered; and that such contagiousness should be checked by every means possible, all will freely admit; but where is the evidence to show that every case is the result of direct communication? And why should we, in our very laudable anxiety to stem the current of the pest, forget the equally incumbent duty of studying the disease in its every aspect—its etiology, its pathology, its therapeutics?

Prevention is better than cure, no doubt; but cure should be thought of when prevention has failed; and, though we may never be able to restore health when organic change has passed a given line, we may, by a better knowledge of the disease, lend Nature a helping hand at the moment of need. Remove the cause, and the effect will cease; but how are we likely to remove the cause when we know not what or where it is? Contagion and certain death have, like a nightmare, seized the universal intellect, and are crippling the efforts of the curative art. Despondency and energy are weak allies; the poleaxe is a sorry friend.

Hoping that this all important subject will not cease to be discussed until we have discovered the key of the mystery which, like happiness,

"Still so near us yet beyond us lies."

I am, etc.,

D. Mackinder, M.D., F.R.C.S.E., F.A.S.L,
Corresponding Member of the Epidemiological Society.

Gainsborough, March 1866.

THE VACCINATION BILL.

LETTER FROM SEPTIMUS GIBBON, M.B.

SIR,—Enclosed I send you a copy of correspondence on the Vaccination Bill, which was laid before my District Board last evening.

I am, etc., SEPTIMUS GIBBON.

Dr. Gibbon to the Right Hon. H. A. Bruce, M.P.

April 13th, 1866.

SIR,—I am directed by the Board of Works for the Holborn District to submit for your consideration the expediency of expunging from the Vaccination Bill now before Parliament that portion which enacts compulsory registration of all successful vaccinations.

This registration, necessarily incomplete, has now been carried out for twelve years without, as far as this Board has been able to learn, ever having been applied to any useful purpose, whether public or private. It entails additional labour and trouble on the parent and vaccinator, and expense on the ratepayers. The great objection to it is, that it acts as a discouragement to vaccination, not only by the trouble it gives, but because the poor and uneducated have an aversion to be registered for any purpose. For this reason, as the Board has thrice represented to the Home Secretary, a large percentage of the births in this district go unregistered.

The Board considers such registration to be unnecessary; first, because, as far as the public vaccinators are concerned, a complete return of all operations, whether successful or unsuccessful, is made week by week to the Board of Guardians; secondly, because, as a matter of fact, such register in this district has never been referred to. The Board are informed that medical examiners of recruits for the army, navy, militia, public and charity schools, insurance companies, etc., never search any register as evidence of vaccination other than the arm of the examined, where, if successful, it is always found indelibly registered.

There are grounds, also, for believing that it is unnecessary for carrying out compulsory vaccination and other purposes of State hygiene. The Board, however, are of opinion that one certificate, either of successful vaccination or of insusceptibility to it, should in every case be given to the parent or guardian of the child by the public vaccinator.

I am directed to furnish you with any further information on this important subject in my power, that you may desire.

I am, sir, your most obedient servant,

SEPTIMUS GIBBON,
Medical Officer of Health.

The Right Hon. H. A. Bruce, M.P.

Reply.

Privy Council Office, Education Department, April 16th, 1866.

SIR,—Mr. Bruce directs me to acknowledge the receipt of your letter, and to inform you that it shall receive his careful consideration.

Your obedient servant,
W. T. EDWARDS.

Septimus Gibbon, Esq., M.D.

A SANATORIUM IN DUBLIN. The managers of St. Vincent's Hospital, Dublin, have purchased Lyndon Castle, Blackrock, for the purpose of converting it into a sanatorium, to which they will send the convalescent patients to enjoy the benefit of country air, sea-bathing, etc., previously to returning to their homes. This is the first sanatorium ever established in Ireland.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND. The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at a meeting of the Court of Examiners, on April 24th.

Anderson, David Hawley Burn, Edinburgh
Baron, Thomas, Ulceby, Lincolnshire
Booth, James Webb, L.S.A., Huddersfield
Burn, William Barnett, Limehouse
Casson, John Hornsey, Ironville, Derbyshire
Crew, Eli, Tetbury, Gloucestershire
Crowther, Edward Lodewyk, Hobart Town
Ditchett, William Edwin, Louth, Lincolnshire
Evans, Arthur Griffith, Narberth, Pembrokeshire
Ferguson, Hugh, Haverstock Hill
Fowke, Frederick William, Byfield, Northamptonshire
Goodall, Joseph, Walworth
Husband, Henry Aubrey, L.S.A., Jamaica
King, Henry Kirwan, Camberwell
Mackenzie, Frederic Morell, Tiverton, Devon
Matthews, Arthur, Salehurst, Sussex
Maynard, Henry, Durham
Moore, Richard Bond, Wolverhampton
Owens, Edward Matthews, L.S.A., Sutton, Surrey
Snape, George Henry, Liverpool
Spearman, George, Plymouth
Square, William, Plymouth
Warlow, Henry, L.S.A., Haverfordwest
White, Samuel Shapland, Barnstaple
Williams, John, Fishguard, Pembrokeshire

APOTHECARIES' HALL. On April 19th, 1866, the following Licentiates were admitted:—

Fothergill, Thomas Prince, Bedale, Yorkshire
Langdon, Charles George, St. Bartholomew's Hospital
Robinson, James, Ulverston, Lancashire
Tily, James, Walkern, Hertfordshire
Woodcock, Samuel, Glossop, Derbyshire

At the same Court, the following passed the first examination:—

Edwards, Edward Noble, Guy's Hospital
Evans, Ernest Thomson R., St. Bartholomew's Hospital
Gronow, Owen Tudor, St. Mary's Hospital
Wiseman, John Greaves, Guy's Hospital

APPOINTMENTS.

EAGER, R., Esq., elected Medical Officer to the Surrey County Hospital at Guildford.

SANSOM, A. Ernest, M.B., appointed Honorary Medical Officer to the Booksellers' Provident Institution, in the room of the late A. M. McWhinnie, Esq.

STEDMAN, J. R., M.D., elected Medical Officer to the Surrey County Hospital.

TAYLOR, Henry, Esq., elected Medical Officer to the Surrey County Hospital.

BIRTHS.

BAINES. On April 22nd, at 11, Cranley Place, Onslow Gardens, the wife of Matthew Baines, M.D., of a son.

BIDDLE. On April 18th, at Yately, Hampshire, the wife of Thomas James Biddle, Esq., Staff-Assistant-Surgeon (half-pay), of a daughter.

DUKA. On April 18th, at 37, Coleshill Street, Eaton Square, the wife of Theodore Duka, M.D., Surgeon Bengal Army, of a son.

ELLISTON. On April 16th, at Ipswich, the wife of *William A. Elliston, M.D., of a daughter.

GRAHAM. On March 23rd, at Dalkeith, the wife of *Charles William Graham, M.D., of a son.

HARVEY. On April 11th, at 5, Avenue Villas, Belsize Park, N.W., the wife of Frederic Harvey, Esq., Staff-Surgeon Royal Navy, of a son.

MCCARTHY. On January 10th, at The Kotberg, Cape of Good Hope, the wife of James McCarthy, Esq., Surgeon, of a son.

ROSE. On February 22nd, at King William Town, British Kaffraria, the wife of Henry J. Rose, Esq., Staff-Assistant-Surgeon, prematurely, of a daughter.

WALLIS. On April 17th, at Mullingar, the wife of Staff-Surgeon W. Wallis, 12th Depôt Battalion, of a son.

WATTS. On April 13th, at 3, Great Stanhope Street, Mayfair, the wife of Arthur J. Watts, L.R.C.P.Ed., of a daughter.

WHITLING. On April 24th, at Croydon, the wife of *H. Townsend Whitling, Esq., of a daughter.

MARRIAGES.

ALDERSON, Frederick, Esq., Surgeon, of Hammersmith, to Eliza, second daughter of Francis WILLETT, Esq., of Derwent Villa, Brixton Road, at St. Matthew's, Brixton, on April 19.

CALLON, William J., M.D., of Liverpool, to Beatrice Teresa, fourth daughter of J. Talbot CARTWRIGHT, Esq., of Wolverhampton, on April 18.

GEACH, Frederick M., Esq., Chiswick, to Alice Norra, sixth daughter of J. M. WINN, M.D., of Hammersmith, at All Souls, Langham Place, on April 17.

GOODALL, John, Esq., C.E., to Jane Elizabeth, daughter of the late John F. ABRAM, Esq., Surgeon, of Kensington, at St. Paul's, Auckland, on January 13.

RICKARD, Henry, L.R.C.P.Ed., R.N., to Catherine Emma, third daughter of Edward LEGH, Esq., of Lewisham, on April 19.

*WILSON, Edward Thomas, M.B., to Mary Agnes, only daughter of Bernhard WHISHAW, Esq., of Cheltenham, on April 18.

WINSLOW, Lyttleton Stewart, B.C.L., second son of *Forbes Winslow, M.D., D.C.L., Cavendish Square, to Florence Jessie, fifth daughter of J. M. WINN, M.D., of Hammersmith, at All Souls, Langham Place, on April 17.

DEATHS.

DENTON. On April 17th, at Torquay, aged 45, Margaret Alice, wife of Tanat W. Denton, M.D., of Newbold Lodge, Cheshire.

ELLIOTT, Archibald, M.D., Surgeon R.N., at Exeter, on April 17.

GRAHAM. On March 24th, at Dalkeith, Charles Andrew, the infant and only child of *Charles William Graham, M.D.

*HENSMAN, Thomas, Esq., at Liverpool, aged 58, on March 27.

JOHNSTONE, J. M., M.D., late of Demerara, at Bath, on April 18.

MACBETH, Alexander Mackay, Esq., Surgeon, 105th Light Infantry, at Fort William, Calcutta, on February 14.

MACKESY, Joseph P., M.D., Waterford, son of *Thomas L. Mackesy, M.D., lately.

STONE. On April 20th, Ann Hollingworth, eldest daughter of Erasmus Stone, L.R.C.P.Ed., of Fetter Lane.

BEQUESTS. Miss M. F. Woodburn, of Kensington Park Gardens, lately deceased, bequeathed to the Hospital for Consumption, £1,000; St. Mary's Hospital, Paddington, £500; the Metropolitan Convalescent Institution, £300; the Seaside Convalescent Hospital, £300; the City of London Hospital for Diseases of the Chest, £300; the Notting Hill and Shepherd's Bush Dispensary, £300; the Royal National Seabathing Infirmary, £200; the Westbourne Dispensary, £200; and the Kensington Dispensary, £50. All legacies to be paid free of duty.

THE PUBLIC HEALTH ACTS. On the 20th inst., Lord R. Montagu asked the Vice-President of the Committee of Council whether the government had any intention to introduce a bill to amend the Public Health Acts; and whether it would contain any clauses which dealt with the pollution of rivers, in accordance with the recent report of the commissioners. Mr. Bruce said he thought he should shortly be able to lay on the table a bill for the amendment of the Public Health Acts. That measure, however, would not contain any clauses relating to the pollution of rivers.

THE CHOLERA. In the House of Commons, on the 19th inst., Sir J. C. Jervoise asked the Vice-President of the Committee of Council on Education whether the attention of the medical officer of the Privy Council had been directed to a statement in the *Morning Star* of October 25th, 1865, that the Emperor and Empress of the French had visited the cholera hospitals in Paris, and that M. Gustave Girard had made experiments in demonstration of the non-infectious nature of the cholera. Mr. Bruce said that the medical officer of the Privy Council, in common with many other persons, had had his attention directed to that act of humanity and courage on the part of the Emperor and Empress of the French, and that officer was also aware of the experiments made by M. Girard to prove the non-infectious nature of cholera. That gentleman transferred to his own mouth the moisture from the brow of a person who died of cholera, without suffering any ill consequences. In the opinion, however, of the medical officer of the Privy Council, that circumstance did not by any means prove the non-infectious nature of cholera. But, perhaps, the best answer to any such inference would be that the French government were at the present moment taking quarantine precautions against the introduction of cholera, and could not, therefore, be supposed to have arrived at the conviction that the disease was not infectious.

SPIRITUAL ADVICE. The *Church Times* thus speaks of Mr. Baker Brown's new book. "We desire to call the attention of the clergy especially to a little book, which will enable them to suggest a remedy for some of the most distressing cases of illness which they frequently discover among their parishioners. Epileptic affections have been long considered usually incurable. Mr. Baker Brown, F.R.C.S., the eminent surgeon, has discovered and applied with great success, at the London Surgical Home for Gentlewomen, and elsewhere, a surgical remedy for certain forms of epilepsy and kindred diseases. He has published through Mr. Hardwicke a little volume of cases, which prove incontestably the success of the treatment, and which the clergy will be doing a service, especially to their poorer parishioners, by bringing under the notice of medical men, any of whom can, if possessed of ordinary surgical skill, perform the operation with but slight assistance."

MEDICAL CHARITIES. Mr. R. G. Marner of Oxford Street has bequeathed £3000 to the Convalescent Hospital at Weybridge, towards building a new wing to the institution; and has directed his executors to distribute £50 each to such fifty charitable institutions as they may select. Capt. Moore, R.N., C.B., has left £500 each to the London, St. George's, and Royal Free Hospitals. John Palmer, Esq., of Maida Hill, has left £100 to St. Mary's Hospital, Paddington. The executors of the late Duke of Northumberland, finding that his grace had not drawn his pension for some years as an admiral of the royal navy, made application to the Government for the amount, and on receiving the sum handed it over to the present duke, by whom the whole amount has been distributed in charity, £2000 falling to the share of the Seamen's Hospital Ship *Dreadnought*, off Deptford.

SMALL-POX IN THE NAVY. In the House of Lords, on Tuesday last, the Earl of Ellenborough said that he wished to put a question to the First Lord of the Admiralty arising out of the intelligence received from India to the effect that her Majesty's ship *Octavia* at Bombay had one hundred and seventy-five of her crew ill with small-pox. He wished to know what steps the government took on board of her Majesty's ships for the purpose of guarding against the outbreak and spread of that disease. The Duke of Somerset was understood to say that, previously to 1864, general instructions were issued requiring every medical officer in the navy to take proper steps as far as possible to prevent and check that disease. But in that year the government issued a circular in which they stated that in future no person should be entered for the service of the Royal Navy unless he had either been vaccinated or was willing to submit to that operation. It was also directed that every man or boy in the service who had not had small-pox or had not been vaccinated should be sent to hospital to have the operation performed, and that he should be vaccinated on board ship at the earliest opportunity. He believed that the outbreak had arisen in this particular ship from some Kroomen having been taken on board; but from the accounts which had been received he was happy to find that most of the cases had been very mild, owing probably to the fact that the men had been previously vaccinated.

Croonian Lectures

ON THE

LOCALISATION OF DISEASE.

DELIVERED BEFORE THE

ROYAL COLLEGE OF PHYSICIANS.

BY

EDWARD H. SIEVEKING, M.D.,

PHYSICIAN TO H.R.H. THE PRINCE OF WALES, AND TO ST. MARY'S HOSPITAL; PRESIDENT OF THE METROPOLITAN COUNTIES BRANCH OF THE BRITISH MEDICAL ASSOCIATION; ETC.

LECTURE III. (*Continued.*)

PERMIT me to recur to some of the individual diseases to which I have already ventured to draw your attention. With regard to none, probably, have more authoritative opinions been expressed, or more absolute rules of treatment laid down, than with regard to pneumonia. With regard to none have ancient doctrines, or rather the doctrines of our youth, received a more severe shock, than with regard to the one in question. And that this is not a mere speculative consideration, but one involving life and death, is demonstrated by statistical proofs, showing a frightful mortality when the nomenclature involved venesection and large doses of tartrate of antimony, and a comparative freedom from danger since pneumonia has been regarded as a local expression of a general state of malnutrition, in accordance with which we now determine our treatment. Specific treatment—war to the knife against an enemy whose power appeared great in proportion to the obscurity which surrounded him—has yielded to methods of treatment in which, if I trace any principles at all, I see a desire to regulate both the local and general nutrition of the body, so as to restore the part to its normal condition, and to enable the system at large to bear the temporary impairment of an essential function. Specific treatment is essentially bad, because it implies that the disease is essentially the same, wherever it occurs. Given certain symptoms of dulness, crepitation, rusty sputa, cough, and dyspnœa, and the specific treatment is at once brought to bear in all its force; the consolidation of the lung is the enemy, and the human being is lost sight of in the desire to conquer the particular demon that has taken possession of him.

Such, however, so far as I am acquainted with the views of British teachers and practitioners, is no longer the procedure that finds favour; and, if we are now treading a more legitimate and truly scientific path in the treatment of this and other diseases, I cannot but trace a part at least of the reform that has gradually been wrought in us to the teaching of my great and lamented friend Sir John Forbes, who, when polypharmacy was yet rampant, boldly advocated the study of the natural history of disease, in order that we might be weaned from our faith in specifics, and learn to know the rational guidance to which Nature, in her normal and in her perverted conditions, is amenable. Like all reformers, he may have gone further in his zeal than we now approve; and it is not surprising that, among those who regarded medicine as a trade, rather than the noblest of professions, an outcry should have been raised against his apparent heresy in asserting that legitimate medicine often did more harm than good. But it does not follow, because one man withdraws so much blood from his patient that his chances of recovery from a disease are destroyed or reduced to a minimum, that there may not be circumstances in which the abstraction of blood relieves local congestions, and so favours a recovery, which is at the same time promoted by sustaining the nutrition of the system at large. Nor may we argue that, because we have been called to a patient who has been brought to the verge of the grave by indiscriminate purging, we had better leave our patients to die with an accumulation of fæces in their intestines, than use the appropriate means of inducing their expulsion. Naturally inclined as I am to be sceptical of the interpretation which I individually put upon the connexion between the remedies employed and the results in an isolated case of disease, I cannot, with increasing age and experience, refuse to believe that there is in the legitimate employment of medicines a vast scope of good; and that, where we fail, we should blame rather our own short-sightedness than the absence of the appropriate agents. If, as I tried to show on a former occasion, there are many portals through which disease may enter, many sources and means by which malnutrition may be induced, it seems to follow as a necessity, that there must be corresponding methods of rectification.

Therefore, to return to pneumonia, it seems unreasonable to suppose that any one mode of treatment can be the best for all conditions of the body in which inflammation may be localised in the lung-tissue; and, seeing how various modifications equally lead to a satisfactory result, it is more in accordance with scientific argument to seek for the explanation in the varying reactions occurring under different conditions. The old doctrine of the "crases" still holds good, though likely to be revived in a more precise and tangible form; and when we can measure accurately the changes in the nutrition of the body in subjects of the many taints which have received distinctive names, as well as those for which no names have been devised, we shall also be able with more certainty to fix and apportion the remedies calculated to restore the exact element that is wanting, or to counteract the excessive production of another, as well as to adjust the mere disturbance of the normal balance of the forces.

I apprehend that all who have watched pneumonia at the bedside must arrive at the conclusion, that it is far from being a nosological entity of uniform character and course. In most, if not in all cases that come under our observation, there are individual peculiarities pointing to an antecedent taint; and, though we may not as yet always be able to formularise these peculiarities, the instinct of the intelligent practitioner leads him to variations in treatment which have a firmer basis than mere caprice. Pneumonia occurring in a scrofulous subject is not the same as that which we meet with where rheumatism or gout or erysipelas have sown their seeds, though in each the local symptoms may be, or appear to be, the same; and though I should have a difficulty, even were more time at my command, to place before you a picture whereby each variety might be recognised, I may safely appeal to your own knowledge of disease in confirmation of the

general fact averred. We have thus, I think, a means of explaining why in one case it is more profitable to act upon the skin, in another upon the bowels, in a third upon the kidneys; while in all it must be equally our duty to support the general powers of the system in a ratio commensurable with the tax which the local disease puts upon it. The great difficulty which the earnest and conscientious inquirer meets, in seeking to ascertain the value of therapeutics, consists in the absence of certain indicia by which he can measure the exact effects of the drugs he employs. The influence of diet and regimen is so great and paramount, that he dare not neglect them; and, although we may feel morally certain, after large experience, that certain results can only be produced by medicinal interference, it is rare to find the case in which an *experimentum crucis* can be made. Statistics as yet go for very little, because the basis of comparison is not fixed; and one well observed case, where all sources of fallacy are excluded, is worth a hundred taken at haphazard and under the ordinary routine of observation.

The subjective feelings of the patient, though not to be disregarded, cannot be a standard, until we have independent methods of measuring them; and here we may expect great good from the indications which it would appear that the thermometer gives, not only as to the course of the disease but as to the influence exerted by particular drugs. As all correct interpretation implies a logical power of the mind, so here of course the value of the phenomena can only be determined by the physician endowed with well-trained reasoning powers. If a patient labouring under any given disease, say rheumatic fever, and who is under constant supervision, remain for a long period with no other treatment than that supplied by careful hygienic measures, as to ventilation, warmth, rest, and diet, and fail to make satisfactory progress—the pulse remaining quick, the perspiration very acid, the joints painful, and the whole system as ill at ease as persistent pain and fever, with a temperature ranging from 101° to 103°, involves; if, under such circumstances, medicines are given without any other change in the treatment, and they are followed by a steady and permanent decrease of the pulse, of the temperature, and all the other symptoms, the scepticism which would resist the conclusion of the beneficial influence of the medicines would, I apprehend, be amenable to a charge of wilfulness. If, as we so often see in the highest classes, where all sanitary care is taken of the child, and where there is no lack of proper food, we find certain symptoms of disease yielding to the administration of cod-liver oil, it would be unreasonable to say that it is nothing but nasty food; for it does what wholesome and sufficient food failed to do, it supplies an element of nutrition which the digestive powers could not extract from the ordinary aliment. These instances of logical inference with regard to therapeutic agents in the strict sense, are drawn from actual observation, and will doubtless suggest others of a similar character to your mind.

However, I fear I have wandered somewhat from the thread of my argument. My object in the present lecture has been to show, by reference to therapeutics, that the prevalent modes of treatment tended to the same conclusion as the one which I have sought to enforce—that all disease is primarily a fault of general nutrition, and that the local phenomena of disease take their origin in it, as the plant is rooted in the ground. The nutritive derangement is the essential, the local disease the accidental occurrence. We have briefly considered what is commonly done therapeutically in that class of diseases in which the lung-tissue is inflamed; and we saw reasons to believe that a variety of primary phases of malnutrition may lead to that pathological condition, and, therefore, that various modes of combating those different forms may lead to the same desirable issue of cure, while in all there must be a similarity of treatment as to the main indication of allowing Nature to accommodate herself temporarily to, and finally to throw off, the morbid products. We are unable to explain the affinities existing between definite morbid influences and particular organs; and we are yet more in the dark as to the peculiar but undeniable affinity which exists between certain medicinal agents and certain organs and tissues of the body. Why the irritant property of cantharides travels directly to the kidneys, why ipecacuanha influences chiefly the bronchi, why opium promotes the secretion of the skin while it arrests all other secretions, why strychnia specially acts upon the spinal nervous centre, are problems which greater knowledge of Nature's workings will enable us to refer to more general laws; but which at present we must content ourselves to accept as facts upon the empirical basis alone. I will not lose myself in speculations as to their *modus operandi*; but it appears that all those agents that are most powerful for good in combating disease, influence in the most marked manner the entire nutritive system, and manifestly produce their beneficial effects in proportion as they promote or check the metamorphosis of the tissues.

The physiological conditions characterising the two sexes, and the different ages of mankind, afford us very positive indications for their corresponding diseases upon the same basis. Thus, if we only consider Mosler's table* of the relative excreta of childhood and adult life, we find that in the former nearly treble the amount of waste occurs that we meet with in the latter. Accordingly we find that their morbid conditions are influenced and rectified more directly and uniformly by attention to their secretions than analogous conditions later in life. Nor are we surprised to find that the percentage amounts of the various secretions show a remarkable predominance in childhood of the skin over either kidneys or intestines—a fact that we might have assumed *à priori* from the activity of their surface-circulation, and from the facility with which skin-diseases are produced in young children either from internal malnutrition or from neglect of cutaneous hygiene. It is a fact that forcibly inculcates the danger, long insisted upon by practical men, of curing the skin-disease without reference to the physiological relations of this important organ or congeries of organs, while it affords certain evidence of

* One *kilogramme* of body-weight excretes in twenty-four hours:

	Urine. grammes.	Fæces. grammes.	Skin & Lungs. grammes.	Total.
In children	81	21	53	155.
In young women	38	3.25	17.5	58.75
In young men	38	7.73	20.1	65.53

Percentage amounts of the secretions:

	Urine.	Fæces.	Skin & Lungs.	Total.
In children	58.3	13	34	100
In young women	64.7	5.5	29.8	100
In young men	58.2	11.6	30.2	100

e manner in which an arrest of cutaneous functions gives rise to diseases of internal organs. The inities of medicines for certain tissues often depend on the physiological relations of which an instance s just been adduced.

To return to the subject of skin-disease in the ild. There is probably no internal remedy which, ven with laxatives, is found so uniformly curative steel-wine, or some mild preparations of iron. ow, no one asserts a specific relation between alybeates and the skin; but it is evident that the sease, depending upon some form of malnutrition dinarily involving a loss of iron from the blood or e tissues, is removed by its exhibition; in the same y as the cutaneous circulation manifested the disse, so the remedy necessarily causes its withdrawal om the surface, and thus the sympathy between sue and medicine is held to be established.

There are other broad features of physiological riations of nutrition which are recognised at different ages. The acidity of the secretions in early e, contrasted with the tendency to alkalescence in e later periods of our existence, affords an explanaon of some of the deviations from health, and the nsequent treatment that prevails, or ought to preil. In the same way, we look at different periods life for the predominance of one or the other gan, because the physiological increase of activity d vigour entails an easy divergence into excess or fault which constitutes disease and calls for medil aid. But at the bottom of all these physiological nditions lies nutrition; and equally their derangeent implies a derangement of the functions constiting and determining nutrition; therefore, to store the healthy balance, we must, above all ings, seek the means of restoring the healthy nution. That this really is the guiding principle of edicine, is shown by the extremely limited number drugs employed by all physicians of large experice; and those drugs are almost all such as are inded more or less directly to influence nutrition, d only indirectly to affect any particular disease. fact, as I have already tried to show with regard pneumonia and skin-diseases, physicians have disrded specific treatment on principle, and only minally retain it where as yet our knowledge of e manner in which particular drugs act fails to ve a satisfactory explanation; though the analogy the unknown with the known may justifiably be umed from the effects.

[*To be continued.*]

The Health of Troops in China. Colonel Sarnt, in remarks on this subject, thus speaks of the vices of Dr. Gordon:—"The 95th Regiment was narkable for its good officers; and it had the advange of being under the medical care of Dr. Gordon, nan of great skill and energy, who slaved at his ty night and day. Notwithstanding the favourle circumstances of good care, housing, and excelnt medical attendance, the disease continued its vages until the regiment was removed to three od large merchant vessels that were hired for the casion. Dr. Gordon concludes a letter to me on e subject by saying, 'But for the removal of the n into the vessels anchored in the Bay, the mority would have been very much greater. It was e salvation of the regiment.' Dr. Gordon is now geon-major of the 69th."

Illustrations
OF
HOSPITAL PRACTICE:
METROPOLITAN AND PROVINCIAL.

LEICESTER INFIRMARY.

TWO SUCCESSFUL CASES OF OVARIOTOMY.

By C. H. Marriott, M.D.Lond., F.R.C.S. (by Exam.), Surgeon to the Infirmary.

Case I. L. P., sent to me by my friends Mr. Whitchurch and Mr. Barwis of Melton Mowbray, was admitted into the Leicester Infirmary, December 1st, 1863. The patient was aged 39, single, a household servant. Her parents were living and healthy. There was no special disease on either side of the family.

She reported that, about five years previously, she suffered from prolapsus uteri, followed, in a year afterwards, by hardness and enlargement of the bowels. The swelling was uniform over the whole abdomen, and gradually increased to its present size. She had had no pain till the last two months, and then it had been in the leg and thigh. Both legs had occasionally been very much swollen. The catamenia were regular till two months ago.

On admission, she was rather below the average height, of nervous temperament; face pale and anxious, with pallid complexion. She was extremely emaciated. There was a papular eruption more or less over the whole body. She moved with difficulty. Respiration was considerably affected. The heart and lungs were normal. The abdomen was enormously distended, measuring at the umbilicus forty-one inches and a half. Fluctuation was perfect; there was dulness over the whole front, and an intestinal note at the flanks. Both legs and thighs were œdematous, the right more than the left. She had great pain in the right leg and foot. The uterus was pushed down to the entrance of the vagina; the os uteri was of the size of a pin-hole.

Dec. 19th. The patient was tapped an inch and a half below the umbilicus, and thirty pints and a half of pale greenish limpid fluid, containing a large quantity of albumen, of specific gravity 1010, were drawn off. Examined microscopically, the fluid showed blood-corpuscles, granules, and some spherical granular cells not containing nuclei.

Dec. 21st. No substance could be felt in the abdominal cavity. The uterus was in its normal position.

Dec. 26th. She was sent to her home in the country for two months.

Feb. 23rd, 1864. She was re-admitted. She looked much better, had gained flesh considerably, and was able to walk about with ease. Her appetite was very good, and she was in excellent spirits. Pulse 96. The circumference at the umbilicus was thirty-three inches. The abdominal parietes could be moved over the tumour, except close to the point where she was tapped. Percussion at the upper edge of the tumour was dull, and was not affected by full inspiration. The uterus was forced downwards and backwards nearly to the entrance of the vagina. Percussion on the tumour over the abdomen was felt by the finger in the vagina. The catamenia appeared three weeks ago; they were natural in time and quantity. The urine contained lithates;

no trace of albumen or sugar. Owing to a troublesome cough, the operation was deferred.

March 21st, 12.30. *Operation.* The room was heated to 75° Fahr. Chloroform being administered, an incision four and a half inches long was made from a point two inches below the umbilicus to an inch and a half above the symphysis pubis. By a little careful dissecting, the abdominal cavity was opened, and the cyst appeared plainly of a whitish colour. The hand was now passed through the wound, and easily broke through some adhesions over the left front between the parietal peritoneum and the cyst. No further adhesions could be felt. A large trocar was plunged into the cyst; and, after about two pints of fluid had escaped, the trocar slipped out; but, as the cyst had been partially withdrawn, none of the fluid found its way into the abdominal cavity, and the instrument was instantly replaced. The cyst was easily drawn through the incision. The pedicle was short, and two inches wide. A double ligature was passed through it, and the cyst was cut off about half an inch above it. The stump was drawn outside the abdominal cavity. Three deep silk sutures were passed from within out through the peritoneum, and through the whole thickness of the parietes; and four superficial ones were added. A small clamp was then fixed on to the pedicle. The intestines were just seen once or twice, but were easily kept from protruding.

5.30 P.M. (four and a half hours after operation). The patient had been slightly sick once; had taken no food. As she had an inclination to pass urine, the catheter was used, and seven ounces were drawn off. Pulse 80. She was ordered to have a little brandy and arrowroot.

9 P.M. She felt sick; had not slept. She was ordered to take one-fourth of a grain of morphia with two minims of dilute hydrocyanic acid in half an ounce of water.

March 22nd, 9.30 A.M. Pulse 72. She slept well; was sick once in the night. No flatus had passed *per anum*. Urine had been drawn off three times a day. She was ordered to have a little iced brandy and water occasionally, and to suck ice *ad libitum*.

9 P.M. Pulse 76. At 7.30 P.M., she vomited more than a pint of green bilious fluid, after feeling sharp pain in the stomach for an hour before. She was ordered beef-tea ʒiv, brandy ʒvi, to be injected every three hours; and twenty minims of liquor opii to be added while the pain was severe.

March 23rd. 9.30 A.M. Pulse 80. She had had a comfortable night. Her face was pinched and drawn. She had severe griping pain at 6 A.M., followed, at 7 A.M., by bilious vomiting. There was hiccough. The abdomen was tympanitic, but bore moderate pressure without pain. The wound was healthy.

2 P.M. Pulse 92, small. She vomited again at 11.30 A.M.; and at the same time a moderate quantity of sero-sanguinolent fluid was discharged through the centre of the wound. She was ordered to take a minim of creasote in a pill every two hours.

9 P.M. Pulse 96. She was sick after the creasote, and was ordered three minims of tincture of opium in a teaspoonful of brandy and a teaspoonful of water every two hours. She vomited again at 7.30 P.M. The hiccough was less violent. The tympanitis had increased since the morning.

March 24th, 10 A.M. The pulse was 100, fuller, and less compressible. The patient vomited at 1.30 A.M. At 4.30 A.M. (sixty-four hours after the operation), she passed a large quantity of flatus *per anum* for the first time, soon followed by two small liquid motions. Hiccough had ceased. The abdomen was notably less tympanitic. The countenance was more natural.

9.30 A.M. Pulse 92. She vomited green bilious fluid at 11.30 A.M. The bowels acted again at 12.30. The catamenia came on freely in the afternoon. The brandy in each injection was increased to one ounce.

March 25th. Pulse 100. The patient had passed a comfortable night. The four upper sutures—two deep, two superficial—were removed, and a strap of plaster was put across. The wound was healthy. She was ordered to have the injection and medicine every four hours, and a tablespoonful of beef-tea by the mouth.

March 26th. Pulse 96. She slept well. The bowels had been opened twice. She complained of pain at the clamp; there was a slight blush and swelling around and below it. Two other sutures were removed.

March 27th. Pulse 96. The patient passed a large fæculent motion yesterday. There was considerable discharge of pus from under the clamp. The injections caused pain, and were ordered to be given every eight hours.

March 28th. Pulse 92. The injections were discontinued. The clamp was removed, having been on seven days. The skin was red and swollen and excoriated from the pressure, which, owing to the great distension of the abdomen, had been very considerable.

March 29th. Pulse 92; appetite good. She was allowed to have boiled sole for dinner. From this date, she improved rapidly.

April 2nd. The ligature on the pedicle was removed (twelve days). The lowest of the deep sutures was also taken away; it had been so drawn inwards as to be entirely out of sight before it had cut its way out of the right margin of the wound, but was still deeply imbedded in the left. Scarcely any irritation was caused by it.

April 17th. The wound healed. The patient was allowed to get up (twenty-seven days after the operation).

April 29th. The catamenia appeared on the 26th, naturally; and ceased to-day.

May 10th. She has taken regular walking exercise for the last three weeks, and now feels quite well and strong. She was discharged cured.

This patient called on me a month ago (a year and seven months after the operation), looking remarkably well; and stated that she had for some time past been living in London in active service as housekeeper; and that her health had never been so good for many years.

CASE II. F. S., aged 52, single, native of Leicester, was admitted on December 3rd, 1864. Her parents had been healthy, but were now dead; there was no special disease on either side of the family. One sister died of general dropsy; but the bowels were not specially, if at all, swollen. The patient had had no illness except those of infancy, and variola at the age of 3, of which she now bears the marks. Five years ago she noticed an uniform swelling of the abdomen, not more on one side than on the other. At this time, her urine diminished in quantity; and the catamenia, which had been regular, ceased, and never returned. Her general health was good; and she suffered no pain.

In April 1864, I first saw her, and tapped her. One large cyst was emptied, and about three gallons were drawn off. Some solid growths were now felt, and seemed to be immovably fixed in the left iliac fossa.

Sept. 2nd. She was tapped again, and twenty-eight pints were drawn off. The solid growths were then noted to be slightly enlarged, but decidedly not adherent. The diagnosis made was, that there were intracystic growths.

Dec. 23rd. She was tapped a third time, and venty-six pints were drawn off; also a small cyst of out the size of a cricket-ball. The growths were t large, and were perfectly free to be moved in all rections. The fluid was highly albuminous.

Dec. 27th. She felt comfortable, and improved in neral health; and was made an out-patient.

Jan. 17th, 1865. She was re-admitted; being feeble strength, and her face pallid. She was ordered to ve generous diet and citrate of iron three times ily.

Jan. 24th. Pulse 84, small. The measurement at e umbilicus was thirty-eight inches and a half. ie skin was moveable over the tumour. On a ll breath being taken, the hand laid on the abdo- n could feel a grating as the cyst moved against e abdominal parietes. Percussion was dull at the per limit of the tumour, but became of an intes- al note when a deep inspiration was taken.

Operation. Jan. 26th. The urine was drawn off. loroform having been administered, an incision of e inches long was made, beginning about an inch d a half below the umbilicus. The peritoneal vity was soon opened; and the cyst showed plainly, a dead opaque white colour. Several ounces of itic fluid now escaped. In the vicinity of the und, the cyst was free from adhesions; but, owing the great distension of the cyst, I could not pass hand around it. Feeling pretty sure it was free to removed, I at once tapped it, without further en- ging the incision. From the great distension, the id was forced by the side of the trocar, and flowed er the pubes and legs; but I doubt if any actually tered the pelvic cavity, as a sponge was instantly ced below the cannula. After the greater part of e fluid had flowed out, the cyst was entirely with- wn; but many smaller ones showed unemptied, d two in particular sprang from the very bottom the pedicle. These two were tapped. The pedicle s now seen to be made up of the left broad liga- nt, with the Fallopian tube lying right across it, l the uterus continuous with its right border. e pedicle, as may be imagined, was extremely rt; so much so, that there was great difficulty in ng the clamp, there being only just room to apply etween the Fallopian tube and the uterus. When s was done, it dragged so that the fimbriated end the Fallopian tube protruded out of the wound, l the lower end of the clamp rested with great e on the symphysis pubis. Four deep sutures e put in, as in the first case, and one superficial near the top of the wound. In spite of these, fimbriated end of the Fallopian tube protruded the extreme lower limit of the wound, and lay the abdomen. To obviate this, it was pushed k into the pelvis, and held there with a director; lst another suture was applied as low down as sible. During the operation, which lasted about ty minutes, the patient vomited several times, became very faint. Afterwards she was placed ed on her back, with pillows under the knees, and ot bottle to her feet. She was ordered a teaspoon- of brandy occasionally, and a grain of opium as a pository if pain should come on. Her pulse was very small.

he cyst, when opened, showed thousands of small s; some single, but many clustered one within ther, so as to make a solid tumour. When cut ough, greyish glairy fluid exuded. Between the s was a considerable solid growth, so as to give a e resemblance to a honeycomb. After the cysts e emptied, it weighed altogether exactly two nds avoirdupois.

P.M. Pulse 84. She had vomited once, and suf- d great pain at the bottom of the wound. Three grains of powdered opium were ordered to be given directly as a suppository.

9 P.M. She had vomited about a pint of watery fluid with brown flakes in it. There was still great pain at the clamp. She did not like the brandy; and was ordered to have a tablespoonful of tea occasionally, for which she was very anxious, but nothing else by the mouth; and to have the following injection every three hours—two ounces of beef-tea, with two drachms of brandy; ten minims of liquor opii sedativus to be added whenever she suffered much pain.

January 27th, 10 A.M. Pulse 88. The patient had slept well, and had had three injections with the liquor opii in them during the night. She felt very little pain; there was no tympanitis, but some tenderness in the left groin. The urine could not be passed naturally, and was ordered to be drawn off three times in twenty-four hours.

9 P.M. Pulse 96. She felt comfortable.

January 28th, 10 A.M. Pulse 100. She slept well. At 7 A.M., she felt pain at the lower part of the wound. There was considerable tympanitis. No flatus passed *per anum*. There was no sickness. The wound had united by the first intention in its greater part. The upper three sutures were removed, and strips of plaster were applied. The beef-tea was increased to four ounces, and the brandy to half an ounce, to be given in injections every three hours.

10 P.M. Pulse 112 to 116. She felt less pain. The brandy was increased to six drachms.

Jan. 29th. Pulse 112. She slept well. The bowels ached slightly, and some flatus passed at the same time. The tympanitis was not increased. The clamp lay lengthwise on the incision.

Jan. 30th. Pulse 100. The clamp was lifted slightly and found to press a little to the right of the line of incision. The patient had taken a few grapes.

Jan. 31st. Pulse 88. The bowels acted again yesterday afternoon and twice in the night. A little urine was passed naturally twice in the night. She had taken a little beef-tea, and about an ounce of brandy.

Feb. 1st. Pulse 104. She was allowed a teaspoonful of port wine occasionally. The bowels were opened three times.

Feb. 2nd. Pulse 104. The patient ate a small piece of fish to-day. The clamp was removed, and likewise the remaining suture (having been applied seven days). The stump of the pedicle was of a greyish colour, with a bright spot of granulations in its centre. The wound had united deeply, but was granulating in a healthy manner at the skin level. Tympanitis was still very considerable, especially at the upper part of the abdomen. She was ordered to have the injections every four hours.

Feb. 3rd. Pulse 100. She vomited at 6.30 P.M. yesterday, and was much collapsed after it, for which she was ordered an ounce of brandy and three drachms of beef-tea every three hours, as injection.

Feb. 4th. Pulse 92. The tympanitis was greatly decreased. The injection was ordered to be given every four hours.

Feb. 5th. Pulse 88. She had passed a true fæculent motion—the first since the operation, all the others looking more like beef-tea than real fæces. The abdomen was normal in size. She was ordered to have the injections every six hours.

Feb. 7th. Pulse 88. The patient was ordered to have chicken on the next day, and to discontinue the injections.

March 9th. She was in good spirits; her appetite was excellent; the wound was healed except one spot of granulations where the pedicle was. She was allowed to get up and walk about.

March 23rd. The wound was thoroughly healed. I saw this patient about a month ago; and she is perfectly well and strong.

FARRINGDON GENERAL DISPENSARY.

A CASE OF SYPHILITIC PEMPHIGUS.

Under the care of R. WILLIAM DUNN, Esq.

THE infant in this case was the offspring of syphilitic parents, but both were supposed to have been quite cured of the disease by mercury and iodine. There were no external signs of syphilitic disease on either parent; and the mother, while pregnant with this child, felt in much better health than usual. This was her second child. The first I treated for hereditary syphilis quite successfully on the non-mercurial plan; it is now three years old, quite well and fat. The infant in this case, a few hours after birth, first shewed signs of the disease, the hands and feet being of a violet tinge, with little elevations upon them. Twenty-four hours after the birth, these elevations had increased in size.

Nov. 21st, 1865. I first saw the child forty-eight hours after its birth. Upon examining it, I found that the palmar surface of the hands and plantar surface of the feet were covered with bullæ of different size and shape, from a pea to a sixpence, filled with a milky fluid, the skin around them being of a violet colour. There were no spots on any other part of the body. The child was continually crying; but took its food pretty well. I ordered it half a teaspoonful of castor-oil.

Nov. 22nd. The bullæ had increased in size, the largest ones being on the soles of the feet, and were now filled with a straw coloured fluid. I ordered it to have five minims of cod-liver oil and five minims of wine of iron three times a day.

Nov. 25th. Most of the bullæ had burst and discharged their contents. Those that had not done so were filled with a straw-coloured fluid. The nails on the fingers and toes had become dry and wrinkled, and had commenced to exfoliate at the roots. Where the bullæ had burst, the epidermis had peeled off, leaving the dermis in an inflamed state, discharging a thin white fluid. The child cried a great deal, did not take its food well, and was becoming thinner. I ordered spermaceti ointment to be applied; the hands and feet to be washed with oatmeal gruel; and the oil and steel wine to be continued.

Nov. 28th. The epidermis had quite peeled off the palms of the hands and the soles of the feet, leaving the dermis in an inflamed state, discharging a dirty white coloured fluid. Ulcerations were present on the toes, fingers, and the sole of the left foot, not deep, the one on the sole of the foot being of about the size of a threepenny-piece.

Dec. 2nd. The dermis was still red, but there was not so much discharge. The ulcerations were healing, except on the sole of the foot. The child had some syphilitic psoriasis on the chin. The face was assuming an aged appearance. The child did not improve at all; it did not cry so much, and took its food pretty well.

From this date until December 12th there was no change in the symptoms; the feet and hands improved, but there was no improvement in the infant's general health. On this day it commenced to snuffle; the bowels became irregular; it refused food; the face was very aged in appearance; the nails on both fingers and toes were nearly off; the child was very fretful. It gradually got worse, and died on December 17th.

Original Communications.

ON THE TREATMENT OF STRABISMUS WITHOUT OPERATION.

By C. HOLTHOUSE, Esq., Surgeon to the Westminster Hospital, and to the Surrey Ophthalmic Hospital, etc.

[*Continued from page* 359.]

IN my last paper, I stated that the natural tendency of most of the paralytic forms of strabismus was to recovery; and this renders it difficult to determine how far the treatment which may have been adopted has conduced to this result. If we can clearly make out a history of rheumatism or syphilis, then, by directing our remedies to the removal or correction of these constitutional conditions, we may succeed in curing, or at least hastening the cure of, the paralysis; but, if the cause of the paralysis be apoplectic, whether within the cranium or in the orbit, our remedies can have but an indirect and less specific influence over the result. For what does such a term imply? First, the rupture of a blood-vessel; secondly, the effusion of blood; thirdly, in some cases, not merely the compression, but the laceration, of nerve-tissue. Treatment may have prevented such an attack; but, the mischief being done, what good, it may be argued, can be expected from medicine? Without claiming too much for our art, we must not despise or underrate its influence in promoting the removal of these blood-extravasations, and so hastening recovery. I by no means hold with those who advocate a purely expectant treatment; and, although I have for years past taught the doctrine which has been lately so much vaunted and claimed as the offspring of Trousseau, I have not done so without qualification. Undoubtedly, in those forms of paralysis which originate in cerebral softening—the breaking down of nerve-tissue—much must not be expected; but in vascular congestions, and even in blood-extravasations to a limited amount, we can as certainly promote and hasten their removal, as we can do the more fluid effusions and extensive congestions of dropsies. The beneficial effects of moderate and occasional bloodletting and purging, as depletive and derivative remedies, and as producing a condition of the system opposed to the plethoric—a condition in which the molecular changes in the tissues and organs go on faster, waste and repair take place more rapidly, and effused fluids are more quickly absorbed, is one which, it will hardly be disputed, must be favourable to the removal of paralysis depending on blood-extravasations. Let it not be imagined, however, that I am forgetful of a possible preexistent condition of the blood-vessels which may have led to their rupture—a state which calls for measures apparently the reverse of those I have just recommended. I say apparently, because they are really not antagonistic, but supplementary to each other.

Closely connected with the treatment of these apoplectic paralyses, are their diagnosis and prognosis. I have already, in previous papers, spoken of the former: let me say a few words on the latter. Assuming the paralysis to have an apoplectic origin, is it possible to prognosticate the result? Were we able, in any given case, to say that the symptoms arose solely from blood-extravasation, uncomplicated with injury of the brain or nerve-structure, we might form some estimate of the *amount* of the hæmorrhage by the number of muscles implicated in

the paralysis; and this would also afford us a further clue to the *time* required for its removal. Inasmuch, however, as we never can know how far the nervous structures may have been injured, our prognosis must necessarily be guarded. In Case II, where the paralysis was confined to a single muscle, and the history pointed to a limited apoplexy, six weeks sufficed for the restoration of function. In the case about to be narrated, the history, so far as it was obtained, led also to the inference that the cause of the paralysis was apoplectic, but more extensive and intracranial; and complete recovery did not ensue till nearly three years after the first seizure. The case is, unfortunately, very meagrely taken, but is valuable, if only for the purpose of proving that the duration of the paralysis, within certain limits, does not form a barrier to successful treatment, or forbid us holding out hopes of recovery to the patient.

Case V. *Double Divergent Strabismus, with Partial Ptosis of both Lids, of Two Years' Duration: Cured.* Caroline P., aged 43, dressmaker, fresh coloured, and not unhealthy-looking, came under my care at the Ophthalmic Hospital, Southwark, on January 7th, 1861, with the following symptoms, for which she had previously been under treatment at two hospitals for nearly twelve months. There was partial ptosis of both upper lids, and double divergent strabismus. In the *right eye* there was, in addition to paresis of the levator palpebræ muscle, a similar affection of the inferior rectus; but the other ocular muscles were not appreciably affected. The pupil acted well; and the vision and accommodation of this eye were good. In the *left eye*, there was complete paralysis of the internal rectus, and partial paralysis of the levator palpebræ and of the superior rectus. The pupil, though of medium size, acted sluggishly. The accommodation was imperfect; the vision misty.

History. The patient stated that the paralysis had existed for about two years, without having been preceded or accompanied by any fit, pain in the head, or giddiness. She had, however, been much reduced by what she termed bleeding piles; *i. e.*, there had been hæmorrhage from the rectum for three or four years before the paralytic attack, and sometimes to a considerable amount; and it was on the stoppage of this discharge that the above symptoms of paralysis appeared. Menstruation was scanty, but regular. She had no leucorrhœa, and had never had syphilis or any disease of the generative or urinary organs. She had had one child, which lived only three weeks.

Treatment. This consisted in her taking, simply as a tonic and aperient, three times a day, a drachm of solution of bichloride of mercury in an ounce of decoction of cinchona; and gr. v of blue pill with colocynth, as an aperient, twice a week.

March 8th. The above medicine had been taken regularly since the 7th of January, and I had seen the patient once a week; and to-day there was observed, for the first time, some increase of power in the left rectus internus. The cornea could be moved inwards just beyond the centre.

July 1st. Up to this time, there had been a very slow yet decided increase in the power of the paralysed muscles. The ptosis was less, and both globes could be more freely rotated in the direction of the paralysed muscles; but the patient complained of feeling very weak and nervous. There had been no visible mercurial effects produced. She was directed to leave off the medicine for a time; and, as a placebo, a five-grain galbanum pill was prescribed every night.

Oct. 7th. She complained of loss of appetite and debility, and there was no marked improvement in the condition of the eyes. I therefore prescribed a draught of infusion of quassia and camphor mixture, each ʒiv, three times a day. After taking this a week, she arose one morning with her eyes perfectly straight; the ptosis had disappeared, and all confusion of vision had vanished. She was discharged well on the 31st, having had no relapse. All traces of paralysis had disappeared from both eyes, and their movements were perfect and in unison.

It would be easy to multiply examples of the paralytic forms of strabismus, whether simple (*i. e.*, depending on the loss of power of a single muscle), or complicated by the symptoms due to the implication of several, as in the case last narrated. I might also have adduced examples in which the result of treatment was less favourable than in the cases cited. On the whole, however, after looking over a large number of paralytic cases that have been either under my own treatment, or fallen under my observation in the practice of others, I think we are warranted in generally giving a favourable prognosis, and that we should not be in a hurry to resort to operative measures.

In my next communication, I purpose treating of the non-paralytic varieties of strabismus.

[*To be continued.*]

ON THE USE OF BLOOD AS A MEDICINE.

By Gaetano de Pascale, M.D., Nice.

My only object in these few lines is to call attention to the use of blood as a curative and restorative agent; if not quite new, hitherto little employed, especially in England.

Probably one of the chief impediments to a more general use of the remedy is the preconceived aversion which most people entertain at the idea of drinking this fluid.

Dr. Desmartis of Bordeaux recommended the use of warm blood, fresh from the vessels of the newly killed animal, especially for persons affected with phthisis. The ancients, as well as our modern physicians, chemists, and microscopists, confined their researches to the investigation of the several constituents of the blood; and the results of numerous analyses have not been uniform, on account of the different processes employed.

Iron has been used from the earliest ages as a tonic; I may say, as a very *martial remedy*. But, since Berzelius and Brande discovered the peroxide of iron in the red corpuscles, it has been thought that, in all cases in which we observe the anæmic state, indicated by debility, pallor of the face, arterial murmurs, etc., there is deficiency of this peroxide; consequently, iron has been looked upon as the tonic *par excellence* in these diseases.

But it is easy to understand that any preparation of the laboratory, either alone or in combination, is not to be compared with the iron elaborated and mixed by Nature with other principles in the form of animal blood; for only the living organism can so combine it as to be most easily assimilated. Thus, in diseases termed anæmic, from a defect either in the quality or quantity of the blood, it will be more rational to try to supply to the system the combined constituents of blood, than either of its separate ingredients, such as iron. If we call this mineral tonic and restorative, because it is able to restore the energy of the patient by improving the condition of his blood, how excellent a tonic, how still more restorative, must be animal blood, containing, as it does, all other principles essential to nutrition.

I admit that facts should be the base of all medical theory; nevertheless, I propose only an outline of my experience with this remedy.

I have watched this winter, at Nice, four people affected with phthisis, who have followed the treatment for some months, one of them under my special care. In two of these four persons, the lymphatic temperament predominated, and in one the disease was so far advanced that I did not expect him to survive many days. At present, I can assert that the change in all four is very perceptible. The increased nutrition and improved health are relatively surprising. They themselves assure me that the cough, expectoration, and night-sweats have all diminished. Yet my own special patient presents, on auscultation and percussion, no appreciable amelioration.

As to the use of raw meat, as prescribed by Professor Fuster of Montpellier, I can only stay to express my approval of it; as I may also incidentally do of the chalybeates of Dr. Milliet of Tours, and the hypophosphites of Dr. Churchill and many others.

Certainly, without flattering ourselves as to the complete and easy cure of this cruel disease, whether by means of blood, raw meat, iron, or other remedies, we may ask why, with the farther aid of a residence in a suitable climate, it may not be surmounted by the constitutional power, and at length, perhaps, disappear.

The diminution of anæmia in one of the above named patients, after four months' treatment, decided me to try drinking blood in my own case, having never completely recovered from marsh-fever, contracted during my service at the siege of Venice in 1848-49. After years of suffering, in spite of all the preparations of Peruvian bark, arsenic, iron, etc., finding myself much debilitated, with paleness of the face, and indeed the whole surface, dependent doubtless on the imperfect elaboration of the blood by the liver and spleen, principally the latter, which becomes large and painful at each access, often precipitated by atmospheric change—I this winter commenced using blood, instead of having renewed recourse to the usual remedies.

At the end of a month, I perceived a sensible improvement; I was less liable to profuse perspiration after slight exertion; and, with increased strength and feeling of improved health, I saw the colour of my face, as well as of the whole body, in good measure returned. But I do not consider myself cured; I do not think the liability to a relapse destroyed; still, by continuing my restorative beverage at intervals more or less prolonged, I hope to render the attacks less frequent, and in time to entirely avoid them.

As in phthisis, so in anæmia consequent on intermittent fever; in chlorosis; in protracted convalescence; and in many chronic diseases—the use of animal blood may be prescribed. The advice given by men of science, and the reports of cures, will cause patients to conquer their repugnance to such a drink; and some day, perhaps, we shall see it classed among our most valuable remedies.

The blood of the calf, as more easily digested, may be first tried. After a few days, the blood of the ox or any other animals can be used, when that of these two cannot be obtained. Taken in the morning, fasting, its digestion is most easily completed. This time also furnishes the opportunity of exercise in the open air afterwards. The dose to commence with is four ounces, gradually increased to twelve, according to the judgment of the physician, who will regulate the duration of the treatment.

I close by repeating that, having once overcome the repugnance for this tepid drink, which, colour excepted, is not worse than "milk warm from the cow", I am sure that it will be easily followed by patients, and prescribed by physicians in preference to every other restorative and curative agent.

Reviews and Notices.

THE PRINCIPLES AND PRACTICE OF MEDICAL JURISPRUDENCE. By ALFRED SWAINE TAYLOR, M.D., F.R.S., Fellow of the Royal College of Physicians, and Professor of Medical Jurisprudence and Chemistry in Guy's Hospital. Pp. 1186. London: 1865.

MEDICAL students, and all who have a dread of that monster a big book, must not be alarmed at the appearance of this volume of 1186 closely printed pages, nor think that Dr. TAYLOR inflicts it on them as a substitute for the very useful *Manual of Medical Jurisprudence*, which has during the last twenty years enjoyed merited popularity as a text-book. The *Manual* will continue to be published as before; but Dr. Taylor has found it necessary to alter the plan of the work, and, by a process of interstitial deposit and enlargement, to produce the present volume; which, besides a fuller discussion of the subjects contained in the *Manual*, and the introduction of a number of wood-engravings, contains remarks on several matters not referred to in the smaller volume. The *Manual* is a sufficient and comprehensive book for students; but still the large work contains no more information than should be within the reach of all practitioners; seeing that any medical man may, almost at any moment, be called on to aid in the elucidation of questions of a medico-legal nature.

Before commencing the consideration in detail of the numerous topics contained in the volume, Dr. Taylor offers, in an Introduction, his opinions on several matters of general principle. The topics discussed in the introduction are the following: The Practice of Medical Jurisprudence; Medical and Medico-Legal Duties contrasted; Medical Reports; Coroners' Inquests; Inspections; Medical Witnesses; Trial at the Assizes; Subpœnas; Examination in Chief; Cross-examination and Re-examination; Quotations from Books; Presence of Witnesses in Court; Rules for the Delivery of Evidence; Medical Experts; Medical Counsel; and Conflicting Medical Testimony.

In his comments on Medical and Medico-Legal Duties, and on the drawing up of Medical Reports, Dr. Taylor gives some very sound advice. It is, he points out, a great error for a medical man to suppose that, because he has never been called on to give evidence in a medico-legal case, he never will be so called on; or that, if his assistance in such a matter be required, the proper mode of dealing with it is to be acquired intuitively. A practitioner may at any time, under the influence of unforeseen and unavoidable circumstances, be required to meet all the difficulties that may occur to a skilled witness during examination in the course of a coroner's inquest, or of a civil or criminal trial. The possession of sound professional knowledge, or thorough competency as a physician or surgeon, however valuable as a groundwork, does not constitute all that is required to fit a medical man for being a witness in a

court of law. It is not even necessary—and, as we shall presently see, it is impossible—that he should be profoundly versed in all the details of medical jurisprudence, or possess all the technical knowledge which an expert should have at his disposal; but what is mainly required, is the power of turning the knowledge which he has to good use, and, above all, the habit of minutely observing all "medical and moral circumstances", even though considered superfluous in ordinary practice. A witness who has not trained himself to the exercise of this faculty, is very likely to break down under the attacks of a sharp-witted counsel; and to suffer injury in his reputation, if forced to give a negative answer to the question, whether he has ever previously thought of such things.

Dr. Taylor thinks it unjust to bring against medical men the general charge of being "the worst witnesses on matters of fact and opinion." It is, he says, certainly a fault with them, that they are not generally prepared for the questions which will be asked; but there is no reason to suppose that they make worse witnesses than the members of other learned professions. Members of the medical profession are more frequently called as witnesses than are clergymen or lawyers; and their evidence is therefore more subject to public criticism. Dr. Taylor refers to a trial at which he was present, the action being between two lawyers, and most of the witnesses on both sides being of the legal profession. Their reluctance to return direct answers to questions, and the general mode in which they gave their testimony, on several occasions elicited rebukes from the learned judge.

In his remarks on the subject of Medical Reports for Inquests, Dr. Taylor points out certain errors frequently committed in them; viz., the use of exaggerated language, and of a superfluity of technical terms. Such terms as "intensely" inflamed, "considerably" ingested, or "enormously" distended, are apt to convey different ideas to the medical and to the legal mind; and those who are inclined to use them, should "bear in mind that barristers look more closely to the strict signification of words than medical men." An appearance of exaggeration is very likely to lead to a distrust of the judgment of the person employing it. The tendency to use such terms Dr. Taylor attributes to the habit which medical men frequently have of employing them among themselves; and to the same cause he traces the use of technical language, sometimes of most unnecessarily elaborate nature. It is surely out of place to use such expressions before a coroner's jury, as that "the integuments of the cranium were reflected and the calvarium was exposed"; or, in giving evidence in a case of assault, to describe that very ordinary phenomenon a black eye, by saying that the patient was found

"Suffering from a severe contusion of the integuments under the left orbit, with great extravasation of blood and ecchymosis in the surrounding cellular tissue, which was in a tumefied state. There was also some considerable abrasion of the cuticle."

Another defect in these reports which sometimes occurs, is the blending together of facts and comments, as well as hearsay statements.

Dr. Taylor reminds his readers of an important fact; which he believes to be often overlooked.

"It is necessary that a medical witness should remember that copies of his report and depositions, either before a coroner or magistrate, are usually placed in the hands of counsel as well as of the learned judge; and that his evidence, as it is given on the trial, is compared word for word with that which has already been put on record. There is reason to believe that this is not generally known to members of the medical profession; and thus it happens that, either from failure of memory, want of accurate observation, or carelessness in giving evidence at coroners' inquests, medical witnesses lay themselves open to severe censure, either by stating matters differently at the trial, or by giving a very different complexion to the facts. Any serious deviations from what is on record will of course tell unfavourably for the witness, supply materials for a severe cross-examination, and form an excellent ground of defence for the prisoner. The witness's weakness is the prisoner's opportunity; and of course his counsel will not lose the occasion of impressing on the jury that a man who can give two different accounts of the same transaction is not to be believed in either."

Coroners' Inquests, Dr. Taylor observes, are worthy of more respect and attention than is usually shewn to them; but at the same time he points out several defects in the system as at present carried out.

"It affords no certainty for the detection of crime; it affords no protection to those who are wrongly charged with crime; and lastly, in some cases, it screens a criminal by a verdict based upon an imperfect inquiry, in which the important medical facts are either not understood or are misinterpreted by the jury.

"Admitting that some crimes (which might have remained concealed) have been brought to light by this system, it is my opinion that, as the inquiry is now conducted, it fails to exercise any deterring influence on criminals."

One defect which Dr. Taylor points out, is that in many cases inquests are held without a proper medical inspection of the body. If an inquest, he says, be necessary, a medical inspection of the body is the very essence of inquiry; except where the physical injury is so obvious as not to require further demonstration, as in deaths from accident by machinery or on railways. But, as in a case referred to by Dr. Taylor, a verdict of death from ordinary causes may be returned, where a medical inspection —not necessarily a very profound one—would have discovered marks indicating that violence had been committed.

Dr. Taylor disapproves of the manner in which coroners are appointed in England. There is no test of their fitness for their office; and the election of a capable coroner is, he holds, "a matter of pure accident." The Lord Chancellor or the judges might with equal reason be elected by the votes of the freeholders. He prefers the Scottish system, in which the Procurator-Fiscal is charged with inquiry into the cause of death in suspicious cases.

The method followed ordinarily in England, of entrusting an important inquiry—often involving profound chemical knowledge—to the nearest medical practitioner, is very justly condemned by Dr. Taylor. A medical practitioner, he says, cannot be expected to keep up the knowledge necessary to render him competent to make such an inspection of the body, or chemical examination as is frequently required.

"The selection of the nearest medical man, or of any gentleman who will make an inspection and analysis for the Parliamentary fee of two guineas, in a case of murder by poison, generally leads to a large expenditure subsequently for a further analysis before the trial, when the parts in which the poison would be most probably found have been destroyed. On such occasions it is the custom to condemn severely the medical and chemical gentlemen, who have, probably for the first time in their lives, undertaken a case of this serious nature upon the express order of a coroner, with insufficient remuneration for its performance. This is manifest injustice. The fault is in the system, and not in the men who do their utmost to perform a difficult duty, for the first time, as well as they can."

The remedy which Dr. Taylor suggests for this and other evils connected with the coroner's court as at present managed, consists in a remodeling of the institution. He would have the coroner, or the officer fulfilling analogous duties, not elected in the ordinary mode, but appointed by some superior authority, on account of his fitness for the office; and, in place of the jury, he would have him aided by duly appointed skilled assistants.

"Let a well trained gentleman be appointed as a stipendiary judge in every county or borough; let him, on the same sources of information as are now open to the coroner, hold inquiries or not, according to his judgment. There are many coroners who are quite competent to fill such an office. In each county, borough, or district, there should be appointed, as in some of the states of the Continent, a skilled surgeon—skilled in the inspection of the dead body and in a knowledge of the causes of death; and a skilled chemist—skilled in the processes for the detection of poisons. To these three officers, and, if necessary, to assistants appointed by and under them, all inquiries into causes connected with the death of persons should be exclusively remitted. Proper salaries for skilled surgeons and analysts would secure competent men, and probably turn out in the end less costly than the present system. The duties of sanitary officers (which are not heavy) might be shared by the medical and chemical gentlemen appointed to these offices."

The evidence of Medical Witnesses in the superior courts is the next topic discussed; and the first point considered is, how far a medical witness is bound to obey a subpœna. It was ruled by the late Lord Campbell, and also by Mr. Justice Maule, that a witness, being served with a subpœna, is bound to give his testimony as to *facts*; but that no such obligation rests on one who is called on to give his *opinion* only. On the other hand, a barrister, whom Dr. Taylor quotes, in commenting on the ruling of Mr. Justice Maule, says that the witness disregarding the subpœna exposes himself to an action for damages from the party by whom he was summoned. The whole matter, Dr. Taylor thinks, is in an uncertain state. He takes the opportunity here of observing that, when experts are sometimes censured for acting as hired witnesses, it should be remembered that they are sometimes unwillingly forced into court by subpœnas which they cannot disobey. We shall presently see what means Dr. Taylor has to suggest for remedying the evil to which he here alludes.

Some very appropriate and instructive remarks next follow on the line of conduct to be followed by medical witnesses, on the sometimes exaggerated exercise of "license of counsel", on the non-admissibility of medical secrets, and on the mode of conducting the examination-in-chief, cross-examination, and re-examination, and other matters. A few rules for the delivery of evidence are made the text of some useful comments. The rules are:

"1. The questions put on either side should receive *direct* answers; and the manner of the witness should not be perceptibly different whether he is replying to a question put by the counsel for the prosecution or for the defence.

"2. The replies should be concise, distinct, and audible; and, except when an explanation may be necessary, they should be confined strictly to the terms of the question.

"3. Answers to questions should be neither ambiguous, undecided, nor evasive.

"4. The replies should be made in simple language, free from technicalities."

On the subject of Medical Experts, Dr. Taylor offers some remarks which, coming as they do from one of the ablest and most widely known of the class, are deserving of close attention. He starts by assuming the necessity of such aid to the administration of justice; but observes that there is a strong public feeling against the admission of the testimony of experts, arising out of the circumstance that there is never any difficulty in obtaining skilled evidence on both sides of a question. Such a state of things he very rightly considers to be a great mischief.

"The cause of the evil," he says, "is that the solicitors on each side are allowed to search the whole profession until they can find one or more persons ready to adopt their respective views; and, when once in court, provided a man calls himself 'doctor', his qualifications and experience sometimes escape a rigid scrutiny. Persons have thrust themselves or been thrust into cases as experts without any pretensions to such a title, either by their professional standing or experience..... As long as experts can be retained by either party—and the profession is large enough to furnish a great variety of experts—so long will the objections to the present system continue, and the good be confounded with the bad."

So far, Dr. Taylor condemns the present practice, on the ground that it allows the calling of any one as an expert on the mere ground of his possessing a professional qualification, however little he may be fitted for the duty undertaken by him—that of deducing a correct opinion from the facts coming under his notice. But even competent experts sometimes fall into error; and Dr. Taylor comments on the mistakes which they sometimes make. He refers also—not only in the introduction, but in other portions of the work—to the unfavourable impression produced by the spectacle of medical witnesses of eminence being arrayed on opposite sides in a trial, and giving conflicting evidence. Conflict of opinion is, however, he very justly observes, not confined to the medical profession. It is, he shows, conspicuous among the members of the clerical and legal professions, and even among the judges themselves; and therefore it is illiberal and unjust to depreciate medical testimony on account of the differences of opinion which are met with among medical men. The reluctance to expose themselves to the reflections which are liable to be cast on them by the ignorant public, or to the imputations of "venality and untruthfulness" which unscrupulous counsel are apt to make, has no doubt, as Dr. Taylor says, "a

deterring effect on the higher and better class of witnesses"; and we wish we could say that this deterrent influence were universal among the members of our profession.

For the removal of the evils resulting from the present system, Dr. Taylor offers the same suggestion in effect as that which has already been made in our pages, and especially by Dr. Symonds in his admirable essay read before the last meeting of the Association. He would have either experts appointed as assessors to the court, or power given to the judge to summon to his assistance independent scientific witnesses. Of the two, he appears to prefer the appointment of skilled assessors—whose functions would evidently be analogous to those assessors of the coroner to whom reference has already been made. In noticing a very incomprehensible objection which has been made by a high legal authority (Mr. Stephen) to the appointment of such officers, Dr. Taylor adduces an apt illustration of the satisfactory manner in which the system may be expected to work.

"The question regarding the employment of experts as assessors, and the avoidance of the imputation of their appearing as hired retainers in a case, is practically answered in the Admiralty Courts. Four Masters of the Trinity House, experienced in all the rules of navigation, give their opinions on questions submitted to them, as experts, by the Court; and, without creating any charge of injustice on the decisions of the Court, they constantly guide the decisions by answering certain difficult nautical questions. In a case in which two ships come into collision, both parties contend they are right, or the case would not be litigated. The question turns upon the respective positions of the ships, the setting of certain sails, the direction of winds, tide, and currents, and whether the helm should have been ported or starboarded before the collision. These nautical experts, as their opinions are now received, acquit themselves with satisfaction; but if such a trial took place before a jury, and each captain were allowed to select his own experts as witnesses, there would be the same dissatisfaction as now exists in reference to trials involving other branches of scientific evidence."

Under the heading of Medical Counsel, Dr. Taylor observes that

"Some barristers, who feel themselves unable to discuss the medical bearings of a question, are in the habit of employing medical men to instruct them on the best mode of endeavouring to baffle medical witnesses, so as if possible to place the case in an equivocal light before the jury. In short, there are men in the profession always ready to act as medical counsel, and to be 'retained' for the prosecution or defence, as the case may be. It is obvious that, even if interference were prudent, under the present system of summoning medical witnesses, the law could not interfere to check a practice which is certainly liable to lead to evil results; for the parties who give the suggestions which may suit the purpose of an advocate do not always act as witnesses, and therefore cannot have their own means of knowledge or sources of experience clearly tested, while the *selected* medical facts and opinions which they may communicate to the advocate may have the intended effect of confusing the minds of the jury."

At another page, Dr. Taylor observes that, while a medical man who prompts the counsel gains force to his suggestions by their coming before the court through the medium of a barrister, he escapes that ordeal to which, if a witness, he would be subjected by a cross-examination. In some instances, he allows, the practice may work well, by preventing erroneous convictions; but it is liable to abuse. No one acting as medical counsel or adviser should, he says, on any occasion be allowed to act as a witness.

"A medical witness may, without any imputation upon his *bona fides*, explain medical points to counsel, and correct him on medical subjects when wrong in his views or statements; but he should avoid even the appearance of prompting counsel in the conduct of the case."

"May a medical witness honestly take up the defence of a prisoner?" is a question on which Dr. Taylor has a few words. The medical evidence either for the defence or for the prosecution, he says, may involve a serious error; and if a medical witness perceive this error, he has a right to point it out. But he must do so publicly on oath, in the interests of public justice, and not in the position of one who is paid to act as an advocate of the prisoner. In a civil case, it is not always easy for a medical witness to decide on which side his opinion should be given until the evidence has been heard. In such circumstances, if the medical witness act merely as an advocate to the party consulting him, in spite of the force of evidence, he is justly liable to censure. His duty is, if he find that he cannot support the case as he believed he should be able to do, to withdraw from it altogether.

Respecting those cases which have occasionally occurred, in which medical men have been employed by railway companies to suggest terms for compensation in railway accidents, Dr. Taylor remarks that any evidence given by such witnesses, acting as they do in the apparent interest of the company, "will necessarily have the taint of bias and self-interest."

We have given at some length an epitome of the comments made by Dr. Taylor on certain important subjects; for the reason that it will be interesting to many of our readers to know his opinions on topics of which several are, or are likely to be, under discussion. It must be satisfactory to those who desire an amendment in the system under which the testimony of experts is at present given, that he is convinced of the necessity of such amendment; and that the suggestions which he has to make accord very closely with those which other members of the profession have felt it their duty to make on several occasions. When the time shall arrive for pressing the matter on the attention of the legislature, we hope that the moral support which Dr. Taylor here gives to the advocates of a more just system, will be followed up by the practical aid which his position among medical experts will so well enable him to render.

The subjects treated of in the work proper are arranged in eighty-seven chapters, under the following general headings: Questions connected with the Dead Body (Chapters 1—7); Poison (8—30); Wounds and Personal Injuries (31—48); Spontaneous Combustion (49); Asphyxia (50—57); Pregnancy and Delivery (58—62); Legitimacy and Paternity (63—67); Infanticide (68—76); Rape (77—78); Insanity (79—86); and Life Insurance (87).

The new subjects, Dr. Taylor informs us, which find a place here—not having been discussed in the

Manual—are: The Signs and Phenomena of Death, with an Account of the Changes which take place in the Dead Body; Putrefaction in Air and Water, and its conditions; the Identity of Bones, Skeletons, and Mutilated Remains; Sudden Death; the Presumption of Survivorship; Spontaneous Combustion; Life Insurance and Medical Evidence.

"In addition to these subjects new facts and cases have been added to every section of the work, the greater part of which has been re-written. Engravings have been introduced into those chapters which admitted of illustration."

The number and variety of topics treated in the volume are so great, that to attempt an analysis of the work would be to undertake a task which would in all probability require, for its performance with justice to the author and the subject, all the space that could be allotted to review in several numbers of this JOURNAL. We must be content with congratulating the profession on the fact that Dr. Taylor, whose position as a medical jurist in this country is in the foremost rank, has thus combined and arranged his great stores of medico-legal knowledge for the guidance of his medical brethren. It is long since so complete a work on Medical Jurisprudence appeared in the English language; and any one who will take the trouble of comparing it with its predecessors, whether British or American, cannot but at once perceive the great advances that have been made in medical jurisprudence; and how much it has been and still is indebted to the progress made in all the sciences which have a bearing on medicine.

In the commencement of the book, Dr. Taylor defines medical jurisprudence as "that science which teaches the application of medical knowledge to the purposes of the law." It is a question whether, according to this definition, something should not have been said on matters connected with the preservation of public health; since these certainly require the application of medical knowledge, and are often enough brought forward in courts of law. It might be shown, from Dr. Taylor's own reasoning, that such subjects might be very appropriately introduced in a work on medical jurisprudence; but, on the other hand, their introduction would have caused too great an increase in the size of the book—the greater, from the difficulty of concisely explaining our present complicated and contradictory sanitary laws. While, then, we do not accept absolutely the limitation which Dr. Taylor has put on the meaning of the term medical jurisprudence, we admit that he has, in present circumstances, acted wisely in confining his attention to the subjects contained in his book; and in treating one and all of them in a manner which must render the volume a standard authority, not only in this country, but in every land where medical science and law are brought into contact with each other. In the course of events, a further edition will, in all probability, be called for. That it will contain all the additional knowledge which will have been acquired, may be safely assumed; but no feature in it would be more pleasing than the record of the removal of the glaring faults which exist in the relation of medicine to law, and of the adoption of such improvements in our medico-legal proceedings as several of our most talented associates, as well as ourselves, have frequently insisted on, and for the necessity of which Dr. Taylor ably pleads both in the passages to which we have referred at some length in this review, and in sundry other parts of his book.

We are requested to remind members of the Association that the Annual Subscriptions became due on the 1st of January. They can be paid either to the Secretaries of the Branches; or to the General Secretary, T. Watkin Williams, Esq., 13, Newhall Street, Birmingham.

British Medical Journal.

SATURDAY, MAY 5TH, 1866.

THE SICK POOR AND THE POOR-LAW BOARD.

THE acceptation by the Poor-law Board of the general correctness of the statements relating to metropolitan workhouse infirmaries made by the *Lancet* Commission, is highly satisfactory. It proves that the Poor-law Board not only admits errors in the past, but, what is of more importance, is ready to join in the attempt to remove existing evils. Great credit is due to Mr. Villiers for accepting this position. He does not attempt to oppose the dead weight of official solidity against the reforms required; but is willing to give to the reforming movement the all-powerful impulse of his official aid. This surely is all that can be desired. The past history of the sick poor's grievances, their causes and responsible authors, may all well be forgotten. Clearly the best wishers of the movement can only desire that all parties concerned—Poor-law Board, boards of guardians, ratepayers, and the public—should go hand in hand in attempting to carry out the great reform involved in the present workhouse infirmary movement.

St. Pancras Boards have surely said enough in the way of excusing and accusing. We require no more heavy archiepiscopal denunciations of the delinquencies of boards of guardians to set us in a blaze of indignation. St. George's parish need not express a feverish dread of Mr. Farnall's impartiality as an inquirer into the condition of workhouses. All this accusing, excusing, and counter-accusing, may well cease, as both unnecessary and injurious to the good cause itself.

Mr. Villiers admits that the state of the infirmaries is bad, and requires reform. He has issued a Commission to obtain information, and to give him an official basis for action; and has promised to do his best to put reform in motion. There need, we apprehend, be no fear of the matter "falling through." The Committee of Lord Carnarvon is a

sufficient guarantee that the Poor-law Board will not (after a little temporary ruffling of its epidermic covering) again lapse into the beloved status of an official quietism.

We shall look forward with interest to the Report of Dr. E. Smith and Mr. Farnall; and have no reason to doubt that it will be an honest Report, which will tell the truth, and not be tainted with any official bias. We must, however, again repeat that, inasmuch as this inquiry assuredly arose from an outside pressure, it would have been better that some non-official physician had been joined with the Poor-law inspectors. We say this in the interest of the Poor-law Board.

The *Lancet* Commission has distinctly proved the necessity for some great alteration in the present infirmary system; but further information is required before the exact nature of the change can be satisfactorily determined. It is necessary, for instance, to know precisely the sort of diseases which stock workhouse infirmaries. We should, *à priori*, surmise that few large operations are performed in them; and that they can hardly be regarded in the sense of surgical hospitals. Probably, also, the acuter kind of medical diseases find their way to our ordinary hospitals. What we should naturally expect to meet with in workhouse infirmaries would be a large mass of old chronic diseases affecting the aged and enfeebled; whose cases would not gain entrance into ordinary hospitals, and to whom, above everything, food and shelter are the essentials required.

And this naturally leads us to ask whether the grand hospital scheme proposed is really that which is best suited to meet the want of the sick poor. We have ourselves very great doubts on the subject.

In the first place, it seems to us positive, that no scheme of this sort can be right which does not involve the erection, outside the metropolis, of Convalescent Homes, and, above all, of Refuges for the Incurably Diseased—blessed institutions which are happily just beginning to rise up about the country. One of the most excellent results of dealing with the metropolitan sick poor by means of a general rate (it seems to us) would necessarily be the establishing of such institutions. No one parish could afford to keep, or would require, a Convalescent Home; but all the parishes could readily in union provide such a necessary dwelling.

Then, again, in the different metropolitan infirmaries, must exist numerous cases of incurable diseases—of cancer, consumption, scrofula in all its forms, etc. Could Christian charity be more benevolently exercised than in removing the wretched subjects of these diseases from the miserable wards of a workhouse infirmary, where light and air, as well as the hope of cure for them, are painfully excluded? Surely it would be cheaper to keep these paupers for life—doomed to an inevitable death—in a country dwelling, than in the heart of London? There they are at present lying, with large cancerous sores, for example, a torture to themselves, and a source of disgust and of pollution in those narrow wards—those beds with 300 cubic feet of air—to the other patients scattered around them.

It seems to us inevitable that, if the scheme be really grand and perfect, it must contain within it provision of the kind supposed for the *incurable* and the *convalescent*.

In the case of ordinary hospitals, it has always been given as one of the main reasons for their maintenance on a large scale within the metropolis, that they are required, not only as resorts for the sick and wounded, but also as schools of medicine. Schools of medicine and skilled teachers could not, it is said, exist in the suburban districts. As far as the benefits of the sick are concerned, no one can doubt that it would be infinitely better for them that they should lie in a St. Giles's Hospital situated on the slope of the Surrey Hills, than be immured in a St. Giles's Hospital placed in the heart of the Seven Dials. More than this. It was, as we think, clearly shown, in the discussion touching the removal of St. Thomas's into the country, that a town hospital with a limited number of beds was yet large enough to receive all the accidents and acute cases of the district where it was placed. It was shown that by far the larger number of patients in hospitals suffer from diseases of a kind which would enable them as readily to travel a few miles into the country—to the Surrey Hills Hospital, for instance—as to travel about London to get into a London Hospital. It was also shown that the majority of the patients who now fill metropolitan hospitals could be provided for much more cheaply, and, as as regards their cure, much more effectively in a suburban than in a metropolitan atmosphere.

Educational reasons and social customs may prevent such arrangements in respect of our ordinary hospitals. But what is to prevent so reasonable and economical and Christian-like dealing with the sick from being carried out in the case before us? We need not stop to say that the highest skill of the most accomplished physician bestowed upon the sick dweller in a confined London hospital, is but a miserable counterpoise to the fresh air and bright sky which breathe life and purity into a suburban sanatorium. No one can, in the abstract, deny this position. Why, then, we ask, should we mass together, in the heart of a metropolis which is ever expanding, enormous dwellings for the sick? If the sick poor can be provided for at a less cost out of than in town, and if his disease is such as enables him to go out of town—why provide for him in town? If the disease will get its cure in a few weeks under clear light and pure air, why keep the patient immured, it may be for months, in a town

atmosphere? If, as supposed, the diseases of sick paupers be of that kind which require fresh air and good nursing rather than skilled medical or surgical aid for their cure—if the prime elements of their rapid cure be fresh air and a clear sky—why nurse and tend them in a metropolitan hospital? It is certain, that the most splendidly constructed town hospital—done on the most scientific model—is, in a greater or less degree, injurious or destructive to life; *and solely because of the fact that it is placed in the body of a large city.*

Of course, the treating of the sick poor in suburban sanatoriums, as here proposed, would in no way interfere with the making of due provision to meet the pressing emergencies of accidents and acute diseases in the metropolis itself. But, then, these emergencies are comparatively few. Few therefore, and small, would be the town hospitals required for their satisfaction.

We, therefore, beg to throw out for consideration the consequences which seem to us necessarily to flow from a large view of this question; that is, if the scheme of a general rating of the metropolis be adopted, and if the sick poor fall under one general system of management. Reason, science, and economy, seem to us to say: A metropolis is no dwelling place for the *incurable* sick; the convalescent sick can gain no speedy convalescence there; the sick pauper, whose case does not demand instant surgical or medical treatment, should be sent out of the metropolis into suburban sanatoriums, where he can have air and light, be more economically lodged, and, above all, more quickly cured. And, in conclusion, we would remark that, if our estimate of the kind of sick which belong to pauper infirmaries be correct—*i.e.*, if their diseases be mainly of the old chronic sort, be diseases of the aged or hopelessly infirm—then still more forcibly do the suggestions here made apply to the sick pauper's case.

THE ELIMINATIVE TREATMENT OF CHOLERA.

Dr. Bowerbank has communicated to the *Medical Times and Gazette* (April 14th) some "Lessons from the Cholera at Jamaica". His experience of the effect of various modes of treatment is strongly in favour of the eliminative plan. He is quite certain that, during the epidemic of 1850, much mischief was done by the administration of spirituous stimulants and opiates; so that, in the epidemic of 1854, he almost entirely banished these remedies from his practice. He believes that he has seen more good arise from the use of Stevens's saline powders than from any other mode of treatment. Towards the close of the epidemic, in consequence of a difficulty in getting the saline powders prepared in sufficient quantity, he treated a number of cases by repeated doses of iced *sea-water*. The patients took it greedily; and of the seventeen cases thus treated, all recovered. In almost every case, after the fourth or sixth dose, the alvine dejections and the vomited matters became tinged with bile. Here, we repeat, is a striking illustration of the good results of an essentially purgative plan of treatment—a method of treatment which, it is to be hoped, will have a complete trial during the impending epidemic in this country. More especially is this to be desired, since Dr. George Johnson's pathological researches have taught us that an eliminative plan of treatment is the only method which combines in its favour the sanction of true science with that of unbiassed experience.

A few months ago, at a meeting of the Council of the Sydenham Society, two new plates of the series of Skin-Diseases in course of publication were presented to the Council for approval. One of these plates, representing a specimen of herpes zoster of the head and *face*, excited a little amusement among some of the members. "Who had ever seen the disease in such a part? Surely it was unnecessary to depict so rare and far-fetched a complaint." Curiously enough, one of the Council, Dr. Markham, who had had his joke on the occasion, was himself last week pronounced by his friend Dr. Stewart (another of the unbelieving ones) to be "a splendid specimen of that very disease we were joking about a few months ago at the Council of the Sydenham Society." Herpes zoster of the head and face is, however, no joke to the patient. A man need wish his worst enemy no worse week's or fourteen days' excitement than that of an attack of it. In the present case, the disease was limited to the course of distribution of the left supraorbital nerve, and throughout showed its distinctive nerve-character. Five days before the eruption appeared, there was constant neuralgia of the aforesaid nerve, and hemicrania. Considerable itching and several hardish and painful subcutaneous elevations preceded the vesicular eruption. The vesicular weals ran upwards over the forehead, and as far as the top of the head, in a longitudinal direction, following the course of the supraorbital nerve-branches. The eruption was markedly limited to the left side of the forehead and head and the root of the nose, and to the left upper eyelid. Dr. Stewart, who kindly watched his friend through the stinging business, agreed that, if a cause of the complaint were asked for, it might be as fairly sought in the improper joking at the Sydenham Council, as in any other suggestion. At all events, retributive justice may be said to have fully avenged the genius of the great Vienna Professor of Dermatology.

The Poor-law Board have gone through the *bis repetita* farce of an inquiry into a workhouse grievance; and the result is, as usual, a censure of the doctors and other officials. The present is the famous St. Pancras "laying-out-for-dead" case. Mr. Farnall inquires and reports; and, of course, some one must be hanged. The Board, therefore, issues its judgment, blaming the doctor and resident midwife. We wonder the Board is not ashamed at playing over and over again this old farce. The Board knows perfectly well that the work which the St. Pancras medical officer has to do is utterly beyond his capacity. The Board knows perfectly well that the sick poor neither do nor can possibly receive proper medical attention from him. The Board knows that the sick poor will not receive proper attention now, after this inquiry, any more than they did before. The Board knows that its Report is issued simply to satisfy the public; that it is nothing but an old rag stuck in a broken window to keep the wind out—a pitch plaster to burke public indignation. The system which produced the "laying out" is still ever in action. To reprimand the doctor for carrying out the system is simply and purely shifting the sin from the shoulders of the culpable managers, and putting it to the account of the unfortunate officials. It is the old tale of sending the signalman to hard labour for three months, instead of one of the railway directors. The guardians actually in this case plume themselves that "the Poor-law Board found no fault with the Board, and said nothing of the 'laying-out' case, except as to the conduct of their officers." All, therefore, that the guardians had to do was to send "copies of the resolutions adopted by the Board, as to censuring the medical officer, suspending the midwife, and appointing a paid nurse." And thus justice is satisfied!

As our readers are aware, we have on several occasions during the past half-year called the attention of the profession to the question of the treatment of cholera. It is impossible to over-estimate the importance of the subject. Quietly and surely the fell enemy appears to be closing in upon us; and how are we prepared to meet it? Let any one read Dr. Handfield Jones's letter, and then say if he really thinks we are properly armed for the contingency. The point at issue is a most vital one; life or death must be bound up in it. In such a disease, it cannot be a matter of indifference whether we give brandy or opium, or whether we give purgatives; it cannot be a matter of indifference whether we direct our remedies to arrest the diarrhœal flow, or whether we direct them to increase it. In this case, at all events, theory must guide us; and it must guide us to the doing of great good or of much injury. If we accept the theory which proclaims the diarrhœa to be a natural mode of cure—an elimination of the morbid matter—we of course reject, as fatally bad remedies, opium and astringents; but, if we adhere to the popular theory, which has such firm hold on the medical mind—viz., that to arrest the diarrhœa is to save life—then the eliminative method becomes a destructive method of cure. Dr. H. Jones's letter in this day's Journal will, we hope, seriously attract discussion. As he truly says, if we could have the experience of the past given us largely, we might perhaps judge as to the value of purgatives or astringents, and so, perhaps, be led to a true treatment of the disease. We may add that, as far as we are able to judge from the reports of treatment of men of large experience in cholera, we are inclined to conclude that their conclusions are decidedly adverse to the opium, brandy, and astringent treatment—that, in fact, their practice coincides with Dr. G. Johnson's theory.

Mr. Harry Leach, of the *Dreadnought* Hospital Ship, writes strongly in favour of quarantine as a stopper of the progress of cholera. He says:

"A most notable example of the beneficial effects of rigid quarantine is afforded in the kingdom of Greece and the islands of that archipelago. Each island has its own jurisdiction in these matters. Travellers arriving at any of them, when cholera is epidemic in Europe, are not allowed to land at all; but are carried off immediately by quarantine officers to another small island, some eight or ten miles away, which latter is used solely as a lazarette. I have seen at Syra and other islands travellers treated in this manner. Three weeks form the average duration of quarantine; and it is said that the quarters are by no means comfortable. Be this as it may, a result is attained which can, I believe, be shown by no other kingdom in Europe. During the last three epidemics of cholera no cases have occurred in the kingdom of Greece; and I was confirmed on this point by Mr. John Green, our very experienced Consul-General at Bucharest, who, as your readers are aware, was for some years Consul at Athens. The system, as practised in Greece, is undoubtedly severe, but it is as undoubtedly successful, though that kingdom has been actually surrounded with cholera. And when we contrast this latter plan with that, for example, employed at Trieste, where the lazarette occupies a prominent position close to the steamboat pier, and at Marseilles, where its proximity to the city is equally absurd, I cannot but think that we should entertain the quarantine question in its integrity."

M. Dumas told his Academy that on the 8th ult., in Paris, during a thunderstorm, no less than three leaden gas-pipes were struck by lightning. The lead melted, and the gas ignited.

At the meeting of the Paris Medical Society on March 28th, several members spoke of cases of cholera which had occurred in Paris lately.

The Production of Oxygen. Robbins' powder for the production of oxygen is a mixture of peroxide of barium and bichromate of potash. This mixture liberates oxygen on the addition of any diluted acid.

THE HERBERT HOSPITAL AT WOOLWICH.

Captain Galton has published a very interesting report on this hospital. It gives a minute detail of the origin of the hospital. The Herbert Hospital was decided on after the Crimean war, in consequence of the unfavourable sanitary condition of the barracks at Woolwich.

The new hospital is placed on Kidbrook Common, a continuation of Shooter's Hill; it is a noble-looking structure, and probably one of the best planned modern hospitals in any part of the world. The number of patients which the new Herbert Hospital was built to accommodate was founded upon the then existing regulation of allowing ten per cent. for the strength of the garrison for sick, adding sufficient accommodation for artillery invalids, who used to be all received in the Artillery Hospital; also a ward for prisoners, a ward for itch-patients, and some detached single wards for officers. The improvements in the sanitary condition of barracks has, however, already enabled the provision for hospital accommodation to be reduced from ten to seven per cent. of the strength of the garrison, and it has recently been arranged to take all artillery invalids to Netley, which is now the general invalid establishment. The hospital will, therefore, contain more room than will be required in ordinary seasons. The hospital was designed by Captain Galton, assisted by Mr. Mennie. It has been built under the supervision of Colonel Hawkins, assisted by Captain Newsome, R.E.; and the Army Medical Department and the Barrack and Hospital Improvement Committee, appointed by Lord Panmure in 1857, have approved its details. The designs are all intended to embody the most recent improvements in hospital construction which now prevail throughout Europe. These great principles are, in brief, to admit as much air and light as possible to every part of the building. The window space in the Herbert Hospital is about twenty-two square feet per bed; almost the same as in the last military hospital built in Paris—namely, the Vincennes Hospital. In the Lariboisière Hospital the window space is about thirty square feet per bed.

The offices, officers' apartments, nurses' apartments, and orderlies' barrack-rooms, are in a separate building from those which contain the sick. The wards are on the pavilion principle, with windows on opposite sides, the beds being placed between the windows. Each ward has its nurses'-room and ward-scullery at one end, and its ablution- and bath-room and water-closets at the other. Every water-closet has a separate window; and the ventilation of these ward offices is most carefully cut off from that of the wards themselves. The walls are built hollow, and the windows are glazed with plate glass, to save the heat, which the large extent of ward and window surface would otherwise allow to escape. The ward walls are of parian cement, the ward floors of oak, to be kept polished with beeswax. The windows open at top and bottom on both sides; shafts also pass up at each corner of the ward, to above the roof, to allow of the escape of foul air. Sherringham's ventilators are placed in each wall-space, between the windows, to admit fresh air when the windows are closed. For cold weather, the principal engine of ventilation is the fire-place. There are two in each ward, placed in the centre line of the wards. The flue passes horizontally under the floor to a vertical flue in the wall. Fresh air is admitted by the side of the horizontal flue, through openings in the fire-clay sides of the fire-place, into the ward, by which means it becomes warmed; so that each fire-place, when the fire is lighted, pours a continuous supply of fresh-warmed air into the ward, and a great portion of the heat, which would otherwise pass into the chimney, is saved. The corridors, ablution-rooms, water-closets, and lobbies which separate the ablution-rooms and water-closets from the wards, are warmed by a hot-water service, and ventilated by fresh air admitted between the coils of hot-water pipes. The communication between the wards and the kitchen and dispensary, which are in the basement, is carried on entirely by lifts worked by hydraulic power.

The total number of wards is as follows. Fifteen of 32 beds each, 118 feet long by 27 feet wide and 14 feet high, containing 480 patients in all; five wards of 28 beds each, 108 feet long by 27 feet wide and 14 feet high, containing in all 140 patients; one of 20 beds, of the same size as those for 28; eight single bed-rooms for officers; giving a grand total of 648 patients, exclusive of those suffering from itch, who would be kept in a separate ward apart from all the rest. The wards all run due north and south, and, having windows on both sides, they all share both the morning and evening sun. The main corridor which connects the pavilion is 715 feet long, and each ward affords 1200 cubic feet of air-space per man, and and about 90 superficial feet of wall-space.

Insanity and Criminal Responsibility. Dr. T M. Madden, in a paper on this subject, gives a case of attempted murder and suicide, committed under a disordered state of mind by an individual, who to outward appearances was sane, and was earning his living, and, but for a medical gentleman, would have been tried and punished for the crimes. A document, written immediately before the attempt, was afterwards found, in which he assigned his reasons for it. Dr. Madden read a portion of it containing the clearest proof of insanity. Dr. Madden pointed out that, if this individual had succeeded in this attempt, he would have been tried for murder, and very probably would have been hanged. He proposed that, for legal purposes, insanity should be divided only into general and partial. He argued against the term moral insanity, and proposed the recognition of what German psychologists term the state of "half freedom," a state intermediate between sanity and insanity. Dr. Madden then proceeded to explain the present condition of the English law in reference to so-called criminal insanity, quoting from the decisions of the judges and their charges to juries, from 1720 to the present year, and contrasted with it the laws of other countries, with reference to insanity. The consequences of the laws that are still enforced in England are, that persons undoubtedly mad may be, and often have been, hanged for crimes committed in that state. Dr. Madden proceeded to illustrate this opinion by reference to various cases between 1812 and 1866, in which madmen were either sentenced to death or actually executed. From these cases he argued the necessity for a revision of the laws relating to insanity, and proposed that this might be simply and effectually accomplished by a short act providing that no lunatic should be dealt with or punished as a person of sane mind; and, secondly, that assessors in lunacy should be appointed, who in all cases in which the question of mental capacity arose, should advise the courts of law on all professional points.

Association Intelligence.

BRANCH MEETINGS TO BE HELD.

NAME OF BRANCH.	PLACE OF MEETING.	DATE.
Bath and Bristol. [Ordinary.]	Victoria Rooms, Clifton.	Thurs., May 17th, 7.15 P.M.
Metropol. Counties. [Ordinary.]	37, Soho Square.	Friday, May 25, 8 P.M.
Lancash. & Cheshire. [Annual.]	Liverpool.	Wednesday, June 13.

SOUTH EASTERN BRANCH: WEST KENT DISTRICT MEETINGS.

The next meeting is appointed to be held at the Union House, Dartford, on Friday, May 11th, at 4 P.M. John Grantham, Esq., in the chair.

Dinner is ordered at the Bull Hotel for 6 o'clock.

Dr. Richardson has promised to attend, and give a series of demonstrations; first, on his method of producing Local Anæsthesia; and afterwards, on the action of his new Preparations of Ether, Ozonic, Styptic, and Caustic Ethers.

Frederick J. Brown, M.D., *Hon. Sec.*

Rochester, April 24th, 1866.

SOUTH EASTERN BRANCH: EAST SURREY DISTRICT MEDICAL MEETING.

The next meeting will be held at the Crystal Palace, on Friday, May 11th, at 4 P.M.; Dr. Hetley of Norwood in the chair.

Communications will be read by Dr. Moxon (Guy's Hospital); Mr. Berney (Croydon); Mr. Whitling (Croydon); Dr. Walters (Reigate); Mr. Sargant (Redhill); and by the Secretary.

Dinner will be provided at 6 P.M.

Henry T. Lanchester, M.D., *Hon. Sec.*

LANCASHIRE AND CHESHIRE BRANCH.

The annual meeting of the Lancashire and Cheshire Branch will be held in Liverpool, on Wednesday, June 13th; A. T. H. Waters, M.D., President, in the chair.

Gentlemen intending to read papers or cases are requested to forward the titles of the same to the Honorary Secretary, without delay.

Henry Simpson, M.D., *Hon. Sec.*

10, Chatham Street, Piccadilly, Manchester.

BATH AND BRISTOL BRANCH.

The sixth and last Ordinary Meeting of the session will be held at the Victoria Rooms, Clifton, on Thursday evening, May 17th, at 7.15 o'clock; F. Brittan, M.D., President, in the chair.

C. Steele, R. S. Fowler, *Hon. Secs.*

METROPOLITAN COUNTIES BRANCH.

An Ordinary Meeting of this Branch will be held at 37, Soho Square, on Friday, May 25th, at 8 P.M.; when Dr. Richardson will read a paper on "The Vaccination Question, in its legal, public, and professional aspects."

A. P. Stewart, Alexander Henry, *Hon. Secs.*

Reports of Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, April 10th, 1866.

James Alderson, M.D., F.R.S., President, in the Chair.

NOTES ON THE PATHOLOGY OF PNEUMONIA AND HEPATITIS. BY C. MOREHEAD, M.D., F.R.C.P.

I. The object of this paper was to show that the pathology of inflammation of the lungs and of the liver cannot be rightly understood unless it be kept clearly in view that in both organs there is a double system of capillary circulation; that of the bronchial and hepatic arteries being for the nutrition of tissue, and that of the pulmonary artery and of the portal vein for functional purposes, the one being of arterial blood, and the other of venous blood.

The pathological question in respect to both organs was, which system of capillaries is the seat of inflammation in pneumonia and hepatitis?

II. *Pneumonia.* It had been lately argued before the Society, by Dr. A. T. H. Waters, that the branches of the pulmonary artery, which constitute the pulmonary plexus are the nutrient vessels of the air-cells, and the seat of inflammation in pneumonia, because: 1. Capillaries of the bronchial artery do not exist in the air-cells; 2. The absence of the bronchial arteries in some animals shows the capability of the pulmonary vessels for the purpose of nutrition.

It was argued by Dr. Morehead, that if inflammation be an altered state of the nutritive processes of the affected part, then the capillaries immediately concerned in inflammation must necessarily be those which in their normal state circulate arterial blood for purposes of nutrition; that the blood which is a factor in inflammation must always be blood, which in the normal state is a factor in nutrition. He maintained, therefore, that capillaries of the bronchial arteries are those immediately concerned in the nutrition of the air-cells, and in pneumonia; because they are the nutrient vessels of the visceral pleura, of all the tissues of the bronchial tubes, the coats of the bloodvessels, the nerves and lymphatics, and the connecting areolar tissue of the lungs, and the seat of inflammation in visceral pleuritis and bronchitis. It was improbable that bronchial capillaries should ever be discoverable in the air-cells, because (*a*) inflammation of the air-cells must always be followed by turgescence of the pulmonary plexus; and (*b*) artificial injection of a bronchial artery always in part fills the pulmonary plexus; hence bronchial capillaries, if existing in the air-cells, are almost certain to be veiled by the larger pulmonary plexus, under the only circumstances in which it is reasonable to expect to see them. Again, admitting, as very likely, that bronchial capillaries do not exist in the air-cells, it did not follow that the blood of the bronchial arteries is not the nutrient blood of the cells, and the factor in inflammation. It might be, that the thin walls of the cells were nourished by a process analogous to that which is effective in the cornea, articular cartilages, and lamellated osseous tissue? The capillaries of the termini of the bronchial tubes and of the interlobular areolar tissue carry the blood near enough to the air-cells to admit of their nutrition by imbibition of the plasma. The argument from analogy, that because there are animals without bronchial arteries, there may be nutrition by the

pulmonary plexus, failed, in Dr. Morehead's opinion, because the question was one concerning an animal with, not without, bronchial arteries, and because it applied with equal force to the other tissues of the lungs as well as the cells. Further reasons were also advanced, drawn from the manner of termination fo the bronchial arteries, and from facts of the fœtal circulation.

III. It was explained that though the pulmonary capillary circulation is not the immediate agent in the nutrition of the cells, or in inflammation, still it plays a very essential (secondary in point of time, though not of importance) part in the pathology of pneumonia, because inflammation of the air-cells obstructs in various evident ways aëration, and this must be followed by more or less stagnation of the blood in the pulmonary capillaries, small in degree in the first stage, but complete in the second stage (hepatisation), and unless this be borne in mind we cannot understand the morbid anatomy of pneumonia. The author explained that there were questions relating to symptoms, progress, and treatment which were not intelligible without a distinct recognition of stagnation of blood in the pulmonary plexus, not as constituting inflammation of the air-cells, but as a necessary sequence of it, and a part of pneumonia.

IV. The question of position of the exudation, whether into or external to the cells, was shortly noticed, and regarded as one of great simplicity, not requiring the microscope for its elucidation, but bearing in the structure of the lung the proof that the exudation must be chiefly into the cells.

The analogy between pleuritis and pneumonia was noticed, in the slight anatomical difference in the tissues concerned, in the exudation being on a free surface in both, in pleuritis tending to become organised, in pneumonia to liquefy. The difference depended on the exudation in pleuritis being on the free surface of a closed sac; that of pneumonia on the free surface of sacs exposed to the air.

V. *Hepatitis.* The question of hepatitis was noticed very briefly. It was argued that the capillaries of the hepatic artery are the nutrient vessels of the liver and the factor in inflammation; but that the symptoms, pathology, and treatment of hepatitis cannot be rationally explained, unless the important facts in the anatomy and physiology of the portal circulation in the liver be borne in mind.

HARVEIAN SOCIETY OF LONDON.

THURSDAY, APRIL 5TH, 1866.

THOMAS BALLARD, M.D., Vice-President, in the Chair.

Malignant (?) Disease of the Abdomen in a Child. Dr. BALLARD mentioned the case of a child in whose abdomen there could be felt masses of about the size of a pigeon's egg in the umbilical and lumbar region. The bowels were regular, The abdominal veins were enlarged. This led Dr. Ballard to suppose that the child was suffering from malignant disease; and Dr. West, on being called in, gave a similar opinion. It appeared that the patient's paternal grandfather had died five years before of cancer of the liver; but the father and mother were healthy.

Dr. COCK thought it unlikely that this was a case of carcinoma, since there was no cachexia observable, or disturbance of the health.

Mr. SEDGWICK said that a *post mortem* examination would be requisite to clear up the diagnosis; but he should not expect cachexia in a child the subject of carcinoma, since it was by no means necessarily present in such cases.

Treatment of Acute Articular Rheumatism. A debate took place on this subject.

Dr. CHARLES DRYSDALE said that it was evident from recent signs, that the question of the treatment of rheumatic fever was about again to be reconsidered. The treatment of this disease was first seen to be of paramount importance, when M. Bouillaud in 1832 published his work, showing the frequent concurrence of grave disease of the heart, with acute articular rheumatism. At that time a fierce discussion raged between MM. Bouillaud and Chomel, as to the nature and treatment of the disease. Chomel thought that articular rheumatism could not be considered an inflammatory disease; but that it occurred in the young and weak, and in those disposed to it. The fever, he maintained, was never due to pericarditis. He observed that great bloodletting prolonged the duration of the disease, and caused sounds resembling those of valvular diseases. The duration of the disease, when let alone, he considered to be from twenty to ninety days. Bouillaud, on the contrary, considered that the true and sole cause of rheumatism was cold. In acute articular rheumatism, he maintained that the coincidence of heart-disease was the rule, not the exception. He claimed for the antiphlogistic plan, *i. e.*, the treatment by extensive bloodletting, that it prevented the heart-disease, and produced convalescence generally in the course of the first week. He considered rheumatic fever to be one of the types of inflammatory disease, just like pleurisy, etc. His usual plan of treatment was to bleed from the arm, to about one pound of blood a day, for three or four days, and to remove about half a pound, in addition, by means of cupping and leeches on the pericardial region and the joints. The average amount of blood taken from fifteen patients was four-and-a-half pounds, and the mean time of treatment by this method was nineteen days. He mentioned that of seventy-four cases of acute articular rheumatism of great intensity, there was evidence of endocarditis or pericarditis in sixty-four. Dr. Basham was in the habit of giving an ounce up to three ounces of nitre in the twenty-four hours, and praised the treatment highly. Dr. Rees, too, had given lemon juice, as being likely to affect the blood. Dr. Williams, in University College, used to commence his cases with a mercurial purge, and bleed to twelve or sixteen ounces; then administer twenty minims of colchicum wine in a solution of alkaline carbonates; and he asserted that by this treatment convalescence usually came on in five days. Cupping and calomel and opium were used in cases of cardiac affection. The treatment of acute rheumatism by large doses of alkaline, such as two scruples of bicarbonate of potash, was probably first thought of by Dr. Golding Bird. It had been warmly advocated and statistically argued for by Dr. Garrod and by Dr. H. Fuller. Thus, in 1862, in a discussion at the Royal Medical and Chirurgical Society, on a paper by Dr. Dickenson, wherein that gentleman attempted to show by statistics derived from the treatment of the disease at St. George's Hospital, that the alkaline treatment was never followed by heart-disease, Dr. Fuller said that he had never seen the heart affected when this treatment was used, except in two or three cases, when it had supervened within twenty-four hours after the commencement of the treatment. Dr. Gull, however, had found this plan of treatment a failure, as also the use of colchicum, Dover's powder, nitre, opium, etc. He had been most successful, he said, by keeping the patient perfectly quiet in bed, and on the simplest diet. Out of sixty-four cases thus treated, there was scarcely one in which the heart was affected. One of the most recent writers on the subject, Dr. Chambers, had, in

addition to the use of large doses of these alkalies, and careful nourishment, laid very great stress upon the necessity of bedding the patient in blankets, as a prophylactic against heart-disease. He stated that bedding in blankets reduced from sixteen to four the risk of inflammation of the heart; because in this way alternations of cold and heat were avoided, and the heart thus kept as much at rest as possible. He objected to mercury in pericarditis. The alkaline treatment reposed, Dr. Drysdale said, on the assumption that the fluids of the system were unduly acid. The urine was certainly scanty in rheumatic fever, and of high specific gravity. It also greatly reddened litmus paper; but all this was chiefly attributable to concentration of the fluid, since the free acidity was, according to Vogel, lessened. There was no proof of any excess of lactic acid in the blood, which was alkaline in reaction. The sweat, too, was by no means invariably acid. Consequently the alkaline treatment could not be said to have any great *à priori* argument in its favour. Any remedy which had no such *à priori* argument in its favour was merely an empirical mode of treatment, and had an infinity of chances against its being what it was asserted to be, namely, a specific against the occurrence of cardiac affection in acute rheumatism, since nothing short of this was claimed for it by Dr. Fuller, who believed that no discovery since the days of Jenner had been of so much consequence to the race, as that of the treatment of rheumatic fever by large doses of alkalies. He (Dr. Drysdale) had the very greatest respect for any assertions coming from so eminent observers as Dr. Fuller or Dr. Garrod; but he would only say that the probabilities were so very great against their view of the question, as to make scepticism absolutely the only rational course, until more extended comparisons had been made between the alkaline treatment and the ordinary plan used in Paris, and by Dr. Gull and others, of attention to the perfect tranquillity of the patient. As to blood-letting, it had reposed upon the notion of getting rid of the fibrine of the blood, and was now justly abandoned. He had seen heart-disease take place, and fresh joints implicated more than once, when two scruples of bicarbonate of potash were given every two hours. As to calomel and opium in pericarditis, he could only say that Dr. Walshe, Dr. Hughes Bennett, and many others of the most scientific physicians of the day, considered that it was never of the slightest service in such cases, an opinion in which he (Dr. Drysdale) quite concurred. The latest treatment of rheumatic fever was very interesting, and had no doubt been of service in lessening pain. He alluded to Dr. Davies' plan of extensive vesication. Blisters two inches in breadth were placed round the swollen joints to the extent of three or four hundred square inches on each patient; and it was asserted that by this treatment cardiac complications were avoided, and that the duration of the disease was curtailed. One thing seemed certain, *i. e.*, that the pain was greatly alleviated by this treatment; and, as this was in itself a most important result, it seemed a treatment most likely to prove of great service. With respect to this plan producing immunity from cardiac complications, there was, as yet, not time sufficient to judge of the claim put forth for it by its inventor. He (Dr. Drysdale) believed that, in very young cases, no treatment would prevent the occurrence of this dangerous complication. Summing up, as well as he could, the evidence of the various eminent physicians he had alluded to, he would say that it appeared to him, that the best treatment of acute rheumatism was that of perfect tranquillity, and careful nursing, together with the use of Davies' blister plan, whenever this was found to alleviate the agony of the joints. He was convinced that the alkaline plan was no specific prophylactic of heart complications, but would like much to hear what its ardent admirers had to say further in favour of it. If alkalies could but be found to be, as was asserted, a certain prophylactic against cardiac disease, no remedy in the pharmacopœia would be of such importance, and he therefore hoped that Dr. Fuller and others would answer the objections raised. As to mercury in pericarditis, it never did good, he believed, but often harm.

Dr. Cock said there was one point in which he entirely agreed with Dr. Drysdale; viz., that mercury did no good in acute rheumatism, but rather much harm. Dr. John Taylor clearly proved at University Hospital, that it had no effect in either preventing or curing pericarditis. When assistant to Dr. Garrod, he (Dr. Cock) had seen the experiments of that gentleman with bicarbonate of potass. A scruple or two of the salt was administered every two hours; notwithstanding which, some of the patients had pericarditis. In some cases of rheumatic pericarditis the heart-disease was the only symptom, and no external rheumatism existed. Dr. Barker had lately come to the conclusion that the treatment which was as successful as any, in acute rheumatism, was rest and warmth. No peculiar drug certainly was to be depended on in rheumatic fever. He had found carbonates and citrates of the alkalies useful in some cases. Colchicum also did good in some cases. We must not look for specifics here; but get the eliminatory organs to perform their work. Thus, doses of mercury and chalk with Dover's powder were useful as purges and sudorifics. Linseed-meal poultices were good as local applications to the joints.

Dr. Ballard said that we were probably in error in considering one remedy as always likely to prove beneficial in acute rheumatism. Of late he had always used blisters, according to Dr. Davies's plan, in all cases of acute rheumatism, and was accustomed to carry with him constantly a small phial of blistering fluid for the purpose. If a joint were well blistered, the pain would instantly leave it. Salines were useful, and alkalies and opium were frequently of great service. A combination of remedies was perhaps the best of all. In a case of acute rheumatism which he recently treated, he had brushed both the joints, and the region of the heart over with blistering fluid, and in eight days the patient was well, and had had no return of the pain. He doubted whether alkalies alone were sufficient to allay the pain, and conquer the disease.

Mr. Curgenven said that patients had a notion that all diseases had a remedy, and this idea seemed to infest some of the profession. For his part he had never met with any specific, except in the case of quinine in ague. Hospital experiments were valuable, because they showed what the natural course of the disease was; but he had found the saline and alkaline treatment the best of all. He had in his own person experienced an attack of rheumatic fever, before the alkaline treatment had come into vogue, and had been treated by diaphoretic remedies. A gentleman, since a great authority in this disease, had advised him to be bled to about twenty-four ounces and salivated; but he begged to be excused. Since he had adopted the alkaline treatment, he had not seen any case last beyond a fortnight. It was, however, remarkable, that some years he saw scarcely any cases of heart disease, whilst in others, almost every case would exhibit symptoms of it. The drinking of beer was bad for persons liable to rheumatic fever.

Dr. Meredyth said that rheumatism was much more common in London than in Paris. There was

little rheumatic fever in the Crimea. With regard to treatment, it was found in Paris that the plan of M. Bouillaud, and of expectation, gave similar results. He had found tincture of colchicum and opium of use, in some cases, with occasionally a teaspoonful of calcined magnesia.

Mr. PARKER YOUNG remarked that Dr. Chambers, besides laying great stress on the bedding of patients, had given half drachm doses of bicarbonate of potash every two hours. Patients certainly recovered rapidly under this treatment. We ought to treat rheumatic fever like other fevers. We did not attempt to cut short variola or scarlatina. In rheumatic fever, the patient should be carefully fed on milk given frequently. The usual period of the disease was from three to six weeks. Rest was generally obligatory from the pain.

Dr. WESTMACOTT recommended cotton wool under oiled silks, as an application to the joints.

Mr. SEDGWICK said that rest was of great importance, even when the patients were able to move. He had lately relied almost entirely on bicarbonate of potash, and in young patients he had added nitre to this, since the salt was known to prevent the coagulation of blood out of the body. The frequency of heart-disease was inversely to the age; in young children pericarditis almost always accompanied acute rheumatism. He had heard of a congenital case of acute rheumatism. Blistering was, he thought, theoretically likely to be beneficial. Topical means of treating disease were now certainly coming much into use.

Mr. OWEN said that the enemy in rheumatism was the acid, and the question was, how best to get it out of the system. Bleeding was one way, but he had seen a gentleman who had been bled for fifteen days without benefit. Blisters, by the serum they raised, did good, by cleansing the blood. The alkaline treatment alone was not sufficient; whatever remedy was used, he thought we should aim at the elimination of the acid. Lemon-juice probably did this by some chemical action it produced in the blood.

HOSPITAL NURSING SISTERHOODS. A correspondent of the *Medical Press and Circular*, gives the following account of existing Sisterhoods. "St. John's House, in London, manages the nursing at King's College Hospital. The hospital pays the 'House' £1,000 a year, and in return is provided with all the female domestics, twenty-six nurses, a number of probationers in training, and six Lady Superintendents. This system has lasted for more than seven years, and has worked very well. All the members of the 'House' must be members of the Church of England; they are not under 'vows,' and, practically, they are free to go or stay as they please. The rules of this society were in great part drawn up by the late Dr. Todd. University College Hospital has been nursed since 1860 by the ladies of All Saints Home, a religious order in connexion with the church of that name in Margaret Street, London. St. Thomas's Hospital is nursed by the Nightingale Training Institute, which is a secular body, and sprang out of the nursing exertions respecting our soldiers in the Crimean war. There is in Liverpool a 'Nurses' Training School,' which is a religious society, but is not confined to members of the Church of England. It is said to be very successful in its operations, which embrace hospital, district, and private nursing. Under its management Liverpool is divided into eighteen districts, and it nurses the Royal Infirmary, provides a staff of twenty nurses for the above-mentioned 'districts,' and has about fifteen nurses available for private families."

Correspondence.

HOW SHALL WE TREAT CHOLERA?

LETTER FROM C. HANDFIELD JONES, M.B., F.R.S.

SIR,—The question is not unfrequently asked at the present time by one medical man of another, "What are you going to do if the cholera comes?" and the purpose of this communication is to endeavour to procure from the members of our Association and others a well considered answer. Allow me a few remarks. I take it, there is no doubt that, when once collapse is fully established, medicine is very nearly powerless, whatever means be employed; and that we have to take heed, moreover, lest our busy interference may not prove injurious.

But, with regard to the precursory stage, which usually exists, there is considerable reason to believe that our art is of more avail. I will not say positively that even this is established; but the conclusion seems *à priori* reasonable, conformable to the analogy of other diseases, and confirmed by much experience, which Sir Ranald Martin arrives at; viz., "that it is no longer matter of doubt that, the earlier the disease is encountered, the greater, in an infinitely high ratio, are the advantages under which medicines are employed to counteract it." (*Influence of Tropical Climates*, p. 549.) That, during the continuance of epidemic cholera, diarrhœa prevails extensively, and that purgative medicines are apt to act with unusual violence, and even to induce diarrhœa, which may pass into actual cholera, is scarcely, I think, to be questioned. The opinion generally held, that this bowel-disorder is the result of the same influence which gives rise to the fully developed disease, but acting on less predisposed systems, is held by Dr. G. Johnson, when he says: "One of the most conclusive proofs that choleraic diarrhœa is essentially the same disease as cholera with collapse, is the undoubted fact that, when opium has been given in sufficient quantity to arrest suddenly and completely the bilious purging, the disease has often passed immediately into the stage of collapse. The explanation of this sudden transition is, that the escape of the poison and its products having been prevented by the opium, they have accumulated in the blood; the pulmonic circulation has become obstructed, and so the state of collapse has occurred." (BRITISH MEDICAL JOURNAL, March 17, 1866.)

This brings us to the point which I am desirous to raise, in order to have it elucidated by the results of experience. Is it right to suppress choleraic diarrhœa—the result and evidence of the system having imbibed the poison—at once and decidedly, by any means in our power? Is this the most likely means of preventing the disease from attaining its full development? or is it, as Dr. Johnson teaches, the very reverse? Shall we check, or shall we encourage, intestinal evacuations? I cannot but think that, if the many practitioners who had much to do with choleraic diarrhœa in former years would give us their experience in a brief answer to the question above posed, or to some similarly framed, the substance of the replies would serve as an useful guide to others, who would be in doubt what course to pursue, if in a month or two they should find themselves in presence of the enemy.

I am not writing with any intention of discussing the validity of Dr. Johnson's views; but I will make

a few remarks which seem to me of importance to the questions I would propose.

1. Is it not well-nigh a matter of certainty that, in choleraic periods, all the dwellers in the vicinity where it prevails must be subjected to its influence? All must receive the poison, whether it be ponderable or not; but it only acts severely on a few. Of what use is elimination, if we can no more escape the miasm than we can the air we breathe? Unless we believe cholera to be propagated solely by contagion, dejecta, etc., the above consideration seems to me of weight.

2. It is anything but shown that the poison (so called) of cholera is a thing which is ponderable, or even conceivably capable of being eliminated. Malarious poison, which much resembles choleraic, is not got rid of by any purging.

3. The analogy of most other diseases of a toxic kind would lead us to think that the morbific action is to be counteracted rather by endeavours to prevent its morbid effects, or to strengthen and hold up the vital forces against it, than by any process of elimination. Thus we deal best with malarious disorders, continued fevers, influenza, erysipelas, snake-bite, and most cases of the exanthemata. In fact, except perhaps in the cases of saturnine and uræmic intoxication, I doubt whether we have any power whatever to procure the separation of a poison from the system. How obstinately the syphilitic clings to its victim!

4. The good effect of purgatives in some cases may be accounted for on another view besides that of elimination; viz., of their substituting another kind of action, of less pernicious character, for the original. Trousseau, in his clinical remarks on dysentery, strenuously discountenances the arrest of the purging by opium, and advocates the administration of saline aperients, which alter the morbid inflammatory action going on in the mucous membrane of the bowel. Nitrate of silver collyria are the type of such substitutive agents. Castor-oil, besides its aperient action, acts notably as a modifier of an irritated state of the intestinal surface. I observed an instance lately, in which a dose, taken on account of some abdominal uneasiness, removed the symptom speedily, without acting at all on the bowels. I believe ophthalmic surgeons find a drop applied to an irritable eye sometimes very efficacious. It is by no means impossible that the choleraic collapse may be in some instances to a great extent the result of inhibitory depression of the heart's action, together with spasm of the systemic and pulmonic arteries. If we assume, as we may fairly do, that there is severe irritation of the nerves of the intestines, a state analogous to neuralgia, this would be reflected through the cord on the motor nerves, giving rise to cramps in the limbs; on the vaso-motor nerves, causing contraction of arteries and a lowered temperature; and on the pneumogastric and other cardiac nerves, causing depression of the heart's action. In so far as this was the case, the action of castor-oil might be very beneficial; while, if the toxic action on the nervous centres and nerves were primary and direct, it might be of no avail.

5. If elimination by the primæ viæ be the natural and proper method of cure in the early period of cholera, should not calomel pill and black draught be good practice—at least, better than chalk mixture and tincture of opium? Is it?

However, the object of this communication is to get the results of past experience and "non fingere hypotheses". I will, therefore, conclude, only observing that Query 9, contined in Memorandum No. IV, circulated among the profession in 1854, is of the highest importance in relation to the present subject; and I would fain see it answered in a complete manner.

I am, etc.,

C. Handfield Jones.

London, May 1st, 1866.

A QUESTION REGARDING REGISTRATION OF DEATH.

Letter from James Hill, M.D.

Sir,—Will you oblige me by giving publicity to, and commenting on, the following case?

On April 10th, a young man called upon me, suffering from acute bronchitis. I visited him on several consecutive days, and he seemed to be gradually recovering under appropriate remedies. On Saturday afternoon, April 21st, I saw him; and the lungs then appeared to be acting properly, and the patient complained merely of pain at the upper part of the sternum, for which I recommended a mustard plaster. On Monday morning, the 23rd, I received a message at half-past five o'clock, informing me that the patient was much worse. I attended as soon as possible, but found him dead.

I thereupon told the friends of deceased that it would be necessary to hold a *post mortem* examination, in order to ascertain the cause of death, before I could give a certificate. During Monday forenoon, a friend of deceased called upon me, to endeavour to obtain a certificate; but I steadfastly refused. I, however, gave him a note to the coroner, in which I asked the advice of the latter. On Thursday evening, not having heard from the coroner, I called upon the person who had asked me for the certificate on Monday, and he was surprised to hear that the coroner had not written to me. He informed me, also, that the registrar for the district had registered the death, without any note from me.

Now, I would ask you, was it gentlemanly conduct on the part of the coroner to take no notice of my letter? and was it legal for the registrar to register the death?

I am, etc.,

James D. Hill.

North Curry, May 1866.

THE DUALITY OF VENEREAL ULCERS.

Letter from A. W. L. C. Meredyth, M.D.

Sir,—As the author of a paper on the Duality of Venereal Ulcers, read at the sitting of the Harveian Society of London of March 15th, 1866, I beg to offer a few remarks on the report contained in your Journal of the 21st inst.

Premising that I do not wish in the least to have it understood that your reporter has intentionally misapprehended the purport of my paper, I regret that I feel bound to protest, not only against the conclusions he draws from it, but that that portion analysing its substance does not, in the remotest manner, convey an idea of my views in supporting the dualistic doctrine. My sole object throughout was to establish *primâ facie* evidence that dualism rested on sound principles—a purely doctrinal question, independent of any therapeutic deductions to be derived therefrom, and which I purpose to examine at some future time.

My allusion to the inoculations of Dr. Lindman was only intended to illustrate my views concerning the reproduction of venereal and syphilitical chancres in their own nosological species, entirely irrespective of syphilisation. I meant no more when I referred to Professor Boeck's theory of the varieties of chancres; and if, farther on, I protested against his *modus operandi* in inoculating, I in no way pointed to his practice in a therapeutic point of view; but

solely to the little reliance that can be placed on the authenticity of the product.

I am the more anxious to set myself right in this matter, as, during the amiable Professor's stay in England, I was daily in the most friendly and intimate intercourse with him; and watched with the keenest interest his experiments at the Lock Hospital, thereby deriving much benefit from his great experience. Further, I should deem it the greatest presumption on my part to prejudge a question—so dear to the venerable Professor's heart—the therapeutic value of which has been referred for appreciation to my learned brethren forming the medical staff of the Lock Hospital, who have been instructed to make a report on the subject. I am, etc.,

A. W. L. C. MEREDYTH.

76, Margaret Street, Cavendish Square, April 21st, 1866.

[The report which Dr. Meredyth criticises was printed from a manuscript forwarded by the Secretaries of the Harveian Society. EDITOR.]

MR. BAKER BROWN'S OPERATION.

SIR,—In common with, I know, many of my professional brethren, I am most pleased that you have, in your current number (April 28th), reviewed as you have done Mr. I. B. Brown's late publication and the subject to which it really relates.

There is one question that must occur to every one, and I put it with all professional propriety: What is the value, *in toro nuptiali*, of a woman on whom the "operation as usual" has been performed? I have heard of bachelors fighting shy of young ladies who are known to have consulted a certain celebrated physician who insists on a "digital exploration" in every case of illness; but this ——— !

My only personal knowledge of the operation is, that it was once suggested for a young unmarried patient of mine, who was suffering from a disease rare enough in the virgin—prolapsus uteri. I utterly withstood the proposal, and cured her with alum-baths, etc., in a few weeks. The most careful inquiries in this case convinced me that this girl was of the utmost purity of mind and thought.

The husband of another patient called to tell me that his wife had gone to town, and had consulted a surgeon, who had told her that "a slight operation on the external parts was necessary", which he had fixed a day for performing. (She suffered from excoriation of the os and anteversion of the body of the uterus.) I told him a tale that sent him to the telegraph-office with a very peremptory prohibition. She afterwards consulted an eminent accoucheur, who confirmed my opinion, and said he could conceive of no "operation" that could possibly be necessary.

I rejoice to read your strictures, also, mild as they are, on the Report of the "London Surgical Home"—sent, be it remarked, to half the nobility in the kingdom. After "the Rev. J. P. Gell offered up prayer", there was read over to the ladies and gentlemen assembled, as at pp. 15, 16, and 17, a list of female diseases enough to make the blood of any layman curdle. The curiosity of non-professional *men* I know this list to have excited, from having had to translate some of the hard names. And are we to suppose that feminine curiosity is either less, or seeks no gratification? That the "proceedings" of the meeting, as reported, should be published and circulated, is surely a strange professional anomaly. It seems to me that, if it be possible to suggest to the female mind thoughts which may result in the deplorable habits, the reference to which no euphonious periphrasis can conceal, it is most likely to be done by the circulation among families and non-professionals of publications that will be read chiefly by those to whom they will prove harmful.

The gravity of the subject no physician can doubt; but this very gravity should retain it in its proper place among other professional arcana. Now that the melancholy neglect of the dead languages has deprived us of the familiar use of Latin, under the shelter of which our modest forefathers would have shrouded such scientific details, I heartily agree with your suggestion that the title of any book bearing on such a subject should be, like a ship's flag, such as to serve either as an indication or as a warning. I had already been astounded by the notice in the *Church Times*, which you quote at p. 456. Fancy some innocent curate going about recommending his easy little operation for "distressing cases of illness"! I am, etc.,

A PROVINCIAL F.R.C.P.

April 30th, 1866.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND. The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at a meeting of the Court of Examiners, on April 25th.

Bailey, Thomas, L.S.A., Gough Street North
Colquhoun, Frederic Steuart, Tiverton, Devon
Creed, John Mildred, Melbourne, Australia
Farley, Frederick Baldock, Cretingham, Suffolk
Goodwin, Arthur, Chesterfield
Haynes, Frederic Harry, Evesham, Worcestershire
Horder, Thomas, Salisbury
Ireland, Edward, Kendal, Westmoreland
Jackson, Mowbray, Bowbrickhill, Bucks
Leggatt, Alfred John, Lowndes Square
Leverton, Edward James, Truro, Cornwall
Lucas, George, Burwell, Cambridgeshire
Morris, Henry, Petworth, Sussex
Poore, George Vivian, Andover
Reid, Lestock Holland, Toronto, Canada West
Richardson, William Edmund, Leeds
Rule, William Bennett, Maida Hill
Sargent, James Forbes, Bentinck Terrace, Regent's Park
Stocks, Frederick, Wakefield
Tay, Waren, Worcester
Upton, Herbert Chrippes, Petworth, Sussex

Admitted on April 26th—

Blythman, Clement Samuel, Swinton, Yorkshire
Bowkett, Thomas Edward, Poplar
Buckley, Henry Child, Llanelly, Carmarthen
Coalbank, Isaac, Old Dalby, Leicestershire
Cooke, James Lawson, Market Drayton
Gray, Alexander Riddoch, M.A. & M.B.Univ. Aber., Aberdeen
Hill, Arthur, L.S.A., Pimlico
Hughes, James Brierly, Congleton, Cheshire
John, William, Haverfordwest
Kelly, Charles, Market Deeping
Lamb, Barnabas Walter, Stourport, Worcestershire
Malins, Edward, Liverpool
Monckton, William, Brenchley, Kent
Parsons, Frederic William, Bayswater
Pattinson, Henry Beaumont, Heavitree, near Exeter
Richards, William Joseph, Redruth, Cornwall
Tattersall, William Joseph, Bacup, Lancashire
Taylor, Moses, Walsall, Staffordshire

At the same meeting of the Court—

Thomas, David Bowen, Greenwich Hospital, passed his examination for Naval Surgeon. This gentleman had previously been admitted a member of the College: his diploma bearing date April 11, 1861.

Admitted on April 27th—

Airey, George, Bayswater
Carter, William, M.D.Edin., Mid Calder, near Edinburgh
Chapman, George, Brierley Hill, Staffordshire
Davies, William, Llanpumpsaint, Carmarthen
Dunn, George Newman, Dublin
Exell, Edmund, Yeovil, Somerset
Hayden, James Augustus, High Wycombe
Heelas, Martin Luther, Wokingham
Hiron, William Nathaniel, Chipping Campden
Ilott, James John, L.S.A., Bromley, Kent

Kenyon, George Arthur, Doncaster
Maybury, Augustus Constable, Frimley, Surrey
Oakman, Joseph, Wimbledon
Raine, George Rolph, Billericay, Essex
Read, Arthur Walter, Coventry
Riley, Joseph, Barnes, Surrey
Smith, Joseph William, Weaverham, Cheshire
Thomson, Henry Albert Richardson, Spencer Square
Thurston, William French, Notting Hill
Watson, Samuel Key, Jersey
Withers, Richard Walter Owen, Shrewsbury
Wright, Robert Temple, Norwich

APOTHECARIES' HALL. On April 26th, 1866, the following Licentiates were admitted:—

Eaton, John Chamberlin, 5, Fitzroy Square
Farr, Archer, Dunstable, Bedfordshire
Haslam, James, Church Road, Islington
Hilton, John, Croston, near Preston, Lancashire
Millett, George Bown, Penzance, Cornwall
Ruttledge, Edward Butler, Ingatestone, Essex
Square, William, Plymouth
Sutcliffe, William Greenwood, Ashville Place, Battersea Park

APPOINTMENTS.

KEMPTHORNE, Henry L., M.D., elected Assistant Medical Officer to Bethlem Hospital.

NORRIS, George R., Esq., appointed Medical Officer to the Wivelliscombe Dispensary.

ARMY.

CAHILL, Surgeon A. P., M.D., 6th Foot, to be Surgeon-Major, having completed twenty years' full-pay service.

CHAPMAN, H. T., Esq., to be Staff-Assistant-Surgeon, *vice* C. Williams.

DOMENICHETTI, Surgeon R., M.D., 75th Foot, to be Surgeon-Major, having completed twenty years' full-pay service.

EVANS, Surgeon U. W., M.D., 61st Foot, to be Surgeon-Major, having completed twenty years' full-pay service.

HAWARD, Staff-Surgeon W., to be Surgeon 105th Foot, *vice* A. M. Macbeth.

JOHNSTON, Staff-Assistant-Surgeon J. S., M.D., to be Assistant-Surgeon 69th Foot, *vice* A. Neill.

NEILL, Assistant-Surgeon A., 69th Foot, to be Staff-Assistant-Surgeon, *vice* J. Johnston, M.D.

PEACOCKE, Staff-Surgeon G., M.D., from half-pay, to be Staff-Surgeon, *vice* W. Haward.

ROYAL NAVY.

BAIRD, William J., M.D., Surgeon (additional), to the *Boscawen*.

JOHNSTON, William, M.D., Assistant-Surgeon, to the *Bristol*.

MANSFIELD, Pierce, M.D., Surgeon, to the *Amazon*.

MILNE, Thomas, M.D., Assistant-Surgeon, to the *Mullet*.

MOCKRIDGE, John, Esq., Assistant-Surgeon, to the *Bristol*.

ROCHE, William, Esq. (*a*), Assistant-Surgeon, to the *Black Prince*.

SLAUGHTER, Charles H., Esq., Assistant-Surgeon, to the *Jackal*.

SLOAN, J., M.D., to be Deputy Inspector-General of Hospitals and Fleets on the retired list.

TURNBULL, Alexander, M.D., Assistant-Surgeon, to Plymouth Hospital.

YARDE, William, Esq., Assistant-Surgeon, to the *Industry*.

MILITIA.

FOOTIT, W. F., Esq., to be Surgeon Royal Sherwood Foresters, or Nottinghamshire Militia.

VOLUNTEERS, (A.V.=Artillery Volunteers; R.V.=Rifle Volunteers):—

BARNES, J. W., Esq., to be Surgeon 2nd Middlesex A.V.

FISH, R., Esq., to be Assistant-Surgeon City of London Rifle Volunteer Brigade.

GILL, W., L.R.C.P.Ed., to be Honorary Assistant-Surgeon 1st City of London A.V.

HAYWARD, W. H., Esq., to be Honorary Assistant-Surgeon 16th Worcestershire R.V.

HODGSON, J. B., M.D., to be Surgeon Preston (Lancashire) R.V.

HOWSIN, E. A., M.D., to be Lieutenant 28th West Riding R.V.

INGHAM, A., Esq., to be Honorary Assistant-Surgeon 28th West Riding R.V.

SAVAGE, J., Esq., to be Honorary Assistant-Surgeon 28th West Riding R.V.

STEPHENS, T., Esq., to be Assist.-Surg. 1st Northumberland A.V.

THYNNE, T., M.D., to be Assistant-Surgeon 2nd Middlesex A.V.

BIRTHS.

BLACKMORE. On April 26th, at Douglas Road, Canonbury, the wife of James T. Blackmore, L.R.C.P.Ed., of a daugter.

CLARKSON. On April 26th, at Romford, the wife of William H. Clarkson, Esq., Surgeon, of a daughter.

GREENWAY. On April 28th, at Sandy, Bedfordshire, prematurely, the wife of J. R. Greenway, L.R.C.P.Ed., of a son.

HENRY. On April 26th, at Stratheden House, the wife of Mitchell Henry, Esq., of a son.

MCCONVILLE. On April 26th, at Glasgow, the wife of John McConville, M.D., of a daughter.

MARSHALL. On April 23rd, at Mortlake, Surrey, the wife of William Marshall, M.D., of a son.

MONCKTON. On April 26th, at Alrewas, Staffordshire, the wife of William Monckton, Esq., Surgeon, of a daughter.

MORGAN. On April 27th, at Stamford, the wife of *Fortescue John Morgan, Esq., of a daughter.

PARROTT. On April 27th, the wife of John Parrott, Esq., Surgeon, Clapham Common, of a son.

WYMAN. On April 26th, at Highgate, the wife of *W. S. Wyman, M.D., Hatfield Broad Oak, of a son.

MARRIAGES.

CURRIE, Robert George, Esq., H.M. Bengal Civil Service, to Fanny Catherine Ouseley, eldest daughter of Alexander C. MACRAE, M.D., late H.M.'s Bengal Medical Service.

DALE, the Rev. F. S., M.A., Incumbent of St. Luke's, Birmingham, to Lydia Elizabeth, eldest daughter of Charles BRACEY, Esq., Birmingham, at Edgbaston, on April 24.

DE LA CONDAMINE, John, Esq., of Edinburgh, to Ellen, daughter of Henry OLDHAM, M.D., of Finsbury Square, at Beckley, on April 26.

GARRETT, Robert Henry, Esq., Weston-super-Mare, to Emily, only daughter of the late John JOHNSON, M.D., of the same place, on April 24.

HILL, William R., M.D., of Lymington, Hants, to Mary Elizabeth, eldest daughter of William CHINERY, Esq., of the same place, on April 26.

LAW, Richard Alexander, Esq., of Scurmore House, county Sligo, to Helen Scott, only daughter of John BROWN, M.D., F.R.S.E., at Edinburgh, on April 24.

*PARSONS, James St. John Gage, L.R.C.P.Ed., of Bristol, to Bessie, youngest surviving daughter of the late Rev. Richard MCLEARN, of Halifax, Nova Scotia, at St. George's, near Bristol, on April 26.

RUTTER, Frederick John, Esq., of Hillingdon, to Elizabeth, only daughter of the late Arthur STILWELL, M.D., of the same place, on April 26.

DEATHS.

DAVIDSON. On April 29th, at Shaftesbury House, Bayswater, Arthur William, third son of Thomas Davidson, M.D.

EDMUNDS. On May 1st, at 4, Fitzroy Square, aged nearly 1 year, of spasm of the glottis, while apparently in perfect health, Harold Charles, son of *James Edmunds, M.D.

GITTENS, Joshua Mayers, M.D., at Barbadoes, aged 53, on April 3.

HARRISON, John, M.D., at Highgate, aged 33, on April 28.

JOHNSTONE, John Maxwell, M.D., late of Demerara, at Bath, on April 18.

ROGERS. On April 18th, at Great Stanmore, aged 86, Charlotte Anne, widow of the late William Rogers, Esq., Surgeon.

WEST, Thomas, M.D., at Daventry, aged 70, on April 21.

THE BRITISH MUSEUM. Professor Owen reports, in 1865, the acquisition of 30,402 specimens in the departments of natural history.

A MORNING CONCERT will be given at Messrs. Collard's Rooms in Grosvenor Street on the 25th instant, for the benefit of the widow and son of the late Mr. W. D. Key, surgeon, of Islington.

SOCIAL SCIENCE ASSOCIATION. A guarantee fund of £10,000 has been provided for the next meeting of the Social Science Association by the inhabitants of Manchester.

THE OLD TALE. An action (Hazell *v.* Vokin) was lately brought to recover compensation in damages for an injury the plaintiff's wife had sustained by reason of the negligent driving of the defendant's servant. The medical witnesses who were called on both sides differed very much in their opinions as to the extent of the injury.

LUNACY COMMISSIONERS. Upon the vote of £9735 for the lunacy commissioners and inspectors of lunatic asylums, in Committee of Supply last Monday, Mr. Scourfield called attention to the general dissatisfaction which prevailed owing to the constitution of the Poor-law Board, which was not directly represented in the house.—Mr. Childers admitted that the system did not work altogether satisfactorily. The fact was, that there were three different systems now at work in England, Ireland, and Scotland; and he thought they would soon be in a position to know which was the best.

Contagious Diseases Bill. This Bill has been read a third time and passed.

Lunacy Acts (Scotland) Amendments. These Acts, as amended, were, on Monday last, reported to the House of Commons.

A Compliment from the "Times." The *Times* of April 30th, in a leading article on Cholera, learnedly informs us that "we are ignorant of the laws of health"!

University of London. In Committee of Supply, on Monday last, a vote of £20,000 was asked for the erection of a building for the University of London. Sir C. O'Loghlen expressed his gratification, seeing it was full time that the University should have not only a name, but a local habitation. Mr. Cowper said the building was intended to be erected on the northern side of the gardens of Burlington House. Mr. Childers said the students who came to the examinations of the London University came from many colleges and belonged to different denominations. There were examined at the University last year upwards of one thousand students, on thirteen different occasions. The present accommodation was notoriously inadequate; and what was wanted was a proper room for the Senate, rooms for the registrar and others officers, a large hall for examinations, a smaller hall also for examinations, waiting-rooms, and class-rooms; and it would be impossible on a proper scale to construct such a building as was required for a less amount than that asked for. After some further discussion, the vote was agreed to.

Infected Cabs. In Committee of Supply, on Monday last, Mr. Crawford called attention to the great want of precaution in licensing drivers of cabs and other public vehicles. He also complained of cabs being used to convey fever and other patients to the hospitals. Dr. Brady corroborated the statement regarding the dangerous uses to which cabs were often applied, and said he had the authority of medical men connected with some of our hospitals for saying that many infectious diseases were propagated by this practice. Mr. Hankey said attempts had been made to have vehicles set apart for carrying infected persons to hospitals, but the public would not subscribe. Dr. Brady said the Government ought to take the matter in hand and require each parish to provide conveyances for this exclusive purpose. Mr. Candlish suggested that the Poor-law Board should enable unions throughout the country to provide cabs for persons suffering from such diseases. That course had been followed by the guardians in the borough which he represented; and, while it was inexpensive, he had no doubt it was most protective.

Assault on a Surgeon. At Clerkenwell, a few days ago, John Lawley was charged with being drunk and violently assaulting Dr. J. T. Paul, surgeon to the E Division of Police, at his residence, 26, Burton Crescent, St. Pancras. The prisoner went to the prosecutor's door, knocked, and went direct into the consulting-room. He was asked to leave, but would not, and when Dr. Paul went into the room the prisoner struck him on the shoulder. The doctor took up a stick, and was about to use it, when the prisoner wrenched it from his hand and hit him on the head with it. The prisoner wrestled with him, got him against the wall, and endeavoured to strangle him; and had it not been for the arrival of the two servants and Mrs. Paul there could be little doubt that the doctor would have been seriously injured. As it was, the prisoner got his knees in his stomach and caused him great pain. When the prisoner found that the stick had a point in it, he attempted to run it into Dr. Paul's throat. With great difficulty he was got to the police-station. Dr. Paul said that this was not a solitary instance of the kind. Mr. Barker said it was a very serious charge, and one that ought to be properly investigated. For that reason he would remand the prisoner for a week. Dr. Paul said he had no doubt that, if the case were mentioned in the *Times*, the magistrate would hear of similar cases.

University of Edinburgh. The annual ceremony of graduation in arts, law, and divinity, to which was added this year, for the first time, science, took place last week. The degree of Doctor of Science, just instituted in this University, was conferred on Mr. A. Hastie Dick, a member of the University of London, the first to claim that honour, and two young gentlemen took the maiden honours in the degree of Bachelor of Science. Nine young gentlemen graduated as Bachelors of Divinity, and five as Bachelors of Law, while about forty took the degree of M.A., five or six of them with honours.

Contagious Diseases Bill. In Committee of the House of Commons on this Bill, on April 26th, Mr. Ayrton said that two years ago he opposed the Bill because it ministered to vice, and made no provision for the reclamation of the unfortunate women. He was glad to find that the Government had profited by his advice, and that many of those unfortunate women had been reclaimed and restored to their friends. He attributed the present measure entirely to the action of the medical officers of the army and navy, who strongly objected to the present mode of inspection.—Lord C. Paget said that Mr. Ayrton appeared to be ignorant of the care taken to preserve the health of the men in both services.—Mr. Henley asked, if the Bill was to be extended to Windsor, why not to Westminster?—Sir G. Grey: There are troops at Windsor.—Mr. Henley said there were troops in Westminister, and also a public school.—Sir G. Grey said the only question for the Committee was whether the existence of disease in the services justified exceptional legislation. — The Bill, as amended, was ordered to be reported to the House.

Society for Relief of Widows and Orphans of Medical Men. The annual general meeting of the members of this Society was held at 53, Berners Street on April 26th. The balance-sheet of the year 1865 was read; from which it appeared that sixty-five widows and orphan children of deceased members of the Society had received ordinary relief during the year to the extent of £2150, besides other grants. The officers and directors of the Society were elected for twelve months as follows. *President*—Martin Ware, Esq. *Vice-Presidents*—E. A. Brande, Esq.; P. M. Latham, M.D.; J. Bacot, Esq.; D. H. Walne, Esq.; A. J. Sutherland, M.D., F.R.S.; G. Burrows, M.D., F.R.S.; J. Miles, Esq.; C. H. Hawkins, Esq., F.R.S.; J. Paget, Esq., F.R.S.; C. Hawkins, Esq.; T. Hammerton, Esq.; Sir Charles Locock, Bart., M.D. *Treasurers*—J. T. Ware, Esq.; G. Hamilton Roe, M.D. (Acting); R. S. Eyles, Esq. *Directors*—H. Sterry, Esq.; H. Jeaffreson, M.D.; H. S. Illingworth, Esq.; F. Hawkins, M.D.; T. B. Curling, Esq.; J. Hilton, Esq.; J. Love, Esq.; H. A. Pitman, M.D.; J. Adams, Esq.; R. Druitt, M.R.C P.L.; J. C. Forster, Esq.; E. Tegart, Esq,; J. Scott, Esq.; H. Lee, Esq.; C. Collambell, Esq.; R. Quain, M.D.; G. Johnson, M.D.; C. F. Du Pasquier, Esq.; E. U. Berry, Esq,; S. Solly, Esq.; J. Morgan, Esq.; R. Barnes, M.D.; G. Budd, M.D.; W. Bowman, Esq., F.R.S. The annual dinner is appointed to be held on the 16th instant; for particulars of which, and the limits within which medical men must live to become members of the Society, we refer to the advertisement in our present number.

Royal Society. At the Royal Society's *Soirée*, on the 28th ult., Dr. Bence Jones exhibited illustrations of the fluorescence of a certain substance, allied in its nature to quinine, inherent in the flesh of animals, the singular characteristic optical effects of which were shown in the extra violet rays of the electric light. Mr. Bateman discoursed on the water supply of London from the Plynlimmon district. Professor Graham shewed the process of the separation of the oxygen from the air, by dialysis. The air from within an India-rubber bag is exhausted, and as the vacuum is continued by the descent of a column of mercury connected by a pipe with the bag, the air has a natural tendency to flow through the substance of the bag itself. The oxygen, however, being more soluble, so to express it, by the India-rubber than the other component of the air, the nitrogen, a portion of the oxygen of the air (about forty per cent.) passes through, and is carried down in globules by the column of mercury, and being collected in test tubes or other convenient receptacles, partially extinguished matches may be relighted, and other experiments illustrating the properties of oxygen may be performed.

Cholera Rumours. One hundred and thirty additional deaths have taken place on board the steamer *England* at Halifax. The disease is decreasing, and there is no sickness among the cabin passengers. The Halifax physicians pronounce the disease to be decidedly cholera.—The cholera at Guadaloupe has still prevailed; and the attacks of the disease in all parts of the island, though few, have been generally fatal.—A case of Asiatic cholera has occurred at Bristol. It appears that a seaman came from Rotterdam, *viâ* London, and that on the journey from the latter place he was first attacked with the disease, which made such rapid strides, that within eighteen hours of his first seizure he was a corpse. Dr. Davies, the medical inspector of the city, and Dr. W. Budd, both pronounced it a case of Asiatic cholera.—The cholera has passed from the Duchy of Luxembourg into Holland. Letters from the Hague mention that it has broken out in several Dutch towns, and at Rotterdam and Delfshaven especially.—It is said that no case of cholera ever occurred in the part of Virginia which contains its mineral springs.—Two emigrants, a Dane and a German, arrived last week in Liverpool from Hull. On Monday last they were attacked with cholera, and removed to the Liverpool workhouse. The authorities are taking every precaution against the spread of contagion, as large numbers of German emigrants are constantly arriving in the town.

Quarantine. In Committee of Supply, on Monday last, on the vote of £1444 for quarantine expenses, Mr. C. Bentinck said that the quarantine establishments appeared to be disappearing; but now that the cholera was impending it was possible they might be revived. He asked for explanations as to the vote.—Mr. Childers said that if the quarantine laws were to be continued, this was the smallest establishment that could be kept up. Parliament held the Privy Council responsible for carrying out the quarantine laws. No one would question the necessity of quarantine regulations a year or two ago when two ships reached England with yellow fever on board.—General Dunne recognised the necessity of quarantine, but could not understand how so small a sum as £1444 could effect the object. How could it affect quarantine in the Mediterranean? With free trade we had suffered from the cattle-plague, and cholera might march upon us with the same facility. A man had arrived at Bristol suffering from cholera, which was impending at this moment. Was this not sufficient to establish an organisation equal to check it? Cholera would not be any more restrained by such provision, than the cattle-plague had been by the vacillating precautions of the government.—Mr. Ayrton thought he saw a job in this vote.—Mr. P. Urquhart thought that much evil might be prevented by good quarantine regulations.—Mr. Sandford thought that, as the cholera seemed to be approaching these shores, the government ought not to lose a moment in using preventive measures.—Dr. Brady contended that the best means of preventing the spread of the disease would be to establish a board of medical officers. When the cattle-disease was in its most dangerous stage, Government appointed officers to examine the cattle on their being landed; and surely, where the lives of men were imperilled, they might show some extra zeal for the preservation of the public health.—The vote was agreed to.

Royal Surrey County Hospital. On the 27th ult. was celebrated the inaugural ceremony of this institution, prior to its opening for the reception of patients. The hospital was solemnly dedicated by a religious service, by the Bishop of Winchester, who proceeded to uncover the bust of the late Prince Consort, which Her Majesty had directed Mr. Theed, the sculptor, to execute, and had graciously presented to the committee of the hospital. It is about two years and nine months since the foundation stone was laid by Mr. Lewis Loyd, the then High Sheriff of the county. Since then the works have steadily progressed, and the hospital is now completed and fully equipped, and furnished in every particular. The site is salubrious, being on the slope of the chalk range, known as the "Hog's-back," between Guildford and Farnham. It is within five minutes of the Guildford railway station. The most modern appliances and improvements have been sought for, and the minutest detail has been carried out with as much attention as works of greater magnitude, and apparently of more importance. The main wards contain twenty-one beds each; they are wide, lofty, and spacious, and are lighted by windows both on the north and south side, and at the ends. The committee seem not to have been inimical to the "glass and glare" system, for we find that the window space is equivalent to twenty-four square feet to each bed, about the same as in the Vincennes Hospital, Paris, and the Herbert Hospital at East Woolwich. The building is opened without debt. The cost from first to last has been altogether £17,015. The Queen had consented to become patroness of the hospital, and sent a check for £105.

Royal Medical Benevolent College. On the 26th ult., the anniversary festival of this institution was held at Willis's Rooms. Sir William Fergusson presided, and was well supported by surgeons and physicians. The chairman in giving "Success to the Medical Benevolent College," referred to the report of the institution, which afforded the strongest proof, not only of its utility, but of its actual necessity. The College was founded in 1851, as an asylum for medical gentlemen, and for their widows, who may have been left in reduced circumstances. The objects which the College is now carrying out are threefold—first, to maintain an asylum in which a hundred pensioners, who must be duly qualified medical men, or their widows, are provided with rooms, and with incomes graduated according to their necessities; the second object is to provide a school in which a liberal education is given to two hundred boys, the sons of doctors, at least forty of whom are maintained entirely at the expense of the College, while the remainder are charged at the lowest rate found to be practicable;

the third and last benevolent effort of the College is to provide either annuities or occasional pecuniary assistance to medical gentlemen in distressed circumstances, or to their families, when such assistance can be granted without detriment to the asylum or school, which is ever regarded as the principal object of this charity. There are at present resident in the College at Epsom twenty-four pensioners, each of whom is provided with three comfortably furnished rooms, an ample annual allowance of coals, and £21 a year in money. The full complement of two hundred boys are now in the school, and in addition to these there are many day scholars, who receive all the advantages of a first-class education on payment, but who are not necessarily the sons of medical men. The Council are, however, earnestly desirous of increasing the number of foundation scholars, and of placing their maintenance and that of the pensioners upon a footing independent of the somewhat precarious support of annual subscriptions. Between £600 and £700 was subscribed in the room.

KNIGHTHOOD AND LONG LIFE. The general average of human life in the British Islands is about 33 years. It is, therefore, worthy of note what effect good living and other accessories of wealth have in preserving life. In 1865-6 there died fourteen peers, whose united ages amounted to 931 years, or an average of a little over 66 years each, just double the general average. The oldest (Viscount Combermere) was 93, and the youngest (Baron Kingsale) 38. In the same period there died forty baronets, whose total span of life was 2,623 years, or an average of 65½ each. The oldest two (Sir J. H. Palmer and Sir Thomas Staples) were 90 years of age each; and the youngest (Sir F. D. Legard) was 32. But, most remarkable of all, there died thirty-eight knights, whose ages amounted to the total of 2,744 years, or the remarkable average of 73 each. The oldest (Sir F. W. Austen) was 91 years of age, and the youngest (Sir R. M. Bromley) 52. It seems as if knighthood were the *elixir vitæ*.

TREATMENT OF LUNATICS IN FRANCE. A Government Report on the lunatics confined in public and private asylums in France states that in 1860 there were 57 public and 42 private asylums in the 86 departments of France. These were divided among 60 departments, leaving 26 unprovided with any refuge for insane persons. The number of lunatics in asylums has gradually increased since 1835. The number confined in asylums was, on January 1, 1835, 10,539; in 1842, 15,280; in 1849, 20,231; in 1856, 25,485; in 1861, 30,239. The increase of lunatics was 750 annually. In 1861, the asylums could afford accommodation to 31,550 patients, so that there were 1,311 beds vacant. In 1856, the number of lunatics was 22,602; idiots, 2,840. The idiots increased within five years by 32 per cent., while the lunatics increased by only 14 per cent. This difference is accounted for by the number of idiots admitted into asylums who were previously taken care of in their families. The women in asylums increase in a greater proportion than the men. Four-fifths of the inmates of lunatic asylums are regarded as incurable. There is one male lunatic for 915 men, and one female lunatic for 839 women; and one male idiot for 796 men, and one female idiot for 1,034 women; showing that there are fewer lunatics among men than among women, and that there are fewer idiots among women than among men. The mortality among men is greater than among women in lunatic asylums, there being 130 deaths among men to 100 among women. Between 1854 and 1860 inclusive (seven years), 68,992 patients were received into lunatic asylums, and 63,277 were discharged or died. Four-fifths of the patients admitted into lunatic asylums are supported by public charity, at an expense of a little more than 1s. a head *per diem*.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....Metropolitan Free, 2 P.M.—St. Mark's for Fistula and other Diseases of the Rectum, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TUESDAY. .... Guy's, 1½ P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.

WEDNESDAY... St. Mary's, 1 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.

THURSDAY.....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Great Northern, 2 P.M.—London Surgical Home, 2 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.

FRIDAY..... Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

SATURDAY..... St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1·30 P.M.—Charing Cross, 2 P.M.—Lock, Clinical Demonstration and Operations, 1 P.M.—Royal Free, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY. Western Medical and Surgical Society of London, 8 P.M Nomination of Officers. Dr. Marcet, "On the Therapeutical Properties of Mineral Waters."

TUESDAY. Royal Medical and Chirurgical Society, 8.30 P.M. Mr. Toynbee, "On Disconnection of the Incus and the Stapes"; Mr. Durham, "On a New Operation for the Radical Cure of Hernia."

WEDNESDAY. Royal College of Physicians, 5 P.M. Dr. Andrew Clark, "On Some Points in the Minute Anatomy of the Lung."

FRIDAY. Royal College of Physicians, 5 P.M. Dr. Andrew Clark, "On the Theory of Pulmonary Hepatisation."

TO CORRESPONDENTS.

*** *All letters and communications for the* JOURNAL, *to be addressed to the* EDITOR, 37, *Great Queen St., Lincoln's Inn Fields, W.C.*

COMMUNICATIONS.—To prevent a not uncommon misconception, we beg to inform our correspondents that, as a rule, all communications which are not returned to their authors, are retained for publication.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

A TALE OF MISMANAGEMENT.—SIR: On the 28th of last June, a *soirée* was held at the Royal College of Surgeons, in Lincoln's Inn Fields. At that meeting, many gentlemen, I believe, lost their overcoats, hats, and other articles of dress, which have, in numerous instances, never been recovered. Amongst others, I lost a coat and hat—the former of which was restored to me after a lapse of about six weeks. I have had some correspondence with the authorities of the College in reference to the missing hat, and have been informed that the Council declines to replace it—repudiating all liability in equity or law, although I retain a ticket, numbered 212, which was given me on entrance as a voucher for the custody of the garments.

Now, the sum involved in my case is trifling in amount, but the principle is of some importance; and I venture to ask through your columns how many suffered through the defective arrangements on the evening in question, and whether the Council is not in common honour and decency bound to make good to their former possessors the various articles which were lost.

I am, etc., A MEMBER.

I should be glad, if supported by other sufferers, to try the legal rights of the question, mainly on account of the very cavalier behaviour displayed by the College on the subject.

COMMUNICATIONS have been received from:—Dr. THOMAS SHAPTER; Dr. MARRIOTT; THE HONORARY SECRETARIES OF THE HARVEIAN SOCIETY OF LONDON; Mr. T. M. STONE; Dr. JAMES RUSSELL; Dr. SIEVEKING; Mr. C. HOLTHOUSE; Dr. FREDERICK J. BROWN; THE HONORARY SECRETARY OF THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY; Mr. J. L. GREEN; Dr. J. HILL; Dr. MERRIMAN; Dr. H. SIMPSON; Dr. EDMUNDS; Mr. GASKOIN; Mr. LE GROS CLARK; and Dr. JONES.

Notes
ON THE
PATHOLOGY AND TREATMENT OF CHOLERA.

BY
GEORGE JOHNSON, M.D., F.R.C.P.,
PHYSICIAN TO KING'S COLLEGE HOSPITAL; PROFESSOR OF MEDICINE IN KING'S COLLEGE; ETC.

HOW SHALL WE TREAT CHOLERA?

The question which I have placed at the head of this communication, is one which, at the present time, is of the highest interest and importance; and it is one to which probably many of us will soon be called upon to give a practical answer. Dr. Handfield Jones has discussed this subject at some length in the last number of the Journal; and he invites others to give the results of their experience, particularly with reference to these two questions—Is it right to suppress choleraic diarrhœa at once and decidedly by any means in our power? or is it a better and a more successful practice to encourage the evacuations by eliminants? The whole tendency of Dr. Jones's remarks is in the direction of an affirmative answer to the first of these questions, and of course of a negative to the second. Now, the ultimate appeal for the decision of all questions of this kind must be to facts and to experience; but the difficulty of obtaining trustworthy facts and the results of unbiassed experience is much greater than is commonly imagined. The facts are often seen through the distorting medium of a theory, and the judgment is in consequence perverted. To illustrate this by an example: two practitioners (MM. Briquet and Mignot, *Traité Critique et Analytique du Cholera Morbus*, 1850, p. 514) who believe that the worst symptoms of cholera are the result of the drain of fluid from the blood, treated 200 cases of diarrhœa in the hospital, under the most favourable circumstances, by repeated large doses of laudanum, and twenty-six of the patients so treated passed into the stage of collapse. Now, while it is assumed that the arrest of the disease in the 174 cases was a salutary result of the treatment, it is also assumed that the transition from the stage of choleraic diarrhœa to collapse in the other cases was a consequence of the laudanum having failed to arrest the gastro-intestinal discharges. But a totally different and possibly a more correct interpretation may be given of these phenomena. It is at least conceivable, though it is obviously incapable of proof, that, if these 200 patients had been kept in bed and had taken only copious draughts of cold water or any other simple diluent, not one would have passed into collapse, and all might have recovered more speedily than they did while taking large doses of laudanum. It is an indisputable fact, that a large proportion of cases of choleraic diarrhœa will terminate in recovery under the use of the simplest possible remedies which are wholly free from astringent properties. Thus the late Mr. Wakefield, who was surgeon to the Middlesex House of Correction during the last epidemic of cholera in 1854, stated in a letter to the *Times*, that he had treated upwards of 150 cases of choleraic diarrhœa amongst the prisoners by thirty grains of sesquicarbonate of soda in a wineglassful of strong mint tea. The dose was repeated every half hour. No fatal case occurred. "The disease was arrested with a rapidity that was quite magical", and he had rarely occasion to administer the dose more than three times before the sickness and diarrhœa were arrested. While under treatment, the patient was confined to a diet of beef-tea, cocoa, or arrowroot; nothing solid, not even bread, being allowed while the diarrhœa continued. Now, this plan of treatment, which was remarkably well suited for allowing full play to the curative efforts of nature, can scarcely be supposed to have had any direct remedial effect, and it was certainly not an astringent treatment; yet the results were in the highest degree satisfactory, and form a striking contrast with the results of the opiate treatment in MM. Briquet and Mignot's cases. I am aware that too much reliance must not be placed on a comparison of the results of treatment in cases occurring at different times and in different countries; but there are many facts and considerations which point to the same conclusion as the comparison which we have just now instituted.

That treatment of choleraic diarrhœa is obviously the best, which most speedily and completely puts a stop to the purging without subsequent ill effects. In the treatment of this disease, we must never lose sight of an important principle which, with reference to another class of diseases, has been forcibly impressed upon us by one of the great living masters of our profession. Dr. Latham says: "There is a lesson which we are apt to learn slowly, but which all of us come to learn at last. It is this: that while present pain and present peril call loudest for relief and rescue, still in relieving and rescuing the ultimate well-being of the patient must not be disregarded altogether. To compare great things with small, it is not only in the art of war, that an imprudent victory has been the beginning of many disasters." (*Lectures on Diseases of the Heart*, vol. i, p. 236.)

For several years, I was in the habit of treating summer diarrhœa, and during the epidemic of 1849 choleraic diarrhœa, by opium and astringents; and it was the frequent failure of this method that led me to search for some better theory of cholera than that which suggested this unsuccessful practice.

My observation of the effect of opium in cases of choleraic diarrhœa is briefly this. When the diarrhœa is abruptly checked by the opium, the patient sometimes passes at once into a state of collapse; while, in other cases, the diarrhœa, having been arrested for a time, returns as soon as the effect of the opiate has passed off. In other cases, again, the diarrhœa continues, in spite of repeated doses of opium, for a period sometimes of several days; the patient meanwhile having a hot skin, a quick pulse, a coated tongue, headache, and other febrile symptoms.

On the other hand, I found, during the last epidemic of cholera, that when choleraic diarrhœa was treated by emetics, mild laxatives (castor oil), and cold water, the disease subsided much more speedily, and not one case, out of a large number so treated, passed into the stage of collapse. They all quickly recovered; although I am now convinced that in several instances much more castor oil was given than was necessary or desirable.

This is a true account of the results of the two opposite modes of treating choleraic diarrhœa, as I have observed them. And, moreover, I maintain that these results are in strict accordance with the most rational theory of cholera.

What is the most probable explanation of choleraic diarrhœa? It seems likely that a poison enters the blood, either through the lungs or through the gastro-intestinal canal; and that this poison excites certain zymotic changes in the blood, in consequence of which some blood-constituents undergo morbid alterations which render them not only useless but noxious. These morbidly changed blood-constituents

are then excreted by the mucous membrane of the stomach and intestines, and are ultimately ejected by vomiting and purging. It appears then that there are three distinct and well defined stages: 1, zymotic blood-changes, consequent on the imbibition of a poison or ferment; 2, vascular excretion of morbidly altered blood-constituents; and 3, intestinal elimination of the morbid excreta. Now, if this be the true explanation of choleraic diarrhœa, what is the probable effect of opium upon each stage of the disease? Is there the slightest reason to suppose that opium has the power to prevent or to check the zymotic changes in the blood? I know of none; and I believe that there is no evidence that opium has any such influence. But, from the known power of opium to check excretion, we should infer that it would probably prevent or retard the escape of the altered blood-constituents by the mucous membrane of the stomach and bowels; and then, if it be true, as we believe, that the immediate cause of choleraic collapse is an arrest of the circulation through the lungs, induced by morbidly altered blood, we can understand that the astringent action of opium upon the gastro-intestinal mucous membrane may be quickly followed by collapse. And here again facts and theory agree in a remarkable manner.

Yet, once more, what is the effect of opium when a quantity of morbid secretion has been poured into the intestinal canal? Obviously it must retard the escape of these offensive matters, and so prolong the disease. What says Sydenham upon this point? "By checking the disease at its onset, I should wear out the patient by an intestine war, and I should just confine the enemy to his seat in the bowels, should impede the natural evacuations, and detain those humours which were seeking for an outlet." And, again, with reference to the use of astringents, he says: "They keep the enemy to his quarters, and they change him from a visitor to a denizen. Besides this, the disease is prolonged, and there is danger in the delay. Vicious humours creep into the blood; ill conditioned fever is excited; and the patient suffers not only a severe disease, but a long one too." (*Sydenham's Works*, translated by Dr. Latham. Sydenham Society. Vol. i, pp. 163-4.) This statement is quite in accordance with my own experience, that the effect of astringents, and especially of opiates, in the early stage of epidemic diarrhœa, is to prolong the disease, and in the same degree to increase the risk of disaster.

The only period of the disease at which opium can be given with safety and advantage, is after the elimination of the intestinal excreta. It then allays pain and irritation, and often affords great relief and comfort to the patient. Whenever a dose of opium appears speedily to arrest an attack of choleraic diarrhœa, it is because the process of intestinal elimination had been well nigh completed before the dose was given: whereas, if given earlier, when the bowel contains an abundance of morbid secretions, the opium retards their exit, and so prolongs the disease. Whether an opiate does harm or good, then, will depend upon the period of the disease at which the dose is given. The rule is, not to close the door until "the enemy" has been expelled.

The cholera poison, whatever may be its nature and source, whether it be "ponderable" or not, is a reality, and no figment of the imagination. And it is as drastic a purgative as any drug in the list of the materia medica. This violent purgative action of the poison is a result, probably, of morbid zymotic changes which it induces in some of the blood-constituents; and, since it is likely that the longer it remains in the system the greater will be the mischief which it occasions, it seems obvious that nothing should be done to prevent the speedy exit of so active and so destructive an agent. Those who, under the influence of an erroneous theory as to the essential cause and nature of collapse, would not dare to give a purgative in cholera, are apparently blind to the fact that the tendency of their opiate treatment is to retain within the system an agent rapidly self-multiplying, and more violently purgative than any ordinary drug. Henceforth, let them bear in mind that so long as the morbid poison remains in the system, there is going on a rapid manufacture of *cholera-cathartine*, which must and will purge itself away.

Fortunately, in most instances, the purgative action of the poison is sufficient to overcome the astringency of the opium, just as a large dose of elaterium, in combination with opium, would purge itself away. And so choleraic diarrhœa, treated from the first by opium, in the great majority of cases, comes to an end, only somewhat less speedily than it would have done if left alone.

Dr. Handfield Jones asks whether the cholera poison is a thing conceivably capable of being eliminated. And he says that "the malarious poison, which much resembles choleraic, is not got rid of by any purging." Now, as to the cholera poison, there is a something thrown out of the body with the morbid excreta which is very generally believed to be poisonous; and it is considered highly important to disinfect, destroy, and put out of the way these poisonous excreta as speedily as possible, in order to prevent the spread of the disease. And here let me ask, is it possible that these cholera stools can be at once innocuous to the patient while they are retained within his body, and yet a source of danger to others when they are discharged from his bowels? If the cholera excreta are so poisonous that the discharges from a single patient, if allowed to pass into the sewers without previous admixture with disinfectants, may, as is supposed, infect a whole district (See Dr. Wm. Budd's papers in Association Journal, 1854), is it conceivable that they can be artificially retained within the intestines without detriment to the patient? Is there not an inconsistency here between the attempt to restrain the evacuations by opiates and astringents and the practice of disinfecting the stools? If the excreta are poisonous, they surely ought to be allowed—nay, assisted—to escape as speedily as possible from the patient's bowels. If they are not poisonous, why take the trouble to disinfect them before they pass into the drains?*

Then, as to the malarious poison, I would ask Dr. Jones what evidence he has that it resembles the cholera poison. I am not aware that we have any knowledge of morbid poisons, except that which we gather from observing their effects upon the functions and structure of the body; and, as the history and symptoms of cholera are certainly very different from those of ague, I should infer that their specific causes are essentially different. Dr. Jones surely will not maintain that the fact of the malarious poison being irremoveable by purging is evidence in favour of the astringent or against the eliminative treatment of cholera. What would Dr. Jones say to this argument? The malarious poison and the cholera poison much resemble each other. Quinine will not cure cholera: probably, therefore, it is not a cure for ague!

* Surely the advocates for the opiate and astringent treatment of choleraic diarrhœa, in opposition to the eliminative method, must be the legitimate therapeutical descendants of those amongst the cotemporaries of Sydenham, who, on theoretical grounds, so violently opposed that alarming innovation—the admission of cool and fresh air into the chambers of small-pox patients. They thought it essential for the safety of these unhappy patients to close the doors and windows, and thus to surround them with a poisoned atmosphere. Sydenham ventured to admit fresh air, and so to *eliminate* the poison.

Again, Dr. Jones says that "the analogy of most ther diseases of a toxic kind would lead us to think hat the morbific action is to be counteracted rather y endeavours to prevent its morbid effects, or to trengthen and hold up the vital forces against it, han by any process of elimination." Now, in reply o this statement, I would remark that, in most instances, we have no power to prevent the effects of norbid poisons. How powerless, for instance, we re to arrest the morbid phenomena of small-pox or yphus fever! And, again, in those rare instances n which we have the power to prevent certain effects f morbid poisons, we find that repressive measures re injurious. Take, for instance, the eruption on he skin in the case of scarlatina. By continued exosure of the surface to cold, we can drive in the ruption, and relieve the sensation of heat and ingling; but a very common result would be inflammaion of the kidneys and dropsy. Surely the true aim f scientific medicine is to study the phenomena of ach disease, with a view to ascertain their nature nd origin, and especially to determine the natural rocess of cure; to be very careful in arguing by nalogy from one disease to another; and in all cases o avoid such measures as would tend to repress a atural effort at cure. This principle, I conceive, ould equally forbid the use of cold lotions to the kin in scarlatina, and opiates in choleraic diarrhœa. Would Dr. Jones consider it good practice to check he profuse acid perspirations of rheumatic fever by old, or by other direct repressive means?

So unwilling is Dr. Jones to admit the principle of limination, that he endeavours to account for the ood effects of purgatives in some cases by supposing hat they substitute "another kind of action, of less ernicious character, for the original;" and he gives hat I cannot but consider a most incomprehensive nd improbable theory of choleraic collapse, to show hat castor-oil may be beneficial "as a modifier of an ritated state of the intestinal surface." In conrmation of this view, he states that he lately oberved an instance "in which a dose, taken on account of some abdominal uneasiness, removed the ymptoms speedily, without acting at all on the owels." He means, of course, without acting as an perient. But I venture to suggest that the oil in his case may have relieved the patient by driving ome irritating material from the more highly sensive small intestines into that more torpid receptacle, he large bowel. When castor-oil expels offensive nd irritating secretions from the bowel, it seems nore reasonable to attribute the relief to that kind f elimination, than to any mysterious alterative inuence of the oil upon the surface of the intestine.

There are some pathologists who, assenting to the octrine that the natural cure of cholera is effected y the elimination of the morbid excreta, yet maintain that the poison itself is sufficiently emetic and urgative, and that no attempt should be made to ncrease the discharges by artificial means. Now I dmit that, so far as regards the excretion from the lood-vessels into the stomach and bowels, no artiial aid is needed. So long as the circulation reains free, this process will be sufficiently active; nd when the circulation fails in consequence of the rrest in the lungs, as it does in cases of extreme ollapse, no purgative will keep up the excretory proess. But the process of elimination may be arrested n what I have before referred to as the third stage, nat of intestinal elimination. The morbid secreons may accumulate in the gastro-intestinal canal, r they may be but slowly and incompletely disharged; and then artificial aid may be of real value. bsorption is very active during the stage of action after collapse; and then poisonous excreta which have been retained within the bowel may re-enter the circulation and excite mischief. By copious draughts of cold water or other simple diluent drinks, by an occasional emetic, and by some mild but quickly acting purgative, the stomach and bowels may be freed from their poisonous excreta—the gastro-intestinal sewer may be flushed—and this with great advantage to the patient. Castor-oil, as a purgative in these cases, has the advantage of being very quick in its action, and yet it is unirritating, and has very little tendency to increase the drain of liquid from the blood.

It is to be hoped that a more rational pathology of collapse will henceforth lessen the unfounded dread of excessive purging. Death *may* be a result of excessive purging in cholera; but it is a comparatively rare result; and the probable reason is this. When the poison is so abundant or so virulent that its excretion would involve a fatal loss of blood-constituents, it so affects the circulation through the lungs that the flood-gates of the pulmonary artery are closed; the excretory process then ceases for want of arterial blood; and death results, not from exhaustion, but from an arrest of the circulation.

I venture to suggest that collateral evidence in favour of an eliminative and against an astringent and repressive treatment of choleraic diarrhœa, is deducible from the fact that many practitioners of eminence and repute, finding that the treatment by opium is unsuccessful, have long been accustomed to treat these cases by large doses of mineral acids. They give from half a drachm to a drachm of dilute sulphuric acid in water every half-hour, or even oftener, until three or four doses have been taken; and they declare that the diarrhœa thus dealt with ceases much more speedily than when treated by opiates, or when opiates or aromatics are combined with the acid. Now, those who believe that an astringent is essential for the arrest of a diarrhœa, probably consider this to be an astringent method of treatment. But it is an indisputable fact that these large doses of mineral acid tend to irritate the bowel, and thus have more of a purgative than of an astringent action. If any one dispute this proposition, let him, when not suffering from diarrhœa, put the matter to the test by taking four half-drachm doses of dilute sulphuric acid in the course of two hours. He will probably find that these large doses of sulphuric acid act as an unpleasant griping purgative.

Some practitioners are of opinion that the mineral acids act as a chemical antidote to the cholera poison. But, according to Mr. Wakefield's experience before referred to, an alkaline treatment might, with equal reason, be considered antidotal. We know nothing of chemical antidotes for the cholera poison, and probably we never shall.

I am told that there are some weak brethren who are haunted by the fear lest, in treating cholera by purgatives, they be supposed to act upon the homœopathic dogma, *similia similibus curantur*. If the commonly received theory of collapse were true, there would be some ground for this fear; but I have elsewhere endeavoured to show that mere purging will not give rise to the peculiar and distinctive symptoms of cholera, and that purging is not the disease but the cure. The way, then, to escape the dreaded suspicion of an alliance with homœopathy is to adopt a truly scientific pathology. In conclusion, however, I would warn those who persist in giving opiates and astringents, that a do-nothing system of homœopathic globulism will be more successful than theirs. In other words, Nature weighted with narcotics and astringents will lose the race in competition with Nature not so encumbered.

Original Communications.

NOTES AND OBSERVATIONS ON DISEASES OF THE HEART AND LUNGS.

By T. Shapter, M.D., F.R.C.P., Senior Physician to the Devon and Exeter Hospital, etc.

[*Continued from p.* 381.]

In the preceding paper, the contraction and expansion of the ventricles of the heart have been spoken of as the main agents of the circulation of the blood. It is now proposed to consider the rationale of the sounds which result from this vital process thus produced.

It is generally admitted, in accordance with the statement of Dr. C. J. B. Williams, that the series of phenomena which are associated with each complete movement of the heart (as the impulse, sounds, pause, etc.) occupy a cycle of time, divisible into five periods; two of these being occupied by the impulse, together with the first or systolic sound, which is dull and prolonged, the "rub"; one by the diastolic or second sound, sharp, short and abrupt, the "dub"; and the remaining two by the pause. Some modern observers, however, speak of a third sound, the presystolic (Vesal, Spring) occupying the latter half of the pause; but looking to practical results, any consideration of this latter need not detain us.

Though the above division of the heart's action into five periods be adopted, as most consonant with general observation, yet, doubtless, very many hearts that one examines will warrant a division of the cycle of events into four periods only, in which case the pause is diminished by one half: the first sound occupying two periods, the second sound one period, and the pause one period.

The first and second sounds are now generally, if not universally, admitted to be synchronous with the closure of the valves; the first or systolic sound with the closure of those at the auriculo-ventricular openings, the second or diastolic with the closure of the semilunar valves.

The conclusion as to the immediate cause of these sounds, is not so unanimous. Some writers attribute them solely and entirely to the sound emitted by the contraction of muscular fibre, and therefore due to the act of contraction in the heart itself; some to the blow of the heart on the parietes of the chest; some to the vibration of the valves;* and some to the effect of the heart's contraction on the fluid it circulates; and some regard these sounds as due to a combination of many of these causes. My own conviction is, that the sounds referred to are mainly, if not entirely, due to the natural interference with the even flow of the blood by the various mechanisms of the heart, and that they are to be referred to the ordinary laws of Hydraulics, and little, if at all, to be attributed to the contracting act of the muscle of the heart, or to any vibratory motions in the substance of the valves.

This branch of our inquiry presents itself under difficulties; and I only approach it with diffidence, for many of the English school, as Billing, Halford, Fuller, etc., and nearly all the writers belonging to the foreign schools, refer the sounds to the act either of muscular contraction or of valvular vibration.

Doubtless certain sounds may, under certain circumstances, be emitted during the contractions of muscular fibre; but these sounds are neither identical with nor even analogous to the audibly distinct phenomena presented during the heart's action; moreover, the intensity of the sounds emitted by the heart is not, *pari passu*, in accordance with the existing development of the muscular structure of the heart; on the contrary, disease in this organ, whether of hypertrophy or of attenuation, rather shows the opposite fact to be the rule.

The valves of the heart, whether considered in relation to muscular contraction or to vibration, certainly do not present *per se* those physical conditions adequate to afford a satisfactory explanation of the production of the sounds.

These valves are not, on the one hand, muscular in their structure, nor even closed through the immediate instrumentality of muscular contraction, but solely under the influence of the direct mechanical operation of hydraulic pressure; nor, on the other hand, is their size, under slow vibration, adequate to the production of so loud a sound; nor, supposing there were such adequate rapidity of vibration, is the condition of their floating in so dense a fluid, as is the blood, one thus likely to generate, or, if generated, to transmit sound.

Again, when, on the closure of the several valves, the passage of the blood through their aid is not completely effected, though the valves may, and the ventricles must contract, the former thus enjoying full scope for their vibratile qualities if they ever possessed them, and the latter for those muscular contractions which undoubtedly belong to them, the peculiar sounds said to be referable to their contractions and vibrations are no longer to be heard. It is true, sounds are heard; but these are of a quality which cannot be referred to muscular contractions, or to membranous vibrations, though they can be, equally with the normal sounds, accounted for by hydraulic laws. In fact, as is so well known, a very slight disturbance of function, or alteration in structure in these valves, so as to effect a condition either of slight obstruction, or of imperfect closure, may be sufficient to banish entirely the normal sounds, and convert them into others, very different in their character; moreover, both the normal sounds in question are emitted at the precise moment when the valves have become closed, and not at the time during which the process takes place, whereby their closure is effected; while any connexion of the second sound with the muscular contraction of the ventricles, is at once set aside by the fact of its not being synchronous with it.

Can these sounds be attributed to the heart's impulse, to the blow of the projected apex against the anterior walls of the thorax? As just stated, this certainly can not be the cause of the second and louder sound, for this latter takes place at a period of time, sensibly later than that which is occupied by the impulse or blow against the thoracic parietes. The dependence, therefore, of the second sound on this cause, may be at once set aside; and it will then only remain to consider what may be the connexion of the first sound with it. That it is not entirely dependent upon it, is obvious from the often repeated experiment of so exposing the heart that it has no chest parietes to strike against. Dr. Markham, in his practical and most excellent sketch of the diseases of the heart, addresses himself to this subject (*vide* Appendix III, *On the Sounds of the Heart*); and advances, as an argument for assuming this sound to be partially influenced by this cause, the com

* Spring (*Annales de la Société Medico-Chirurg. de Bruges*, 1861), who refers the sounds to the contraction of the heart and valves, attributes the presystolic sound to the lowering of the auriculo-ventricular valves.

ionly observed evidence of the beat of the heart of nervous, hysterical female. He states this to be onclusively demonstrative of the fact, that a heart an "rap like a hammer against the inside of the horax." Granting it to be the fact that under ertain circumstances the heart's impulse against the arietes of the chest is increased both in force and apidity, no argument can be deduced therefrom, or concluding the origin of the first or systolic ound to be due to this act, while there still remains ne undoubted evidence of the presence of the first ound, though no thoracic wall may exist for the eart to impinge against; and while, as may be too requently observed, this sound, provided only the alves be imperfect, may be lost and changed into nother of a totally different character, notwithtanding the impulse, the *ictus ventriculi*, be more iolent and distinct to the feel than natural.

As it is not the purpose of these papers to discuss rgely physiological data, but rather to state the practical conclusions arrived at, after many years of observation, I shall not pursue the discussion further, but t once venture here to suggest that, as it appears to ne, on the one hand, the various theories commonly dduced in explanation of the normal sounds of the eart, and of their disturbance in disease, are not dequate to explain them; so, on the other hand, heir production finds every explanation in certain of ne laws that govern the flow of fluids through ubes; and that, therefore, to the recognised laws of Hydraulics we must look for their true, safe, and consistent interpretation.

Having premised this, I will at once proceed riefly to consider the source of these sounds in relaon thereto.

One of the familiar and well acknowledged laws of ydraulics is that, the momentum of a liquid being s great as that of a solid, anything which opposes his momentum will receive as severe a blow as if om a solid. Dr. Arnott, in stating this law *Elements of Physics*, second edition, vol. i, p. 458), ives an example of its application, so analogous to, nd happily illustrative of, the whole question under iscussion, that I venture to transcribe it here.

"It has long been observed, in household experience and elsewhere, that, while water is running hrough a pipe, if a cock at the extremity be suddenly shut, a shock and noise are produced there. he reason is, that the forward motion of the whole ater contained in the pipe, having been instantly rrested, and the momentum of a liquid being as reat as of a solid, the water strikes the cock with ne same force as a bar of metal, or a rod of wood, aving the same weight, and moving with the same elocity. A leaden pipe, if of great length, is often idened or burst in this experiment. Lately, this rward pressure of an arrested stream has been sed as a force for raising water; and the simple arngements of parts contrived to render it available, as been called, on account of the shock, the waterm."

The circumstances attending the circulation of the lood through the heart, will, on consideration, be und to present every condition necessary for the pplication and illustration of this law; there is the urrent of blood passing through tubes, and this urrent suddenly and forcibly arrested by the closure the valves.

It has been stated by Dr. Fuller (*Diseases of the eart and Great Vessels*, p. 33) that the impulsion the blood against the semilunar valves is not lequate to produce the second sound, because the ssel behind is full; but his reasoning here is not nsistent with the above stated law of hydraulics, r is it borne out by fact. In order to test this, it is only necessary, by way of experiment, to check, by the sudden closure of a stop-cock, the stream of water passing through a filled pipe; the vessel behind is here quite full, and yet the blow takes place. The evidence of this is made sufficiently manifest in the noise thereby produced, and in the obvious vibrations induced in the surrounding materials.

Another law of hydraulics is equally applicable, and found to be complete in those cases where interference arises to the normal even flow of the blood, in consequence of the existence of certain departures from a perfect condition of the organs immediately concerned in its circulation.

Hydraulics teach us that, if the even flow of fluids in tubes be interfered with, audible indications of this interference are the immediate result. The law here is, that sounds are produced by eddies and by obstructions of flow, and are dependent for variety in the proportion of fluid to force and velocity. Hence, when the valves of the heart are diseased, the normal sounds are found to be modified, or even in some cases to be so entirely superseded by other and very different sounds, as to lead to the inference that they scarcely perform the functions of valves. We have in all these instances, then, presented to us certain qualities of sound, variously designated as murmurs, bellows-sounds, *bruit de soufflet*, etc., which are also presented to us on the passing of fluid through tubes, under certain circumstances, whereby the flow is interfered with, though these tubes be not furnished with valves. Aneurisms, arteries abnormally pressed upon, etc., offer themselves to the medical observer as frequent illustrations of this law. Dr. Watson (*Lectures on the Practice of Physic*, vol. ii, p. 235) says the whole matter may be briefly thus expressed: "The blowing sound may be occasioned by any change which alters the due proportion between the chambers of the heart and their orifices of communication with each other, and with the blood-vessels that respectively enter or leave them; it may also be occasioned by a preternatural velocity in the passage of the blood through a healthy and well adjusted heart. Dr. Elliotson, I think it is, who has offered this apposite illustration of the phenomenon. If the arches of a bridge have a certain relation to the quantity of water in the river, and to the force of the current, the water passes through them quietly and without any noise. Diminish the size of the arches, and the water begins to go through them with an audible rushing or roaring sound. The very same thing will happen if the arches remain unchanged in size, but the quantity of water in the river, and therefore its velocity and force, be augmented by heavy rains. So it is in the heart. If one of its orifices—say the aortic orifice—be narrowed, by disease of the valves, or in any other way, the blood will not, as before, glide through it smoothly and without noise, but will yield that sound which we call a bellows-sound. So also, if the orifice retain its natural dimensions, but the capacity of the cavity from which the blood is driven be augmented. Nay the same blowing-sound may be produced though the cavities and orifices are all healthy, and duly proportioned to each other, if the velocity of the circulating blood be increased beyond a certain measure."

The above passage has been quoted as well and forcibly exemplifying the law of murmurs, so frequently to be met with in diseases of the heart, and when it necessarily becomes the office of the physician to pronounce upon the condition of the heart in relation thereto. Given the flow of blood and the existence of a murmur as evidence of its normal relations being interfered with, there is then required to be ascertained the precise cause whereby this in-

terference is effected; whether it be through the means of obstruction in, or by inadequacy of, the conveying-tube; whether there be an increased or a diminished calibre in the chief propelling vessel or disproportion in the quantity or quality of the transmitted fluid, etc.

Having now set forth these two laws of hydraulics, and assuming their applicability to explain, as the case may be, the normal sounds and the murmurs occurring to the circulation of the blood during its passage into, through, and out of the heart, it will be useful to examine whether as theories they prove, experimentally, consistent with the various phenomena that occur.

[*To be continued.*]

REMARKS ON SYPHILISATION.

By George Gaskoin, Esq., Surgeon, Chevalier of the Order of Christ, Portugal; Surgeon to the Artists' Benevolent Fund; formerly House-Surgeon and House-Pupil, St. George's Hospital.

Certain lectures having appeared in the *Lancet* from the hand of the well known surgeon and syphilographer, Henry Lee—lectures which in an equal degree seem intended to extol the efficacy of the calomel bath in the cure of syphilis, and to depreciate the claims of syphilisation to the favour and study of the profession (for it is difficult to say which of these two is the principal aim of the writer)—it has appeared unbecoming in us, as friends of free inquiry, to remain silent under such a challenge; since, as intimates sharing in the same observations, and students in the same field, we might be accused of acquiescence in these views and complicity in these results, did we permit so narrow an interpretation to be placed upon what we have seen done during the last few months towards elucidating, through this process of syphilisation, many difficult and curious points in the natural history and treatment of the venereal disease. And, as Mr. Lee has given currency to his ideas in a periodical so much in favour as the above, no less with the medical profession than with the general public, so we esteem ourselves fortunate in being permitted to address the profession through the pages of the British Medical Journal, which was the first in this country to direct attention to the importance of these questions, in their double relation to medicine and pathology. It would, indeed, seem to us that, in penning these lectures, Mr. Lee must have had it in his mind to extort a reply, in order that he might have before him at once those arguments which he will be compelled to meet whenever and wherever he is brought face to face with the subject: or did he hope to strike away from indecision its last remaining prop, and to influence the public mind against views so menacing as those with which we are concerned, to conservatism in this branch of practice? It is undoubtedly more easy, and more in the fashion of the day, to learn from the observation of others, than to spend time in observing for ourselves; and we think that Mr. Lee has committed a mistake, when he believes that, by relying on his great experience and independent resources of experiment, he can dispense for this once with the observation of facts occurring in a constant series. Such experience as we have gathered is fairly at the service of all; we have only to regret its immaturity, from the small opportunities which have hitherto been afforded in this country for studying the subject. It may be that we are not without self-reproach, as having brought too little earnestness into this field—a fault which is too common in our days not to be admitted as a plea. The blindness which we have indulged, as to the amount of resistance which these novel and ingenious views were likely to encounter at the hands of our countrymen, has left us more unfurnished than we otherwise should have been, had we anticipated (which was far from our thoughts) such an entire difference of opinion before the evidence of facts, and so active an opposition to the spirit of improvement on the part of our talented friend.

It seems to us, however, very strange that a purely scientific question (for such is the aspect which syphilisation wears in this country) should be brought forward side by side with a particular empirical method, which of itself has as little to do with syphilisation as the Goodwin Sands with Tenderden church-steeple. Whether syphilisation can ever vie with mercury as a remedy for syphilis, and especially as a secret remedy, is entirely subsidiary to the scientific questions involved; and these ought not to suffer prejudice because Mr. Lee has discovered a convenient method of administering mercury for the cure of the disease. It is true that, in common with others of his countrymen, the chief promoter of syphilisation is a decrier of the mercurial treatment—an opinion which has been arrived at among a scattered population in a country where the disease is endemic; and, moreover, in regard of doctrine, Dr. Boeck has ranged himself under the flag of the unicists, though perhaps between him and the dualists the difference may not be so wide as conjectured; and Mr. Lee, who is, as it seems to us, a dualist in all but the name, from which he shrinks, may stand opposed to Boeck on a double plea of dualism and cure by mercury. There are many among us, however, who, as neither unicists nor dualists, are fain to say, "A plague on both your houses"; or, perchance, viewing dualism with a favourable eye, as being of the latest advance, and recognising in mercury a potent remedy against syphilis, they may still feel interest and curiosity of the highest kind in regard to syphilisation. It cannot escape their apprehension, that mercury is a remedy of old date. We know its power, and we are not without some knowledge of its defects. Syphilisation, on the other hand, is of recent introduction; it is even yet under trial; and as yet, amongst us and elsewhere, it has been chiefly employed in the sense of pure experiment—*i. e.*, without adjuvants and palliatives of any kind. There is plausibility in the argument that, as a means of cure, it may be susceptible of vast improvement. If we view our most received methods by the light of their history, we shall find that they were perfected by the slow hand of time. It is not wise to judge of a thing in the first cast and in the rough. Even as regards the principle of any thing, if new, we should refrain from deciding suddenly or with too violent an emphasis. No better proof of this could be given than in the instance of the mercurial vapour-bath—a remedy which has been tried and discarded repeatedly, after enjoying for a season a certain amount of favour. Many times it has been abandoned, and resumed again. But if, as Mr. Lee would have us to believe, it is constantly successful, faultless, universally applicable, and ever unattended with regret, then we cannot but admire the perseverance of those who have brought it to perfection, and the lenient spirit of society which has been favourable to so many trials of its virtues.

With the detractors from the merits of mercury, however, and the devotees of rationalistic medicine, it will ever remain a subject of accusation and a stigma of reproach, if syphilisation be not allowed a fair chance. Some margin of deference must also be

nceded to those who have faith in the growth of cial improvement, and who look forward hopefully a more privileged condition of mankind, through e constant efforts of our art. It appears to us that ese lectures of Mr. Lee were singularly ill-timed as gards the subject of syphilisation, being written id published at a conjuncture when it was under- ing an *experimentum crucis* in a hospital con- ructed and disciplined under very different views om those which are favourable to its success. As ir confidence in syphilisation, however, goes some- hat beyond the result of present trials, we shall ideavour to show in what respects this able sur- on seems to have prejudged the question, and how, a way which seems inexplicable to us, he has issed seeing the main points at issue, accepting e dogmatic assertions of certain French and other riters as pure verity, and at the same time, by a o close adherence to current views and explana- ons, placing himself at a disadvantage with regard novel aspects of the truth. Those who have set- ed themselves into an alliance with the old are ostly unwilling to advance towards the new idea. is well known that Mr. Lee has, neither at the st nor since, looked on the subject with an encou- ging and friendly eye. This has not, however, de- rred others from being attentive to the bearings of e question, believing that it contains the germ of uth and future progress, and, indeed, many such rms; even though syphilisation be not established the only cure for syphilis, and the most approved id ready way of dealing with this most horrible sease.

Mr. Lee may say that he has practised syphilisa- on himself even before the arrival in this country Dr. Boeck; we know nothing, however, of his, nich is worthy of the name. Many able and dis- nguished men have attempted to practise syphilisa- on in an extemporary sort of manner, such as ey imagined that it ought to be; but they have iled, for want of attention to the lessons of experi- ce. Taking direction from their own unassisted eas, they have only arrived at very imperfect results. ng since escaped from the thraldom of personal in- ruction and professional dictation, they fancied ey could take the whole thing in at a glance; nereas, there is no department of medicine which ore depends upon experience, and which makes a eater, or we might say even an equal, demand on attention and carefulness; there are so many tle things to attend to and record—so many de- ils in which it is possible to err. In the very dawn these physiological and pathological truths, Ricord, nose privileges and opportunities were so many, ems not to have had any violent objection to the rformance of repeated inoculations; for more than ce he took on himself the responsibility of making em. In one case, that of a member of our profes- n (M. Pages), the positive inoculations made by cord were forty in number. Had he originated ese ideas, he would have fathered them with ten- rness; but, from pride and professional conceit, and ing averse to condescend or to consult with men of wer standing than himself, he broke down in his tempts; falling short of a perception of the truth, is well known how he became a persecutor and crier of these novelties. Thiry of Brussels, to nom, in those days, was committed the task of ad- dication from Paris (a task accepted at his hands), so failed in a manner which seems to us now im- ssibly absurd, from the clumsiness of his concep- n. He never troubled to inform himself what the ocess really was, but followed his own head, when e published work of Sperino would have given him l the instruction he required.

In more recent times, Nélaton, in his benevolent desire to place the subject once more upon its feet, where he tried it, failed, as the subject of experi- ment was one of those cases wherein experience has shown that success is not attainable. In an age distinguished more by independence than by earnest- ness of character, it is not possible but that many such failures should occur. Every one now aims at the merit of invention; the great and daily effort is to start something new of one's own, or at least to im- prove and gain a point upon our neighbour—some- thing, if it be but a gum-lancet, originates in the brain of every man on the register of practice. It will not be found a very easy task to break in such men to a close observance of rules or to any uniformity of idea. It is in the nature of things that failures, and even scandals, should arise. In syphilisation, experience has most weight. In our hundredth lesson, we learn as much as in the first. We need only turn to the first lecture of Mr. Lee, and read his attempt at inocu- tion of the hard chancre on the bearer, to see how he understands the thing. After stimulating the secretion of the sore, he inoculates seven times in succession, at intervals, first of two, then of three and four days; he then breaks suddenly off, having failed to get anything like a positive result. Already the affair is decided; he has now arrived at an un- questionable fact wherewith to point the moral of his tale. Such a case is not fit for print; it would satisfy no one in the least conversant with syphilisa- tion. He should have continued the inoculations daily, and not have broken off on the verge of a probable, or at least of a possible, result. So far from being typical, such a case decides nothing and teaches nothing. And, if Mr. Lee ask what differ- ence there is between inoculating every day and every other day, it is replied to him, that there is a difference both theoretical and practical; and, since the method we point out is the recognised way, if he wished to succeed, he should have chosen no other path than that which leads to success, especially in cases which are published by him for instruction. But, if he plead that, with regard to the inoculation of the hard chancre, a successful or so-called positive inoculation was not the point aimed at, but rather to prove the difference between the soft and the hard chancre, as shown in the behaviour of their secretion when inoculated on the patient, then it is freely ac- corded to him as a general fact, that there is a great and almost an extreme variety in the quality of the secretion of chancres. There is a chancrous virus of great intensity, and another which, as a rule, seems dull and pointless; all being subject, however, to peculiar exceptions in the relative behaviour of such on the inoculated, which exceptions, as we cannot understand them, we are content to call capricious.

Mr. Lee says of the secretion from the soft chancre, that it is "invariably", the French say "fatally", inoculable on the bearer. Others have found this not to be so. We shall, however, confine ourselves for the moment to a submissive shrug. But, when the French say that it is impossible to ino- culate from the hard chancre on the bearer, this is what we are wholly unwilling to concede to them. We direct their attention to the face; and say that, although soft chancres are not impossible in that re- gion, as proven by experiment, yet they occur with such difficulty that it is clear that they must be very rare indeed, if ever such occur at any time in the field of practice. The chancre in the face, beginning in a papule or a pustule, becomes hard, and is followed by secondaries; and yet many times it has been shown to be auto-inoculable on the very first essay. To this they reply that, however it might have

appeared formerly that the soft chancre does not affect the face, the very fact of its auto-inoculability proves such to be an error, and is, indeed, sufficient to show that the soft matter, or matter of soft chancre, is an element of such chancres. Such is their mode of reasoning. All indurated chancres, the secretion of which is inoculable, are, according to their argument, either soft chancres with an inflamed base, or else mixed or mule chancres; that is, with soft chancre superimposed on a hard chancre, or *vice versâ*, such as Mr. Lee calls twofold chancre. Here the theory of dualism finds its most lively expression. In the single chancre which a man has we are to see, not one, but two. By a keen intellectual process, the chancre alone is doubled; the man remains but one. In the mixed state and character of the chancre, which must be of rare occurrence as regards frequency, and of very limited duration compared with the existence of a sore (for the tendency would ever be to separate and part), they (the French) find a ready foil for all that is urged upon them adverse to their theories. Every inoculable Hunterian chancre becomes subject to the imputation of being a *chancre mixte*. Where Hunterian chancres were formerly seen, the "*chancre mixte*" has now possession of the ground. It is sufficient for us to say, that a hard chancre is not seldom inoculable on the bearer, generally during the first week, while it is in a stage of progress, before it becomes indolent, as even common ulcers are wont, and at all periods of its existence, if the chancre become irritable, and if its secretion be increased either naturally or by artificial means. Sometimes, on the first trial, a positive result is obtained; and sooner or later, on successive daily trials, it will prove inoculable in the majority of cases, both on the bearer and on a syphilitic soil. If the incubation of the chancre be short, we shall, as a rule, succeed more readily than where the incubation has been long. Some have hazarded the opinion, that these hard chancres with long incubation are derived from the contagion of secondaries; but that is an opinion which is entirely *sub judice*, and by no means proved.

If we wish to inoculate the hard chancre on the bearer, we shall succeed by following the method of those who have succeeded. There is also a way not to do it, which has also been much put to use; but this way is hardly so satisfactory and confirmatory to those who employ it as ours is to us; for they get positive results in a certain percentage of cases on the very first essay, and the prescribed way, as followed by us, we have said to be, early or late, very commonly successful.

Mr. Lee seems to throw on Drs. Boeck and Bidenkap the entire responsibility of the affirmation, that the matter from a hard chancre is inoculable on a syphilitic soil. He now affects to yield a sort of half belief to their assertion, that all the matter used by them in syphilisation is obtained from hard sores; that is to say, he would seem graciously to concede something when he refrains from convicting them of an absurdity in terms. This may be intended for politeness; but it is scarcely satisfactory to us, leaving, we confess, as the phrase goes, "something to be desired". These gentlemen did no more than follow the progress of science in inoculating the matter of the hard chancre on the patient. The most distinguished among the pupils of Ricord, the late Dr. Melchior Robert, successfully inoculated the matter of the hard chancre on the bearer "in the majority of instances"; and, having studied the conditions of its inoculability, this observer also pointed out the method to be employed. He obtained from the municipality of Marseilles the permission to practise syphilisation in the hospitals committed to his charge, at a time when, as a result of previous professional intrigues elsewhere, it had been proscribed, and indeed stamped out, in every department of France. Robert practised syphilisation with a marked degree of success, and with great relief to his patients; although he was far from having at his command the amount of information we now possess. Ricord himself, in reply to Dr. Boeck, when interrogated as to the auto-inoculability of the indurated chancre, replied that "sometimes" it was so—*i. e.*, on the first essay; but since that time, dualism being in the ascendant, Ricord has been more reticent. This far-famed syphilographer, however, remains an unicist; and so, professedly at least, does Mr. Lee. The syphilographers of the Lyons school, pursuing their own plan, obtained six per cent. of positive inoculations. In Paris, a result of two per cent. was obtained. The numbers so seriously diminish on the road from Marseilles to Paris, that we are fain to look for an explanation in the *modus operandi* of these Parisians. Ricord has pointed out the scanty secretion of the hard sore as one cause of its non-inoculability; and this condition, doubtless, has a share in producing the negative results. The French confine themselves to the use of needles in inoculation, and are averse to any other mode of proceeding: herein lies another source of ill success. It is to be understood, that they only use the needle's point in all probability but once, or at least they do not perform successive inoculations.

Keeping out of the sphere of vision all that has been done elsewhere than in the Scandinavian peninsula towards inoculating the hard chancre on the bearer, and making a summary of negative results from different lands, Mr. Henry Lee asks, "How is the difference in their results" (of Drs. Boeck and Bidenkap) "and those on the continent, England, and America, to be explained away?" To this we answer that, in France, Melchior Robert has perfectly succeeded in inoculating the hard chancre on the bearer; in England, Henry Lee has given us some lessons in that line; in Germany, Krobner of Breslau has fully proved the hard chancre to be inoculable in the majority of cases, and has also inoculated from mucous tubercle successfully, wherein there can be small suspicion and pretext of the *chancre mixte*. Other observers have arrived at equal results. The same class of experiments have been recently performed at Vienna with some *éclat*, and the results of Bidenkap more than confirmed. Mere clinical observation will show that an infecting sore sometimes inoculates the parts with which it lies or is brought in contact; but here our French objectors bring in the phantom of the *chancre mixte*, and Mr. Lee his twofold chancre. If any desire to see the question in a practical light, let them peruse the following case of Melchior Robert's (*Traité sur l'Auto-inoculabilité du Chancre*, etc., 1861, p. 9). Here, at least, there is no plea of *chancre mixte*.

March 29th, 1858. A woman, 35 years of age, has been repeatedly under treatment. At the present hour, the symptoms are of the worst description;—a vast ulceration on the right knee; a very large gummy tumour on the same side; plastic degeneration of the left sterno-mastoid; extinction of vocal power. Six punctures were made on the left thigh with the pus of an indurated chancre from another person, situated on the mucous surface of the prepuce; which pus, *inoculated on three different occasions on the bearer*, gave negative results. March 30th. Six papules. From March 30th to April 6th. Six ulcerations, of a *centimètre* in diameter, replace the six punctures. They suppurate long: after the lapse of a month, we find them still active. This woman is treated by multiple inoculations, which

eatment, in a short space of time, has considerably anged her state of health for the better.

[To be continued.]

R. CARDEN'S METHOD OF AMPUTATION.

By F. Le Gros Clark, Esq., Surgeon to St. Thomas's Hospital.

am enabled to bear testimony to the value of the ethod of amputating above the knee-joint, sug-ested by Mr. Carden, of Worcester, and approved y Mr. Syme.

My first adoption of this operation was entirely ac-dental. I intended to excise the knee-joint of a oung woman, and for that purpose made my usual road crescentic incision, extending from one condy-oid tubercle to the other, and across the ligament of ne patella. On raising this bone, I found the ex-ent and nature of the disease necessitated amputa-on. I at once decided to complete the operation by awing through the femur, after cutting directly ackwards through all the tissues behind the bone.

The accuracy of adaptation of this flap, and the dvantage of ready drainage, followed by a good re-overy, induced me to repeat this operation in the ase of a young gentleman who was the subject of erious disease of the knee-joint, too extensive to ad-nit of excision. This case, also, in every respect nswered my expectations, both in the facility ith which union took place, and in the subsequent rmness and solidity of the stump.

On a third occasion I repeated this operation, on a atient whose leg was badly fractured, and in whom oth popliteal vessels were ruptured. The severity nd complication of this patient's injuries (apart from he above) prevented my witnessing the final success f the operation; but as long as he survived I had very reason to be perfectly satisfied with the opera-ion.

I have come to the conclusion that this form of mputation, where practicable, is unquestionably a reat improvement on any of the ordinary methods f removing the thigh, by the circular or double flap perations. And I would not limit this observation o amputation *through* the condyles. I consider it referable, as shown in my first operation, even where the condyles are entirely removed. Thus, I ave been led to abandon the last of the muscular lap operations, except those at the shoulder and hip-oints. I have relinquished them, one by one, in avour of the skin-flap, as my confidence has increased n the latter. The tendency of the fleshy flap is to etract, and lose bulk; whereas that of the skin-flap s to gain in consistence and firmness, and therefore n capability of sustaining pressure.

The operator in public must be willing, in making kin-flaps of sufficient amplitude, to produce a stump which is, at first, anything but sightly in appearance. f the opposed flaps fit too nicely at first, there is isk that there will be subsequent deficiency and aping, when the filling out of the tissues occurs.

In the amputation to which I have referred, the in-isions were made with the limb unflexed; and the kin was retracted before the back flap was made.

I may add that I have, for some time past, re-inquished all dressing to stumps. Bathing the cut urface with strong spirit lotion favours coagulation f the fibrinous precipitate from the serum, and this acilitates an early adaptation of the flaps. To save ain, long silk sutures may be passed through the laps, after the arteries are secured. They can be ubsequently tied without much disturbance to the atient.

Transactions of Branches.

BATH AND BRISTOL BRANCH.

VILLAGE HOSPITALS: THEIR POSITION WITH REGARD TO COUNTY INFIRMARIES, UNIONS, AND THE PROFESSION.

By Horace Swete, Esq., Wrington, Bristol.

[Read January 25th, 1866.]

It will be remembered well by those present to-night, the wretched condition as to medical stores and appliances, in which our army was, when, twelve years since, the Crimean war commenced. We cannot easily forget the call for nurses, drugs, lint, etc., that, day after day, came to us from Scutari and Balaklava; and we can still less easily efface from our remembrance the devoted band of sisters, headed by Florence Nightingale, who left their homes of luxury and plenty, for the privilege of aiding our wounded soldiers in the East. This state of things was a crying evil, one that reflected great discredit on the Executive, and which called forth all the warm sympathies of our profession for their brethren in the army, who, whilst possessed both of the will and the skill to alleviate misery, yet were denied almost the most simple surgical necessaries.

It may be received as an axiom, that out of evil comes good. Should our army again have to take the field, the medical department of both forces will no longer feel the want of hospital appliances. The exertions of the late Lord Herbert of Lea have placed the medical department on a new footing; and military hospitals and schools of medicine have arisen in various places. Nor has the good stopped here. Miss Nightingale has brought the experience she gained in the East to bear on our civil hospitals. Nursing institutions are arising in our principal towns, and a great impetus has been given to the enlargement and building of hospitals. Since the date of the Crimean war, nearly twenty county or large hospitals have been built, or are in process of building, whilst nine of our old established institutions are undergoing considerable enlargement.

In the year 1859, two new hospital plans arose: that of Cottage hospitals, of a small number of beds, from twelve to twenty; and Village hospitals, of a simpler character still. Nor must we confound the two plans, though the names of village and cottage hospitals are often used synonymously.

The Cottage hospital system was, I believe, first established at Middlesborough, in Yorkshire. The system is that of furnishing small houses with hospital beds, in simple style, where patients are admitted by recommendation notes. The nursing in most of these is done by voluntary sisters. In some, I am happy to say, the surgeon is paid for his attendance. The funds are aided by gifts in kind, of food or wine, the patients paying nothing. Of these small hospitals, there are about ten—at Middlesborough, North Ormsby, Marske, Stockton, Darlington, Hartlepool, West Hartlepool, Walsall, and Weston-super-Mare. These have effected much good, at a small cost, providing hospital accommodation to many living at a considerable distance from a county infirmary. Most of these hospitals are for accidents and surgical cases only, and are situated in the immediate neighbourhood of factories or iron-works. That at Marske is, I am informed, entirely supported by the Messrs.

Pease, and is somewhat of the nature of the small surgical hospitals at the slate-works of North Wales.

The Village hospital system was also commenced in 1859, by Mr. Albert Napper, at Cranley in Surrey. Mr. Davis, of Fowey, who, very shortly afterwards, opened a village hospital in that place, had a room for occasional casualties; but is willing to give Mr. Napper the credit of commencing the first village hospital, with a regular nurse. In conjunction with the rector of the parish, the Rev. Mr. Sapte, Mr. Napper raised subscriptions to furnish a small cottage in the village with beds for four patients; engaging a suitable woman as nurse, the rector giving a cottage rent-free for the purpose. And here I may observe that, in nearly all cases of the establishment of village hospitals, the clergy and doctor have gone hand in hand; and I have no doubt that, the more these institutions flourish, the greater will be the bond of union between these two sister professions.

The main principles on which Mr. Napper proceeded, and which have been followed out by those starting village hospitals on the Cranley model, were these:

1. Weekly payments by the patients towards their maintenance.

2. Payments of extra union fees to medical men in whose districts accidents, etc., occurred.

3. Permission to neighbouring medical men to operate, or continue their attendance on these cases, whilst taking advantage of the hospital and nurse.

These principles have been worked at Cranley more than six years, and have now been followed by ten similar little hospitals; whilst the present year will see the opening of several more on the same model. The following are the dates of opening of the several village hospitals.

1859—Cranley (Surrey).
1860—Fowey (Cornwall).
1861—Bourton-on-the-Water (Gloucestershire).
1862—Par Consols, added to the Fowey.
1863—Iver (Buckinghamshire); St. Mary's, Dorking (Surrey); East Grinstead (Sussex).
1864—Wrington (Somerset); Ilfracombe (North Devon).
1865—Tewkesbury (Gloucestershire); Capel (Surrey).

Most of these are very humble cottages; that at Cranley remarkably so.

The cost of establishing such a hospital is but small. That of furnishing one for six beds, and accommodation for a nurse, should not exceed £100; the annual expense being about £20 per bed, one-fifth of which should be paid by the patient. The class of patients admitted are the respectable poor, journeymen, etc.; not those usually in receipt of parish relief, for whom the union infirmary is provided.

I will now speak of the relation of the village hospital to the county infirmary.

Before cottage and village hospitals were opened, there was a feeling that a hospital could not be properly conducted without a large staff of surgeons and physicians, with a troop of paid officials—house-surgeon, matron, nurses, etc.; and thus it was only in large towns that a hospital was to be found. Hence the opinion gained ground that they were not needed for the country; and that the existing town hospitals were quite sufficient for the wants of the population. But statistics show that, in the whole of England—numbering in 1861 20,066,224—there are only 15,202 beds available for our sick and injured poor, and about as many more in workhouse infirmaries. London has one bed to every 509 persons of all ranks. The six principal towns in the provinces have one bed to every 716 persons. Allowing the remaining hospital beds at the rate of one to 1000 people, there will be still about nine millions without hospital accommodation, or a deficit of 9000 beds—a wide scope for the foundation of village hospitals. The distribution of these beds, excluding the City and immediate environs of London, is as follows.

1 bed to	700 people	Gloucestershire.
1 „	900	Bedfordshire, Devonshire.
1 „	900—1000	Sussex.
1 „	1000—1100	Cumberland, Kent, Leicester, Northumberland, Huntingdon, Lancashire, Herefordshire.
1 „	1200—1300	Oxfordshire, Somerset, and Hampshire.
1 „	1500	Berkshire, Cambridgeshire, Derby, Northamptonshire, Warwickshire.
1 „	1700—2000	Cheshire, Dorset, Hertfordshire, Norfolk, Nottingham, Shropshire, Staffordshire, Yorkshire.
1 „	2000—3000	Durham, Lincolnshire, Suffolk, Wiltshire, Worcestershire.
1 „	3000—4000	Buckinghamshire, Cornwall, Essex.
1 „	9000	Surrey.
1 „	56,000	Monmouthshire.
None in	22,000	Rutlandshire.
„	60,000	Westmoreland.

Middlesex and, in part, Surrey are supplied by London. In Surrey, except the metropolitan hospitals of Guy's and St. Thomas's, there were none till the Cranley Village Hospital was opened; since then the Surrey County Hospital at Guildford has been built for fifty-eight patients.

These statistics have been compiled from the census of 1861 and the *Medical Directory* of the present year. Beds for eye and ear cases, children, and lying-in patients, have been taken into account; but not any beds in workhouses, lunatic asylums, or military hospitals.

It is clear, therefore, that the hospital accommodation at present existing in the country is not sufficient for the wants of the population, independently of the distance patients have to travel; and I would in this respect draw particular attention to cases of hernia, compound fractures, and gunshot-wounds. It has not been an uncommon thing to hear of hernia cases going from surgeon to surgeon, and at last taking a long railway journey to some county infirmary, where the operator has only time to see a sphacelated intestine, and, if possible, to save his patient with an artificial anus.

It has been frequently urged in opposition to the establishment of village hospitals that, though they might be very good things, yet they would and must injure older establishments that were doing good, by diminishing their funds, and taking cases from their medical staff.

These objections are, however, seldom found to be urged by members of the medical profession.

First, it is alleged that the village hospitals take from the funds of the older hospitals. This seems, at first sight, a very valid objection. But how does it act practically? Looking over the subscription-list of our village hospital at Wrington, I find only the names of nine or ten who are subscribers to the Bristol hospitals; whilst there are nearly four times that number who never gave to any hospital before. Nor have I found that those who subscribe to the village hospital have withdrawn their subscriptions from the town institution. I have the same opinion

from the surgeons of other village hospitals; so that it may be broadly stated that, whilst the establishment of village hospitals does not impair the finances of our county infirmaries, it opens the purses of many who have never helped hospitals to provide for the wants of our sick poor. They not only do not injure the finances of town hospitals, but indirectly add to them by relieving them from expensive country patients and allowing the country subscribers to benefit town patients.

Secondly, the establishment of village hospitals may be said to take many cases of interest from town hospitals. In order to understand the bearings of this question, we must inquire what class of cases are usually sent by country medical men to town hospitals. This is determined partly by the love of the individual surgeon for the duties of his profession; and partly, I am sorry to say, by financial considerations. Some country surgeons will, to avoid trouble, especially when the extra fees allowed by the Poor-law Board are commuted (a very reprehensible plan), send nearly every accident, hernia, or obscure case, to the county infirmary; whilst others err on the other extreme, and attempt operative interference in difficult or obscure cases, where the patient would be more benefited by the appliances and combined skill of the staff of a large hospital. On the one hand, the beds of the infirmary are filled with cases which had better be treated at home; whilst, on the other, really instructive cases are kept back from the surgical staff and their pupils. Now, the establishment of village hospitals will afford room for cases of fracture, simple and compound, hernia, and a host of minor cases, which seldom do credit to the surgeon where a long journey has preceded his treatment; whilst I have no doubt that obscure cases will be brought more under the notice of the village surgeon, who will forward them to the county infirmary.

The position of village hospitals and county infirmaries, in my opinion, should be this. The village hospitals should admit cases which could, under any circumstances, be treated by the medical man at their own houses, but with far greater prospect of success in the village hospital; but they should not admit cases of great doubt or difficulty (not emergencies), which might be treated with greater benefit to the patients in a county infirmary. Since I have had charge of the little hospital at Wrington, I have advised two or three patients to go into the Bristol hospitals, though I have never shirked the responsibility of any case where delay or a long journey would be dangerous to life or limb. For instance, it might be necessary to tie a large vessel, or to excise a joint, on account of severe accident or emergency; and this should be done at the village hospital, life and limb being thereby saved; but a chronic case of disease, or aneurism, requiring such treatment, except under peculiar circumstances, where country air or other weighty considerations might alter our opinion, should, I think, be sent to the county infirmary.

The position of village hospitals to unions may affect the pocket or the credit of the union medical officer. To take in a case of fracture or amputation, where an extra fee is allowed by the Poor-law Board, would almost amount to a robbery of the ill-paid and hard-worked parish doctor. Now, it has been laid down as an axiom, in the establishment of most village hospitals, that the admission of such patients should not prevent the medical man to whom such fee was due from receiving it. In Cranley, £36 have been paid over to various parish medical men during the first four years of its existence. In Bourton-on-the-Water, also, these fees have been paid. If it be shown that patients recover, and thus relieve the rates, even a Board of Guardians of a moderate amount of enlightenment will not refuse their payment; though we all know that, if our patient be removed to the county infirmary, we never catch a sight of our fee.

But a more serious infliction may fall on the parish doctor than the loss of fees. He may lose credit; and worse, see the meed of credit, that ought and would have been his, transferred to another. Now, in the constitution of village hospitals, this can only happen to the officers of the workhouse, as the beds of the village hospitals are open to all medical men, either by direct rule or by courtesy. In no case would a medical man, I believe, be refused the opportunity of operating on his own patient. If he do not choose to avail himself of this permission, the village hospital must not be blamed if another surgeon do take a little of the credit which he might have obtained.

In the case of the workhouse medical officer, it must be understood that there are two classes of paupers—the permanent workhouse pauper, and the poor man who obtains a note for the medical officer simply because he has met with some severe accident or illness. For the former the village hospital is not intended: the fifteen thousand beds in our workhouse infirmaries are the proper place for the regular pauper. In the latter case, except in the instance of an indolent parish doctor, the patient neither would nor ought to be sent to the house at all; and his introduction to the village hospital will do much to prevent him from feeling the stain of poverty, though the parish will pay something weekly to the village hospital towards his maintenance.

I think, therefore, that it may be laid down that the establishment of village hospitals will not injure the pocket or the credit of the parish medical man, or abstract from the sick-wards of our workhouses those cases for whom the beds were provided.

We now arrive at a third point—the position of village hospitals with regard to the profession generally. Here many of the arguments which I have before used will apply; but, in addition to that, we have to consider the charge of increasing gratuitous institutions, and thus diminishing the fair profits which should accrue to our country medical brethren.

The JOURNAL of this Association, which in 1860 most warmly recommended the scheme to the notice of its associates, is now constantly carping at the promoters of village hospitals. Like our Government, with a change of Prime Ministers comes a change of opinions. It was the leader of the JOURNAL on March 3rd, 1860, which induced me to go over to Cranley in Surrey and see for myself whether the plan could not be adopted at Wrington. The JOURNAL says: "We commend the scheme to the notice of our associates in rural districts. The principle is excellent." In November 1861, our JOURNAL says: "The benefits derived from such village hospitals are manifest. It brings the blessings of hospital accommodation home to the door of the villager; it enables him to enjoy fresh air and home; it gives him immediate relief; and it gives the provincial surgeon, *Saturday Reviewers* notwithstanding, the means of enabling him to make himself equal to all emergencies which may occur in his profession." But on January 3rd, 1863, the editor asks Mr. Napper, "Why he gives his services gratuitously to the village hospital? and on what principle of equity or ethics should he give his time and services to it?" In October 1863, he becomes still more dispirited on the subject, and "fears that, if village hospitals are established, an enormous system of professional demoralisation will be established throughout the country;" and hints that they may be "a kind of advertisement to their medical promoters, who,

whilst engaged in the 'glorious cause of humanity,' do not forget their own personal advantages." Our editor again recurs to the subject last week, though in a more quiet and milder mood.

Now, whilst I entirely agree with the spirit of opposition to gratuitous medical services, which dictated these remarks, I cannot help remarking that they show a most complete ignorance both of village hospital work and of the professional life of a country doctor. Our good editor, whilst he is ably conducting the JOURNAL of the Association, thinks little of the hard-working life of the majority of country doctors, forced to pay income-tax not only to Government, but to the poor in the shape of medicines and attendance, wear and tear, far beyond the pittance called by courtesy a salary from the Board of Guardians. They are forced, I say; because, their office being a legal one, which must be taken by some one, there is no one else in the neighbourhood to take it, unless the surgeon be willing to see another competitor for professional subsistence added to those already around him, taking clubs at a low annual payment, but still immeasurably greater than the parish pittance, and taking them at that payment because they have been fixed so for years, and he is surrounded by men who, perhaps, will do them for sixpence a head less. If Dr. Markham can look back on personal experience like this, I do not think he will accuse the promoters of village hospitals of demoralising the profession when they are doing what they can, as far as others do so, irrespectively of the "glorious cause of humanity", to help themselves by saving themselves miles of hard riding, by having their severe cases in the little hospital hard by their own gate. We cannot honestly call such services gratuitous, and go cap in hand to the public and ask them to pay us a salary for helping ourselves. Where gratuitous services pinch the country doctor, is where medical men in large towns, sometimes holding a high position, give gratuitous advice, and where the farmer, who could, if he would, often buy out his doctor, goes to market in a smock-frock, and then to the excellent and skilful doctor for cheap advice. I hope our town friends are not aware of this; but I have heard the remark made, by many in the neighbourhood of our larger towns.

I have before stated that, as the beds of a village hospital are open to all medical men, no one can feel aggrieved on that score. How, then, is the income of the neighbouring practitioner influenced by the establishment of a village hospital? Let us take Cranley. Out of one hundred cases, sixty-seven were indigent, and obliged to have parish relief to help them when sickness came; and, in ten of these cases, £36 was paid to various parish doctors. Seven patients were incapable of remunerating a surgeon; and sixteen were in very humble circumstances, where the surgeon might send in a bill, but where payment would be very doubtful. In the Wrington Village Hospital, where I can speak more authoritatively, seventeen were patients in clubs or parish, whom I was bound to attend without any further fee; two were domestic servants, who would not have been attended by any family doctor, if the village hospital had not been established; and three were sent in and attended by a neighbouring medical man, who had already been paid by them what they could afford, and who felt he could no longer send in a medical bill to them.

Now, with regard to the ethical relations of village hospitals to the profession, I feel they will do more to promote unity and bind us together than anything that has lately been started amongst country medical men. Where we are ignorant of the details and nature of a case, we may be tempted to look superciliously on the work and opinions of others; but the establishment of village hospitals will lead us to know more *professionally* of one another, and thus carry out the principles of our Association in promoting unity and fraternisation in our profession.

I have thus given a sketch of the subject, as my object has been to draw out the opinions of the members of our Branch. I have purposely refrained from taking up your time by giving you details of the working and internal arrangements of village hospitals. Many of you have seen the Reports of these useful institutions; and I am engaged in preparing a few pages for the press, which will enter more fully into minutiæ. I will, therefore, sum up my remarks in the following opinions.

There is a want of hospital accommodation in our country places.

The establishment of Village Hospitals will not tend to lessen the funds or instructive cases in our county infirmaries, whilst they will probably bring to light many obscure cases.

They will not interfere with the justly earned fees of the parish doctor, nor take away his credit; for he may follow his patients to the hospital.

They will not financially injure the neighbouring members of our profession, as the class of patients are non-paying ones.

They diminish the labour and wear and tear of the country practitioner, and tend to promote good feeling amongst neighbouring medical men.

[Mr. Swete mistakes, in his remarks regarding the JOURNAL. The same hand which wrote in 1861 wrote in 1863 on Village Hospitals; and has written nothing contradictory. We have always strongly advocated village hospitals, and have always strongly reprobated gratuitous medical services. It is simply and solely because we *do* think of the "hard-working life of the majority of country doctors," that we have so constantly opposed gratuitous medical services. We see, perhaps more clearly than Mr. Swete, from a more intimate acquaintance with the ins and outs of the question, that every fresh growth of these gratuitous services is only a new burthen added to the "hard-working life of the majority of country doctors." Mr. Swete's argument amounts to this—that he proposes to relieve the monster evil of Poor-law medical pay by the lesser evil of gratuitous medical services. He makes village hospitals a set-off against Poor-law shortcomings. EDITOR.]

PREPARING FOR CHOLERA. We understand that some of the buildings occupied by the late Government Hospitals, near Philadelphia, are to be allowed to remain for the present, so as to be used in case of a visitation from cholera this season.

A MAMMOTH, still covered with its skin and hair, has been discovered in the frozen soil of Arctic Siberia. This discovery had been made in 1864, by a Samoyede, in the environs of Taz Bay; but the news only reached St. Petersburg towards the end of 1865. The Academy of St. Petersburg has, with the aid of the Russian Government, sent M. Schmidt, a distinguished palæontologist, to examine the animal, and its position in the locality. It is hoped M. Schmidt will arrive before the decomposition is too far advanced, and that a correct notion may be obtained of the outer appearance of the animal, and also, from the contents of the stomach, of its natural food.

Reviews and Notices.

THE HARVEIAN ORATION: 1865. By HENRY W. ACLAND, M.D.Oxon., LL.D.Cantab., F.R.S., Regius Professor of Medicine in the University of Oxford. Pp. 85. London: 1865.

THE honour of delivering the Harveian Oration in the English language for the first time was last year entrusted by the President of the College of Physicians to Dr. ACLAND; and the orator fully justified whatever expectations might have been formed as to his rendering full justice to the memory of him by whom the commemorative holiday held annually by the College was established.

To thoroughly interpret the character of Harvey as a physiologist and philosopher; to trace his labours, not only in regard to that subject with which his name is universally associated, but in the practical applications of his great discovery to medicine which he sought to make; to study his researches, less known but probably more laborious, on the Generation of Animals; and to demonstrate, by both positive and negative argument, how the method which he followed is the only true method by which Medicine can be established as a Science: to do all this in a discourse of one brief hour, would be a task which probably none could perform, and which no one having a thorough conception of that with which he had to deal, would undertake.

In this matter, Dr. Acland has acted discreetly. Not following the example given by some of his predecessors, who have descanted in Ciceronian Latin on the progress and aspects of modern medicine, he has confined himself to speaking of Harvey; and, in regard to him, has selected as his topic the question

"How far some points in Harvey's Methods of Discovery are in accordance with the ideas which the experience of advancing Science has taught."

The aspect in which Dr. Acland has observed Harvey is that in which he is most familiarly known—as "a Philosopher, who studied Nature under the conviction that every arrangement in the Natural World is the result of Design—that every effect is *intended and has a Purpose*." The inquiry, whether this is a true delineation of the character of Harvey, is the true text of the oration.

"Success does not always explain or justify the means, and therefore it is, at the present day, a matter of extreme interest to know whether he did so make his discovery; and, if he was in a great measure guided in his researches by the idea of Final Causes, whether he followed a safe and proper scientific method." (P. 4.)

Of these questions, Dr. Acland takes the last for consideration before the first; viz., whether the idea of Final Causes is a safe and proper guide in scientific investigation. From the many who have sought to answer this question, he selects two modern writers, of great learning and high authority, who have expressed distinct opinions: Whewell, who says that "the idea of Final Cause is essential as a guide in the progress of Biology"; and Comte, who holds that "the idea of Final Cause and Providential Government is ruined by the irresistible evidence of Modern Science."

In Comte's statement, Dr. Acland points out, there is a fundamental error. It may be, that the idea of Final Cause cannot be safely used as a guide in philosophic investigation, because we cannot trace all the intermediate steps between the effect which we see and the Final Cause; but it does not therefore follow that, as Comte argues, the idea of Providential Government is to be altogether rejected. Descartes, Kant, and Owen, whom Dr. Acland quotes,

"While disavowing on various grounds the adequacy of the argument from Final Causes, or from intended and recognisable purpose, admit, and indeed require, the presence of a superior operating Will, *of which we recognise the results of which we cannot divine the motive.*" (P. 14.)

With the opinions of such authorities as these, Dr. Acland dismisses Comte's denial of Providential Government. But these authors agree with Comte to some extent in respect to the argument for Design. He, however, goes much further, and urges that the Design, if it exist, is bad; and in support of this idea criticises what he calls

"The puerile affectation of certain philosophers in commending the pretended wisdom of Nature as shewn in the structure of the eye, particularly in reference to the action of crystalline lens, the fundamental uselessness of which they have gone so far as to admire; just as if there could be much wisdom in the inopportune introduction of a part which is not indispensable to the phenomenon, and which may nevertheless in certain cases prevent it entirely." (P. 20.)

This is Comte's crucial instance, by which he seeks to overthrow the idea of Design. Before proceeding to refute the arguments of the French philosopher, Dr. Acland shows that arguments like his were very clearly put by Lucretius, according to whom,

"Nil ideo quoniam natumst in corpore ut uti
"Possemus, sed quod natumst id procreat usum."

And again, speaking of the senses and the limbs,

"Etiam atque etiam procul est ut credere possis
"Utilitatis ob officium potuisse creari."

That is to say, as Dr. Acland puts it: "Use is the consequence of Existence. Existence came by chance." Comte goes further than this; and, in the instance of the eye, holds that the result, whether of chance or design, is bad; that the crystalline lens is not only not necessary to vision, but is sometimes mischievous. This argument Dr. Acland refutes by an elaborate reference to the structure of the eye and its adaptation to function. That the lens is not necessary to vision, he admits; because it does not exist in all animals which have eyes and see. But that therefore it has no use whatever, is not true; for vision does not in all animals consist merely in the mere reception of impressions on the sentient retina. There must be means of regulating the amount of light, of correcting spherical and chromatic aberration, of adjusting the eye to distances, etc.; and it is the function of adjustment that the lens executes.

Therefore, says Dr. Acland, Comte's attack on the utility of the crystalline lens "is at best relative, and not absolute." The lens does not hold the same position as an essential of vision as does the retina; but for all that it has an important use.

Comte argues further, that the lens is "calculated by its diseases to destroy altogether the action of the

whole eye"—and therefore that, in placing it in the eye, Design, if Design did it, was wrong. This attack, Dr. Acland observes, is "deprived of its sting if the organ be necessary"; and that it is necessary, has been shewn. Dr. Acland comments on the structure of the lens, and the causes which may impair its necessary qualities—qualities which have been secured for untold ages in millions of individuals at every moment of time. We must, he says, bear in mind the constant changes in chemical combination to which organic structures are subject.

"Is it possible that these combinations can go on in these myriads of myriads of organisms without occasional disturbance, as we call it—but, in truth, in general obedience *to a higher law of order than the conditions of the individual?* Is it not rather a matter of extreme astonishment that the disorders of the lens are so infrequent, especially in the case of civilised man, whose life is so artificial and so unfavourable to rude health?" (Pp. 46-47.)

With some summary remarks on the Eye, Dr. Acland dismisses Comte's argument as one which "fails absolutely and hopelessly"; but not without giving the philosopher a dexterous thrust with a weapon of his own making. In the completion of his work on *Positive Philosophy*, M. Comte says:

"The order of nature is doubtless very imperfect in every respect; but its production is far more compatible with the hypothesis of an intelligent Will, than with that of a blind mechanism."

Having disposed of Comte, Dr. Acland returns to the question, what influence the notion of Final Cause had on the minds of such men as Harvey and Boyle.

"In the first place," says Dr. Acland, "it may be said that, if a man believes on the whole that behind all which we see and know there has ever been a Supreme Intelligence, and if he accept this interpretation in preference to that of fatal necessity or blind chance, then all contrivance becomes harmonious and probable. The Being of God accepted, the study of all things becomes a work of love, as it is a study of fact. When men are seen to dread the effect of Physical Science, it is not unreasonable to mistrust either the extent of their Culture or the strength of their Faith. But, as without doubt there is an ignorant and superstitious, as well as cultivated rational belief, the question remains to be answered, Did Harvey ignorantly and blindly hold dogmas on this matter which modern Science repudiates? There is no sign of it. Harvey did, no doubt, believe in a Supreme Intelligence and Will." (Pp. 50-1.)

Harvey, Dr. Acland shews, was pre-eminently learned in the knowledge required from a physician of his time; but, more than this, he was a learner from Nature. Possessing the intellectual constitution of his contemporary Bacon, he manifested a far greater power of applying his intellect to the direct study of Nature. In his discovery of the Circulation of the Blood, metaphysical speculation has no place. Yet, in his discussions on the Generation of Animals, he did indulge in the metaphysical theory of causation, in a manner which Dr. Acland regards as strange in a man "so practical, so careful in observation, so exact in experiment." This was, however, but a natural result of the hold which the doctrines of Aristotle still possessed over men's minds; and even "where we see his mind labouring to identify the Form or Idea of the chick with its End or Purpose, there break through the cloud gleams of good sense and wisdom. . . . . His discussion on the Final Cause of the chick is wholly apologetic, so far as anatomical inquiry is concerned."

Harvey believed in a Final Cause; not with a superstitious belief, but with a faith which led him to recognise purpose as well as harmony in the world. In holding this faith, he fully recognised at the same time that Nature must be questioned directly, if we would learn her secrets.

"He acted in this faith; and using his reason aright, he made a mighty discovery which has influenced every biological student to this day, and will influence them to the end of time." (P. 72.)

"Of Harvey, we may be satisfied that even in a purely scientific point of view his methods were right. By observation, by experiment, by reason; by faith in a Supreme Will, whom the reason cannot comprehend, but whom the heart can approach, in modesty and in patience he pursued his task." (P. 73.)

Having thus answered the question, whether Harvey did make his great discovery under the conviction that every thing in the natural world is the result of Design, and having shown that his conviction of the existence of a Supreme Intelligence was consonant with his character as a scientific observer in the true sense of the word, Dr. Acland makes a few remarks on the union which ought to exist between science and theology. He does not, however, consider it to be his task to attempt to harmonise these; but, in conclusion, points out how the method which Harvey followed is that by which men like Baly, and Kirkes, and many others of the past, present, and future, "draw on the Healing Art each day step by step more near to an Accurate Science, where facts are fully proved, where argumentation is rightly used, where loose opinions are discarded, and where every error, so far as may be, is guarded against."

We recommend this thoughtfully written oration to the careful perusal of our readers. They will there see, how the belief in the existence of a Supreme Intelligence or First Cause does not antagonise or supersede the necessity for observation in the interpretation of natural phenomena; while the two—faith and observation—are "correlative one of the other, and together make the sum of that portion of human experience by which man strives to work his way in the labyrinth of his present state." Many probably, who read and study this oration, will acquire a more correct appreciation than they have hitherto possessed, of the character of Harvey.

THE DANGER OF DETERIORATION OF RACE FROM THE TOO RAPID INCREASE OF GREAT CITIES. By JOHN EDWARD MORGAN, M.A., M.D.Oxon., Physician to the Salford Hospital, etc. Pp. 64. London: 1866.

THIS essay was read by Dr. MORGAN at the meeting of the Social Science Association in 1865; and he has done well in having it printed for public circulation, as it contains matter that deeply concerns the prosperity of the community, and offers valuable suggestions to those engaged in investigating some of the problems of social science. The conclusions at which the author has arrived are based both on his own personal observation, and on the testimony of others.

Holding a position which leads to much professional intercourse with the poor of Manchester and

its suburbs, Dr. Morgan has been struck with the great amount of physical deterioration manifested by his patients. Among them he finds, in unusual proportion, the muscular system enfeebled; deformities by no means uncommon; the heart deficient in power; the nervous system wanting in its normal well balanced tension; the teeth decaying early; the cervical glands enlarged; the skin dry and parched in appearance; and the hair scanty and withered. This observation is confirmed by the results of the examination of military recruits; of whom, Dr. Morgan has been informed by an officer specially connected with this service, four out of five, in some of the manufacturing districts, are rejected on account of physical disqualification.

This degeneracy being apparent, Dr. Morgan inquires how far it is to be ascribed to the influence of a city life; and, from his examinations of his patients, he has brought out a fact which might have been expected, but which he has placed in a better position than that of hypothesis.

"In my intercourse with the poorer classes, I have frequently interrogated them respecting their own birth-places and those of their parents; and, in numerous instances, have been much struck by the difference in physical development between the indigenous population and those persons who have migrated into the town in adult life. It has further appeared that—as a rule—this deterioration has, to some extent, been proportioned to the length of time which has elapsed since my patients, or their ancestors, became exposed to the lowering influences of a city life and indoor employment." (Pp. 7-8.)

Dr. Morgan now goes on to examine some of the facts bearing on the extent to which these influences affect the vitality of the nation—a subject which, he believes, has not been brought forward so strongly as it demands.

The first point to be inquired into is, "the extent to which the tide of emigration is constantly flowing from rural districts to populous centres." Taking for consideration four of the chief towns and cities in England—London, Manchester, Liverpool, and Birmingham—Dr. Morgan gives the statistics of their population; from which we extract the following percentages.

	Natives.		Immigrants.	
	Under 20.	Above 20.	Under 20.	Above 20.
London	74	46	25	53
Manchester	84	50	15	49
Liverpool	79	37	20	62
Birmingham	89	50	10	49

It hence appears, that the great majority of the immigrant population of these large towns consists of adults.

Next, Dr. Morgan examines from what sources this large immigration of adults into the large cities has taken place. Classifying thirteen counties as industrial, and the remainder as agricultural, he finds that the aggregate populations in each of these two classes was in 1861 nearly the same; being in the industrial counties 8,795,513, and in the agricultural 8,466,722. With regard to London, after balancing the immigration into and the emigration from that city, Dr. Morgan finds that, exclusive of 123,000 Irish and Scotch settlers, the agricultural counties contributed 444,890, and the industrial counties only 53,495, to the balance in favour of the immigrants. In Manchester, the adult population born out of the county amounted to 128,946, or about one-half of the entire population; and to these the industrial counties contributed 52,697, and the agricultural 16,425. In Liverpool, the English industrial counties added 29,260, and the agricultural 11,359. In both Manchester and Liverpool there were large numbers of Irish immigrants (Manchester 43,500, Liverpool 80,000), besides many Welsh and Scotch.

"The sources from which the exogenous portions of the two great cities of Lancashire are derived are, in many respects, less satisfactory than those which supply the capital. Few, comparatively, of their inhabitants are natives of the English agricultural counties; and those who are acquainted with the class of immigrants who flock into Liverpool from the other side of the Channel, are well aware that the majority of these constitute but sorry specimens of the Irish peasant." (Pp. 14-15.)

In Birmingham, as in London, the immigration from the agricultural counties exceeded that from the industrial; the numbers being 29,893 and 16,875.

Thus, a large portion of the adult population of our great cities is made up of persons who have passed their early years in conditions generally favourable to health; and, while the effective strength of the cities is recruited, that of the districts from which the immigrants come is weakened. Hence, as Dr. Morgan shews, any comparison instituted as to salubrity between the cities and the country districts leads to fallacious results, unless the error arising from taking the immigrants into the calculation be avoided. This, he suggests, may be done by confining the calculation to that portion least liable to be affected by emigration—to the young, under 15 years of age. In this way, he shows that very different results may be brought out from those which appear in the Registrar-General's returns. The following table, abridged from one which the author gives, will show this: *a* denoting the average death-rate per 1000 of persons under 15 in 1860 and 1861; and *b* the average death-rate in 1000 of all persons, during the same period.

	a	*b*
London	33	22.5
Manchester	42.5	29
Liverpool	48.5	30
Birmingham	39	23
Agricultural districts	21.9	19

Dr. Morgan believes that, if calculations could be made from the native population of the large towns, a confirmatory result would be obtained.

After shewing, from a comparison of the number of births in the agricultural counties with the increase of their population, how much productive power is lost to these districts through the immigration to large cities, Dr. Morgan refers to the statistics of marriage and births.

"Natural increase of population is materially influenced by different conditions of life. We find, for example, that in Manchester the average number of marriages was (in the years 1860 and 1861) 18.5 in every 1000 of the population, whereas there are some counties (such as Hertford) in which the rate did not exceed 5.8. On the assumption that the fecundity of the population would bear a certain fixed ratio to the number of marriages, we should anticipate a proportionately wide difference in the birth-rate of the two places. Such, however, is not the case—for in Manchester the average number of births was 37.5; in

Hertford, 30.5. In other words, while the marriages in the city were nearly fourfold more numerous than in the agricultural county, the births there only exceeded those in the latter by about one-sixth. In Manchester there were but two children to every married couple; in Hertfordshire, five." (Pp. 23-4.)

After these statistical considerations, Dr. Morgan turns to some of the more prominent causes of degeneracy in large cities; and, among these, he places in the first rank vitiated air, constitutional syphilis, and the abuse of alcohol. On the effects of these, and on the means of preventing them, he offers some very instructive remarks; and concludes with the following summary of suggestions.

"On some subjects accurate and more general observations are urgently called for; such as those relating to the composition and temperature of the atmosphere, not taken in airy suburbs, but in centres of industry, where men and women are congregated together. So likewise, in addition to what the registers tell us respecting the result of every man's last illness, we require to know the nature and extent of the invaliding which precedes it; and such information we can only obtain from disease returns. So, too, if we would set a check on those maladies which are truly preventable, we should organise special wards for the reception of all sufferers from contagious diseases, and retain our patients until convalescence is established. We must likewise supply more accommodation at our Lock hospitals; and adopt stringent measures for preventing the class of patients who attend from becoming a general source of infection. The employment of married women also, more particularly when they are the mothers of young children, should in every way be discouraged. Schemes of emigration, specially calculated for the relief of the mother country, should be brought into operation. Settlements along the railways should be established for the working classes, with special cheap trains at early hours in the morning and at breaking-up time in the evening. Cellar dwellings should be closed up, courts and alleys cleared out, and the sites which they occupied left open to serve the double purpose of air-shafts and playgrounds; streets also should be widened; factories and workshops, instead of being piled up in the centre of our towns, should be scattered over the country in airy and healthy localities." (Pp. 49-50.)

An appendix to the whole contains the tables on which Dr. Morgan founds his remarks.

The subject which the author has treated is one of great importance and interest; and we recommend his book—which, though small, must have been the result of great labour, and contains much instructive matter—to professional and public consideration. The author has pointed out means which will do much to enable our large cities, with all the accessions which they receive from the country districts, to present a far better appearance in the statistics of health than they do at present—one nearer the level of their contrasts in salubrity, the agricultural counties.

United States Army. "Diarrhœa was the army disease. During the warm season, when troops were lying in camps, after long marches or exhaustive campaigns, if one inspected the sinks of the troops, a good, sound, healthy, solid, or even semi-solid stool was a *rara avis*, and one could form an estimate of the prevalence of diarrhœa without looking at the sick reports."

We are requested to remind members of the Association that the Annual Subscriptions became due on the 1st of January. They can be paid either to the Secretaries of the Branches; or to the General Secretary, T. Watkin Williams, Esq., 13, Newhall Street, Birmingham.

British Medical Journal.

SATURDAY, MAY 12TH, 1866.

ACTION FOR MALPRAXIS.

An action for malpraxis was last week brought against two honourable members of our profession—Dr. Armstrong of Gravesend, and his son. It is enough for us to say that, in a court of law, the case had not a leg to stand on; that it broke down, and was dismissed out of court with the full approbation of judge and jury. There was clearly not the slightest pretension of malpraxis; and the action was evidently brought for the purpose of frightening Dr. Armstrong into a payment of damages and costs. The trial, we read, had occupied nearly the whole of two days; and when it was resumed on the third, the jury intimated that they were already agreed that their verdict should be for the defendants. Mr. Baron Channell expressed his entire concurrence with the jury in their verdict.

"The case for the plaintiff was briefly as follows. In 1864, her father kept a shop in Gravesend, and lived in lodgings in that town. She resided with her parents, had been employed in shoe-binding, and was represented to have invariably enjoyed good health. In November of that year, she fell down and hurt her knee. The limb swelled, and she became an out-patient of the Gravesend Dispensary, of which the defendants are two of the honorary surgeons. She attended regularly about once a week. She ceased going to the dispensary by the beginning of June. Afterwards, the plaintiff's father engaged Dr. Armstrong to professionally attend her at her own home, and he continued to do so until June 1865. Notwithstanding his treatment, she grew worse, and showed symptoms of salivation. It was also stated that her hands and feet were contracted by the operation of the mercury, which, it was alleged, had been improperly administered. When the plaintiff's solicitor wrote to the defendants threatening an action, they denied that the girl had been improperly treated, and expressed their readiness to contest the point, sending their claim for professional services, which amounted to £8: 18, for that purpose. The plaintiff was carried into court in an apparently helpless condition. Afterwards, on the suggestion of the learned judge, she was taken into his private room, and examined in private by four medical men, two representing each side. Two surgeons, Dr. Bonney of Greenhithe, and Mr. Vinall of Hackney, were called on her behalf, and gave evidence as to the symptoms which she exhibited. The defence was, that the defendants treated the plaintiff according to the best of their knowledge, skill, and judgment, as medical men; but that she was of a weakly constitution, and

the nature of her occupation and the circumstances under which she lived, the whole family residing in two rooms, and probably not having a sufficient quantity of nourishing food for one in her condition, retarded her recovery. They stated that they heard no complaints from the girl or her parents as to the mode in which they had been treating her, until they received the lawyer's letter; and there was a suggestion that the action was only a solicitor's one to recover costs. Mr. Solly deposed that he did not discover the slightest possible trace of salivation upon her. He also expressed a positive opinion that her knee was free from disease, and that she had the perfect use of it. He thought she could walk from the court into the hall, with a little assistance. With regard to the use of mercury in cases of disease of the joints, he said it was often employed with effect when iodine had failed. Sometimes the appearances of salivation presented themselves without the use of mercury, particularly when iodine had been taken. He was quite certain the plaintiff could walk into the hall, or else his experience of forty years went for nothing."

Here we have all the usual elements of cases of this nature—a pauper patient; a benevolent lawyer, who takes up the cause for the sake of humanity; and a medical brother, who, no doubt out of pure matter of conscience, gives his countenance to the action. Dr. Bonney, the report tells us, gave evidence to the effect that the symptoms might have been produced by the excessive use of mercury. Mr. Vinall, another surgeon of the plaintiff's, however, did go so far as to express some doubts on the point. Of course, unless the plaintiff in such cases can procure medical evidence to back the attempt at getting money out of the pocket of the defendant, the case would fall to the ground; but we regret to say that we never heard of a case, great or small, which failed to come into court through want of evidence of this sort. There are always a certain number of so-called medical brothers ready and willing to jump into the witness-box and disburthen themselves of their scientific opinions or conscientious scruples, even though it be at the cost of the reputation of an innocent man. One would have thought that, in cases of this kind, a medical man would, above all other persons, be able to appreciate the difficulties and dangers which in this wise hang over the head of practitioners of medicine. No doubt men like Dr. Bonney act according to their lights; but, in our opinion, their lights are very dimly shining ones. No medical man, assuredly, is justified in giving indirectly his countenance to actions of this kind, unless upon the surest and plainest evidence of malpraxis; and, of course, then he is bound to do so. But, in the present case, Dr. Bonney stands condemned by the very result of the trial. The frivolous and wanton charge never could have appeared in court at all, unless some doctor had countenanced it; and, when the charge is shown by the result to be frivolous and vexatious, and worse, the doctor who backs the case will meet, and properly, with the disapprobation of the profession.

Who is to repay Dr. Armstrong for all the pain and anxiety to which he has been thus most unjustly put, and for all the injury done him by bringing him away from his private practice to pass many days in Westminster Hall? We need not say that he has the entire sympathy of his medical brethren. But, more than this, we are sure that the profession will not allow him to suffer, in addition, the heavy pecuniary damage which would result to him from the payment of the costs entailed by the action. The plaintiff being a pauper, of course Dr. Armstrong will be driven to pay his own expenses; and, from the nature of the action, these must be considerable. Now, this is just the case for which the profession should provide—and solely on the grounds of mutual support and sympathy. Who is there of us who is not to-morrow liable to an action of this kind? We have always protested, and still protest, against the establishing of a "Defence Fund"; for the reason that it would manifestly encourage rascally lawyers to bring actions for paupers on speculation, and because the funds might be misappropriated to the defence of an action in which the medical man was blameable. Actions of this kind should be judged by the profession on their own merits; and we hold it to be the bounden duty of our medical brethren, and especially of those most highly favoured amongst us, to express their sympathy practically towards members of the profession who may be thus cruelly treated and unrighteously dragged into a law-court.

THE MEDICAL COUNCIL AND OUR LONDON MEDICAL SCHOOLS.

The diminution in the number of medical students attending the London schools, which has been remarked for some years past, cannot fail to have forced itself upon the attention of the teachers at those schools. It is true, that this year there has been a slight increase in numbers; nevertheless, there has been a general falling off as compared with past years. It therefore becomes a matter of consideration to those whose interests are connected with the schools to know whether this diminution is merely a temporary accident, or whether it is likely to continue; for the very existence of some of our schools may be jeopardised by a dearth of students.

The falling off in the number of students may be ascribed, generally, to three main causes: 1. To the stringent character of the preliminary examination now required of them; and 2. To the extensive field of commerce, etc., now opened all over the world, in our colonies and elsewhere, to the exertions of active and intelligent minds; and 3. To the throwing open to public competition of public and government offices. The lessened number of candidates for medical honours is not itself a thing to be

lamented, inasmuch as it must inevitably assist in elevating the position of the profession at large by diminishing competition. In this direction it has operated favourably, in improving the position of our army and navy medical brethren.

We have already, on more than one occasion, called the attention of the profession to what we cannot but think the unfortunate position occupied by many of the smaller medical schools in the metropolis; and have suggested, as the best means of removing the misfortunes which seem to hang over them—an *amalgamation*. The present moment seems favourable for once again pressing this suggestion upon the consideration of those interested in the matter; and we cannot but hope that the Medical Council, in their dealings with medical education, may themselves seriously consider the possibility of reducing the proposal into practice.

Now it happens that the tendency of modern medical educational views goes to the diminishing of the lecturing system, and to the increasing of practical and clinical teaching. It therefore tends to the *depression* of the mere school, and to the *elevation* of the hospital. Doubly, therefore, is the school of the present day attacked—first, by a diminished number of students; and secondly, by the modern tendency of medical education. Modern medical education seems clearly to point to this great fact as the principle which should guide the instruction of the schools; viz., that only those subjects should be matter of school—professorial—teaching, which require practical demonstration at the hands of the teacher. A man must have *demonstrated* to him, must *see*, the distribution of a nerve, and the forms of fibres and cells; and have explained to him on the subject, and by diagrams, etc., the recondite facts of physiology and anatomy. He must learn his chemistry with his eye as well as with his ear. But is it of any avail to him to sit hour after hour on weary wooden benches listening to a descriptive catalogue of signs and symptoms, which are already sufficiently catalogued and detailed for him in the text-books on his shelf at home? Is it of any avail to give, in the class-rooms, lengthy verbal details of a fact which may in two minutes be shown, and indelibly impressed on the eye or ear of the student, in a hospital ward?

The general tendency of modern education seems clearly to point to this position. It seems to say, that those things only should be taught in the schools which cannot be taught in the hospitals, and which are requisite to fit and prepare the student for the proper appreciation of what he meets with in the hospitals; and, conversely, that none of those things should be taught in the schools which can be far better, and in truth only, taught in the hospitals.

Now it is manifest that, in proportion as this growing tendency is practically adopted, the school system must suffer depreciation; that the *quantity* of teaching must be diminished; and, consequently, the income of the schools proportionately reduced. This fact, combined with the other fact—the general falling off in the number of medical students, already alluded to—must, as we have said, perforce, sooner or later, affect the very existence of the smaller schools. The difficulty has been still further enhanced by the fact of the increase of late years in the number of London medical schools. Lecturers have been increasing, whilst students and the lectures required of them have been diminishing in number; and, evidently, there must be a point of equilibrium between the supply and the demand for teaching, which cannot be exceeded without bringing injury both on the teacher and the taught. It therefore becomes a matter of serious importance to the profession to know how the matter stands with us in London at the present moment—whether medical instruction has been injured or advanced by the multiplication of London schools. Surely it is better to anticipate the conclusion which seems imminent (for the reasons above given), than to wait until the roof falls in upon us and the system collapses of itself.

There are eleven medical schools in London, and two of these absorb something approaching to one-half of the whole number of students; the remainder being distributed — of course very unequally, amongst the nine other schools. One necessary result of this fact is, that the remuneration of lecturers becomes a very fluctuating quantity at different schools; that, at the largest schools, it may be regarded as something worthy of the term; that, at the smallest, it is represented by zero, or something below zero; and that, at the medium schools, it can be counted as nothing approaching to an equivalent. Is it desirable that medical education should be conducted on such terms? We should like the Medical Council to answer this question: Do they approve of public medical teaching in licensed schools of medicine, which is not fairly remunerative to the teachers? Does such teaching interfere with the interests of those who are taught? The question is one which really speaks to the conscience of teachers, and it is one deserving of far more attention than it has received. Can the work of unremunerated teaching be rightly and properly carried on? Can the schools all of them fulfil their promises—carry out their programme? Do they the justice they promise and engage to do to the students who enter them? In general terms we would ask this very vital question, and would put it to the common sense of the profession: Is it reasonable to suppose that fitting lecturers shall be found to give long and laborious courses of lectures year after year for a mere pittance of pay, or, as sometimes happens, for no pay at all? It seems evident that, to be a fitting lecturer

in many of the branches of medicine, a man must devote his whole time to the business. But is it not a fact that, at the present time, lectureships are often held rather as a means of introduction of the lecturer either to other lectureships or to private practice, than as a means, pure and simple, of giving perfect instruction in his particular branch to the rising generation of students? Well, if this be true, and we suppose its truth can hardly be denied, it seems to follow that small medical schools are prejudicial to the interests both of the student and of medical science. For does not science suffer also? How comes it that we so rarely find medical men in England devoting themselves to the scientific cultivation of any branch of medical knowledge? The answer is obvious. Men cannot live by their teaching. We firmly believe that, if our schools were amalgamated, and well-paid chairs thereby provided, many a man would be found ready to give himself up wholly to the teaching belonging to his chair, and to the cultivation of the science which he taught. At present, the great and natural object of most lecturers is the attainment of private practice—the means of living.

Amalgamation of chairs would effect another great gain. Thereby the picked men of the many smaller schools would be selected for the work of teaching in the few. Thereby also the very heavy expenses attending the keeping up of the schools would be prevented. The outlay of several combined schools would scarcely exceed the outlay of each one of all the separated small schools. The present working plant of any one of the small schools would doubtless suffice for all the wants of several amalgamated schools.

And what, after all, is there of the Utopian in the proposal? Combination of schools would bring with it combination of hospital instruction. And would it not be an immense advantage to the student, if he could have an opportunity of observing the practice of different surgeons and physicians at different hospitals? Is it not a very great hindrance to the student, that he is at present, as a rule, forced to confine himself to the teachings of one hospital?

Every one would gain by the amalgamation we suggest. Our hospitals would then become really the schools of medical instruction. Our hospital physicians and surgeons, instead of being engaged in giving class-room lectures, would be solely engaged in clinical instruction. Lectures would be greatly diminished in number; practical hospital instruction greatly increased. Lecture-attendance would no longer be regarded by the student as his chief business, or the hospital merely as a sort of midday walk or hour's relief from the lecture business. The school would be to him only a primer wherein to learn his *a*, *b*, *c*; the hospital, the university wherein to learn the practice of his profession.

If the Medical Council could bring about this combination, it would, we verily believe, do an immense service to the cause of medical education.

Dr. Bence Jones imagines that he has discovered in the body of the guinea-pig a substance resembling quinine. He calls it "animal quinoidine". The next thing will be to show its presence in man's body. Dr. Bence Jones has already anticipated its existence there by a theoretical speculation. Quinine cures ague: ague, therefore, he argues, is the result of a deficiency of animal quinoidine. Supply the defect by giving quinine, and you make your man whole—*i. e.*, cure his ague.

In the new Bill for the Distribution of Seats in Parliament, it is proposed by Government to give one member to the University of London—"a constituency large and increasing"; and also one member to the Scotch Universities, "which are possessed of a large constituency," says Mr. Gladstone.

The Secretary of War having refused to postpone the operation of the Warrant of 1860, touching the promotion of surgeons in the Guards, the Duke of Cambridge and Dr. Gibson will have another opportunity of distinguishing themselves by needlessly committing hardship upon certain meritorious medical officers. Nothing can more clearly show the wanton and foolish conduct of the managers of the Army Medical Service than this simple fact, that ever since 1858 a constant series of attacks have been made, and made in vain, on the Warrant of October 1858. The result has been this: that the managers have been, in several instances, forced to restore those parts of the Warrant which they had attempted to destroy; and that, as a climax, the Army and Navy Committee, which has just been sitting at the Admiralty, recommend, as the main conclusion of their Report, a return to the Warrant of 1858. Thus, for eight years, the Duke has been uselessly provoking the medical officers of the army, by attempting to lessen the privileges given them in 1858. He has done infinite mischief to the service, and, after all, is forced to restore to them the privileges of 1858.

Dr. William MacCormac of Belfast relates cases in which he has employed Dr. Richardson's method of inducing local anæsthesia. He bears witness to its great utility. He says of it:

"It was reserved for Dr. Richardson's ingenuity to devise the simple and efficient means of producing local anæsthesia, which goes by his name. It is certainly an inestimable boon that a means has been provided by which such operations as I have detailed can be performed without pain, without submitting

the patient to the risk of death from chloroform, or the other inconveniences which often follow its administration. I have, no doubt, too, that by a multiplication of the number of jets, this method might prove applicable to some of the larger amputations."

Dr. Sieveking, President of the Metropolitan Counties Branch of the Association, on Thursday, the 3rd instant, received the members of the Branch at a *conversazione* at his residence in Manchester Square. A large majority of the members of the Branch (which now numbers, we believe, 220), with several visitors, were present, and were highly gratified with the intellectual as well as physical and social entertainment which had been provided for them through the thoughtful care of the president. Several microscopes, exhibiting specimens and other objects of interest, were on the tables; but what appeared to prove most attractive to those present was the exhibition, by Dr. Thudichum, of various tæniæ and the trichina, by means of the oxyhydrogen microscope; the exhibitor at the same time giving a verbal demonstration of the structures under view. Dr. Richardson explained to a large audience the action of the ether-spray, and of the various ether compounds which he has lately devised; and Dr. Brindon Sanderson demonstrated the *modus operandi* of the sphygmograph and atmograph. We believe we may assure Dr. Sieveking, that his hospitable reception of last week, as well as his entire conduct as president of the Branch during the year, will be gratefully remembered by the members.

We are surprised that no one has yet experimentally tried the effects of the injection of blood as a treatment of Cattle-plague. Considering the extremely adynamic character of Cattle-plague, and its rapid course, it is evident that every hour the animal can be kept alive through the struggle is a great chance in his favour. The materials for the curative treatment—healthy bullock's blood—may be had to an unlimited extent; and Panum has shown that whipped (*i. e.*, oxygenated and defibrinated) blood may be easily, at leisure, and safely injected, under certain conditions, into an animal of the same species. Might not a gallon of such healthy blood, injected into the plague-stricken animal at a period when the disease is just extinguishing the exhausted functions, prove a conservative fillip—turn the balance in favour of life? During the disease, digestion and the process of sanguification are arrested; the animal sinks for want of nourishment. Is it not then a reasonable suggestion to supply it with food already digested—with its perfect equivalent—healthy blood?

The following remarks of a correspondent of the *Medical Press* are worthy the consideration of the Medical Council. It would certainly be a great advantage to the profession if the Council would express an opinion on the subject.

"While our Medical Council is striving to secure privileges to qualified men, and to suppress empiricism, their efforts are rendered nugatory, for medical assistants are *bonâ fide* practising beneath the ægis of the protecting care of the general practitioners of England. *This is one flaw in the system,* and this must affect qualified men; for while principals can obtain unqualified assistants for salaries which are fit only for servants, they will not give possessors of diplomas adequate remuneration for their labour.

"When we consider the duties of the assistant, they resolve themselves into dispensing and compounding, prescribing, visiting, vaccinating, attending midwifery, accidents, etc., filling up the gap in the absence of the principal, and thus excluding the neighbouring practitioner. This last duty is a very important one; and oftentimes a hard-struggling young practitioner, an M.D., M.R.C.S., finds, to his chagrin, when called to a case of emergency, that Dr. ——'s assistant is there, and, owing to professional *etiquette,* he is obliged to retire.

"The principal who looks after his pecuniary interests is willing to avail himself of the services of unqualified assistants, but he cannot treat them as a fellow practitioner.

"This subject, in the interest of the qualified medical men who accept situations, would be well worthy of the attention of the Medical Council. The system could be changed with mutual advantage to all interested. The legitimate duty of the unqualified assistant should be confined to compounding and dispensing. Thus his position would be defined; they could not receive a lower salary than they have at present; and they would not be the drudges they are; and the holders of diplomas would thus receive more fitting salaries, as the competition would be lessened."

Dr. G. Johnson, in a lecture in the *Lancet*, disapproves of digitalis in delirium tremens. He adds, that cases of sudden death have been traced to its use in large doses.

Dr. Stilling urgently warns "all medical men that they should under no circumstances puncture an ovarian cyst." "To puncture an ovarian cyst is to commit a crime". Many deaths have been the immediate result of this simple operation. The fluid from the cyst, often of a deleterious character, oozes into the peritoneum and excites inflammation. Moreover, union of the cyst with the abdominal walls and with the omentum succeeds each puncture, producing the greatest dangers which attend ovariotomy. Puncture, moreover, is of no use. It must be repeated again and again, unless ovariotomy, the radical cure, be resorted to. Moreover, the loss of fluid in this way time after time injures the patient's health, and diminishes her chance of recovery. "Every medical man should lay it down as an invariable law, never to puncture an ovarian cyst, but as early as possible to remove it."

PROFESSOR HUXLEY ON THE RELATION OF PHYSICAL SCIENCE TO MEDICAL SCIENCE AND MEDICAL EDUCATION.

On Tuesday, May 1st, the annual distribution of prizes at St. Mary's Hospital Medical School took place, on the opening of the summer session. The Dean read the annual report, which alluded especially to the institution of practical microscope classes for the study of normal histology under Dr. H. Lawson, and of pathology and morbid histology under Dr. Charlton Bastian; the building of a new wing of the hospital, which would include a children's hospital; and the entry of new students for the year, which had amounted to thirty-three.

Professor Huxley said that he had hardly clearly apprehended at first that a certain gravamen attached to the honour of presiding, in the shape of an address. After a brief introduction, he proceeded to speak of the relations of the physical sciences to medicine and medical education. He defined the object of the science of medicine as being to ascertain the nature of the disability which a diseased person labours under, and the means by which that disability can be removed; and, correlatively, the art of medicine as the skilful use of all those means by which we can ascertain what is the matter with the diseased man and their application to his cure. One great division of these means was derived from, or in its use dependent upon, the physical sciences. The microscope, the ophthalmoscope, the stethoscope, chemical tests, and the other great and familiar means of diagnosis, were all physical appliances. Further than that, every liberally educated medical man should surely know something about the nature of the bodies which he is constantly employing. He should certainly, as a man of liberal education, know enough of botany and zoology to be on even terms with laymen, and give safe opinions and safe answers concerning the animal and vegetable substances which he uses constantly. He was quite prepared to admit, and indeed had always had a strong conviction, that there was something absolutely preposterous in the volume and bulk to which, for example, some of our treatises on materia medica extend, and the enormous quantity of absolutely irrelevant matter. He was not one who would take the student through the length and breadth of physical optics because there are particular substances used in medicine which change the polarisation of light or exhibit the phenomenon of fluorescence. This was the Scylla; total ignorance was the Charybdis.

But there was a more important aspect of the matter: the relation in which the science of medicine stands to physical science in general. The scientific man makes use of the data of physical science for the purpose of reasoning out the exact conditions of the case which he has before him, and for the purpose of applying the precise measures which are adapted to meet that case. Having this conception of what is meant by scientific medicine, what has to be done in medicine before we shall reach this condition? For, although looking about us to surgical practice particularly, and perhaps in some few cases in medicine, it would be possible to adduce instances of what he should call perfect medical science; that is to say, where you have a complete knowledge of the lesion, and a complete knowledge of the conditions required to restore that lesion; yet these were among the rare cases presented to the physician or surgeon. And, in the majority of cases, we had no such complete knowledge. There was a wicked and libellous old story, in which it was said, by way of illustration of medical practice, that in a diseased man Nature and disease are as two men fighting; and that the doctor is a blind man who comes with a big stick, and hits hard, and sometimes hits the disease and sometimes hits Nature. If he might modify the story, he should say that, in these days, the physician is not blind, but, on the contrary, is a remarkably sharp-sighted, acute, painstaking, and conscientious person; but that he finds himself in a very dim twilight; and that, having ascertained that the light is very uncertain and very apt to vary, he rather, as a conscientious person, abstains, as far as possible, from using his club, and confines himself to what, if he might say so without offence to that company, was known as the part of a judicious bottle-holder—ready to pick up Nature whenever she gets exhausted and bring her up to time. That he took to be a fair description of the modern practice of physic; and no doubt it indicated a beneficent change satisfactory to patient and to the physician, who feels that his club is not stained by innocent blood. But this was not final; and we must all look forward to the physician attaining as clear a mental vision of the condition of a diseased part, and the means of relieving it, as the surgeon has in the plainest kind of surgery. What the physician wants is more light. He wants a better light upon the arena of the fight, so that he may be able to remove the obstacles in the way of Nature, and may be able, as occasion offers, to deal his opponent a severe blow, without the chance of doing her an injury. That light must come from the cultivation and improvement and the refinement in every way of those sciences which furnish us with the data for deduction—the abstract physical sciences of anatomy, physiology, chemistry, physics, and so forth.

Upon a clear appreciation of this all our theories of medical education must eventually turn. Let it be granted then, as he believed it must be, that a thorough grounding in physical science was the basis of all medical education. How was this attainable? One of the most experienced surgeons in these islands had raised his voice against the immense indigestible mass of information crammed into the medical student now in the course of three years. Coming without a scintilla of a notion of anything about science, he was expected to learn physics, natural philosophy, chemistry, botany, zoology, with comparative anatomy, human anatomy, histology, pathology, therapeutics, medicine, surgery, dietetics, jurisprudence. The thing was absurd. You might make a sort of intellectual *foie gras* of him; but you could not give him information of the kind and scope which he ought to have in that time, and with the existing methods. They might be taught to pass examinations. He was going to say he would teach a dog to pass an examination, or at least nine-tenths of the examinations that men pass through; but they would not acquire a knowledge of the facts from their own observation, and the only knowledge that is of the smallest use. The practical and purely professional subjects alone must more than fully occupy every minute of the three years of study. What, then, was his meaning in dwelling on the enormous importance of physical science to students of medicine? He held that all this acquaintance with the principles of physics and chemistry and biology ought to have been acquired in the course of their general education. If those who regulate education in this country had the smallest conception of what their real duties are, or of what the purposes of mankind and the conditions of its progress at the present

time were, they would give that knowledge; and those who wish to improve medical education must, to his mind, throw themselves into that object; they must compel those who give us primary education to make physical science a very large constituent portion of that education.

It was the duty of every man to lift up his voice against the scandalous perversion of human time and human ability under the system of gerund-grinding which now prevailed at schools. And, for one particular purpose of medical training, it was the duty of every one of us who had that cause at heart to endeavour to exercise such an influence that the medical teacher shall not have to commence upon a mere *tabula rasa*, but that the young men who come up for medical education shall have been accustomed to acquaint themselves with chemical formulæ and chemical reactions; shall have learnt the great distinguishing features of the different forms of life, and the broad facts of physiology, the elementary outlines of which might, he spoke from experience, be taught perfectly well to boys of ten years old. How much easier the task would then be, not only for the learner, but for the teacher; and how vastly greater would be the stride made by every man towards that great goal already indicated, the establishment of a scientific medicine.

THE USE AND ABUSE OF POULTICES.

In his lectures recently delivered at the College of Physicians, Dr. Richardson made the following remarks on the subject of poultices.

The application of moist heat in the form of poultice to suppurating parts requires, I think, remodeling, in order that it may be placed on a true scientific basis. I am afraid that the common recommendation, "You must put on a poultice", is too often among us all an easy way of doing something about which we are not quite sure, and concerning which it were too much trouble to think long. From what I have recently observed, I fear that mischief is often done by a poultice, which might well be avoided. The people have always a view, that a poultice is applied to "draw", as they say—a term in truth which, though very unsophisticated, is in a sense a good term, for it means what it says. The question for us is, whether it be sound practice to carry out as a general rule the "drawing" process, either by fomentation or by poultice.

When a part is disposed to suppurate, the first step in the series of changes is an increased flow of blood through the capillary surface, followed by obstruction, and thereupon by an excess of sensible heat derived from the friction that is set up. Then follows transudation of liquor sanguinis into the connective tissue, and its transformation, under the influence of heat, into what is called purulent fluid. When to the part in this state we apply moist heat, we quicken suppuration, mainly by upholding the temperature: at the same time, we secure the transference of water from the moist surface into the fluids of the inflamed part, by which tension of tissues is produced, and in the end yielding of tissue at the weakest point.

When the suppurating surface is circumscribed, the rapid induction of the process may be attended with little injury; but when the surface is large and when the exuded fluid is thrown into loose structures where it can burrow readily, the practice, I think, cannot be good to extend the mischief. Hence, in the treatment of carbuncle and phlegmonous erysipelas, it cannot, I opine, be sound practice in the early stage to apply moist heat. Experience also, not less than principle, warrants this conclusion. In cases of carbuncle especially, I have of late altogether avoided the application of moist heat in the early stages; and, I feel assured, with good results.

But when, in the course of local disease, suppuration is actively established, and is naturally circumscribed; when the increased temperature of the part has fallen to or below the natural temperature—then the value of moist heat comes on with full force; then the tension which is exerted determines the escape of fluid at the weakest point of the surrounding tissue, and, when the fluid escapes or is liberated by the knife, the escape for a long period is aided by the application of moist heat.

The continued application of moist heat for a long time after the escape of purulent fluid is again, I conceive, indifferent practice. It sustains discharge; it sets up unhealthy decomposition of fluids; it produces a thickened soddened condition of skin, most favourable to the production of sinus; and it retards recovery. When a surface is freely open, and suppurating, dry and not moist heat is the remedy. We are in want in these cases of a simple invention; we require something which we can apply as readily as a poultice, which shall keep up the temperature of the part, and at the same time take up moisture, and gently desiccate, without injuring the tissues.

Professor Hancock will deliver a course of lectures on the "Anatomy and Surgery of the Foot", at the Royal College of Surgeons, commencing on Monday, June 4th.

A Pharmaceutical Herbarium. At a meeting of the Pharmaceutical Society, Mr. D. Hanbury made some remarks on the advantages of collecting an herbarium. About 170 plants are enumerated in the *British Pharmacopœia*, and of these 50 are either indigenous to, or are cultivated in Great Britain. A number of others are still commonly used, and some were until lately officinal, such as marsh-mallow, black hellebore, horehound, pennyroyal, wormwood, etc. One complete herbarium should be preserved in Bloomsbury Square. But the greatest good would be derived from individual collections, having for their nucleus the commonest indigenous plants used in medicine. In mounting specimens for reference, they should all be brushed over with an alcoholic solution of corrosive sublimate, then re-dried with slight pressure, and afterwards fastened upon the paper by narrow strips of gummed or glued paper. Specimens which are likely to be frequently handled may be fixed more securely by brushing glue while hot over a portion of the specimen, woody stems, roots, bulbs, etc., being for additional security fixed with strips of paper. For a pharmaceutical herbarium, containing a limited number of specimens, a large book may be found more convenient than loose sheets. The plants may then be preserved in proper sequence convenient for reference, and such a volume would be found of far more practical value than a collection of figures. The authors of the *British Pharmacopœia* mention twenty-six works in which figures of the plants enumerated in the volume are to be found. Some of these are very rare, and inaccessible to most. The value of a collection of plants to the pharmaceutical student must therefore be very great, and the subject merits some attention from the Pharmaceutical Society. Mr. Hanbury also mentioned that some of the Continental Governments require apothecaries to provide and maintain in good order a collection of medicinal plants for the use of their apprentices.

Association Intelligence.

BRANCH MEETINGS TO BE HELD.

NAME OF BRANCH.	PLACE OF MEETING.	DATE.
Bath and Bristol. [Ordinary.]	Victoria Rooms, Clifton.	Thurs., May 17th, 7.15 P.M.
Shropshire Scientific. [Quarterly.]	Museum of Natural History Society, Shrewsbury.	Thursday, May 24, 5.30 P.M.
Metropol. Counties. [Ordinary.]	37, Soho Square.	Friday, May 25, 8 P.M.
Lancash. & Cheshire. [Annual.]	Liverpool.	Wednesday, June 13.

BATH AND BRISTOL BRANCH.

The sixth and last Ordinary Meeting of the session will be held at the Victoria Rooms, Clifton, on Thursday evening, May 17th, at 7.15 o'clock; F. Brittan, M.D., President, in the chair.

C. Steele, } *Hon.*
R. S. Fowler, } *Secs.*

SHROPSHIRE SCIENTIFIC BRANCH.

The next quarterly *conversazione* will be held in the Museum of the Natural History Society, Shrewsbury, on Thursday evening, May 24th, at 5.30.

Several papers will be read, and some interesting experiments and objects exhibited. Members may introduce friends.

Gentlemen having communications to make, will have the kindness to inform the Secretary thereof three days before the meeting.

Samuel Wood, *Hon. Secretary.*

METROPOLITAN COUNTIES BRANCH.

An Ordinary Meeting of this Branch will be held at 37, Soho Square, on Friday, May 25th, at 8 P.M.; E. H. Sieveking, M.D., President, in the chair.

Dr. Richardson will read a paper on "The Vaccination Question, in its legal, public, and professional aspects."

A. P. Stewart, } *Hon.*
Alexander Henry, } *Secs.*

LANCASHIRE AND CHESHIRE BRANCH.

The annual meeting of the Lancashire and Cheshire Branch will be held in Liverpool, on Wednesday, June 13th; A. T. H. Waters, M.D., President, in the chair.

Gentlemen intending to read papers or cases are requested to forward the titles of the same to the Honorary Secretary, without delay.

Henry Simpson, M.D., *Hon. Sec.*

10, Chatham Street, Piccadilly, Manchester.

NORTHERN BRANCH.

The annual meeting of the Northern Branch will be held at Durham on Friday, June 22nd; Sir John Fife, F.R.C.S., President, in the chair.

Gentlemen intending to read papers or cases, are requested to forward the titles of the same to the Honorary Secretary without delay.

G. H. Philipson, M.D., *Hon. Sec.*

Newcastle-upon-Tyne, May 9th, 1866.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.

The annual meeting of this Branch will be held at the Hen and Chickens Hotel, Birmingham, on Friday, June 15th, at 3.30 P.M. The members will dine together on the same day at 5 o'clock P.M.

Reports of Societies.

WESTERN MEDICAL AND SURGICAL SOCIETY.

Friday, April 6th, 1866.

George Pollock, Esq., President, in the Chair.

THE PATHOLOGY OF SYPHILIS.

BY JAMES R. LANE, ESQ.

The paper gave an account of the chief doctrines concerning syphilis the last fifteen years; and the remarks of the author were chiefly made to simplify much that had of late been confusedly written on the subject. Mr. J. Lane gave a brief history of the doctrine of Ricord, and of the consequent development of the theory of the quality of the venereal poison which had of late met with acceptance in various quarters. There were still, however, he stated, many good authorities, upon whose side he enrolled himself, not disposed to accept the sweeping distinctions which had been recently made between the different kinds of venereal sores; but who held to the older notion that all those contagious ulcers had their origin in one and the same poison. Whilst fully admitting the practical value of distinguishing between the indurated or infecting, and the soft or non-infecting sore, he denied that the rule was absolute, or that it was possible to predict with certainty of any given sore, that it would or would not be followed by secondary symptoms. There was no certain proof of the infecting nature of the sore, but the fact of infection itself. He firmly believed in the occasional occurrence of constitutional infection from the non-indurated sore.

His view was, that the presence of the induration greatly favoured the absorption of the poison, and that the suppurative or ulcerative action in the sore went far to prevent it, but did not suffice to prevent it in all cases. The fact that the soft sore might occasionally cause constitutional infection, told, he thought, in the strongest possible manner against the double virus theory.

Alluding to the period of incubation, said to precede the appearance of the indurated sore, he stated his belief that no such period was observable in a large proportion of cases, but that they were frequently developed like the soft sore, in the form of a pustule in the first instance, in a very brief period after contagion, and that the pustule afterwards became invested with the character of the indurated sore. There were, however, cases, not very rare, in which an unmistakable period of incubation, of from eight or nine days to three or four weeks, was observed; and they were probably examples of contagion from secondary syphilitic affection, such as mucous tubercles. It had now been conclusively shown that certain secondary affections were contagious, and it had been very constantly observed that the local effect which they produced did not become manifest till after a lapse of time, such as just mentioned.

Mr. Lane then discussed the question of the inoculability of the indurated sore, on the individual

bearing it, or upon another syphilitic patient, which had been strongly denied. There was undoubtedly considerable difficulty in successfully inoculating with the scanty serous discharge peculiar to the indurated sore; but if the sore were made to suppurate by some slight artificial irritation, he believed the secretion would be found to be inoculable in the majority of cases. He stated his own positive experience in favour of this view, and that on a larger scale of Drs. Sperin, Boeck, Bidenkap, and others, who had long practised syphilisation. On the limbs or trunk the matter produced by inoculation with the matter of a hard sore, was identical in appearance with that produced in the same way from the soft sore, and thus afforded further confirmation of the view, that there was no essential or generic difference between the two kinds of ulcer.

He was well aware that the theory of the mixed chancre would be adduced to explain the various anomalies in the double virus theory, and no doubt it did do so. But the evidence in favour of the mixed chancre (a sore that combined the characteristics of the two kinds of sore, and which resulted from the implantation of the two supposed distinct poisons on the same spot) was of the slenderest possible character, and barely deserved elevation to the level of pure hypothesis. He rejected it as a myth, sprung into existence owing to the various difficulties of the double virus theory.

Mr. Lane said he had endeavoured to give expression in the paper to the opinions, which he entertained, that many of the recent researches on the subject of syphilis had not been advanced in the right direction, and that there had been too great a disposition to dogmatise, and educe positive laws from a one-sided examination of facts. There was much to be learned, but there was also much to be unlearned; and the doctrines of twenty years ago were not yet so completely revolutionised, as some modern authors would have us believe.

Correspondence.

A QUESTION REGARDING REGISTRATION OF DEATH.

LETTER FROM JOHN WADES, M.D.

SIR,—In reference to the letter of Dr. James Hill in the JOURNAL of Saturday last, I beg to furnish the following extract from a communication which I received from the Registrar-General in October 1864: "The registrar should endeavour to procure from the person giving him the information a certificate of the cause of death under the hand of the medical attendant; but, if no such certificate be produced to him, he must effect the registration without it, entering the cause of death as stated by the informant, adding thereto the words 'not certified'. There is no necessity whatever for the production of a medical certificate of cause of death, to authorise the interment of a body. It is the registrar's certificate of the death having been duly registered that should be produced on that occasion."

I am, etc., JOHN WADES, M.D.

Hanley, 7th May, 1866.

PUBLIC HOSPITALS FOR MOROCCO. The Emperor of Morocco, in consequence of his late serious illness, has decided on creating at Tetuan, Saffi, Tangier, and Fez, four large hospitals for the army and the poorer classes of the population. A French physician has been charged with their organisation.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND. The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at a meeting of the Court of Examiners, on May 8th.

Barlow, Charles, Staleybridge
Cooper, William Wightman, Nottingham
Cox, William Alfred, Bath
Fielding, James Robert, Alfreston, Derbyshire
Gell, Thomas Silvester, Stafford
Grissfield-Coxwell, John Edward, Woburn Place
Hembrough, John William, Waltham, Grimsby
Hyde, John Knowler, Witney, Oxon
Jenkins, John, Cowbridge
Loane, Joseph, Dock Street, Whitechapel
Mallory, Henry Leigh, Knutsford, Cheshire
Manisty, Francis Steuart, Gresford, Denbighshire
Napper, Albert Arthur, Cranley, Surrey
Newsam, Alderson, Totnes, Devon
Quick, John, Penzance
Ryley, James Beresford, Myshal, co. Carlow
Scatchard, Thomas Edward, Thorp Arch, Tadcaster
Stothard, James, Hull
Sykes, John, West Ardsley, Yorkshire
Turner, Arthur Cromack, Swinton, Yorkshire
Watson, William Charles, Pool, Cornwall
Wood, Horatio, Wednesbury

APOTHECARIES' HALL. On May 3rd, 1866, the following Licentiates were admitted:—

Allcock, Christopher, Nottingham
Coalbank, Isaac. Old Dalby, Leicestershire
Humphry, Arthur, Balham Hill
Kisch, Albert, 2, Circus Place, Finsbury Circus
Parsons, Frederic William, 3, Sutherland Place, Bayswater
Tattersall, William James, Bacup, Lancashire

At the same Court, the following passed the first examination:—

Anderson, J. G., St. Mary's Hospital
Wood, William Henry, St. Mary's Hospital

APPOINTMENTS.

ARMY.

JOHNSON, Assistant-Surgeon Y. H., Royal Artillery, to be Staff-Assistant-Surgeon, *vice* G. B. Poppelwell.
STAFFORD, Assistant-Surgeon P. W., Supernumerary 56th Foot, to be Staff-Assistant-Surgeon, *vice* J. Wallace, M.D.

ROYAL NAVY.

BAIRD, William J., M.D., Surgeon (additional). to the *Boscawen.*
CAMERON, William H., Esq., Surgeon, to the *Jason.*
DALBY, William B., M.D., Surgeon, to the *Implacable.*
DICK, James N., Esq., Surgeon (additional), to the *Royal Adelaide.*
GABRIEL, John T., Esq., Surgeon, to the *Pearl.*
MULLEN, Andrew, Esq., Assistant-Surgeon, to the *Pearl.*
WHITNEY, James L., Esq., Assistant-Surgeon, to the *Jason.*

VOLUNTEERS, (A.V. = Artillery Volunteers; R.V. = Rifle Volunteers):—

CALLON, W. J., M.D., to be Surgeon 7th Lancashire A.V.
CRIBB, H., Esq., to be Assistant-Surgeon 1st Hertfordshire Light Horse Volunteer Cavalry.
DIXON, H. M., Esq., to be Honorary Assistant-Surgeon 1st Flintshire Engineer Volunteers.
KEALY, J. R., M.D., to be Assistant-Surgeon 6th Hampshire R.V.
JOHNSON, J. M., M.D., to be Assistant-Surgeon 7th Lancashire A.V.

BIRTHS.

HUXLEY. On May 7th, the wife of Thomas H. Huxley, Esq., F.R.S., of a daughter.
KNAGGS. On April 29th, at Winchester, the wife of H. Knaggs, Esq., Staff-Assistant-Surgeon, of a daughter.
MURRAY. On May 4th, at Newcastle-on-Tyne, the wife of *John C. Murray, M.D., of a daughter.
STEELE. On May 1st, at Meridian Place, Clifton, the wife of *Charles Steele, Esq., of a daughter.
WOOD. On May 9th, at Ashton-under-Lyne, the wife of Herbert Wood, Esq., Surgeon, of a son.

MARRIAGES.

ANDERSON, Edward C., Esq., Surgeon, to Emma, daughter of the late J. Burrell FAUX, Esq., of Thetford, on May 2.

Hallen, Samuel Thompson, Esq., Surgeon, of Newport, Monmouthshire, to Mary Elizabeth, eldest daughter of Robert Elliott, Esq., Chichester.

Morgan, Edmund Charles, Esq., of Calcutta, to Edith Ellen, younger daughter of Daniel O'Callaghan, Esq., Surgeon-Major H.M. Indian Army, at Calcutta, on March 24.

Nelson, Edward Montague, Esq., of Albert Road, Regent's Park, to Mary Caroline, eldest daughter of Frederick Wallis, Esq., Surgeon, of Bexhill.

Walker, the Rev. Edward M., to Caroline, only daughter of William Lewis, M.D., of Homburg, at All Souls, Langham Place, on May 1.

Williams, Richard Pope, M.B., to Mary, eldest daughter of the late Robert Perceval, Esq., of Haystown House, County Wexford, at Rathaspeck, on April 30.

DEATHS.

Clack. On April 30th, at Hampstead, aged 27, Caroline Anne, second daughter of the late W. G. S. Clack, Esq., Surgeon, formerly of Eton.

Diplock. On April 28th, at Oakley Square, S.W., aged 16 months, Gerald Bramah, fourth son of Thomas B. Diplock, M.D.

Hentsch. On May 2nd, at Laurie Terrace, Southwark, aged 14, Gertrude Helen, third daughter of Wm. Hentsch, Esq., Surgeon.

Reynolds. On April 28th, at Tenby, aged 83, Henrietta Justina, widow of Michael Reynolds, M.D., late Surgeon 59th Regiment.

Swift, Jacob Meade, M.D., in New South Wales, on Dec. 12, 1865.

Bequests. Mrs. Thwaytes, late of Channandean, has left to the Sussex Hospital £5000.

London Surgical Home. Her Royal Highness the Crown Princess of Prussia, Princess Royal of Great Britain and Ireland, has become a patroness of this institution, and forwarded £30 in aid of the funds.

The Railway Accident on the Brighton Line. Three members of the medical profession were in the Brighton train which lately met with so frightful a catastrophe, Dr. Habershon, Dr. Murray, and Mr. Bayfield; happily none of them received any serious injury.

The Cholera in Liverpool. Notwithstanding the measures taken to prevent a further outbreak of cholera in the hospital ships *War Cloud* and *Jessie Munn*, four more deaths have taken place on board the last-named ship, and several other cases have broken out. The cholera also has broken out amongst the Germans in the Depôt at Birkenhead.

Small-Pox in an Asylum. Dr. Robertson in his last *Annual Report of the Sussex Lunatic Asylum*, refers to the outbreak of small-pox. During the months of May, June, and July the Asylum was visited by small-pox; introduced in the latent stage by a patient from the Hastings Union, on April 25th. Twenty-four cases of the disease occurred on the male side, and sixteen on the female side of the House. Four male patients died from the confluent form of this terrible disease, and also one male attendant.

Medical Officers in the Army and Navy. On Tuesday last, Colonel North asked whether it was the intention of Government to carry out the recommendations as regards increased pay, etc., of the Committee which was appointed to inquire into and report upon the grievances of medical officers of the army and navy; and if there was any objection to lay the Report upon the table of the House. The Marquis of Hartington said that the recommendation of the Committee involved not only a considerable increase of pay to medical officers in both services, but questions of the expediency of placing the medical officers of the two services on a different footing. The recommendations of the Committee were receiving due attention; and, as soon as a definite decision was arrived at, he would communicate the result to the honourable member. He did not, however, think that it would be expedient to lay the Report asked for upon the table just now.

Asylums for Drunkards are on the increase in America. The one at Binghampton has been lately increased in size.

Intestinal Obstruction. Dr. Barlow's experience goes to prove that if obstruction exist in the upper part of the bowels, the pain will be more severe, the vomiting come on much sooner after constipation, and in fact all the symptoms will be more acute, than when the large intestine is the seat of obstruction. But the principal point of diagnosis lies in the suppression of urine. When it occurs early, it is sure to mark the case as one of obstruction in the upper part of the small intestine. The explanation given is that the urine is not secreted, as there is no fluid in the alimentary canal retained long enough for the absorption of water into the circulation.

Odours of Disease. Professor Banks says: "There is no doubt, then, that we can sometimes by the sense of smell become cognisant of the presence of a poison capable of producing disease, and there are persons who are endowed with such a power of smell, either natural or acquired, by education of the sense, that they can readily distinguish the odour of one animal poison from another. This by no means agreeable occupation—an inquiry into the odours which emanate from the bodies of the sick—has exercised the ingenuity of some investigators, and they have favoured us with some strange information on the subject. The odour given off from small-pox has been compared to the smell of a he-goat; that of measles to a fresh-plucked goose; scarlatina to cheese. The smell of plague has been compared with the odour of May flower, and that of typhus with a Cossack. That the typhus odour resembles ammonia I have often observed, and the best and most recent investigators agree in the opinion that it is a compound of ammonia. Probably the more intense the smell, the more operative the poison; hence the necessity on the part of the attendant to avoid inhaling this concentrated poison." (*The Med. Press and Cir.*)

Vaccination Bill. This unlucky Vaccination Bill fails in a twofold aspect. It leaves the population as much as ever at the risk of bad or ineffective lymph, and in the next place, supposing the lymph to be pure, makes no proper provisions for its employment. It allows a minimum of remuneration to the operation, which is tolerably sure to be the maximum in practice, and which will thus perpetuate the present system of under payment. Medical men are among the most philanthropic of our race; but there is reason to fear that the present inadequate scale of payment, coupled with other drawbacks, leads to a very slovenly performance of a highly important public function. How else are we to account for the fact that in the course of the recent inquiries out of half a million of vaccinated children who underwent examination, only one in eight was found to be perfectly vaccinated, and that in more than one-fourth of the cases the vaccination had been of a "very inferior" order? The Poor-Law Reports of 1862, as cited by Sir R. Peel, show that out of 702,181 children born in that year, only 437,693 were successfully vaccinated. At this rate vaccination is little better than a farce. (*Standard.*)

Sanitary Science in Ireland. In many parts of Ireland sanitary science is defied. The local registrars send reports such as these: "One third of the deaths in Donnybrook sub-district are caused by neglect of sanitary arrangements," "cesspools and dungheaps are at the doorsteps of a large majority of the inhabitants of this district;" "the houses of the poor in many places are of the old mud-wall style, without light or air, and without shed for cow, pig, donkey, etc., all living together in some places;"

"for the most part the houses contain but one room, a small one, and often cattle and human beings sleep together in it; the people cannot be prevailed upon to adopt other means of housing their cattle;" "with a pertinacity which would be praiseworthy if attached to a just belief, the people persist in it that every case of fever is due to contagion, and scout the notion of its ever originating in leaving animal refuse and decaying vegetable matter lying about." Here is a sketch of the town of Castlegregory: "Streets without channel drains, stagnant pools of putrid water close to the houses; revolting and unwholesome smells whenever the streets are not washed by heavy rains, back yards uncleansed and filth ever trickling from them into the open streets, into which the house nuisance is flung unsparingly night and day, all kinds of defilement polluting the only well which supplies the town with water."

Westminster Hospital School of Medicine. The distribution of prizes took place on May 9th; the Right Hon. Lord Charles J. F. Russell, Vice-President of the Hospital, in the chair. Mr. Henry Power, the Dean of the School, read a report of the present state and progress of the Westminster Hospital Medical School, giving a very favourable review of the progress of the students. The following prizes were then delivered to the successful candidates by Lord Charles Russell. *Practical Chemistry*—Mr. C. T. Winckworth, prize; Mr. J. R. Haynes and Mr. C. H. Furnivall, certificates. *Materia Medica*—Mr. C. T. Winckworth, prize; Mr. J. R. Haynes and Mr. C. H. Furnivall, certificates. *Botany*—Mr. C. T. Winckworth, prize; Mr. C. H. Furnivall, certificate. *Forensic Medicine*—Mr. Walter Moore, prize; Mr. Joseph Oakman and Mr. Thomas J. Quicke, certificates. *Midwifery*—Mr. Joseph Oakman, prize; Mr. Frederick Smith, certificate. *Anatomy*—Mr. C. T. Winckworth, prize; Mr. J. R. Haynes, prize. *Prosector's Prizes*—Mr. W. C. Watson, Mr. M. W. Chambers, Mr. J. C. F. McDonald. *Chemistry*—Mr. S. E. Owen, prize; Mr. R. H. Lloyd, certificate. *Physiology*—Mr. C. T. Winckworth, prize; Mr. C. H. Furnivall and Mr. J. R. Haynes, certificates. *Medicine*—Mr. M. W. Chambers, prize; Mr. W. C. Watson and Mr. Walter Moore, certificates. *Surgery*—Mr. Joseph Oakman and Mr. W. C. Watson, prizes; Mr. Walter Moore, certificate. *Clinical Medicine*—Mr. Walter Moore and Mr. M. W. Chambers, prizes. *Clinical Surgery*—Mr. W. C. Watson, prize; Mr. Walter Moore, certificate. *Dental Surgery*—Mr. R. C. Brookes, prize; Mr. Walter Moore, certificate. *Chadwick Prize*—Mr. W. C. Watson and Mr. Walter Moore. At the conclusion, Lord Charles Russell made a few appropriate remarks to the pupils.

Medical Officers of the Guards. On Tuesday last, Sir R. Anstruther brought under the notice of the House a grievance of the medical officers of the Guards, entailed by an order of 1860, recently brought to light, regulating their promotion, and moved for papers. The motion was seconded by Lord H. Percy, and the Marquis of Hartington, in granting the papers, controverted some of the statements of the mover. General Peel declared the subject to be unfit for the House of Commons, and deprecated all such interferences with the discipline of the army, and the discussion, which was highly professional in its character, was continued by Dr. Brady and others. Sir R. Anstruther begged very respectfully to submit to the noble marquis and the Commander-in-Chief, not as a question of right but of justice, that the action of the warrant should simply not be retrospective. The assistant-surgeons of the brigade of Guards did not ask that the warrant should be repealed. They did not say that it was a bad warrant, and they would even admit that it might possibly be a good one. What they asked, however, was that it might not have retrospective action. The Marquis of Hartington replied, "I shall not be able to advise the Commander-in-Chief to postpone the operation of the warrant of 1858 with regard to assistant-surgeons; but rather that matters shall be left upon the footing on which they were placed in 1860." He agreed, however, to produce the warrant of 1860. General Peel said, "Nobody regrets more than I do that the warrant of 1858 was departed from. I think it is a very bad thing for the service; but I never doubted the power of the Secretary of State to make the alteration. In the House and out of the House I have always done everything I could for the medical officers of the army, and I am happy to say that in the Guards great good feeling exists between the combatant officers and the assistant-surgeons and surgeons of the regiment. I only wish that similar good feeling had been universal throughout the army, and in that case, I believe, there would have been no necessity for altering the warrant."

Veterinary Surgeons Bill. On Wedesday last, Mr. Holland moved the second reading of this Bill. The object of this Bill was to prevent unqualified persons from holding out to the public that they were members of the Royal College of Veterinary Surgeons. There were at present 2,433 persons practising without any diploma, against, 1,144 regularly qualified practitioners. He proposed that any person who fraudulently held out to the public that he was a veterinary surgeon should be liable to a penalty not exceeding £5, and not less than £2. The Bill, however, was not to affect persons who should have assumed the title six months previous to the passing of the Bill. Sir J. Jervoise was at a loss to understand why a man should be prevented from assuming the title of veterinary surgeon. Mr. Newdegate said he believed this Bill would be acceptable as a means of promoting the education of the profession. Mr. Bruce said it was going too far to say that any man who used the name of veterinary surgeon should subject himself to a penalty. If, however, he assumed that he was a member of a college when he was not, that might render such a person liable to penalties. In the case of the chemists and druggists and the pharmaceutical chemists, it was made an offence to assume the name of a pharmaceutical chemist; and if, with regard to veterinary surgeons, they added something to the title, such as Royal College, etc., it might form a reasonable proposition that, for the infringement of the title, the person so offending should be liable to a penalty. He thought the veterinary surgeons were not a sufficiently large body of men to be entrusted with the monopoly of issuing diplomas. He believed a great many diplomas had been given to men whose knowledge of their profession did not entitle them to that distinction. The Bill was then read a second time.

Medicated Pessaries and Suppositories. At a meeting of the Pharmaceutical Society, Mr. H. B. Brady insisted on the necessity for uniformity of form as well as composition of these articles now made up according to the notions of individual prescribers and pharmaceutists. He recommended, therefore, the insertion of a considerable number in the next *Pharmacopœia*. The best excipient Mr. Brady believed to be cacao butter, with from five to ten per cent. of lard. As to size and quantity, he thought that fifteen grains would be sufficient for a suppository, and two drachms for a pessary. As regards form, he contended that the Minié-bullet shape is the

nost convenient. The best way of forming them is o cast them in metal moulds. In making the pesaries and suppositories the active ingredients, such s morphia, tannic acid, etc., should first be rubbed vith the lard, then added to the cacao butter in a opper vessel set in warm water, well incorporated, nd after cooling to the consistence of cream, poured nto the metal mould.

PRECAUTION AGAINST CHOLERA. An order of the 'rivy Council in the *London Gazette* of the 4th instant, uns as follows:—1. In case of any vessel arriving in ny port of the United Kingdom, having cholera on oard, no person shall land from such vessel for the pace of three clear days after her arrival, without he permission of the local authority. 2. The local uthority shall forthwith cause all persons on board he said vessel to be examined by a physician or surgeon, and shall permit all such persons to land immediately who shall be certified by such physician or urgeon to be free from such disease. 3. All persons ertified by such physician or surgeon to be affected vith symptoms of such disease shall be removed, if heir condition admit of it, to some hospital or place o be designated for such purpose by the local authoity; and no person so removed shall quit such hosital or place until some physician or surgeon shall ave certified that such person is free from the said isease. 4. In the event of any death from cholera aking place on board of such vessel, the body shall e taken out to sea, and committed to the deep, roperly loaded to prevent its rising. 5. The clothing nd bedding of all persons who shall have died, or ad an attack, of cholera, on board such vessel during er voyage, either at any foreign port, or on shore at ach port, or on her passage to the United Kingdom, hall be disinfected, or (if necessary) destroyed, under he direction of an officer of the Customs. 6. The ocal authority, for the purposes of this order, shall e the Local Board of Health, where there is such ocal board; and in any corporation where there is o such local board the local authority shall be the own council of such corporation. 7. All persons ffending against this order shall be liable to such enalties as are imposed by the said act of parliament pon persons offending against the provisions thereof. 'he Sanitary Committee of the Southampton Corpoation have in their deliberations the advice of Dr. 'arkes, Dr. Wiblin, and Dr. M'Cormack, the newly apointed officer of health. Every precaution has been aken in the town itself for the prevention of sickness. ll the courts and alleys are limewashed, lodging-ouses cleansed or closed, gullies and drains trapped nd deodorised, all the nuisances reported by the house-o-house visitation at the close of last year have been emoved, with a few exceptions still in progress, and permanent staff of one medical officer charged with he health of the town, one principal inspector of uisances, and four assistant inspectors, who devote heir whole time to sanitary measures, are actively ngaged in the important duties, in addition to the ervices of Dr. Wiblin, the Government superintenent of quarantine at this port.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

UESDAY. Pathological Society of London, 8 P.M.—Anthropological Society, 8 P.M.

EDNESDAY. Royal College of Physicians, 5 P.M. Dr. Andrew Clark, "On the States of Lung comprehended under the term Phthisis Pulmonalis."

HURSDAY. Harveian Society of London, 8 P.M. Dr. Richardson will exhibit his Instruments for producing Local Anæsthesia. Debate, "On Infanticide in its Medical and Social Bearings."

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....Metropolitan Free, 2 P.M.—St. Mark's for Fistula and other Diseases of the Rectum, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TUESDAY. .... Guy's, 1½ P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.

WEDNESDAY... St. Mary's, 1 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.

THURSDAY.....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Great Northern, 2 P.M.—London Surgical Home, 2 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.

FRIDAY..... Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

SATURDAY..... St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1·30 P.M.—Charing Cross, 2 P.M.—Lock, Clinical Demonstration and Operations, 1 P.M.—Royal Free, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TO CORRESPONDENTS.

*** *All letters and communications for the* JOURNAL, *to be addressed to the* EDITOR, 37, *Great Queen St., Lincoln's Inn Fields, W.C.*

COMMUNICATIONS.—To prevent a not uncommon misconception, we beg to inform our correspondents that, as a rule, all communications which are not returned to their authors, are retained for publication.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

F. T.—Our correspondent will probably find the information he requires in an useful pamphlet by Mr. J. Baxter Langley, entitled *A Few Words of Advice on the Buying and Selling of Medical Practices.*

MR. I. B. BROWN'S OPERATION.—Dr. Brown-Séquard, we understand, does not at all agree with Mr. I. B. Brown as to the value of his operation of excision of the clitoris. Mr. Brown's work is dedicated to Dr. Brown-Séquard; and it might be inferred from the dedication and other remarks in it, that Dr. Brown-Séquard had given his tacit assent to the theory and practice of Mr. Brown in his cure of "peripheral excitement of the pudic nerve". To Mr. Brown alone, therefore, must attach all the honours of the operation and of the discovery of the theory on which he founds it. Dr. Brown-Séquard, as we are told, declines any possible reflected rays of credit, such as Mr. Brown desires to throw upon him, out of the pages of his work on Female Masturbation and its Cure. The only rival we know of to Mr. Brown is a Dr. Braun, of Vienna, who has lately published papers on the Cure of Masturbation in the Female by Excision of the Clitoris. But then Dr. Braun of Vienna is certainly later in the field than Mr. Brown of London.

TOSSING FOR AN UNION.—A correspondent writes: "An answer to the following question will oblige an associate. The workhouse in this town was without a medical officer. To avoid a contested election, I called upon Mr. ——, another medical man in the town, and we agreed to toss for the appointment. He lost the toss. A week afterwards, when he and his friends had canvassed the guardians, he wrote me to say, that as I knew something which he did not know at the time of the toss, he would not stand to it, but would present himself as a candidate. This he did. Is that honourable conduct?

KNIGHTHOOD AND LONG LIFE.—SIR: Under the above heading, is a paragraph in the BRITISH MEDICAL JOURNAL for this day (No. 279), showing that, while the average life of man in the British Isles is about 33 years, the average life of fourteen peers who died in 1865 was 66 years; of forty baronets, 65½ years; and of thirty-eight knights, was 73 years. The difference is ascribed to the effects of good living and the other accessories of wealth; and it is jocosely added, that knighthood would seem to be the *elixir vitæ*. Not doubting that the accessories of wealth, rightly used, may tend to promote health and longevity, I would respectfully submit that the greater average age of peers, baronets, and knights, may be otherwise accounted for, seeing that peers and baronets rarely attain to their titular dignity, and knights never, until after they have escaped the risks of infancy and youth.

I am, etc., J. C. COOKWORTHY, M.D.

Plymouth, May 5th, 1866.

THE DERBY DAY.—A correspondent says: "The Medical Council meet this year on the 17th inst. You would do well to let the distant members know that the 16th is the 'Derby Day'. Our Scotch and Hibernian friends may like to take advantage of the occasion to assist at what Lord Palmerston used to call our Great Olympic Game."

COMMUNICATIONS have been received from :—Dr. FREDERICK J. BROWN; Dr. W. G. BARKER; Dr. J. B. HICKS; Mr. SAMUEL WOOD; Mr. LOWNDES; Dr. T. SKINNER; Dr. SHAPTER; Dr. OGIER WARD; Dr. J. WADES; THE HONORARY SECRETARIES OF THE HARVEIAN SOCIETY OF LONDON; Mr. T. M. STONE; Dr. GEORGE JOHNSON; Dr. J. C. MURRAY; Dr. COOKWORTHY; Mr. GASKOIN; Dr. T. LITTLETON; Dr. MERRIMAN; Dr. G. H. PHILIPSON; Dr. T. H. BARTLEET; Dr. H. SIMPSON; and Mr. R. WOOD.

ADVERTISEMENTS.

ESTABLISHED 1848.

Mr. J. Baxter Langley, M.R.C.S. Eng., F.L.S. (late of King's College, London), PROFESSIONAL AGENCY, 50, Lincoln's Inn Fields, W.C.

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University of London.—Notice IS HEREBY GIVEN, That the next Half-yearly Examination for MATRICULATION in this University will commence on MONDAY, the 25th of JUNE, 1866. In addition to the Metropolitan Examination, Provincial Examinations will be held at St. Cuthbert's College, Ushaw; Stonyhurst College; St. Patrick's College, Carlow; Owens College, Manchester; and Queen's College, Liverpool.

Every Candidate is required to transmit his certificate of age to the Registrar (Burlington House, London, W.) at least fourteen days before the commencement of the Examination.

Candidates who pass the Matriculation Examination are entitled to proceed to the Degrees conferred by the University in Arts, Laws, Science, and Medicine. This Examination is accepted (1) by the Council of Military Education in lieu of the Entrance Examination otherwise imposed on Candidates for admission to the Royal Military College at Sandhurst; and (2) by the College of Surgeons in lieu of the Preliminary Examination otherwise imposed on Candidates for its Fellowship. It is also among those Examinations of which some one must be passed (1) by every Medical Student on commencing his professional studies; and (2) by every person entering upon Articles of Clerkship to an Attorney—any such person Matriculating in the First Division being entitled to exemption from one year's service.

WILLIAM B. CARPENTER, M.D., Registrar.

May 10, 1866.

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Society for Relief of Widows and Orphans of Medical Men. Instituted 1788. Incorporated by Royal Charter 1864. The SEVENTY-EIGHTH ANNIVERSARY DINNER of this Society will take place on Wednesday, May 16th, at the ALBION TAVERN, Aldersgate Street,
MARTIN WARE, Esq. (President), in the Chair.

STEWARDS, 1866.

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Croonian Lectures

ON THE

LOCALISATION OF DISEASE.

DELIVERED BEFORE THE

ROYAL COLLEGE OF PHYSICIANS.

BY

EDWARD H. SIEVEKING, M.D.,

PHYSICIAN TO H.R.H. THE PRINCE OF WALES, AND TO ST. MARY'S HOSPITAL; PRESIDENT OF THE METROPOLITAN COUNTIES BRANCH OF THE BRITISH MEDICAL ASSOCIATION; ETC.

LECTURE III. (*Concluded.*)

If we pursue the inquiry into the most approved modes of treatment of different forms of disease, as at our last meeting we cursorily examined into the teachings of modern science as to their essential characters, we shall, I think, be forced to the same conclusion; viz., that all local disease is an expression of malnutrition, and that our remedial measures act curatively only by influencing the nutrition of the body.

How is ulcer of the stomach cured? Bismuth, hydrocyanic acid, tannic acid, morphia, blisters, kino, are a few of the contents of the *Pharmacopœia* which we bring to bear upon this disorder, and with which we undoubtedly accelerate the cure, if we can enforce a condition in which a due nutrition of the body can be secured in spite of this injury to the very mainspring of life. There is nothing specific in any of the remedies; but they act either by diminishing the acid secretion of the mucous membrane, by checking congestion, by constricting the vessels, or by reducing sensibility—in short, by influencing the elements that determine the nutrition of the part in one or the other manner; but they would fail of this end, unless at the same time the tax upon the strength of the patient is diminished, so that a smaller quantity of food may suffice than would be necessary if hard work were continued. There must be no excitement of the circulation, nor must the nervous system be specially excited or depressed; because, in either case, the powers of repair would fail in their object. Still less would it be right to give the stomach its usual work to do, and to call upon it to digest many of the viands that are innocuous in health, but are now only a source of irritation. There is no specific mode of treatment for any form of gastric ulcer; and, without wishing to underrate remedial agents in this or other cases of disease, I am certain that various modes of treatment may lead to the same end, provided that all agree in principle. Certainly remedial agents, *sensu strictiore*, are altogether of secondary importance, compared to the paramount consideration of diet and regimen. These alone may cure; medicines alone must fail. We are not medicine-men, but physicians; we aspire to be ἰατροι—healers; and the whole scope of Nature constitutes the limit to the powers which we are permitted, nay bound, to use, if we can, for the removal of disease, either in the individual or in the community.

What is true of a disease like ulcer of the stomach, which, if any, offers the characters of a primary and idiopathic affection, must be so to a still greater degree in inflammatory affections of the peritoneum, which, you will remember, have lost their claim to rank as the primary disease of text-books, and have sunk to the lower degree of satellite. Upon the treatment of peritonitis, but little need be said in reference to my argument. It is so palpably the result of other deep-seated maladies, involving the entire nutritive functions, that it has rarely been dignified with anything but symptomatic treatment, unless altogether misunderstood. Whether it be the result of scrofula, of the puerperal condition, of malignant or other diseases of the liver, the ovaries, the uterus, it is to these that the physician directs his attention with a view to cure, rather than to the peritoneum. Irritation of an investing membrane reacts injuriously upon the organ it covers; therefore, we act wisely in removing it, if possible, even though the process fail to cure the primary disease of the organ. But it is important that we rightly appreciate both the object and the result, and not think we have dealt with the fundamental morbid condition when we have only combated one of its excrescences.

Probably no cause more frequently induces a circumscribed form of peritonitis than irritation proceeding from the liver. But what is the antecedent of hepatic disease but a derangement of nutrition? The excess of alcohol that passes into the portal system, and induces so much physical misery primarily in that organ; the engorgement of the portal system from over-repletion of all kinds, from want of due aëration of the blood, from sluggish habits, from an overworked brain, are so many instances of the local effects of errors of nutrition, manifested chiefly in one organ. This first influence is often lost sight of in the paramount interest attaching to present symptoms, and demanding all the relief we may be able to impart, without much reference to antecedents. It does not follow here, or elsewhere, that we are to neglect the local condition, or to look on helplessly and hopelessly at the ravages of disease, because we cannot succeed in meeting its first commencement. We must often deal with the symptoms alone, because we have it in our power to allay them, and, by doing so, fulfil an important part of our duties, though it may not be the most exalted. When we look to the prevalence of particular forms of hepatic disease in different classes of men, what answer do we invariably receive to our inquiry as to the causes of their malady? What brings on cirrhosis, or fatty liver, or the amyloid or waxy liver—what causes hepatitis—but the various dietetic and regiminal errors, not to call them crimes, of which the sufferers have been guilty previously, or which have been forced upon them by ignorant authorities? When the dietary of our troops in India was more than double the quantity of the food allowed to our sailors and to the Queen's troops, what wonder that the prevalent disease in the tropical heat of their adopted country was a fatal disorder of the liver? Whether the same rations are continued to the Indian army now, I do not know; but ten years ago, while each man was allowed thirty-one to thirty-five and a half ounces of dry nutritious food in the navy, and in the army one pound of bread with three-quarters of a pound of meat, the East India Com-

pany's allowance amounted to seventy-six ounces; the consequence of which was fatty liver and consequent mortality to a frightful extent; so that, for instance, in the Bengal Fusiliers, 80 per cent. of the privates died in seven years, while of the officers only 11 per cent. were carried off; showing conclusively that temperature alone could not be made responsible for the mortality. The less acute and rapid hepatic diseases of our own country are equally traceable to, and amenable to, dietetic influences, and are best treated according to this view. Whether we administer calomel and grey powder, taraxacum, rhubarb, muriate of ammonia, nitrohydrochloric acid, gentian, chirayta, or any of the numerous medicinal agents supposed to exert a specific influence on the liver, their beneficial effect is proportioned to the extent to which they determine the nutritive changes occurring in the organ, and the reciprocal relation between the general nutrition of the body and the local nutrition of the organ in question. The difficulty under which we labour, is to determine the exact condition of malnutrition which at any time prevails, and the exact irregularity in the metamorphoses induced in and reflected from the liver. We require a much more accurate diagnosis of the changes (even of a coarse kind) which take place in this important organ, than we now possess; but, so far as our knowledge goes, the pathology and therapeutics of hepatic disease, equally, seem to confirm the view that primary or secondary malnutrition forms the basis upon which all disorders of the liver rest. The acephalocyst that wanders into the liver from a portion of half-cooked food, and there makes its home, is much less a disease, in the sense in which I am using the term, than many less serious derangements of the organ; it bears a greater analogy to an external injury than to any of the ordinary products of perverted nutrition or irregular metamorphosis of the tissues; and its cure can only be effected by destroying the vitality of the echinococcus, and causing its expulsion or obsolescence. But, if we fail to recognise the immigration of so palpable an irritant as a parasite, how can we hope, till much more light has been thrown upon vital chemistry, and till our means of investigation are much more searching, to detect and neutralise the generation of subtle poisons in the animal economy, which slowly pervert function and structure? But, though we cannot as yet do that, we know with positive certainty the means of preserving health, by maintaining a perfect balance of all the forces, by securing a perfect primary digestion and an uniform and steady metamorphosis of the tissues of the body, including, of course, the organ that has more to do with regulation of nutrition than any other—the liver.

If we fail to discover any specific treatment for hepatic disease, we are not more successful in a similar search in the range of the urino-genital organs. We have seen that there is good reason for regarding all renal disease as depending upon antecedent morbid conditions of the blood, brought about by errors of diet and regimen, demanding, if recognised at an early stage, such measures as may enable the affected organ to recover its normal balance by throwing off the poison and its immediate effects. But, practically, we are much more frequently called upon to enable the organism to adapt itself to a permanent disturbance of balance, because we are unable to effect a cure. In the former case, we endeavour either to relieve congestion and inflammation by drawing blood to other organs and establishing vicarious secretions, or we are able, by increasing the secretions of the kidneys themselves, to remove the offending cause. In the second case, we rely mainly upon our tincture of the muriate of iron, because by it and its analogues we can impart strength to the system, and enable it to bear the injury which we cannot get rid of. But of specific agents calculated to remove nephritis, or cure granular kidney, fatty kidney, encysted kidney, or cancerous kidney, we know nothing. The proof that such specific agents exist would imply that the entire view of disease which I have sought to develope was fundamentally erroneous, and would, in my opinion, subvert the whole tenour of our present physiological teaching.

When, as is the case with calculus in the bladder, the product of morbid action is altogether removed beyond the range of vital action, when it is either simply a *caput mortuum*, or a substance amenable to physical and chemical interference, surgery comes to the rescue; and the removal of the effect cures what was termed a disease, though, at the time of the operation, the disease may have entirely run its course; and the calculus bears about the same relation to the rest of the body that the argol of the wine-cask bears to the clear and ruddy wine from which it has been deposited.

The rest of the urinary tract obeys the same laws as the kidneys, except that, as we approach the orifice, there is a greater liability to direct irritation. That an external irritation or poison acts with a severity proportionate to the imperfect nutrition of the body, is a matter of common observation; still, the primary cause being altogether external, the consideration of these cases does not come within my present scope. The same applies to many conditions of the sexual organs, for the same reasons. But although, in regard to the human female, we are quite prepared to endorse the dictum of Mephistopheles,

> "Versteht die Weiber zu curiren,
> Es ist ihr ewig Weh und Ach, so tausendfach,
> Aus einem Punkte zu curiren",

I cannot admit it to be a justification of the view that all diseases of the female depend upon the local irritation of the sexual organs. It is correct if applied to the whole faculty of reproduction; and surely, if the powers of the system merit a concentration upon any one physical end, it is that of the perpetuation of the species. Now, so far as sexual disease is not demonstrably of local origin, surely both science and experience teach us that sexual derangement is a symptom rather than a cause of deep-seated malnutrition—call it anæmia, or amenorrhœa, or scrofula, or phthisis, or hysteria; the treatment that results in a perfect cure is not nitrate of silver, or division of the cervix, or the uterine douche, but such measures as are calculated to rectify the derangement of nutrition upon which those cachexiæ are based. The local treatment, doubtless, is as little to be neglected as a gargle or caustic in angina, if, by such means, the local malnutrition can be corrected; but the fundamental rectification is always sought to be gained by the administration of tonics or chalybeates and alterative measures which restore the healthy balance of the tissues at large. I appeal to your own experience in verification of my statement. Let us take one of many illustrations bearing

upon this subject—the relation of amenorrhœa and phthisis. Are we more likely to benefit our phthisical patient in whom the catamenia have ceased by directing all our therapeutic operations to the functions of the ovaries and uterus, to the neglect, as I fear is too often done by ignorant or half-educated, of the pulmonary symptoms? or will our patient profit more by employing the remedies calculated chiefly to remove the pulmonary affection? If the latter issue be the correct one to follow, it can only be because the treatment pursued in this case tends to invigorate the whole system, to make more healthy blood, to get the local affection into a quiescent state, and to increase the aërating power of the lungs, which may be said to be identical with greater elasticity, greater vigour, and more life. Treat either condition only as one of local origin, and the patient gradually consumes; let the local treatment be adapted to support and encourage the restoration of the general balance of forces, and our endeavours may be crowned with success.

Far be it from me, I wish to state it specifically, to object, either here or elsewhere, to local treatment. I advocate it most strongly, and employ it where I can; but it should, I opine, always be subordinate to general treatment, and be selected and carried out with the distinct understanding that its object is to improve the nutrition of the part, so as to aid in the restoration of the general balance of the functions that constitute health. Were man a polypus, or a compound of independent vitalities, we might effect a cure of a diseased portion without reference to the whole; but the higher we rise in the scale of the creation, the more intimately are all the parts blended that form one individual being; and in man, where we reach the pinnacle of the creation, the interchange of relations between the different parts becomes so complete that such a severance is impossible. The anatomist and the pathologist may divide and subdivide; but there is a science higher than that taught in the dead-house, the science of life—the science of life healthy, the science of life in its morbid manifestations, but yet of life. The unity which pervades all the phenomena of life, gives us the unity which binds up the flowers of medical science into one beautiful wreath; take away the bond and the whole tumbles to pieces; and though even the fragments may attract and charm, their harmony is lost, and we no longer recognise the exquisite effect of colouring and perfume which the combination by the master hand was capable of producing.

I have not yet exhausted even the small list of diseases to which I adverted in my last lecture in illustration of the general doctrine which I have been considering. I fear that I have already trespassed too long on your patience; and that, even were more time at my disposal, the further instances that I might adduce to show that what is generally considered the most efficient treatment of disease, is directed rather to correcting a fundamental state of malnutrition than combating a nosological entity by specific remedies, would only suggest to you a *crambe terum repetita*. For, whether we examine cardiac diseases or tubercular affections, or the morbid conditions of the cerebro-spinal system, and analyse the prevailing treatment, we should still, in my opinion, be led to the same conclusion.

Whether I have succeeded in making myself intelligible, or whether I have only clothed in my words views that others hold, I do not know. The immediate stimulus that has excited in me a desire to suggest for our joint consideration the theory of disease that I have placed before you, has been the doctrine broached of late abroad, and apparently adopted by some teachers in this country; according to which in many cases—if not in all—the local disease is the first change, and the general and constitutional symptoms follow upon it, according to a normal law of development. This view is one that no amount of microscopic evidence could bring home to my convictions, because it appears to me irreconcileable with evidence of a more important and prevailing force. Practically we may still hold to the distinction between a local and a general disease; but the localisation of the disease need not the less (nor I think is it) be a means by which nature eliminates morbid material, a continued persistence of which throughout the system would be incompatible with life.

What I have said is to me a professional creed—not lightly formed nor lightly to be discarded. But as it is a creed, so also it is a light (I trust not an ignis fatuus) of practice. What an individual may do towards the alleviation of human suffering, is but as a drop in the ocean; but what we conjointly do, if we act in the right spirit, carries with it the mighty issues of the health and strength of our fellow-creatures. Although I have not been able to give a surgical lecture, as Lady Sadlier's will directed, I would fain hope that I have acted in her spirit, in trying (feebly indeed) to show the common basis underlying the whole edifice of the healing art.* Nor can I think that I have contravened the spirit prevailing in this ancient College at the present time, which has induced you, Sir, in conjunction with the Fellows, to endeavour to associate with us all our professional brethren who are willing to undergo a severer training than is legally necessary to obtain a qualification to practise. You, Sir, have, like the wise men of old whose portraits and statues are to be found in our halls, added to your many honours not the least, that of opening your arms to Surgery, and establishing in the College of Physicians examinations in that great and beneficent branch of our common profession. In that union I see a promise of greater things—a promise of continuous progress of mankind towards a more perfect growth of all their powers; a greater conquest of mind over matter; a more complete destruction of the works of darkness, so far as they are manifested forth in misery, disease, and premature death.

If I have ventured to place before you my own professional creed, I must ask your pardon, and that of my entire audience for any dogmatic or unsupported assertions that I may have used. No one can feel his weakness and his inability to cope with so large a subject more than I do. But however I may have failed, it will always be a comfortable reflection to me that you, Sir, our President, one of the most honoured among living physicians, have thought me not unworthy to address this assembly.

For that distinction, conscious as I am of my want

* The learned President of this College well urges this principle when he says:—"You can neither understand what may be called medical, without learning much that belongs as strictly to surgical pathology; nor can you be ignorant of either, without being in many important respects deficient in the other also."

of merit, I would express my deepest acknowledgments. I can only close with a hope that no worse judgment may be passed upon my endeavours to plead for the scientific unity of our noble profession than that conveyed in the words of the companion of our early days:

"Magnis tamen excidit ausis."

But whatever our aim and whatever the result, the most successful among us must still confess that, compared to what he has not achieved, he is but as

"A curious child who dwelt upon a tract
Of inland ground, applying to his ear
The convolutions of a smooth-lipped shell,
To which, in silence hushed, his very soul
Listened intently; and his countenance soon
Brightened with joy; for murmuring from within
Were heard sonorous cadences, whereby
To his belief, the monitor expressed
Mysterious union with its native sea:
Even such a shell the universe itself
Is to the ear of Faith."

The True Foundation of Medicine. Dr. Wilks speaks as follows in a lecture:—"Taking a long list of diseases and considering them as so many entities, and then taking your *Pharmacopœia* and looking for the corresponding remedies, does very well for opinionated ladies with their homœopathic guides and chest of globules, and whose strong assertions it is never worth refuting; but for you it is different. Cease to look upon that book (the *Pharmacopœia*) as containing the only method which you possess for treating disease; for by regarding it in that light you act on the same principle as the charlatan. Every system of quackery depends upon its special mode of cure. Take that away, and the whole bubble bursts. Is it so with us? Throw our *Pharmacopœia* in the fire. Has our system ceased? Can we make no use of our knowledge? Have we no resources left? Mind you never allow anyone to compare orthodox medicine with any system of quackery. The only point of comparison can be in reference to cure. Theirs is a given method; ours is not. It is perfectly absurd, therefore, to call us 'allopathists,' and to say that we give medicines to oppose diseases. What has allopathy to do with treating a case of fever?—or with the case of albuminuria of which I spoke?—or with the case of perforated intestine? Never allow yourself to be called by so absurd a name as allopathist, or by any other term which implies a particular mode of treatment or physic-giving. We cannot be ticketed in that manner. We have much larger means at our disposal than the *Pharmacopœia* can give. Destroy it, I say; but Guy's Hospital remains, the professors remain, and you practitioners remain. That book is not the foundation on which we practise; and, therefore, although I say it with the utmost respect to the individual members of the Apothecaries' Hall, I solemnly believe that the founding of the medical profession upon a company of druggists was one of the most lamentable events that could ever have befallen a learned body. Physic and medicine the bases on which we depend! Could anything be more absurd or mischievous? Anatomy, physiology, pathology, and the study of disease is our foundation. If we discover valuable medicines in plants, animals, or in the bowels of the earth, let us make use of them; but these things do not constitute the foundation on which our art stands. Quackery is founded on a given system of physic-giving; we are superior to it. Orthodox medicine is an art based on a knowledge of disease."

Illustrations
OF
HOSPITAL PRACTICE:
METROPOLITAN AND PROVINCIAL.

BIRMINGHAM GENERAL HOSPITAL.

CASE OF INTRATHORACIC ANEURISM: SPASMODIC ELEVATION OF ONE VOCAL CORD: CONTRACTION OF THE PUPIL.

Under the care of James Russell, M.D.

The case illustrates the two important symptoms connected with the nervous system, lately made subservient to the diagnosis of intrathoracic aneurism. Of these two symptoms, the spasmodic closure of the glottis on the affected side (and its opposite, a paralytic condition) has been especially pointed out by Dr. Morell Mackenzie as occurring in certain forms of aneurism of the aorta or its primary branches. With respect to the second symptom—viz., alteration in the size of the pupil of the same side, contraction, or occasionally dilatation, from paralysis or irritation of the sympathetic fibres supplied to the iris—a variety of pathological illustrations have been afforded by Dr. Ogle (*Med.-Chir. Trans.*, vol. xli), and by Dr. W. T. Gairdner (*Clinical Medicine*). Some very interesting cases are also quoted by Dr. Hughlings Jackson (*London Hospital Reports*, vol.i, p.372), which associate wasting of the muscles of the arm with contraction of the pupil, through the medium of disease of the roots of the nerves. "It seems strange" (he observes) "to say that the same nerve-trunks which supply the muscles of the arm supply the iris, but experiment proves it to be so."

These illustrations have been chiefly derived, however, from disease external to the cord; it may not, therefore, be uninteresting to relate the three following instances of a similar change in the pupil, resulting from change *in the substance* of the cord itself.

Contraction of the Pupil, from Disease of the Cervical Portion of the Cord. My first two illustrations are from Ollivier (*Maladies de la Moelle épinière*, ed. 1837).

Vol. ii. Case xcviii. A man, aged 40, was taken suddenly with acute interscapular pain, which continues from May 20th till June 7th. On June 7th, after violent aggravation of the pain, he suddenly fell, with complete paralysis of the upper and lower extremities, followed by extreme dyspnœa, oppression, and anxiety. When he came under observation, on June 8th, together with the foregoing symptoms, there were noticed paralysis of the external respiratory muscles, feeble voice, retention of urine, anæsthesia of the surface of the body below the mammæ; but there was no priapism. On the following day, the symptoms were increased in severity; the voice was extinct; and he died. During these two days, the pupils are said to have been contracted. It is added, on the second day, that they were immoveable, and the conjunctiva injected.

On *post mortem* examination, the spinal cord was found softened through its entire thickness, excepting a thin superficial lamina. The softened portion, which was of a red colour, extended for the length of six inches, commencing an inch below the pons. In the centre was a black semifluid coagulum, of the size of an almond.

(Page 190.) Immediately following the record of the preceding case, is a brief notice of one similar

n its symptoms, but without a *post mortem* examination.

A man, aged 29, after exposure to the heat of a burning sun, was seized with a sense of general feebleness, and suddenly fell, suffering severe pain in he cervical region of the vertebral column. When een next day, there was complete paralysis with næsthesia of both upper and lower extremities; respiration was normal; but he died on the third day, 'dans un véritable état d'asphyxie." The pupils were contracted (*resserrées*), but "contractile". Ollier ascribes the symptoms to hæmorrhage, primarily oured into the cervical enlargement of the cord, but gradually extending itself to the medulla oblongata.

The last case which I have to mention occurred nder my own observation, in the practice of one of ny colleagues.

A brickmaker, aged 22, was admitted at 11 A.M., March 16th, having just before fallen from a scaffold rom a considerable height. I saw him in the vening, when his state was accurately described by he note I made of his condition on the following ay, the 17th; it was as follows. Pulse 90, regular; espiration 26, very short, with a long inter-respiraory pause; temperature in the axilla 100.6°, in the erinæum 101.4°. He had a short and ineffectual ough, which he said was very awkward for him. oice rather feeble, but quite distinct. There was reat flatulent distension of the abdomen. All the xternal parts below the mammæ were completely aralysed, and deprived entirely of sensation. He as unable to grasp with his hands, but moved his rms freely. Sensation in the arms was decidedly lunted; in the face, it was entire; and there was ome sensation between the mammæ and the root of he neck, due, no doubt, to the branches of the cerical plexus. Respiration was performed entirely by he diaphragm. Urine was retained. There was onsiderable priapism. The clearness of his mental aculties, and the absence of any consciousness of a evere malady even within a short time of death, ere very striking.

At my two visits, I found the pupils in a state of hree-quarter contraction, and quite unable to dilate ven to a medium size. Each cheek was rather ushed, but not to a marked amount. The condition f the conjunctiva is not noted.

He died twenty hours after his fall, from dyspnœa, hich was aggravated by great distension of the abomen.

Post mortem examination disclosed fracture without material displacement of the bodies of the sixth nd seventh cervical vertebræ, and of their articuating processes. A small amount of blood was ffused between the dura mater and the bodies of he vertebræ, from the second dorsal vertebra upards; it surrounded the roots of the nerves, but id not seem in sufficient quantity to make important pressure upon them. A hernia of the cord, hree-quarters of an inch long, protruding through he pia mater, appeared opposite the body of the st cervical vertebra; the corresponding nerve-roots ere unaffected, arching over the protruded subance. In this part, the tissue of the cord was very oft and pulpy, and was intermixed with blood; and lood ran thence upwards along the central portion f the cord, in gradually diminishing quantity. The ffusion of blood was very broad just above the ruised portion, but projected posteriorly more than nteriorly. The white columns of the cord, and all he roots of the nerves, were entire. The effusion eased at the second or third cervical nerve.

Two observations are suggested by these cases.

The district of the spinal cord which specially influences the iris, extends from the sixth cervical to the fourth dorsal vertebra. Hence, in the last case at least, only the highest portion of this segment was affected; but Brown-Séquard agrees with Schiff in stating "that some of the fibres animating the iris ascend the cervical part of the spinal cord, and most probably go up to the medulla oblongata." (*Physiology of Central Nervous System*, 1860, p. 144.)

Dr. Ogle (*op. cit.*, p. 405) states that, according to Budge, the anterior and middle columns of the spinal cord are the truest seat of influence to the iris. But a further remark (p. 407) bears upon the last case, in which the central part of the cord was chiefly implicated in the disease. "In addition, Budge and Waller found that any injury to the whole or half of the central part of the spinal cord alluded to above .....removed all power of action from the extensor or dilator muscles of the pupil."

The case of aneurism which has given occasion to the preceding remarks does not present the distinctive symptoms with sufficient precision to remove all doubt as to its actual seat, whether in the aorta, or in the innominata. My friend Dr. Foster inferred from the pulse-trace taken by the sphygmograph, that the disease was in the aorta. The difference between the pulse in each wrist noticed at first, which indicated the innominata as the seat, disappeared after the patient had been relieved by rest.

G. P., aged 39, labourer, presented the following symptoms: a high-pitched, feeble, stridulous voice; an occasional stridulous cough, with expectoration of mucus of a deep smoke-colour; much complaint of dyspnœa when the patient walked. The dysphagia mentioned in the history of the case became much less during his residence in hospital.

The patient was a well made, muscular man. When admitted, the right pulse was decidedly less voluminous than the left; but this symptom soon ceased to exist. The right pupil was not greatly, but very decidedly, smaller than the left; most apparently so when turned from the light. Each pupil was equally active. By the laryngoscope, the right vocal cord was found in a state of perpetual elevation. The pulse-trace, taken by Dr. Foster, is figured in the number of this JOURNAL for March 31st (Figs. 10 and 11).

There was marked fulness of the cutaneous veins on each side of the chest and neck, and of each upper arm, not visible, however, below the level of the mammæ. There was distinct prominence in the region of the insertion of the first and second right ribs into the sternum. Pulsation visible to the eye existed in the prominent part, and to the hand laid upon the chest, extended more widely. No bellows-sound was audible over the tumour, but a double sound, having precisely the character of the two sounds of the heart. On the first observation, these sounds were louder in the tumour than over the heart, and they never sank beneath the cardiac sounds in intensity. The impulse of the heart was feeble; the apex occupied its normal position. With the exception of the region of the tumour, the chest was resonant; and expansion was performed equally on either side. The respiratory sounds were natural, excepting that sibilus was very perceptible on deep breathing.

The first symptom of disease which attracted the patient's attention was dysphagia, which, he says, occurred suddenly four years ago, and had continued up to the period of his admission. He could eat a good dinner, but, at times especially, needed something to swill it down; at other times, the food went down more easily. Two years afterwards, he began to cough up pure blood, and believes that he expectorated a quart in the course of the night. The hæmoptysis occurred at supper-time; he had been lifting some heavy stones during the day, but

has no recollection of any peculiar sensation at the time. This was the only occasion of his spitting pure blood; but the expectoration of smoky mucus, mentioned among his symptoms, commenced about two months before his admission. He has worked up to the present time; but three months ago, after a violent cold, his breathing became short, and has continued so ever since. He has never suffered any pain. His history presented no other symptom worthy of note.

During his residence in the hospital the symptom underwent no change beyond what is mentioned above. He soon grew tired of the confinement; and passed from under our observation.

As the case is not verified by a *post mortem* examination, it does not afford a safe basis for comments on two interesting points in the history of aneurism, suggested by the hæmorrhage and by the dysphagia. I only advance it in connection with the other symptoms especially noticed in an earlier portion of the present communication.

Original Communications.

REMARKS ON SYPHILISATION.

By George Gaskoin, Esq., Surgeon, Chevalier of the Order of Christ, Portugal; Surgeon to the Artists' Benevolent Fund; formerly House-Surgeon and House-Pupil, St. George's Hospital.

[*Continued from page* 491.]

If our memory serve us well, but a year or so ago, Mr. Lee, in a correspondence with Dr. Boeck before that gentleman's visit to this country, threw cold water on the cure effected by syphilisation in a person who returned to England after going through a course of treatment at the hands of the Norwegian professor, surmising that he (the patient) had never had syphilis at all; and the impression pretty generally conveyed was, that persons who went in all innocence to Christiania to be syphilised were treated without due discrimination, and might possibly come away, in regard to having the disease, in a worse condition than that in which they arrived. The same class of objection was put into play at Paris; viz., the denial of the existence of the disease until it was brought into the patient's system by the method of cure; and it was more than once affirmed, that any surviving traces of syphilis were entirely due to the treatment by inoculation as a primal cause. This iteration of the same species of argument in the two countries shows that the springs and sources of prejudice in the human mind are limited, like all things in the kosmos; for it would seem that the illimitable inoculation of the chancre on man is a wholly exceptional and unparalleled fact, of which more anon. But, if the hard sore be not inoculable on a syphilitic soil, and the soft sore be a purely local concern, whence, then, all this pother? for, under accepted views, it would be curious to ascertain what harm could ensue from inoculation of purely local sores. But, to be brief; as well as we can learn at so great a distance, it is the manifestly infecting form of the disease which is prevalent and common in Norway; while the soft chancre, with its frequent accompaniment the suppurating bubo and its readily inoculable virus, is rare there, or at least its incidence seems regulated by fresh arrivals in the ports; and these arrivals vary most capriciously. Hence, at times, to procure matter from such a source is more than difficult, it is impossible. But, ever since the method of inoculating the hard chancre has been found, the Norwegian physicians employ its secretion, and are thereby rendered independent of any such irregularity of supply as occurred to them when using the pus of the soft chancre. And this, as we believe, is the truth.

And yet it would not seem to be of much use to quote cases and facts to those so well fortified against their appeal. If facts are to be constantly denied, and when they are most convincing remorselessly explained away, where, then, is the sense of observation? Where is the name of science? This reproach was made to Ricord, after writing his *Lettres sur la Syphilis*, that he had made science impossible; that observation was paralysed and tetanised under the benumbing and fatal influence of dogma. The perfecting of dogma seems to have gone on in an increasing ratio ever since that time, until at last it would appear to have reached its acme. To one of the French school, if we say we have inoculated from a hard chancre on the bearer, they point, with a smile, to the very fact of its auto-inoculability as sufficient proof that it was not a chancre of the true indurated type. If we tell them that an infecting sore began in a vesicle or a pustule, they will tell us that it ought to have been a papule, and that a papule is included in the pustule. Dogma is supreme. They cannot conceive that a virulent disease can begin by more than a single elementary lesion; though nosologies (like those of Willan and Rayer) have broken down on that very point. This audacity of assertion has, at least, the merit of being precise, and certainly of being French. If not inspired by truth, it is at least calculated to beget resistance; so that between violent extremes their idea of progress may finally be realised. It might perhaps bring forth ripe fruit enough, if subjected to the mellowing influence of British thought; but, in Henry Lee, we find it interpolated with a certain "obscurantism" of his own. Quoting the excellent pathologist Mr. Simon, he questions whether the limits are strictly defined or definable between ordinary and specific inflammations. Nothing can be more just than the remark of Simon—admirable in point of truth. But let us reason now. Is there any disease with a pedigree like syphilis? As regards exactness, we believe, without a single flaw. If we take away syphilis, where would our notions of contagion be? Where they were in ancient time—involved in thick obscurity. No; in regard to contagion, it is syphilis which has taught us all we know. Mr. Lee confesses that there is great difference between the examples chosen (eczema, etc.) and those specific effects obtained by inoculation of variola, vaccinia, and glanders. He says that, for an inoculation of syphilis to be satisfactory, we ought to get a hard sore in the point inoculated. This observation strikes us with more wonder than all. Is Mr. Lee, then, so experienced in syphilisation as to know that a hard chancre never ensues? But when an indurated chancre is multiple, we know pretty well, or at least it is said so, that the infection was contracted in both, within a little, at the same time, and not one in sequence to another.* A great master has said that the indurated chancre occurs but once. It was somewhat rash of him, however, to assert so much, as he was liable to be "called to order" by the observation of facts. But, in fine, as the disease unrolls itself, the ribbon is drawn forward from the roll; it does not go back, nor is the pattern often repeated; and this, as it seems to us, is a sufficient reason why in the base of a sore inoculated from a hard chancre there is no indura-

* See Lee's Description of the Hard Sore. "And if multiple, it is so from the first." Lecture I, On Syphilisation, etc. (*Lancet*, 1866.)

tion, and why it generally has a soft base, differing only, as Mr. Lee has elsewhere said, from the soft chancre, "*by being more superficial, not attended with any loss of substance, and not leaving cicatrices*", and, therefore, in this respect, "*differing materially from those produced by the secretion of an ordinary suppurating sore.*" (British Medical Journal, April 22nd, 1865, page 417.)

Mr. Lee cannot rest the point on so narrow a basis as this. The ordinary effect of the inoculation of the hard sore is, except in virgin subjects, a sore with a soft base. The true proof of its success lies in its being the vehicle of a "specific virus"; and Mr. Lee does not in this place go so far as to affirm, in anything like a direct manner, that an ulcer with a soft base, such as we get from inoculation of a hard or indurated sore, carries no infection in its train. He does not as yet impugn the dictum of the master, that the chancre is contained in its secretion. He reserves the point for future discussion, and at present what he does say is this.

"Further investigations as to the dynamical changes by which an inoculable ulcer is developed, are doubtless required, to throw light upon the obscurity which yet hangs about it; but 'I am,' he says, 'tempted to introduce some experiments which appear to bear upon the subject.'" Forthwith he quotes the instance of three scapegrace girls, who inoculated themselves from the stores of Bidenkap, and had the luck to escape syphilis. As a simple result, the circumstance is worthy of observation and record. To any one conversant with syphilisation, this negative fact is far from conclusive as to the general innocuity of inoculated matter; the variety which is found in the quality of venereal matter, as modified by races of men and individuals, perhaps also largely by circumstance, is almost infinite. We have matter which we call superior and inferior*; and M. Ricord laughs at this distinction in one place, and condones the expression in another. Very often, after being used in long series throughout the hospital, the pus finds a barrier in a single patient, who may accept an inoculation with matter refused by others. In virgin subjects, no doubt it is more or less the same, for we reject the doctrine that "all are equal before syphilis." But there are positive proofs that the pus employed has an infecting character, and that it is the vehicle of a specific virus. This may be found in the case immediately following that which we have already quoted in the treatise of Melchior Robert; it refers to a student, who, as that writer naively expresses it, "wished to verify experimentally on himself, the doctrine of the chancroid, (soft sore) in which I had initiated him, by the bedside." The poor young gentleman paid dearly for his lesson, and was well cured of the trick of experimenting, having had enough of it for that time at least. The case is abbreviated without prejudice to facts.

March 22nd, 1858. A patient with exceedingly large indurated sore on the glans, accompanied by multiple bilateral bubo, had besides an exuberant sore on the lip, also indurated, with submaxillary adenitis. Roseola in patches. Affection dating from two months. On March 25th, Dr. M. Robert inoculated from the penis to the thigh, and again on the 31st, from the pustule produced, and also once more from the penis to the opposite thigh. In both these instances the result was positive; in both inoculations from the penis, ulcers ensued. From the inoculation first made, viz., on the 25th, when it was yet a pustule, one of Robert's pupils inoculated himself on the thigh. The pustule from which he inoculated was on its sixth day of progress, dating from the day of its inoculation. Four days subsequently to this rash proceeding, which dated from March 31st, the young gentleman had a pustule which subsequently spread to a large sore with induration of well marked character, commencing twenty-three days from his inoculation. The sore spread and had nearly closed before another week; but in three weeks time, viz., May 22nd, it had opened afresh, with another sore in its neighbourhood. In both of these, the infiltration of their base was considerable, and they were highly indurated: the inguino-crural region shewed a perpendicular line of multiple bubo. On June 10th, the original inoculation had the dimensions of a five franc piece, and was very hard; there were present multiple bubo, post-cervical adenitis, ulceration of the throat, papular syphilide, etc. At the time of the experiment, this young man had a simple chancre with bubo. He appears to have recovered with a fixed and settled persuasion in his mind, a conviction which he was not timid in expressing, that a chancroid taken from an indurated sore is capable of producing an infecting chancre ("jurant qu'on ne l'y prendrait plus et avec la persuasion intime que le chancroïde né du chancre induré peut très bien donner le chancre infectant.")

Now how do the French dualists manage to get over such a case as this? "The chancre with multiple adenitis, from which the inoculation was taken," say they, "must have been a *chancre mixte*.* The inoculations on the thighs were perforce simple chancres. Those of the pupil, the subject of the experiment, were also simple, or typical soft chancres. How then came the infection? Some little goutlet of blood must have complicated the inoculation. The blood from syphilitics, Pelizzari proved to be contagious. And this ingredient was the vehicle of the infection. Such is the interpretation they give to it. But, when we consider the great difficulties which attend the inoculation of syphilitic blood, the large proportion of avowed failures, the doubt which hangs about the fact as yet, the *besoin de cause* or hard up condition which suggested the argument, or afterthought (had it it not better be called?), we must say of the explanation that it is a little too much for our coarse English wit. The lesson in our eyes is precious, as showing the danger of infection from inoculable matter, and also as proving how hard a Frenchman will fight when he sets his back against a wall.

Now, whether there be a "natural way" of contracting syphilis, or not (a thing we take leave to doubt, for, regardless of human respects, this demon enters in as he may, intent only on his cruel work), we yet hold it for certain and precise, that the consecutive symptoms of the disease give a surer proof of its presence than can be deduced from any induration of the primary sore, such as Mr. Lee makes the lever of his argument to annihilate the evidence of facts like those which we have had before us, and to controvert all that is true, or resembling truth, in syphilisation. He places in the very front of his battle this induration of the primary sore, as constituting *the* anatomical sign, *the only reliable and positive* sign of the specific action of the virus; and advances the doctrine, that an individual *cannot* be subjected to it a second time. We do not concede to

* See Rules of Syphilisation. Communication of M. Auzias-Turenne to the Académie des Sciences, Nov. 17th, 1851. Rule 6: "Not only does pus derived from a person far advanced in syphilisation show an inferior and decreasing activity when inoculated on that person, but also *in a less marked degree* when inoculated on another individual wholly untainted by syphilis." Also Rule 35: "The chancres which do not give constitutional syphilis are those produced by a pus of inferior form which are at their first generation: in which case the defect is in the *seed*."

* M. Nodet, however, says it was a simple chancre, and adds: "Admire the choice clouding of Melchior Robert." Certainly never did effrontery surpass that of M. Nodet. (*Etudes Cliniques*, etc. Louis Nodet. Paris: 1864.)

the induration of the sore, even when accompanied by its appropriate bubo, the same amount of importance as a means of diagnosis attributed to it by Mr. Lee; for we have to consider that this hardness is frequently wanting in the primary infecting sore; and often, when it is present, it cannot, he says, be *detected*. We do not find in it that description of character which corresponds to the botanical peculiarities by which one plant is known from another, as, for instance, a rose from a myrtle; which stamp of character in plants is required to be present and discernible, or at least not fugitive or fortuitous. We perceive, however, in the argument before us, two elements concerned: first, a virus which is extraordinary, of exceeding potency and penetrative character; and this may be likened to the seed. The soil is the human body, which becomes vitally affected; and this affection, or reaction of the body, we call physiological, or better, pathological (as to "dynamical", we know not what it is, unless when a man drags in a strange word head over heels). Now this affection of the body is in an onward series, from hour to hour and day to day, without a halt as yet; and it dates from the very beginning of the infection. Nor is this series like a chain with equal links, or even as a flat alluvial plain; but rather as a gradation of steps, or as the uneven ground of a mountain ascent, the soil varying as we advance. And the product of the soil will vary too; for the product of the later period differs from that of the period which precedes, and which soon is left behind; and this is why an inoculation from a hard sore results in a sore without induration; though in direct succession to the former, it carries the virus still.

But that we may not be judged of as slight and inconsiderate, as never giving a thought to the natural form of things, but weaving cobweb dreams out of the films of fancy, we will note down in this place one of those axioms which were the first recorded observations in this path of discovery. The 49th rule or axiom of Auzias-Turenne, in his letter to the Academy of Sciences, Nov. 1850, runs as follows:—"When the chancres made upon an ape have a few days interval between each, the induration does not always show itself in the seat of the first chancre, but not seldom we find it in the second chancre or in the third. But the occurrence of the induration is wholly referrible in point of time to the existence of the first chancre, so as to accompany the second or third in the first day of their development. A pustule of inoculation in one of our patients might, by induration, be followed in the same way."

Let the vain theories of Langlebert go. We see the narrow basis on which rests the artificial system of the French; viz., on infection by the syphilitic blood, a *Deus ex machinâ* they are always calling to their aid. Yet, when we remember how insignificant in number are the cases of success from this source in a large body of experimental results—and never are they positive, but when the blood has been applied over a very large extent of surface—we are justified in refusing this mode of explanation, not only in the case before us, but also in the cases of vaccination at Rivalta and elsewhere, as quoted by Mr. Lee in his work on syphilis—cases once more brought into the field of discussion by the experiments of William Boeck with the vaccine matter of syphilitic infants mingled with their blood. In all such difficulties, there is a straightforward way of looking at a thing, which should take precedence of what is far-fetched and subtle; and we say that there is a vast difference, and one which cannot but be discerned, in the force and quality of syphilitic matter; and that it appears to us that the quality of the matter at Rivalta was exceptional, and that its power was intensified by repeated transmissions in a virgin soil. This difference is fully intelligible in a disorder so many times called Protean; and this variety in the matter also serves to explain why the girls in Bidenkap's *clinique* were not affected by the disease, and it explains other circumstances not otherwise easy to be understood.

When the dogma of the non-contagiousness of secondaries fell, and the year 1859 witnessed its last parting sigh—it is now, as M. Ricord once said of syphilisation, thoroughly dead (*bien morte*)—the exclusive and almost fetish worship of the chancre was by the same act, and at the same hour, brought to an end. M. Ricord put his hand to the deed which authorised his dethronement.* No longer he reigned a magnificent king. To recur to the language of the worthy Velpeau, used long before, from henceforth his school became identified with the setting, and ours, which is the school of observation, moves onward with the rising sun.†

* In this year (1858), as a result of many scandals, by direction of the minister, a committee of the Academy of Medicine was appointed to decide on the fact of contagion by secondaries; and, being a member of the committee appointed, M. Ricord had to record his recantation of his long cherished doctrine, on the 24th May, 1859.

† See speech of M. Velpeau, on the debate on Contagion of Secondaries, in Académie de Médecine, 12th October, 1852.

FRACTURE OF THE HUMERUS BY MUSCULAR ACTION.

By Charles Terry, Esq., Newport Pagnell.

The patient, J. C., came to me about three months ago. He is sixteen years of age, strong, tolerably robust, and showing the very reverse of a rickety diathesis. He had just been trying how far he could throw a cricket-ball; and, whilst he was in the act of throwing, his arm dropped. He exclaimed, "My arm is broken," and came to me. On examination, I found a fracture at the junction of the upper with the middle third of the humerus, attended with perfect inability to move the arm, slight displacement, great pain, and considerable crepitus. Had there not been a witness, who corroborated this account of the accident, I should have been inclined to doubt my patient's statement. The fracture was put up in the ordinary way, and is now well. The callus can be plainly felt, shewing the point where the fracture occurred.

This case I have considered worthy of being recorded, as some surgical authorities do not refer to muscular action as a cause of fracture of the humerus. In other standard works, however, such as those of Mr. Erichsen and the late Professor Miller, sudden contraction of the muscles of the arm is mentioned as producing fracture in some cases. Mr. Erichsen, indeed, in his *Science and Art of Surgery*, says that fractures of the shaft of the humerus "are more frequently the result of muscular action than are those of any other bone."

Occurrence of Ergot on Different Plants. Dr. Kühn has observed the ergot to occur on twenty-eight graminaceous and five cyperaceous plants growing in different positions, and on soils of opposite qualities. He comes to the conclusion that moist bad soil and low position have little to do with its development. The fungus (*Claviceps purpurea*, Tulasne) produces in from twenty to thirty capitula upwards of a million spores, which readily germinate. He reared the ergot from spores placed in flower-pots. (*Year-Book of Pharmacy.*)

Transactions of Branches.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT MEDICAL MEETINGS.

UNZER'S QUESTION: DO TRUE INSENTIENT ANIMALS EXIST?

By FREDERICK JAMES BROWN, M.D., Rochester.

[*Read at Gravesend, April 6th*, 1865.]

UNZER propounded the question a century ago, and inclined to the belief that insentient animals do exist. He regarded the entire subkingdom of the invertebrata as insentient; for he believed that a cerebrum was essential to the conceptive force, which he attributed to the soul.

I. *Unzer's Views of Life and Mind.* According to Unzer, organic life consists of organic forces in addition to the general physical and mechanical forces. The two organic forces are, the motive force of the heart, upon which depend the vegetative processes; and the nervous force, which is peculiar to animals.

The soul exerts a sentient or conceptive force by cooperation with the nervous force, in a mode that is unknown; and the soul acts and is reacted upon by the nervous force, and does not operate in a direct mode on the organism. The conceptive force of the soul (which is mind) manifests itself solely through the cerebrum of the vertebrata. Cerebral ganglia *plus* soul are necessary to sensation: cerebral convolutions *plus* soul are necessary to thought. The *vis nervosa* is an excito-motory force that responds to impressions from without and impressions from within. Internal impressions are organic in their nature, and consist of motional change in matter; but such change arises in two ways—spontaneously in the organism, and by respondence to the conceptive force. Such were Unzer's views respecting life and mind, as these are exhibited in animal organisms.

II. *My own views of Life and Mind.* I am unable to decide betwixt the Platonic and the Pantheistic cosmological systems; that is to say, whether organic life and mind be dependent on active innate ideas implanted in organic bodies—in other words, on one or two principles or souls; or whether organic life be the manifestation of vital and spiritual phenomena in a determinate form through the medium of a definite structure and chemical composition. Whichever system be adopted, the agency of the spirit of God is acknowledged.

I am inclined to the belief that organic life consists of a physical principle analogous to chemical affinity. I expect that the actinic ray of the sunbeam bears the same relation to vital affinity that the chemical ray does to chemical affinity.

Unzer was at first a follower of Stahl, who was a Platonist; but he subsequently believed that the organic forces were elaborated in the organism.

The subject that requires to be investigated by us, on the present occasion, is the presence of souls in animals. I purpose including plants in this inquiry, because of the similarity of the movements of closely allied organisms of the two kingdoms.

In the case of animals, the matter is answered affirmatively by Scripture and by physiological facts, and by the logical interpretation of these facts. The Scriptures affirm that animals are living souls, and that they possess living souls. The same Hebrew words, "*nephesh hayah*", are used for man and beast and every moving thing on the earth and in the waters. The words *nephesh hayah* have been translated variously as "living soul", "creature that hath life", "living creature"; and the word *nephesh* by itself has been rendered "soul", also "person".

Plants are not said to be living souls. They are not even said to possess life; but the processes of life are *described*, such as growth and germination. It would seem as if the characteristics of each kingdom are mentioned; viz., the vegetative organic processes in plants, and locomotion and sensation in animals. Plants are living beings, although this is not affirmed of them. It is possible that they may be living souls equally with animals.

The physiological facts that I shall adduce relate to movement and to vision. I hold the opinion that choice-like movements afford certain evidence of volition, and that vision presupposes the presence of mind.

All animals and certain plants show choice-like movements.

All animals and all plants are sensitive to light.

Nearly all animals possess vision.

I will, in the first place, consider a few facts relative to decapitated animals.

Correspondence of Plants and Animals as respects power of Sexual Union. Fact 1. Decapitated butterflies and crickets will copulate, if the appropriate stimuli be applied.

Fact 2. The male organs of generation in plants approach the female, and emit tubules that penetrate into the ovary.

Comment. These facts show that the union of the sexes is effected in plants and animals by the same power, which power is not the mind. In the case of unmutilated animals and in plants it is possible that the mind may engage in the sexual act in the mode of desire, cognition, and volition.

Evidence afforded by the Cessation of Choice-like Movements in Decapitated Animals. Fact 3. The movements of decapitated animals are not identical with voluntary movements, for they do not exhibit choice but only coordination in addition to reflex action.

Comment. Therefore, since choice-like movements cease upon decapitation, and since volition is acknowledged to cease under the same circumstances, the inference is fair that choice is due to volition. Consensual actions cease with the removal of the head; therefore, both consensual and voluntary actions cease. Unzer regarded all the apparently voluntary actions of the invertebrata as consensual. Some physiologists believe the same, but they admit the operation of the perceptive faculty of the mind in consensual acts, although they deny the operation of the volitional faculty. I shall show in another part of this paper that the mind is necessary to the special senses.

Evidence of Volition in all Animals, and in certain Plants as furnished by Choice-like Movements. Fact 4. Choice-like movements are exhibited by all animals at one stage of their existence. Thus Grant says of the Porifera: "The reproductive gemmules vibrate their cilia with great regularity and force; they appear to be conscious of each other's approach, and can accelerate, retard, or cease their motions at pleasure; they are sensitive to light, and appear to be guided by its influence in selecting the place of attachment most suited for the growth of each species."

Comment. Porifera exhibit volition in the embryonic stage, but their minds are quiescent in the mature stage of their existence; or quiescent so far as volitional movements are concerned, but their minds may be conscious and sensitive, and even capable of volition although unable to exhibit this faculty in consequence of change of organic structure

and of organic power. The analogy between the porifera and certain plants is exact.

Fact 5. The movements of the embryos of the algæ, and the movements of the antherozoids of ferns, correspond with the movements of monads.

Comment. I rely for the accuracy of this fact on the statements of Müller, and on observations published in the *Intellectual Observer*. The only difference is this, the embryos of the algæ do not pursue and capture prey. They move about by cilia in a manner resembling animalcules. The antherozoids of ferns are identical in their conduct with animal spermatozoa.

Fact 6. The movements of antherozoids and of animal spermatozoa are not effected by cilia, but by contractility of their bodies.

Fact 7. Animalcules that move by cilia also show contractility of their bodies.

Fact 8. External cilia vary greatly in form and disposition, and differ from the cilia on mucous surfaces.

Comment. The regularity of the movements of cilia on mucous surfaces, shows that these organs are dependent on the rhythmic motive power of the organism, uninfluenced by volition, whilst the variable character of the movements of external cilia renders it probable that volition influences the organic motive power in this instance.

Since the movements of embryonic plants correspond with the movements of animals, they must arise from the same cause. Those that deny this conclusion are bound to prove the difference of causation. I propose two theorems:

A. Movements similar in appearance are similar in nature.

B. Movements similar in appearance proceed from similar causes.

An Attempt to Explain the Movements of Plants by the Organic Powers without the Guiding Presence of Mind. Postulate. Let it be granted that the observations on the movements of plants are inaccurate, and that the embryos of algæ do not move identically like monads in an eclectic manner, but in a whirling mode with acceleration at intervals. In this case the explanation of the movements would be as follows: The organic motive power acting rhythmically and spirally would propel the embryos. Secondly, certain objects might attract, whilst others might repel the embryos. Thus these organisms would eventually arrive at the point of greatest attraction, having whirled about with apparently voluntary avoidance of obstacles. The same explanation will serve for antherozoids, and for animal spermatozoa.

But it must be borne in mind that this explanation can only be correct if the postulate be conceded; for if there be rapid variability of movements different from those explicable by attraction, repulsion, rhythmic and spiral motion—in a word, if there be eclectic movements, then volition is the guiding spirit of plants as well as of animals.

Accurate observation is needed to constitute safe ground for reasoning on this curious subject.

I will in this place give a summary of the movements of plants.

1. The processes of vegetative life in plants are dependent on the organic motive power, equally with the same processes in animals.

2. The movements of the sensitive plant, and of the oscillatoria, are dependent on the two organic powers, the impressible, and the motive, and do not necessarily require the guidance of volition, or the presence of consciousness.

3. The movements of the organs of generation in plants are dependent on the organic powers, but whether they be accompanied by consciousness and guided by volition, is not yet certain.

4. The movements of the antherozoids of ferns and of the embryos of algæ require separate consideration, because of their apparently voluntary character. Further observation is requisite to determine whether there be identity with animalcules or not. If the movements be identical, then analogy requires our assent to the presence of volition in plants that exhibit such movements.

Evidence afforded by the Presence of Eyes in Animals. The human mind cannot conceive of any other use for eyes than the transmission of light and the depiction of form; and nearly every one believes that light and form are perceived by the mind, such perception constituting vision. Unzer did not admit that all animals furnished with eyes possess vision. He regarded the eyes of the invertebrata as apparatus to admit light to the optic ganglia, not to be perceived as light (for he denied mind to the invertebrata), but to stimulate the organism to coordinate movements such as we term consensual. He believed that the social acts of ants and bees are explicable on this theory.

The term consensual cannot be used with propriety by Unzer's followers, because there can be no special senses without perception. It is true that reflex actions do arise independently of consciousness, but it is not true that consensual actions can arise in the organism without an act of the mind, for sensation is a mental act.

Non-sensational impressions can be produced by light falling on the eyes during sleep, so as to arouse reflex movements in the organism, and mind is not necessary to such actions, for there is no sensation experienced. But when light is perceived as light, actions resulting from the sensation of light are rightly termed consensual. It is impossible for the human mind to conceive of forms depicted on the retina, acting on the organism by any other mode than perception. Eyes furnished with refracting media must be used for vision of forms as well as of light. The dispute respecting vision can only occur in the instance of those animals that possess eye-dots without refracting media. I shall show presently that there is a glistening cornea even in the polygastrica, and a crystalline lens and two decussating optic nerves in the *medusa aurita*.

We should expect to find vision as an endowment of actively moving predaceous creatures, and we find eyes in such animals.

Actively moving plants do not take food into their bodies, and we search in vain for eyes in them.

Those animals that move slowly or are fixed *in situ* do not require vision, or only require the vision of light, and we find such animals to be unprovided with eyes, or furnished only with opaque light-absorbing eyes not containing refracting media.

Light affects all animals as it does plants, through the surface of their bodies, but it is not perceived as light without optic apparatus and mind.

Facts relative to Eyes, taken from Grant. Fact 9. "Many animals, like plants, are affected sensibly by light, without their exhibiting either organs of vision, or a single filament of nervous matter."

Fact 10. "Distinct organs, however, appropriate to light, are already perceptible in animals where no nervous filament has been detected in any part of the body."

Fact 11. Eyes first occur as opaque red spots "to absorb the rays of light, without forming an image of external objects."

Fact 12. Most of the genera of the polygastrica possess eyes, which are in some instances provided with a glistening cornea.

Fact 13. The *medusa aurita* (which is a radiate animal, viz., one of the Acalepha) possesses eyes with a crystalline lens, an optic ganglion, and two decussating optic nerves.

Comments. Since light determines locomotion in organic beings that are unfurnished with eyes, it is difficult to conceive of any use for eyes other than vision.

If it be granted that eyes are true visual organs, it is evident from their presence in the simplest animals that the mind is unable to perceive light and form, except through the agency of optic apparatus.

The question arises, whether the mind can hear, smell, taste, or feel, without special apparatus.

Considering that the special senses are all modifications of touch (except sight),* I judge that vibrations in the general substance of the organism may be recognised by the mind as sound, odour, savour, tact. But, even if touch be the only outward sense possessed by those animals that have no eyes, still the mind can gain experience of the world by touch, and of its own organism by the inward sense of cœnæsthesia.

Considerations respecting the Diffusion of Nervous and Muscular Matter. It is believed by physiologists generally, that the elements of nervous and muscular matter exist in all animals, conferring upon them irritability and contractility. I deem this to be an unlikely circumstance, for the following reasons:

a. The presence of irritability and contractility in plants.

b. The presence of irritability and contractility in animals that exhibit no anatomical nervous or muscular filaments.

c. The presence of irritability and contractility in animals that resemble the blastodermic vesicle of the higher animals. In this instance, the polype resembles an embryo at a stage previous to the development of nervous and muscular structures.

From these considerations, I judge that the organic impressible and motive powers are the property of blastema, and that these primary powers become nervous and muscular force through the agency of special structures.

Erroneous comparison of Vertebrata and Invertebrata. It appears to me that physiologists err by applying the same general laws to the two subkingdoms. Nothing can be more certain than the relation between the development of the cerebrum of the vertebrata and the endowments of mind in that subkingdom; but a different law obtains in the invertebrata.

Instinct is higher in its performances in insects than in the vertebrata. Instinct is often spoken of as something distinct from mind. This is erroneous, for instinct is involuntary ideation, therefore a mental act accompanied by consciousness. An examination into the muscular force exhibited by animals in the two subkingdoms, shows that there is not a correspondence; and on every point dissimilarity rather than similarity prevails.

Consciousness of Spermatozoa and of Embryos. I regard spermatozoa as conscious. They yield themselves wholly, soul and body, to the new individual that is formed out of the union of the two souls and the two bodies of the sperm and germ. Thus the child results from the union of the soul and body of both its parents. The new individual does not become conscious (in the case of the vertebrata) until respiration occurs, because the brain does not perform its functions until independent respiration be established. Previously to this act, the mind is dormant. It is different in the invertebrata, in many instances, for the existence of the embryo and that of the adult constitute distinct stages of life, separated more strongly than is the case in the vertebrata. It is probable that the memory of continuous life fails in the case of metamorphosis; but memory fails in man likewise, and infantile life is distinct from adult existence.

Answer to Unzer's question: Do True Insentient Animals exist? No; there are no animals without consciousness and sensation; for all animals exhibit choice-like movements and sensitiveness to light, and most animals possess vision.

* Sight itself is a modification of touch, for rays impinge on the organism.

CASE OF GANGRENE OF THE LUNG AND OSSIFIC DEPOSIT IN THE AORTIC VALVE.

By J. J. D. Burns, M.D., Surgeon to the Chatham Prison.

The patient was Robert P., a warehouseman, aged 46. He had been thirty-one months in prison. His health was good; but he was subject to rheumatic fever. His father and mother died from phthisis. He was admitted to the Infirmary on December 12th, 1865, with an abscess on the middle finger of the right hand, and another on the heel—the latter being caused by abrasion. The abscesses were incised, and left indolent sores; which, however, gradually healed, though not entirely.

On the 28th, he was observed to have a very indolent look. He had frequent cough, with pain in the left side.

On January 10th, his breath became very offensive, and he expectorated dirty purulent matter.

On the 13th, gangrene of the lung was suspected from the characters of the breath and expectoration. He had a wasted and cadaverous appearance; the sore on the heel became absolutely inactive, and the breath more and more fœtid, till he died on the 14th.

At the autopsy, the whole of the left lung was found gangrenous; there was serous effusion in the pleura; and, on examining the heart, portions of ossific deposit were found in the aortic valves.

His diet was ample from the commencement, with a pint and a half of porter daily.

City Orthopædic Hospital. The anniversary dinner of the friends of this charity took place on the 9th inst., at the London Tavern, Bishopsgate-street; Mr. G. J. Göschen, M.P., in the chair. During the past year 970 patients have been admitted to treatment. The accounts for the year showed liabilities outstanding to the amount of £490. In the course of the evening the secretary announced subscriptions to the amount of £500.

Death at Shanghai. "The mortality among the unfortunate Chinese," says Dr. Morgan, of the *Euryalus*, "who had sought refuge in the settlement, surpasses belief, which is not to be wondered at where there were so many human beings crowded together in indifferent dwellings. I have been informed upon good authority that they died at one time at the rate of 3,000 a day, and as they could only procure a burial ground that could only accommodate 1,000 a day, the remaining 2,000 were enclosed in boxes of deal boards loosely put together, or packed up in straw or matting, and left to rot in the sun. During the time this ship was at Shanghai there were thousands of dead bodies more or less hidden from the sight of the passer-by by some loose covering, that were in a state of decomposition, and tainting the surrounding atmosphere with their deadly effluvia."

Progress of Medical Science.

MEDICINE.

Syphilitic Acne. Dr. Tanturri recognises two forms of acne, the glandular and the follicular; and says that constitutional syphilis may manifest itself in either of them. In the *glandular syphilitic acne*, the inflammation attacks the epithelium, the proper wall of the sebaceous gland, and the neighbouring connective tissue. It differs from impetigo or eczema impetiginodes in the circumstance that, in the latter affection, the inflammation is limited to the epithelium of the gland, and yellowish friable, shining crusts are formed on the surface of the skin. These crusts contain a large amount of nucleated epithelium, like that which normally exists in the sebaceous glands, granular epithelial cells, pus-cells, and fatty matter. These elements are found in small quantity in syphilitic glandular acne; but the disease affects the gland and the surrounding dermis more deeply. It may be said that impetigo is characterised by a catarrhal inflammation, and syphilitic acne by a parenchymatous inflammation. Impetigo, Dr. Tanturri says, is not communicable by inoculation; but many experiments have shewn that syphilis may be communicated to healthy subjects by the inoculation of the purulent contents of syphilitic acne. In glandular syphilitic acne, there may be recognised a stage of eruption or suppuration, one of retrogression or atrophy, and one of desquamation. Glandular syphilitic acne is generally one of the first constitutional manifestations of syphilis. Its development is slow and gradual; in some cases, however, it may be rapid —as it were acute, and is then accompanied with more or less fever. At the same time with the acute acne, we see erythema, moist papules, and other signs of recent constitutional infection. The chronic form is pretty frequently accompanied by ecthyma, gummata, chronic glandular swellings, periostitis, etc. Acute acne is one of the most obstinate symptoms of constitutional syphilis; the chronic is still more obstinate, especially if the skin have been affected by previous diseases. Glandular acne, according to Zeissl, is never met with in newly born syphilitic children; but Diday has described it without questioning its occurrence at this early age.

The diagnostic characters of syphilitic acne are thus described by Dr. Tanturri. *a. Acute syphilitic acne.* In the eruptive period, the disease is seated on the trunk and the upper and lower limbs; the pustules are acuminated, with a hard base; the suppuration is central and superficial, and the pus has a tendency to dry up. In the suppurative stage, syphilitic acne presents pustules having a large hard base, with a central depression, covered by a small adherent crust. In its third stage, syphilitic acne is characterised by small hemispherical projections, desquamating at the circumference and having concrete pus in the centre. In the fourth stage, syphilitic acne presents small hemispherical projections with an irregular surface; superficial cicatrices, with little pigment; and an abundance of fine scales.

b. Chronic syphilitic acne is localised on the face, neck, trunk, and upper and lower limbs. It is characterised by small pustules with a slightly projecting base, which are developed slowly, and suppurate only at the centre.

Follicular acne presents the characters of a catarrhal inflammation limited to that part of the follicles which traverses the epidermis; that is, the portion lying above the opening of the sebaceous glands. The inflammation of that part of the follicle which is seated in the dermis or on the subcutaneous cellular tissue is, on the other hand, parenchymatous; because the wall of the follicle and the neighbouring connective tissue are equally affected, and participate alike in the formation of pus or of new connective tissue. When diffuse, follicular acne may, as well as the glandular form, be accompanied by more or less intense fever. It is generally an early symptom of constitutional syphilis; but Dr. Tanturri has seen it forming a kind of transition between the development of gummata and visceral lesions. The progress of follicular acne is slow, especially if left to itself; its duration is very long. If, at the period of desquamation, the excessive development of epidermic cells continue for a long time, a condition resembling ichthyosis is produced. Follicular acne may coincide with all the tegumentary lesions of the first period of syphilis; and especially with iritis. The eruption may appear on any part of the body except the face; it consists of small pustules with a slightly projecting base, surrounded by a rose-coloured areola; the centre is yellowish, umbilicated, and traversed by a hair. (*Il Morgagni;* and *Gazette Méd. de Paris*, 24th February, 1866.)

Treatment of Biliary Calculus. Dr. Lutton, in an article in the *Nouveau Dictionnaire de Médecine et de Chirurgie pratiques*, observes that the radical treatment of biliary calculus should be undertaken only in the intervals between the attacks of hepatic colic; otherwise the symptoms which require special management will only become aggravated. He first describes the treatment of biliary calculi, and then that of the symptoms which they produce.

1. As a remedy for the calculi, solvents have been employed. *a.* Alkaline solvents are much to be preferred to all others; they have produced certain and permanent cures. Sometimes, under their influence, the calculi are broken up or really dissolved, and disappear without leaving any traces; but most usually they are expelled in abundant bilious evacuations. This crisis, preceded often by violent hepatic colic produced by the treatment itself, is not always without danger. The alkaline treatment comprises various medicines, such as the fixed alkalies, salts of soda, carbonate of ammonia, vegetable salts of alkalies, etc.; but the most usual are the waters of Vichy, Vals, Carlsbad, Ems, etc. These waters are used in drinks and as baths; and they must be employed perseveringly, at different periods, during several years in succession. *b.* Durande's remedy consists in the administration of half a drachm to a drachm every day of a mixture containing fifteen *grammes* of sulphuric ether and ten *grammes* of oil of turpentine. Its use has been attended with success; but, far from this success being due to its solvent action, it is found that, where it has succeeded, the calculi have been expelled without being dissolved; so that this remedy appears only to excite evacuation, and belongs rather to the class of expulsives than of solvents. Chloroform has been much vaunted by some; but its efficacy is very doubtful, and it only calms the pain. *c.* As a mechanical expulsive agent, purgatives especially should be ordered; frictions, douches, shampooing, and electricity, have also been employed to favour the expulsion of calculi. Purgatives are preferable to all these; especially sulphate of soda and castor-oil. In diet, the patient should use fresh and laxative herbs (such as the cichoraceæ and boraginaceæ), grapes, and fruits, and whey. All fat should be excluded from the food; and the diet should be plain and properly proportioned, consisting of roast or boiled meat, vegetables, farina, lemonade, etc. Exercise is salutary; but its object here is less

to complete the combustion of fat than to favour the escape of the bile into the intestine and to prevent it from accumulating in the gall-bladder.

2. In the treatment of the symptoms of biliary colic, we should specially seek to assuage the pain. Opium may be given without fear even in doses of fifteen or twenty *centigrammes* (2⅓ or 3 grains); but subcutaneous injection of hydrochlorate of morphia is preferable. Belladonna, praised by Bretonneau and Lalotte, is not so good as opium, and should only be used when this fails. The same remark is applicable to cherry laurel water and to tincture of castoreum. Chloroform administered in inhalation until anæsthesia is produced, is a valuable remedy when paroxysms are most violent; it not only calms pain, but may lead to the cessation of the spasmodic contraction of the biliary passages, and thus favour the expulsion of the calculus. (*Gazette Méd. de Paris*, 14th April, 1866.)

Therapeutic Uses of Oxygen. M. Demarquay, who has devoted much attention to the use of oxygen inhalation in medicine, says, in speaking of its therapeutic indications, that, in the early stage of phthisis, when there is no fever, and no fear of exciting local action, when the patient is becoming emaciated, and the emaciation is increased by persistent dyspepsia, oxygen may have a salutary influence in modifying the state of the constitution and sustaining the organism. Asthenia is the disease in which oxygen has been given by preference; of twenty-two patients treated by Beddoes, ten were cured, and nine relieved. But the employment of oxygen in asthenia meets with numerous contraindications. Oxygen renders incontestable service in essential anæmia. It is specially indicated in that form of chlorosis of young girls which is characterised by obstinate anorexia; in the anæmia of convalescents, and in the anæmia, often severe, of newly delivered females. The inhalation of oxygen is also successful in anæmia arising from hæmorrhage or from fatigue, and is also a very energetic remedy in the debility produced by prolonged suppuration; it stimulates the appetite, sustains the powers of the patient, and enables him to attain to recovery. In diabetes, under the influence of oxygen inhalation, the quantity of sugar contained in the urine is remarkably diminished. In surgery, oxygen stimulates weak and ill conditioned ulcers, and accelerates the production of granulations in cicatrising wounds. In senile gangrene, as long as the circulation continues in the artery of the foot, oxygen is, according to the observations of MM. Laugier, Demarquay, and Maurice Raynaud, the only remedy which in advanced cases affords a chance of recovery. (*Gaz. Méd. de Paris*, 14th April, 1866.)

Syphilitic Facial Paralysis. Dr. Lefeuvre relates the case of a young married woman, aged 23, who had on the lower lip a chancre derived from a secondary syphilitic ulceration on the lip of her husband. The chancre was indurated, and was accompanied by enlargement of the submaxillary glands, without pain. It was healed in about a month, during which time the patient took mercurial pills for a fortnight. Two months after the appearance of the chancre, the patient had symptoms of constitutional syphilis, in the form of neuralgia in the temporal regions and pains in the limbs. A fortnight afterwards, syphilitic roseola appeared, and was followed by facial neuralgia; and this, at the end of six or seven days, was succeeded by paralysis of the same side of the face—the right. The hemiplegia affected the orbicularis palpebrarum, and the muscles of the nose and lips; but the eyelid could be closed, though not entirely; the velum palati was unaffected; and the patient spoke with tolerable ease. Mercurial pills were ordered; and, under the influence of this treatment, the hemiplegia disappeared in less than a month, together with the roseola. Dr. Lefeuvre observes that facial hemiplegia is rare at the commencement of secondary syphilis. He refers to ten recorded cases, and observes that the cure has been the more rapid in proportion as the treatment has been undertaken at an early period. (*Bulletin Général de Thérap.*, 30th March, 1866.)

Poisoning by Stramonium and by Hyoscyamus. M. Kuborn has published in the *Annales de la Société Médico-Chirurgicale de Liège* four cases of poisoning by datura stramonium. In three, the poisoning was the result of mistake; in the fourth, an infusion of five *grammes* of the leaves in a quart of water had been ordered to be taken for neuralgia, in doses of a spoonful every hour. The symptoms resembled those of poisoning with belladonna: headache, agitation, choreic trembling of the arms, dilation of the pupils, weakness of sight, dry red tongue, strong tumultuous pulse, and finally collapse. Two of the patients were adults; and in these, especially in a female aged 60, the treatment consisted in bleeding to about ten ounces, and the administration of fifty *grammes* of sulphate of magnesia and fifteen *centigrammes* of tartarised antimony in three doses. The next day, the pulse was soft, 115; the pupils remained much dilated; there was marked insensibility, and continuous delirium; the patient had not been able to vomit, but had had several evacuations. A small cup of strong infusion of coffee was given every quarter of an hour, and sinapisms were applied. On the following day, the only symptoms remaining were extreme lassitude, muscular weakness, and disorders of vision. In two children, aged respectively five and seven years, who had eaten stramonium-seeds, and whom M. Kuborn found affected with choreic movements, all the symptoms disappeared in twenty-four hours, after the repeated administration of strong coffee, and the application, to one, of two leeches near the anus. It hence appears that strong coffee (*café noir*) taken every quarter or half hour, without interfering with the application of such other remedies as special circumstances may call for, is an effectual means of treating the symptoms of poisoning by datura stramonium.

Three cases of poisoning by hyoscyamus are recorded by Dr. Danielli. Two little girls, aged respectively seven and nine years, ate a quantity of the berries. During the whole night, they were constantly restless, crying out, and exhausting themselves with efforts to vomit. The next day, the depression was very great. The treatment consisted in the liberal administration of wine; and a *gramme* and a half of laudanum, with a large amount of canella water, were given during the day. In two days, the children had recovered. (*Bulletin Général de Thérap.*, 30th March, 1866.)

Citrate of Soda in Diabetes. M. Guyot-Dannecy recommends citrate of soda, in daily doses of half a drachm to a drachm, as a remedy in diabetes. It has been shown by analysis that sugar disappears from the urine when this salt is used with the food instead of common salt. It is also known, since the researches of Wœhler, that the alkaline salts of organic acids, when given in doses too small to produce purgative effects, are absorbed, and, their acid being burned up in the respiratory process, are eliminated by the urine as carbonates. Hence citrate of soda may, without interfering with the gastric

acid in the same way as alkaline carbonates, place the system under the influence of an alkaline carbonate, which is indispensable to the interstitial combustion of the glucose of the food. The efficacy of this remedy, and its superiority to the prolonged administration of bicarbonate of soda, have to be proved by clinical experience. (*Journal de Méd. de Bordeaux;* and *Bull. Génér. de Thér.*, April 15th, 1866.)

SURGERY.

Use and Indications of Villate's Solution. In 1863, M. Notta proposed the application in surgery of a preparation used in veterinary practice, and known as Villate's solution. It consists of subacetate of lead, thirty *grammes*; crystallised sulphate of copper, and crystallised sulphate of zinc, each fifteen *grammes*; distilled vinegar, two hundred *grammes*. The mixture requires to be shaken before being used. M. Notta has recently published the results of his researches in the use of this solution. His experiments, as well as some observations made by M. Nélaton, shew it to be of incontestable efficacy in the treatment of caries, and of a large number of fistulæ, or similar affections, having the common characters of being chronic, obstinate, and apparently incurable, such as white swelling, congestion, cold, tuberculous, and other abscesses, gunshot wounds, etc.; excepting fistula *in ano*, in the treatment of which it has always failed in the hands of M. Notta. An essential condition of success is, that the disorder shall be absolutely chronic; otherwise, the solution acts as an irritant, and, in place of healthy inflammation, often produces phlegmonous inflammation, which may be followed by more or less severe results.

In its application, the liquid is injected into the course of fistulæ, or under the tissues. In ordinary cases, it is sufficient to inject during two, three, four, or five days in succession, according to the amount of inflammation obtained; the treatment is then intermitted for a similar period. In obstinate cases, however, the liquid must be injected daily, for a month if necessary. The injection must be suspended for a few days if at any time the inflammation become too intense. Sometimes, when the wound is shallow, and filled with fungous growths, or when the carious bone can be easily reached, pieces of lint dipped in Villate's solution may be applied, instead of injecting. Where there is fear of too active inflammation, the solution may be diluted with water, or an interval of one or two days may be left between the injections, until the irritability of the parts has been deadened; this course should be followed in dealing with fistulous tracts in the neighbourhood of organs which are very delicate, and subject to become inflamed.

The injection ordinarily produces rather severe pain, which lasts some hours, or even all the day; but in the majority of cases the pain decreases, and becomes supportable at the end of a few days. The first injections produce inflammation, generally of limited extent, in the fistulous tracts; and the suppuration increases, then diminishes and disappears. Small abscesses occasionally appear along the course or in the neighbourhood of the fistula; but they generally interfere but little with the cure. When caries is present, pieces of bone are often detached; after which cicatrisation follows in ordinary course. Sometimes, in sinuses, as M. Nélaton has several times observed, false membranes are formed, which become detached and eliminated, leaving granulating surfaces, having a power of cicatrisation.

Villate's solution thus appears to act in the manner of mild caustics, by actively stimulating the sore, and sometimes producing a slight eschar. Care must be taken not to let the liquid remain in the cavities; for, independently of the pain, it may produce sloughing of the tissue. After recovery has taken place it is not uncommon that one of the fistulæ reopens after some time, or small abscesses form, and bursting spontaneously, form small fistulæ. These are easily treated by a few injections. The use of the liquid must be accompanied by other remedial measures, such as compression, etc., which the case under treatment may demand. (*Union Méd.*, and *Bulletin Génér. de Thérap.*, April 15th, 1866.)

Double Strangulation in Femoral Hernia. In a case of femoral hernia on the left side in a female, operated on by M. Foucher in the Hospital St. Antoine, with only temporary relief, and in which death ensued forty-eight hours after the operation, the portion of intestine that had been included in the hernia was found to be strangulated within the abdominal cavity, as well as in the ordinary situation. Behind and above the crural arch was a serous cavity, a sort of diverticulum, separated from the great cavity by a narrow, indurated border. On careful examination, there was found to be a hernial sac with two necks, the lower one only of which had been divided, the upper remaining. It might have been difficult to divide the upper structure; but M. Foucher pointed out that its presence could have been ascertained only by attempting to draw down the intestine before reducing it, a proceeding which has been condemned by Malgaigne and other surgeons, but which ought not to be absolutely rejected. (*Journ. de Méd. et de Chir. Prat.*, March 1866.)

Ranula Treated by Galvanic Cautery. Dr. Scarenzio relates two cases, one successful, and one a failure. In the first case, a woman, aged 60, had for three years had a ranula of the size of a nut. A steel needle was introduced, and put into communication with the negative pole of two elements of a Bunsen's pile, the other pole being applied to the exterior of the upper jaw. The current was applied for a quarter of an hour, and produced an eschar a *centimètre* (.39 inch) in diameter. The fluid in the ranula escaped through the aperture made by the needle. Strong local reaction followed, without fever; and at the end of a year the cure remained complete. In the second case, a woman, aged 40, had a ranula of the size of a large nut, which had been opened several times, and cauterised with nitrate of silver, but without success. The current was applied during twelve minutes, producing much pain, and an eschar more than an inch in diameter. No reaction followed; the eschar was detached after six days, and the wound cicatrised soon afterwards, leaving a small opening. The latter closed in about ten weeks, and the ranula was reproduced. (*Gazetta degli Ospedali*; and *Bull. Génér. de Thérap.*, April 15th, 1866.)

Double Amaurosis: Subcutaneous Injection of Nitrate of Strychnine. A man, aged 44, of good health, suddenly became completely blind, on June 11th. Dr. Saemann saw him an hour after the attack. His eyes had a normal appearance externally; the face was red; there was no hemicrania, no pain in the eyes, nor premonitory symptoms of paralysis. Treatment by venesection, derivatives, etc., having failed, Dr. Saemann determined to inject strychnine. On ophthalmoscopic examination, the fundus of the eye was seen to be healthy. On June 18th, twelve drops of a solution of nitrate of strychnine (equal to one-fortieth of a grain) were in-

jected, to the left of the supraorbital nerve. Two minutes had scarcely elapsed, when the patient said that he could see the neighbouring clock, and the leaves moving on the trees; and he could distinguish large objects. The hypodermic injection was continued every two days, the dose being increased to one-tenth of a grain; and on July 3rd, after two-thirds of a grain of nitrate of strychnine had been injected during the treatment, the patient could read Jäger No. 4 with ease. (*Deutsche Klinik*; and *Bulletin Général de Thérap.*, March 30th, 1866.)

Surgical Uses of Liquid Glass. This is a silicate of potash, which is soluble in hot water, but insoluble in cold. It has been used for rendering structures incombustible, for protecting against moisture, etc., and the late Professor Schuh, of Vienna, employed it in surgery, and made a communication on the subject to the Medical Society of that city. He first used it in a case of arthritis of the elbow-joint. The solution is applied by means of a brush over the ordinary bandages. The advantages which this application is said to possess, are the following. 1. It is simple, and easy of application. 2. It dries and hardens rapidly, requiring for this purpose only five or six hours. Desiccation may be favoured by using a solution evaporated to the consistence of a syrup. 3. It is very solid and impermeable. 4. It is readily removeable by means of hot water. 5. It is very economical. Before putting on the bandages, a layer of liquid glass may be applied over the limb. At the Venice General Hospital, Dr. Minich has used the liquid glass with great advantage, in three cases of coxalgia, in seven cases of fracture, and in three cases of disease of the knee-joint. He has found it to possess superior advantages as regards solidity and durability. Plaster of Paris becomes sooner hardened, but is very heavy in comparison with the silicate of potash. (*Giornale Veneto*, and *Bull. Général de Thérap.*, April 30th, 1866.)

ANATOMY, PHYSIOLOGY, & PATHOLOGY.

Syphilitic Tumours in the Lungs of a Fœtus. M. Fontan describes the appearances presented by a fœtus born at the eighth month of a syphilitic mother, who had been infected by the father. The child was born alive, but was of miserable aspect, with ascites, and œdema of the lower limbs and abdominal walls; respiration was very slow, only two or three in a minute; and death took place about a quarter of an hour after birth. At the autopsy, twenty-four hours after death, no lesion was found in the placenta or in the viscera, except in the lungs; of which the right contained four tumours, and the left five, varying in size from a pea upwards, and altogether occupying four-fifths of the entire mass of the lungs. On external view, the tumours appeared as yellowish masses, without nodules, more or less voluminous and resistant, yet not presenting the hardness of certain fibrous or cancerous tumours. The tumours were readily visible through the visceral pleura, and the thin layer of pulmonary tissue which covered them. On section, the smaller tumours were found to be small round masses of a dirty yellow colour, harder at the circumference than in the centre, and having in the interior some portions of fibrous structure, small vessels, and clear yellow granulations. The two largest tumours presented, on section, a resistant outside portion of yellowish colour, consisting principally of fibroplastic elements; and a deeper coloured central part, filled with a putrilaginous mass. The outer portion was composed of two or three concentric layers separated from each other by a red border, which also formed a well-marked line of demarcation between the simply infiltrated periphery, and the centre, which was completely degenerated and softened. On microscopic examination, the tumours were found to contain a large number of nuclei of connective tissue, most rounded, some elongated, together with a very large amount of fatty granulations, and many fusiform corpuscles. Among these elements were several epithelial cells filled with fatty granules. (*Gazette Médicale de Lyon*, April 16, 1866.)

Cerebro-Spinal Meningitis following Ligature of Both Carotid Arteries. M. Goujon tied both carotid arteries of a strong young dog, at an interval of four days. No disturbance was produced at first; the animal ate as before, and the wounds cicatrised readily without suppurating. Ten days after the last ligature, the dog was suddenly seized with violent symptoms. It was much agitated, constantly walked about, and threw itself against all objects which lay in its way; it groaned constantly, and the least touch on its back or head caused it to utter very acute cries. It had convulsions, and threw itself on the ground, hiding its head between its feet, which were rigid, especially the posterior, but did not appear to be deprived of sensibility. The breathing was very unequal, the animal became gradually weaker, fell into a comatose state, and died seven or eight hours after the first appearance of the symptoms.

On *post mortem* examination, a large quantity of coagulated blood was found lying between the meninges, which were much thickened, and had close adhesions to the brain. Where the adhesions were less marked, there was much greenish very thick pus. The inflammation extended to the surface of the hemispheres, to the base of the brain, and to the arachnoid lining of the ventricles. The brain was otherwise healthy, and presented only a little more congestion at the periphery than in the centre. The same alterations were observed in the spinal cord, which was bathed in an almost concrete pus, and of which the membranes were very thick and opaque, and were easily torn and separated from each other. The carotids were obliterated by firm coagula both above and below the ligatures, and their diameter was much lessened. The vertebral arteries had become considerably enlarged. As the vessels were not injected, the presence of anastomoses, or of new vessels, could not be ascertained.

In relating this case to the Société de Biologie, M. Goujon said that, from what was known of the result of tying the carotids in animals, he attributed the symptoms described to some other cause than the mere ligature. M. Moreau believed that they were explicable by the fact that the filaments of the great sympathetic nerve had been included; and some experiments of M. Claude Bernard tended to show that this explanation was correct. M. Goujon stated also, that he had under observation another dog in which the carotid arteries had been tied, the animal remaining in perfect health a fortnight after the operation. (*Gaz. Méd. de Paris*, April 14th, 1866.)

Influence of the Nervous System on Diseases. Dr. Laycock relates and comments on a number of cases which in his opinion prove: 1. That the nervous system as a whole, or else some special division of it, has a direct influence both on the production and prevention of anasarca. 2. That anasarca is produced when innervation is defective. 3. That anasarca is prevented being manifested locally when the general causes are in operation, by more vigorous because more healthy innervation of the ex-

empted tissues. 4. That centric disease or disorder may have the double effect of facilitating the effusion in one lateral portion of the body, and preventing it in the other lateral portion. 5. That production or prevention alike follow upon changes in innervation, which are induced in the same way, and according to the same laws, as other neuroses; and, finally, 6. That it is not the sensory, motor, or vasomotor systems which are specially involved. (*Edin. Med. Journal*, March 1866.)

We are requested to remind members of the Association that the Annual Subscriptions became due on the 1st *of January. They can be paid either to the Secretaries of the Branches; or to the General Secretary, T. Watkin Williams, Esq.*, 13, *Newhall Street, Birmingham.*

British Medical Journal.

SATURDAY, MAY 19TH, 1866.

CHOLERA: TRANSFUSION OF BLOOD AS A REMEDY.

THE result of the experience of medical men in the treatment of cholera appears to be this: that we possess no remedy of which we can declare that it exerts a beneficial influence over the progress of the disease. The painful question still meets and forces itself upon every thinking man: How are we to face the disease, if it again come upon us? The public also evidently take no little interest in the matter. They also are beginning to ask: What will you do? In such a state of things, a free discussion of this question becomes of the highest interest. If it be of no other service, it may, by collecting and analysing past experience, tell us what *not to do*. If it lead us to nothing positive in treatment, it may tell us how negatively to refrain from doing mischief—from adding fuel to the fire. We may, we think, take some credit to ourselves for the earnest way in which we have endeavoured now for many months past to force the consideration of this (at present) vital matter on the attention of the profession. And we are now glad to find that the profession responds to our appeal—that men feel how important it is that we should test, so far as we can, the value of treatment of cholera by the light of past experience.

On the present occasion, our object is to throw out a suggestion for treatment, which seems *à priori* not unreasonable. The collapse of cholera, it is said, depends upon an arrestment of the pulmonary circulation, brought about by a spasmodic contraction of the smaller arteries—the spasm being caused by the poisonous, irritating entity present in the blood.

This rational explanation of that concrete of symptoms denominated collapse of cholera is corroborated by the striking effects produced by hot injections into the veins of patients during the algide stage of the disease. The warmth, it has been argued, relieves the spasm of the arteries, frees the pulmonary circulation, and so removes for a moment all the other train of symptoms which are its necessary consequences. But hot saline injections are proved by experience to be a fatal remedy. Violent rigors almost invariably follow them; and, we may fairly assume, indicate some fatal influence exercised on the blood by the injection itself. The saline injection, we need hardly say, is no substitute for blood; and these rigors, independently of physiological considerations, tell us that it is probably destructive of the vitality of the blood. The remedy, we apprehend, is not likely to be again employed.

But is it not a fair question for consideration, whether blood itself might not be successfully injected into the veins in cholera-collapse; whether healthy blood, warmed to a temperature to overcome the supposed spasm of the pulmonary arteries, might not be thrown in so as to mingle with and dilute the poisoned choleraic blood, and so aid in keeping the body alive whilst engaged in its deadly combat with disease?

The injected blood, by its warmth, we might argue, would revivify the powers of life just in the same astonishing manner as the saline injection does; but would have none of its baneful consequences. The injected blood would represent new force—new life—infused into the patient; it would mingle with and dilute the diseased blood; and so proportionally reduce its virulent effects. It is impossible to anticipate that healthy blood thus injected could *per se* have any injurious influence on the animal economy of a choleraic patient; but surely there is, on the contrary, the very strongest grounds for anticipating that it might prove a life-preserving substitute for fluids lost, or a diluent of the concentrated poison, or a promoter of the arrested functions.

We have been led to call attention to this suggested means of cure, in consequence of re-perusing the experiments of Panum on Transfusion of Blood. The papers of Panum, published in Virchow's *Archiv* for 1863, have scarcely attracted the attention they deserve. He there shows that the mere operation of transfusion of blood may be stripped of almost all the dangers which render its use, to the minds of most persons, so formidable.

In the first place, he found that defibrinated (whipped) blood may be safely injected; that it produces no disturbance in the body; and that fibrine removed from healthy blood is rapidly reproduced within forty-eight hours after its abstraction.

The removal of a large portion of the fibrine normally present in the blood exercised no marked influence over the secretion of urea. (Consequently the theory that the urea is formed from the fibrine

is incorrect.) The injection of the defibrinated venous blood of a dog (*whipped so as to saturate the corpuscles with oxygen*) completely and permanently restored to life another dog, which had been bled so as to destroy all signs of vitality.

The use of whipped defibrinated blood removes the greatest difficulties attending the operation. Thereby the danger of injecting coagula is removed. The carbonic acid of the venous blood is by the agitation in part replaced by oxygen. The transfusion need not be hastily performed through a dread of the rapid coagulation of fibrine.

Great care, moreover, must be taken not to abnormally distend the vascular system, and, above all, not to disturb the action of the heart by too rapidly injecting the blood. To prevent by anticipation the dangerous distension of the right side of the heart, etc., it is often advisable to open a vein in the other arm.

The dangers resulting from the injecting of air, and from subsequent phlebitis, of course still remain to be guarded against.

From Panum's experiments, it appears certain that defibrinated blood may be successfully transfused from the body of one animal into that of another; and that the operation is attended with no other dangers than those which result from possible phlebitis and injection of air into the veins.

Can the operation be resorted to in the treatment of cholera with a reasonable prospect of saving life? This is the question which we venture at the present moment to suggest to the consideration of our brethren.

Unfortunately it happens, that Panum's experiments run counter to those of Dr. Brown-Séquard. Panum affirms that only the blood of the same species of animal can be employed in transfusion; that, therefore, only the blood of healthy man can be transfused into man. He rejects as unsatisfactory all former histories which tell of the successful injection of the blood of one species into that of another—as of lambs into dogs. He asserts that in such cases the blood injected undergoes decomposition, creates serious constitutional disturbances, and is passed away either through the kidneys or the bowels of the animal into which it is injected. He therefore regards as hopeless and as dangerous all attempts to throw into a man's veins the blood of the sheep or of any of the lower animals. Inasmuch, however, as his results differ from those of Dr. Brown-Séquard, the question must not be considered as finally settled.

The perfect safety, nevertheless, with which the defibrinated blood of an animal may be injected into the veins of another animal of the same species, and the fact that it forms a perfect substitute for the animal's own blood, seems to indicate a possible method of cure for cholera. From the history of hot saline injections in cholera, we learn that the patient began to revive when only a few ounces of the fluid had been thrown in. *A priori*, therefore, we might conclude that no large amount of blood would be required to overcome the arterial spasm, to renew the vital functions, and to keep the patient alive whilst going through this deadly struggle—shaking off (if we may use the term) the fearful incubus.

But where is the blood to come from? In cholera times, we may anticipate that healthy people will not be over-ready to part with their blood; and especially at this time, when so many people in and out of the profession hold such exaggerated ideas as to the dangers of loss of blood. Herein, we confess, lies a great difficulty; but we suppose we may safely anticipate this much, that if it were satisfactorily proved that the injection of hot defibrinated blood into the veins of a cholera patient gave him a good chance of recovery, friends would not be wanting to supply a pint or so of the vital fluid.

If Dr. Brown-Séquard's experiments had been confirmed by Panum, then undoubtedly the blood of sheep might have been used for the purpose. And something may even yet be said of such blood: if hot defibrinated sheep's blood injected into the veins of a cholera patient revivify him and produce none of the evil consequences resulting from saline injections—if such injections keep the patient temporarily alive—would not such a gain be great enough to compensate for any evil consequences which might subsequently result from decomposition of the blood itself? In other words, would not the possible future decomposition of the blood be a minor risk compared with the present imminent danger of cholera-collapse? Would not its possible immediate benefits counterbalance its possible future inquiry?

THE CATTLE-PLAGUE AS DESCRIBED BY RAMAZZINI.

Ramazzini's account of the Cattle-Plague, as it occurred in Italy, is contained in an address delivered on November 9th, 1711, in the School at Padua, where he was Professor of Medicine. He speaks of the same epidemic as that of which Lancisi has given so particular a history, and as observed in the districts of Padua and of Venice.

This dire contagion, he says, which no human efforts have been able to arrest, arose obscurely in the Vicentine territory, and thence spread throughout Padua. Both citizens and rustics were struck with grief and terror on beholding their well stocked pastures turned into deserts through the destruction of their cattle, and when they saw the hillocks scattered around, marking the spots beneath which lay buried the pledges of their fortunes—"*propriis natis forsan etiam cariora!*"

This disease so fatal to our oxen, argued Ramaz-

zini, is a malignant, destructive, and pestilential fever, accompanied with cold, rigors, horripilations, and rapid pulse. Its symptoms are: great anxiety, difficult and even stertorous breathing, stupor, and a kind of drowsiness, the animal ceasing to ruminate; a continued running of fœtid matters from the mouth and nose; very offensive and sometimes bloody dejections, with anorexia. On the fifth or sixth day, pustules break out over the whole body, and tubercles resembling a kind of variola (*tubercula variolarum speciem referentia*); death generally carrying off the animals on the fifth to the seventh day. Very few escape, and they rather by accident than by the effects of remedies.

All these signs are patent enough; but what the wretched oxen feel whilst lying stertorous on the ground, or standing fixed with head drooping to the earth, we can only conjecture.

The origin of the plague, Ramazzini asserts to be contagion. He finds nothing peculiar at the time, in the character of the seasons, etc., to account for the origin of the epidemic. The year was not a sickly one, nor had physicians and apothecaries been in extraordinary request. Neither had the meteorologists noted anything portentous in the air; nor had any destructive fungi (*rubiginis signa*) destroyed the corn or fruits. "As for the heavens," he says, "I did not care to consult them as to the cause of this pestilence; whether it sprang from some malignant influence of the stars—as, for instance, the conjunction of Saturn and Mars in the sign of Taurus, as Fixinius asserted to have been the case in the pestilence which raged through Etruria in 1478."

Assuredly, he says, the origin of the pestilence is to be sought neither in the air, nor in the pastures themselves. It is a fact publicly recorded that, out of one of the herds of oxen brought to us from Dalmatia and the neighbouring countries, a certain ox was separated, and being found by a herdsman, was taken by him into the lands of the Illustrious and Reverend Count Borromeo. In a few days it died, having infected the other oxen there, so that they all perished but one, in whose neck a seton had been made. The news spread terror in the neighbourhood; but no one took any care "to preserve his house from the flame raging around." And thus the plague, creeping on and on, at length pervaded the whole district of Padua, and, then passing the Po, found its way into the Æmilian territory. We can readily understand how the subtle and contagious poison was spread. The sweat and exhalations of the sick and the dead oxen, and effluvia from stables and infected pastures, and fomites carried about in the clothes of the herdsmen, were the prompt and ready agents of the contagion.

Ramazzini then goes on to say, that the symptoms of the disease do not appear immediately the animal is infected; but that there is a period of incubation, just "as happens in the case of those bitten by a mad dog", during which the disease is corrupting the blood, and rather "coagulating than dissolving it; for, on dissecting animals after death, and whilst still warm, little or no blood escapes." Of the period of the incubation, he offers no opinion. Of little use is it to us to inquire whence that first diseased ox took the disease; whether it was bred within him, or he was infected by another. This much is undoubtedly true, that, in animals as in man, poisons may be generated and so passed into other cognate bodies.

The illustrious anatomical Professors Molinetto and Viscardo observed, in all the bodies which were opened before them, that there was in the omasum a hard, very large, heavy, and compact body, firmly adherent to its walls; that in other parts *hydatides* were found; and in the brain and lungs large vesicles of mephitic air. Ulcers were also found in the root of the tongue, and vesicles filled with serum on its sides.

But how are we to deal with the plague, and what will be the end of it? "Here, as is usual in other epidemics, I think that, after many efforts, many experiments, and especially after observation of the method which *natura medicatrix* follows in curing those oxen which the malignant fever does not carry off, we may arrive at some more happy cure, and perhaps even discover a true and specific remedy for the poison, whereby the malignant miasm may be wholly extirpated. Some relief we may hope from the coming winter and the northern winds."

There is reason to believe, he then goes on to argue, that the disease will not affect man; for if, in the space of three months, as we have seen, the pestilence do not infect other ruminants and horned animals, nor horses, pigs, etc., we may fairly anticipate that neither will it affect man, who differs so much more from oxen than do these animals.

At all events, very great care must be taken that the dead oxen be properly buried, lest in the coming spring the infection may through them again be spread. In dealing with a contagious disease, we can never be sufficiently cautious (*nunquam satis cavemus, dum cavemus*).

History shows us that cattle-plagues have been followed by the human plague; but such cases are rare, and we have many examples to the contrary. Fracastor speaks of a cattle-pestilence. Again, in a MS. written by Antonio Faccio in 1590, is recorded a cattle-plague of great severity, during which an edict was issued in Venice, forbidding, under pain of death, the sale of beef, fresh cheese, butter, or milk; but there also the disease was confined to oxen.

As for the cure of the disease, "I am persuaded," says Ramazzini, "as we possess no specific remedy, that our endeavour must be by general remedies to

extinguish, or at least to diminish the force of, the pestiferous miasm; that we must assist Nature in expelling the disease by the skin, seeing that Nature points out to us the way of cure in those oxen which survive, in whom we observe ulcers, pustules, and tubercles. I therefore think that we should proceed in the cure of this disease as we do in the cure of the variolous fever of boys." Bleeding Ramazzini recommends, though "some persons rave against it". He also approves of applying the actual cautery on each side of the neck, piercing the ears with a round iron, and afterwards rubbing in hellebore; putting a seton under the chin, as Nature demands an emunctory for the poison. "*No oxen survived in whom there did not exist pustules of the skin, evacuating crass and fœtid matters;* nor have I heard of any ox thus purged of the disease which has suffered a relapse." The tongue and palate should be often dressed with vinegar and salt; the skin should be often rubbed to excite perspiration, etc.; and, as tumours and crusts often form in the fauces, as in small-pox, the throat should be anointed with butter by means of a stick. Cinchona also he recommends, given in wine; for, if we are to trust the reasonings and experiments of Richard Morton, we may expect it to be of service in this Cattle-Plague. He speaks, besides, of numerous other drugs adapted to the symptoms—ammonia, antimonial diaphoretics, etc. As for food, he advises gruel, and bread broken down; for drink, fennel-water. The oxen should be kept in warm stables, well fumigated. As a preventive measure, ox-stables should be kept very clean. Healthy animals should be well rubbed down, and, if too fat, bled. It may be well also to insert setons under their chins.

Ramazzini concludes with the question, "But why should I vex my weak intelligence in attempting to discover the nature of this disease? Surely, as we have been told by our Prince in Purple, it was sent upon us as a punishment for our sins."

THE following proposal, of which a summary appeared in the BRITISH MEDICAL JOURNAL on the 11th instant, was on the 10th instant forwarded to Mr. Simon. We mention the dates in fairness to Dr. Markham, because in the *Times* of the 14th instant appeared a similar proposal from Dr. Protheroe Smith.

A Proposal for the Treatment of Animals suffering from Cattle-Plague by the Transfusion into their Veins of Healthy Blood of Animals of the same Species.

The following are the considerations which have led me to consider this proposal reasonable and worthy of trial.

The Cattle-Plague is a specific fever, which is marked by distinctive signs, and runs a limited and well defined course. If the infected animal survive, or can be kept alive, a certain number of days (five to seven), it will probably recover.

The Cattle-Plague Commissioners (see their Third Report) say, that it is not so much the fever that kills, as the "changes in the nutrition of the digestive and respiratory mucous membrane and the failure in muscular contractility." Digestion, it appears, and of course *pro tanto* sanguinification, are wholly or partially arrested. Rapid waste goes on; but there is no repair—no materials for repair being present. Vitality fails, and mainly, we may fairly conjecture, through want of a supply of nourishment. The animal dies exhausted.

This position is corroborated by the admitted fact (see Third Report, p. xi) that, "by judicious feeding, the proportion of recoveries has been considerably and largely increased."

The conclusion, therefore, seems *à priori* very reasonable, that suitable nourishment, capable of immediate utilisation, supplied to the animal at that critical period of the disease when the powers of life begin to fail, might enable the animal successfully to carry on the struggle.

I therefore suggest, as a rational means of fulfilling this indication, the injection of healthy bullock's blood into the veins of the diseased animal. Such blood must be regarded as the most perfect representative of food; supplied in a form ready for immediate assimilation; and capable (if any food at such a time be capable) of immediately renovating the failing *vis vitæ* of the animal.

Panum's experiments (Virchow's *Archiv*, 1863) demonstrate, that the whipped (*i. e.*, defibrinated and oxygenated) blood of an animal injected into the veins of another animal *of the same species*—from which a like amount of blood has been previously subtracted—*forms a perfect substitute for it.* Thus, he bled a dog until all signs of life had disappeared, and then injected into its veins the blood of another dog, and thereby at once restored it to life.

Panum has also shown that, by attending to certain details which he prescribes, the operation of transfusion may be easily, safely, and deliberately performed.

The supply of healthy bullock's blood is happily inexhaustible; and Panum has also shown that, with the aid of ice, defibrinated blood may be preserved sound for a time, and certainly for a much longer time than is necessary to convey it from the slaughter-house to the diseased cattle shed.

The main objection which might be made to the proposal is this: that the substituted blood would rapidly become tainted by the already diseased blood of the animal. (See Dr. Sanderson's experiments, which show the rapid spread of the *materies morbi* through the blood.) But to this objection I reply: that there is no proof that the blood which holds the *materies morbi* is incapable of nourishing the body; that, moreover, the injection as proposed would be made at an advanced stage of the disease—at a time when the action (zymotic?) of the *materies morbi* in the blood may have ceased or is fading away; and that, under any circumstances, if nourishment be (as is proved) the best preservative of the animal, no nourishment can be so perfect, and so immediately available for the purposes of sustaining the life of the animal, as that which is conveyed into its veins in the shape of healthy blood.

W. O. MARKHAM.

P.S. The experiments, if successful, would furnish us with an invaluable suggestion for the treatment of many human diseases.

WE regret to hear a rumour from a quarter in which we have confidence, to the effect that the Treasury is not willing to agree to the increase of

pay recommended by the Army and Navy Committee, and (as we believe) assented to by the Admiralty. How the Treasury can hesitate, in the present posture of the service, is incomprehensible. Medical men, at the present moment, are not to be had for the navy. We are informed that, at the last naval medical examination, there were *three* candidates, and that there were *three* rejections! This, however, is manifest: that the profession can, if they please, now dictate their own terms in the navy. It seems to us that the Treasury, however reluctantly, must open the purse-strings of the nation, if our navy is to have doctors at all. We also much regret to hear a report to the effect that the consideration of the Army Report has been adjourned. Until, however, we have this confirmed, we shall not comment upon it more than to say that, if it be the fact, we shall take it the Horse Guards means to say this: "We have got as many medical men as we want; and we shall, therefore, do nothing more for them. It will be quite time enough for us to consider your recommendations when we want men. At present, we are masters of the situation; and we mean to hold it."

Any honour bestowed upon an individual member may be considered as an honour to the profession generally. With this feeling we record the fact that the friends and patients of Mr. C. M. Thompson of Westerham have presented him with a testimonial on his retirement from general practice and removal to Sevenoaks. The present consists of a service of plate and a purse, in value £200. Mr. Thompson has practised at Westerham for forty-eight years. He was one of the founders of the South-Eastern Branch of the Association, and has filled the office of President.

Our readers will observe in our advertising columns, that a subscription has been opened for the payment of the expenses of Dr. Armstrong and his son, incurred in the action to which they have been so unjustly and cruelly subjected. The sympathy of the profession has never failed to do justice in such a case to their medical brother, and we are sure it will not fail now. We consider it the duty of the profession to step forward with a helping hand on such occasions, whenever, as in the present instance, it is shown by the results of the trial that the medical man inculpated is free from blame. In the first place, by their expression of opinion, they relieve an honourable man from any odium which may attach to him outside the profession from the mere fact of his being made defendant in such a case. In the second place, their sympathy at such a moment of trial is a very great consolation to an injured man; and thirdly, by relieving him of the pecuniary burthen to which he is so unjustly subjected, they do only that which they may themselves any day have occasion to expect that their professional brethren would do for them—for who is there of us who is not liable at any moment to be placed in a similar position of hardship? Mr. Hunt, of 6, Hinde Street, Manchester Square, has kindly undertaken to receive subscriptions.

The Medical Council commenced its session on Thursday last, at the Royal College of Physicians. No change has taken place since last year in its constitution, except the substitution of Mr. Cæsar Hawkins for Mr. Arnott, as representative of the Royal College of Surgeons of England. The President (Dr. Burrows), in addressing the members, referred to the principal questions which had been brought forward last year, and explained the course that had been subsequently taken in reference to them. *Inter alia*, he gave an account of the negotiations that had taken place with the Home Secretary in reference to an amended Medical Bill, and stated that he had that morning received a copy of the Draft Bill, as drawn up by the counsel to the Home Office, together with suggestions as to the course which the Council should pursue. The documents were subsequently ordered to be printed; and a committee was appointed to examine and report on them to a future meeting of the Council. The reports on the visitation of examinations were also ordered to be printed, and brought under the consideration of the Council on a future day. A motion for the appropriation of a sum of money from the funds of the Council for the purpose of investigating the action of medicines, was negatived by a large majority. We shall give a fuller report of the proceedings in our next number.

There appears to be no doubt as to the fact of the outbreak of Cattle-Plague in Ireland. In reply to a question in the House of Commons,

"Mr. C. Fortescue said he was afraid it was too true that the cattle-plague had broken out in the County Down. Professor Ferguson, who had been employed by the Irish Government to investigate cases of this kind, was satisfied that a case of cattle-plague had occurred; it was supposed to have been brought over by an English dealer who had come to purchase young stock. A boundary had been marked round the farm, and all the infected and suspected cattle had been slaughtered and buried; and the boundary was watched by the police to prevent the ingress or egress of cattle to or from the farm. All the fairs and markets in the neighbourhood had been prohibited; and there was reason to hope and believe that the disease had been stopped in its origin."

It is much to be desired that the Government would follow the example of the French Government, on the occasion of the introduction of the Cattle-Plague into the Garden of Acclimatisation by a gazelle imported from England. The origin of all such isolated outbreaks ought (if possible) to be cleared up.

THE LATE ROBERT HARDEY, ESQ., OF HULL.

The East York and North Lincoln Branch of the Association, by the death of Mr. Hardey, late Lecturer on Obstetrics at the Hull and East Riding Medical School, and Fellow of the London Obstetrical Society, loses a most valuable member. He died at Hull, on the 12th instant, after a very short illness, of pleuropneumonia. By this event, Hull has been deprived of one of its most honoured citizens, his family of a kind and indulgent parent, and the medical profession of one of its most esteemed members.

Mr. Hardey died in harness, and in the active prosecution of his medical duties. He was the Quarantine Superintendent and Inspector of the River Humber, and had latterly been most anxiously and actively engaged in examining the crews and passengers of vessels with emigrants from Holland and elsewhere, and in cooperation with the civic authorities for devising precautionary measures for the protection of this populous town from an invasion of cholera. These exertions, coupled with the arduous duties of his private practice, predisposed him to suffer from the blighting influence of a cold and depressing atmosphere. On Tuesday evening, the 8th inst., after being heated by a long walk, he was seized with a severe rigor, which was the prelude of the fatal attack, under which he rapidly succumbed. His age was 63.

It should be mentioned, as explanatory of the rapid progress of his malady, that two or three years ago Mr. Hardey had a narrow escape from an attack of pneumonia in the *left* lung, which left the lower third of it extensively hepatised. That attack was a prolonged affair, convalescence being the business of one or two years. He had, however, recovered as comfortable a state of health as was compatible with so serious an abridgment of the respiratory organ. Unfortunately, the recent formidable seizure affected the *right* lung, and, from its extent and severity, soon brought life into peril. The remedies employed gave little or no relief to respiration, and death ensued on the fourth day.

Mr. Hardey has died deeply lamented by his fellow-citizens on account of his many public and private virtues. His life was chequered by not a few severe tests of his faith and patience; but his religious principles enabled him to surmount every trial with moral courage not otherwise attainable. He was a member of the Wesleyan community, by whom his memory will be long and affectionately cherished.

Mr. Hardey had engaged to read a short paper on a case of Pyæmia at the approaching meeting of the East York and North Lincoln Branch. His sudden demise will be sincerely deplored by the disappointed associates, and their festive joys will be chastened by deep regret for the absence of one whose cheerful society was wont to add much to the hilarity of the occasion; but the painful void will doubtless be compensated by many a testimony in honour of the deceased, and the moral tone of the meeting elevated by the utterance of such ennobling sentiments as the contemplation of his departed worth cannot fail to inspire.

Special Correspondence.

LIVERPOOL.

[FROM OUR OWN CORRESPONDENT.]

The existence of cholera in Liverpool has already been announced throughout the country; and, as it has often occurred before, persons at a distance have been able to narrate events and describe scenes which those on the spot have not yet realised. That a certain number of cases of cholera, of what is called the true Asiatic type, have occurred, is perfectly true; but the surrounding circumstances have been greatly exaggerated. At the time I write (May 15th), about fifteen or twenty cases of cholera have been admitted into the Workhouse Hospital, of which about seven or eight proved fatal. All these cases were either foreign emigrants, chiefly Germans or Danes, and a few Irish, who also belonged to the emigrating party. Not a single case, so far, has occurred amongst the inhabitants of the town or the inmates of the workhouse; nor is diarrhœa at all prevalent. The health of the town, as tested by the condition of the parochial medical district, is unusually good. Typhus has very much decreased, and there is no other epidemic prevailing. Beside the cases in the workhouses, several have occurred on board the *Helvetia*, and one medical man has fallen a victim. Dr. Ross, a young man of much promise, who had joined the *Helvetia* as assistant-surgeon, as a volunteer for one voyage only, was attacked, and died in a few hours. He had taken great interest in the unfortunate people under his charge on board the vessel, and sacrificed his life to the faithful discharge of his duties.

The characteristic type of the cases appears much the same as has been observed in other visitations. The treatment adopted has comprised the cholera mixture of the Board of Health, composed, I believe, of chalk mixture, chloric ether, camphor, and opium, and, in some cases, calomel, camphor, and opium, in moderate doses. Opium, however, has been given sparingly, if at all, in the stage of collapse. Brandy in ice-water to relieve thirst and vomiting, and the application of Markwick's spongio-piline to the abdomen, are amongst the remedies that have been used with more or less apparent success in those cases which issued in recovery.

The eliminative plan by castor-oil has not found favour here; and, however ingenious and perhaps scientifically sound the theory may be, the records of the last epidemic in Liverpool are, in one important particular, irreconcileable with the views recently enunciated by Dr. G. Johnson. In 1849, the most effectual means of checking the spread of cholera in Liverpool consisted in a well organised system of house-to-house visitation by medical men, for the

purpose of early detection of diarrhœa or incipient cholera; and the cases thus detected were treated generally, if not uniformly, by opium, astringents, and stimulants. Almost immediately after an infected district was placed under visitation, the number of attacks and deaths began to diminish; and the impression left upon the minds of many if not of all those who had opportunities of forming an opinion, was, that the most successful mode of combating this fearful scourge was to arrest the premonitory diarrhœa.

The circumstances under which this visitation has occurred appear to corroborate the views of those who maintain that cholera, like most other zymotics, can be propagated by contagion alone. There has been no overcrowding on board any of the vessels, none of which had their full complement of passengers, and all of which left the port in a condition quite as favourable, in a sanitary point of view, as any of the emigrant vessels which sail from the Mersey daily, and land their passengers in health and safety.

If overcrowding *per se* could produce cholera, we should have found it prevailing in many parts of the town, and especially in some of the lodging-houses for foreign emigrants; but the few straggling cases that have occurred in one of these houses are clearly traceable to the party of emigrants who originally came here in one or other of the infected ships.

There is much ground for asserting that, whether this visitation of cholera is to remain within its present limits, or whether it is to become epidemic throughout the town, depends mainly upon how far it is possible to isolate the infected individuals. The authorities appear to be acting on that assumption, and are adopting the most prompt and comprehensive measures for carrying out the necessary precautions. When the *Helvetia* arrived in the Mersey, the passengers and crew were prohibited from landing for three days; but, as this temporary quarantine was not, or perhaps could not, in the present state of our laws, be extended, the introduction of cholera into the town followed as the inevitable result of the landing of the infected ship's company. As medical science, like almost everything else, appears to move in cycles, we may yet find ourselves returning to the adoption of the old and rigid quarantine regulations, which might, at this particular juncture, have proved the means of averting a serious calamity to an overcrowded community.

As any suggestion in the way of treatment may be acceptable in a disease so intractable as that of which we are speaking, I venture to say that a practitioner of much experience in this town, and who was largely engaged in the treatment of cholera during the epidemic of 1849, is strongly in favour of venesection in the stage of collapse. He advises the abstraction of a few ounces of blood, until the black treacly appearance is replaced by the flow of blood in its ordinary condition. This treatment, like that by castor-oil, is founded upon the eliminative theory, and was, I believe, first recommended by Mr. Annesley.

Association Intelligence.

BRANCH MEETINGS TO BE HELD.

NAME OF BRANCH.	PLACE OF MEETING.	DATE.
SHROPSHIRE SCIENTIFIC. [Quarterly.]	Museum of Natural History Society, Shrewsbury.	Thursday, May 24, 5.30 P.M.
METROPOL. COUNTIES. [Ordinary.]	37, Soho Square.	Friday, May 25, 8 P.M.
SOUTH MIDLAND. [Annual.]	Bedford.	Thursday, June 7, 2 P.M.
LANCASH. & CHESHIRE. [Annual.]	Medical Institution, Liverpool.	Wednesday, June 13.
BIRMINGHAM AND MIDLAND COUNTIES. [Annual.]	Hen and Chickens Hotel, Birmingham.	Friday, June 15th, 3.30 P.M.
NORTHERN. [Annual.]	Durham.	Friday, June 22nd.
CAMBRIDGE AND HUNTINGDON. [Annual.]	Committee Room of the Corn Exchange, St. Neots.	Tuesday, June 26th, 2.30 P.M.

SHROPSHIRE SCIENTIFIC BRANCH.

THE next quarterly *conversazione* will be held in the Museum of the Natural History Society, Shrewsbury, on Thursday evening, May 24th, at 5.30.

Several papers will be read, and some interesting experiments and objects exhibited. Members may introduce friends.

Gentlemen having communications to make, will have the kindness to inform the Secretary thereof three days before the meeting.

SAMUEL WOOD, *Hon. Secretary.*

METROPOLITAN COUNTIES BRANCH.

AN Ordinary Meeting of this Branch will be held at 37, Soho Square, on Friday, May 25th, at 8 P.M.; E. H. SIEVEKING, M.D., President, in the chair.

Dr. Richardson will read a paper on "The Vaccination Question, in its legal, public, and professional aspects."

A. P. STEWART, ALEXANDER HENRY, } *Hon. Secs.*

SOUTH MIDLAND BRANCH.

THE tenth Annual Meeting of this Branch will be held at Bedford, on Thursday, June 7th, at 2 P.M.; EDWARD LAWFORD, M.D., President, in the chair.

Dinner will be provided at 5 P.M.

Gentlemen intending to read papers or cases, are requested to forward the titles without delay to Dr. Bryan, Northampton.

JOHN M. BRYAN, M.D., G. P. GOLDSMITH. } *Hon. Secs.*

LANCASHIRE AND CHESHIRE BRANCH.

THE annual meeting of the Lancashire and Cheshire Branch will be held in the Medical Institution, Mount Pleasant, Liverpool, on Wednesday, June 13th; A. T. H. WATERS, M.D., President, in the chair. The meeting will commence at half-past Twelve. Dinner at the Adelphi at half-past Four.

Gentlemen intending to read papers or cases are requested to forward the titles of the same to the Honorary Secretary, without delay.

HENRY SIMPSON, M.D., *Hon. Sec.*

10, Chatham Street, Piccadilly, Manchester.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.

The annual meeting of the Birmingham and Midland Counties Branch will be held at the Hen and Chickens Hotel, Birmingham, on Friday, June 15th, at 3.30 P.M. Dr. CARTER, President, in the chair.

The members will afterwards dine together. Dinner on the table at 5 o'clock P.M. precisely.

T. H. BARTLEET, *Hon. Secretary.*

NORTHERN BRANCH.

The annual meeting of the Northern Branch will be held at Durham on Friday, June 22nd; Sir JOHN FIFE, F.R.C.S., President, in the chair.

Gentlemen intending to read papers or cases, are requested to forward the titles of the same to the Honorary Secretary without delay.

G. H. PHILIPSON, M.D., *Hon. Sec.*

Newcastle-upon-Tyne, May 9th, 1866.

CAMBRIDGE AND HUNTINGDON BRANCH.

The annual meeting of the Cambridge and Huntingdon Branch will be held at St. Neots, in the Committee Room of the Corn Exchange, on Tuesday, June 26th, at 2.30 P.M.; J. J. EVANS, Esq., President, in the chair.

Gentlemen intending to read papers or cases are requested to forward the titles of the same to the Honorary Secretary, without delay.

P. W. LATHAM, M.D., *Hon. Secretary.*

15, Sidney Street, Cambridge.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT MEETING.

The fourth meeting for the ninth session, 1865-6, was held at the Union House, Dartford, on May 11th, 1866; JOHN GRANTHAM, Esq., in the chair. Twenty-seven members and visitors were present.

The SECRETARY announced a response from the friends of the deceased members.

New Members. George Richards Cooke, Esq., of Greenhithe, was duly elected a member, subject to the rules of the Association; and John Thompson Dickson, Esq., of the City of London Lunatic Asylum at Stone, near Dartford, was elected a member of the district.

Next Meeting. John J. Douglas Burns, M.D., of Chatham, was chosen chairman of the meeting to be held at Rochester in September.

Discussion and Resolutions. The subject of actions-at-law against surgeons for alleged malpraxis was considered, especially in relation to the case of Rudman *versus* Armstrong. The following resolutions were unanimously passed.

1. "That the members of the West Kent District of the South-Eastern Branch desire to express their sympathy for Dr. Armstrong and his son, on account of the annoyance and expense to which they, whilst performing the duties of medical officers to a public charitable institution, have been subjected by the action in the Court of Exchequer of Rudman *versus* Armstrong.

"2. That the thanks of this meeting be given to the medical gentlemen who appeared as witnesses for the defence for their generous conduct."

The Secretary was directed to convey the report of these proceedings to the gentlemen referred to; viz., Mr. Solly, Mr. Le Gros Clark, Mr. J. Cooper Forster, and Dr. J. Braxton Hicks.

Demonstration. Dr. RICHARDSON first described and exhibited his instruments; next explained the difficulties in the way of obtaining a suitable fluid; and then entered upon the use of local anæsthesia. He also exhibited ozonic, styptic, and caustic ethers; and coagulated a small quantity of putrid blood in a cup by means of the styptic fluid.

Dinner. The members and visitors adjourned to dinner at the Bull Hotel.

SOUTH-EASTERN BRANCH: EAST SURREY DISTRICT MEDICAL MEETING.

A MEETING of this Society was held at the Crystal Palace on Friday, May 11th. F. HETLEY, M.D. (Norwood), presided; and sixteen gentlemen were present.

The Action against Dr. Armstrong. The subject of the action recently brought against Dr. Armstrong of Gravesend having been introduced, the following resolution was proposed by Mr. BOTTOMLEY, seconded by Mr. WHITLING, and carried unanimously.

"That this meeting desires to express its sympathy with Dr. Armstrong and his son on the occasion of the annoying and very groundless action to which they have recently been subjected; and that it offers them its hearty congratulations on the successful issue of the contest."

The Honorary Secretary was requested to forward a copy of the resolution to Dr. Armstrong.

Communications. Dr. WALTERS of Reigate gave a brief account of the sequel of the case of Traumatic Cataract which had been read at the last meeting, and gave the history of a second similar case which had occurred in his practice.

Mr. WHITLING read the report of a case of much interest, which he gave his reasons for believing to be one of Uterine Hæmatocele. He received a vote of thanks for his paper, coupled with a request that he would allow it to be published.

Dr. MOXON (Guy's Hospital) brought a specimen of Aneurism of the Aorta, in which a natural cure had been effected.

Dr. LANCHESTER read some notes upon Cholera, which led to a discussion of the treatment of that disease.

Mr. ROPER showed a specimen of Tubercle of the Suprarenal Capsules, which had occurred in a patient in the Infirmary at Croydon.

The Dinner, which took place at 6 P.M., was presided over by Mr. Bottomley.

The Next Meeting of the Society will be held at Reigate, on Thursday, October 11th, when Dr. Holman will take the chair.

SCHÖNBEIN ON OXYGEN. Schönbein says that he has been engaged in the study of oxygen for thirty years, and has discovered a number of facts which allow of his drawing the following conclusions. 1. Oxygen may exist in three different allotropic states. 2. Two of these states are active, and opposed one to the other; one of them ozone, and the other antozone. 3. Equal quantities of ozone and antozone neutralise each other to form ordinary neutral or inactive oxygen. 4. Ordinary neutral oxygen may be split up or transformed, half into ozone and half into antozone. The experimental demonstration, he admits, is not so simple—as, for example, the composition and decomposition of water. He says that the assertion that I had succeeded in isolating ozone and antozone in a state of purity, is without foundation.

Correspondence.

THE CASE OF RUDMAN *v.* ARMSTRONG.

LETTER FROM FRANCIS BONNEY, L.K.Q.C.P.I.

SIR,—As various misrepresentations concerning me have appeared in the medical journals, I beg the insertion of this statement of facts relative to my appearance in evidence at the trial Rudman *v.* Armstrong and Son.

In February 1864, being accidentally in the shop of plaintiff, who was a bootmaker in Gravesend, he requested me to see his daughter, whom he stated to have been ill for a long time, and who seemed to get worse. I saw the girl, and found her on a couch in a well furnished room. She seemed partly unable to speak, through a swelling of the tongue; and, on examining the mouth, I saw that the teeth were loose, the gums swelled, saliva running from the lips, and some ulcerations in the pharynx. The young woman also drew my attention to her knee, below which there was a swelling, at that time covered with a piece of flannel six or seven inches long and about four in breadth, which was smeared with a bluish ointment. I considered the girl to be in a state of salivation. Her mother informing me that her daughter was under the younger defendant, Mr. Armstrong, I declined having anything to do with the case; only observing that I heard he was a respectable practitioner, and desiring the patient to follow strictly his directions.

On January 13th this year, having since March 1865 heard nothing of the matter, I was unexpectedly called on by the girl's mother, who asked me to see her at Hackney, where she had been removed, to be under a London practitioner. I visited the girl for the first time professionally on January 14th, 1866, finding her very weak and pale, and complaining of the swelling below the knee, and also of painful swellings on the scalp, with constant aching of the bones. I saw hardly any symptoms of salivation at that time. After a prolonged course of tonics, with iodide of potassium and chlorate of potass, the patient improved so much that she could just stand alone. During my attendance, I never hinted or heard a word spoken of any action at law until February 27th, 1866, when, to my surprise, I was told by the plaintiff that he had begun the action so far back as June 1865, and that his solicitor said I should be required as a witness. I refused to have any hand in the affair, and it was only when on subpœna that I felt compelled to give evidence at all. The pith of my evidence was that, in the absence of proof that the symptoms shown by the girl were consequent on scrofula or syphilis, mercury *might* have caused some of them; though I also added that salivation could be occasioned by many other drugs besides mercury; and that mercury, even in minute and judicious doses, sometimes acted violently on persons suffering from peculiarity of constitution. I volunteered no opinion whatever, and all I said was in reply to questions by judge or counsel.

Unwilling to trespass longer on your space,

I am, etc., FRANCIS BONNEY.

THE CHOLERA IN LIVERPOOL. We much regret to have to announce the deaths from cholera at Liverpool of Dr. Ross, a surgeon in attendance on board the *Jessie Munn*, and the Rev. Father Callaghan, a Roman Catholic clergyman, who caught the disease during his visitation of cholera patients.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND. The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at a meeting of the Court of Examiners, on May 9th.

Bailey, John Coyte, L.S.A., Plymouth
Boldero, Frederick, Rattlesden, Suffolk
Bonney, William Augustus, Brompton
Cole, Thomas, Bath
Dale, Frederick, Yarm, Yorkshire
Davies, Nathaniel Edward, L.S.A., Llanrwst, Denbighshire
Draper, William, Grantham
Edmonds, Charles George, L.S.A., Peckham
Elliston, George Sampson, Ipswich
Fagge, Herbert William, Hythe, Kent
Hardwicke, Ezra John, Bury St. Edmunds
Moore, Walter, Myton, Warwickshire
Palmer, William Grimes, Loughborough
Paull, Josiah, Camborne, Cornwall
Quicke, Thomas Joseph, Brixton
Smith, William Henry Firebrace, London
Strange, Frederick William, Beenham, near Reading
Walker, Charles Edward, Stainland, Yorkshire
Wickham, James, Bideford, Devon

Admitted on May 10th—

Atkins, Thomas Dealtry, Calcutta
Bernard, David Edward, Bath
Bush, Charles Arthur, Bath
Bush, John Dearden, Newcastle-on-Tyne
Cresswell, Richard, Lewisham
Farwell, James William George, St. Martin's, near Liskeard
Fluder, Arthur Eisdall, Lymington
Hankins, George Thomas, L.S.A., Clapham
Harwood, Alfred, Cambridge
McCarthy, Jeremiah, London Hospital
McDonald, William, M.D.Edin., Edinburgh
Maxwell, Edward Cleaver, Barnstaple
Moore, William Henry, Liverpool
Mousley, George William, Atherstone, Warwickshire
Newman, Adam Perry, M.B.Dub., Cork
Robinson, Richard Holt, Manchester
Sawyer, James, Birmingham
Sedgwick, Henry, St. John's Street
Tindale, Wentworth Raynes, Peckham Rye
Wall, Reginald Bligh, Bayswater
Waller, Arthur, Milner Square
Whitwell, John Maude, Kendal

At the same meeting of the Court—

Atkinson, Robert, H.M.S. *Prince Consort*, passed his examination for Naval Surgeon. This gentleman had previously been admitted a member of the College; his diploma bearing date April 17th, 1854.

It is stated that out of the 76 candidates who offered themselves for examination, 13 failed to acquit themselves to the satisfaction of the Court of Examiners, and were consequently referred back to their hospital studies for six months.

The following members, having been elected Fellows at previous meetings of the Council, were admitted as such on May 14th.

Buncombe, Charles Hope, York Place, Bow Road; diploma of membership dated May 29th, 1840
Dalton, Henry Gibbs, George Town, Demerara: Feb. 10, 1841

APOTHECARIES' HALL. On May 10th, 1866, the following Licentiates were admitted:—

Baron, Thomas, Ulceby, Lincolnshire
Evans, Owen, Pandy Trefriw, near Conway
Howse, Frederick, Alexander Road, Kilburn Park
Leggatt, Alfred John, William Street, Lowndes Square
Lucas, George, Burwell
Mudd, F. C., West Pallant, Chichester

APPOINTMENTS.

BAILEY, J. C., Esq., appointed Assistant Medical Officer to the Three Counties Asylum, Stotfold, Baldock, Herts.
DE BOISSIÈRE, Jean Valleton, M.D., appointed by the Queen a Member of the Legislative Council of the Island of Trinidad.
DICKINSON, W. H., M.D., elected Assistant-Physician to St. George's Hospital.
FARRE, F. J., M.D., elected Physician to the Charterhouse.
*OGLE, John W., M.D., elected Physician to St. George's Hospital, in the room of *H. A. Pitman, M.D.

Tonge, Morris, M.A., M.D., appointed Lecturer on Physiology at the Charing Cross Hospital School of Medicine.

BIRTHS.

Fegen. On May 8th, at Stoke, Devonport, the wife of *William B. Fegen, Esq., Staff-Surgeon H.M.S. *Impregnable*, of a son, stillborn.

Major. On April 30th, at Hungerford, the wife of Harry P. Major, M.D., of a son.

Paterson. On April 24th, at Balbeggie, Perthshire, the wife of G. K. H. Paterson, L.R.C.P.Ed., of a son.

Smith. On May 8th, at Hay, Breconshire, the wife of J. E. Smith, Esq., Surgeon, of a daughter.

Wolstenholme. On April 30th, at Holywell, the wife of *J. H. Wolstenholme, Esq., of a son.

MARRIAGES.

Brooke, T. L., L.R.C.P.Lond., to Emily Alice, third daughter of J. Burnett, Esq., The Avenue, Gipsy Hill, at Camberwell, on May 8.

Heath, William, Esq., Surgeon, of Manchester, to Emma, daughter of the late Edward C. Milne, Esq., Solicitor, of Manchester, at Eccles, on May 9.

Lauder, Thomas Bernard, Esq., of Moyclare, King's County, to Annie Emma, second daughter of T. A. Cocksedge, M.D., late of Drinkstone, Suffolk, at Cambridge, on May 9.

Mason, George, Esq., Surgeon R.N., to Elizabeth Walker, daughter of James Bowhill, Esq., at Dunbar, on May 3.

Morce, John, Esq., of Longsight, Manchester, to Sarah, youngest daughter of Samuel Barton, Esq., Surgeon, of Baukfield, Whalley Range, at Manchester Cathedral, on April 28th.

Watson, W. Tyndall, Esq., of Tottenham, to Isabella, daughter of W. Bewley, Esq., at Monkstown, on April 27.

DEATHS.

Allanson, John, Esq., Surgeon, at Watford, aged 63, on May 4.

Atkinson. On March 31st, at Lucknow, Helen, wife of Surgeon-Major Robert James Atkinson.

Clapper, Jasper, M.D., late of Ipswich, at Hastings, aged 29, on May 10th; and on May 5th, aged 7 months, Edith, his daughter.

Harrison. On May 10th, at Albany Court Yard, Piccadilly, aged 7 months, John Orton, only son of John Harrison, Esq., Surgeon.

McClintock. On May 9th, at Dublin, aged 17, Florence, eldest child of Alfred H. McClintock, M.D.

Shaw, W., Esq., Surgeon, of Hampstead, aged 57, on April 27.

Siordet. On May 11th, at Mentone, Fanny, wife of J. L. Siordet, M.D.

Wootton, W., Esq., Surgeon, at Harrold, Bedfordshire, aged 66, on May 9.

University College Hospital. His Royal Highness the Duke of Cambridge has consented to be nominated a vice-patron of this institution.

University of Cambridge. The Professor and the Demonstrator of Anatomy give notice, that they are willing to form classes for instruction in Anatomy and Clinical Surgery during the long vacation. Gentlemen wishing to attend are requested to give their names to Professor Humphry before the end of this term. No additional fee will be required of those who have entered to the Anatomical Lectures, and the Practice of Addenbrooke's Hospital.

The Mortality among the Troops at Hong-Kong. On the 11th instant, Mr. Locke asked the Secretary of State for War whether the 20th Regiment (second battalion) had been ordered, or whether it was the intention of the Government to order it, from Japan to Hong-Kong, to occupy the quarters vacated by Her Majesty's 11th Regiment, in which such mortality had lately occurred. The Marquis of Hartington said that the second battalion had been ordered from Japan to Hong-Kong, but would not necessarily occupy the quarters vacated by the 11th Regiment. Colonel North asked whether the second battalion of the 20th was to go to Hong-Kong upon the understanding that General Guy was to have unlimited authority to incur expense to provide quarters for them. The Marquis of Hartington replied, that orders had not been issued that General Guy might incur unlimited expense; but there was no reason to suppose that there would be any difficulty in finding accommodation for the troops.

University of Durham. At a Convocation to be holden on May 22nd, it will be proposed to approve the nomination of John Russell, M.R.C.S., London, as Lecturer on Anatomy in the College of Medicine, Newcastle-on-Tyne.

Dr. Tilbury Fox, who is well known to our readers by his writings and contributions to the Journal, is a candidate for the vacancy at the Charing Cross Hospital caused by the retirement of Dr. Willshire.

The Odontological Society held its ordinary monthly meeting on the 7th instant, at 32, Soho Square; the President in the chair. A paper was read by Mr. Ibbetson, on the Fossil Teeth of Fishes in the Palæozoic and Lower Members of the Mesozoic Rocks. Mr. Fox and other members described cases of Retarded Development of the Teeth, of unusual characters.

The Levee held by the Prince of Wales on the 12th instant was attended by Drs. J. R. L. Dickson, Langdon Down, Watson, Scott, John Forbes, J. Balfour Cockburn, G. Owen Rees, Ruttledge, Baines, and Alexander Marsden; by Deputy-Inspector-General Graves; and by Messrs. Spencer Wells, Haynes Walton, Oscar Clayton, Cæsar Hawkins, and James Paget.

Testimonials to Drs. Murchison and Buchanan. At a meeting of the governors of the London Fever Hospital, held on the 11th inst., at the Freemasons' Tavern, J. A. Bostock, Esq., in the chair, Dr. Charles Murchison and Dr. George Buchanan, the senior physicians, were presented with very handsome silver vases; the inscription in each case showing that the presentation was made "in testimony of the unwearied devotion and eminent skill with which he" (the physician) "discharged his professional duties during an epidemic of unparalleled severity and duration."

The Scotch Universities and the Reform Bill. The University of St. Andrew's have agreed to transmit a petition to the House of Commons regarding Parliamentary representation of the Scottish Universities. They state that they "have heard with satisfaction that it is proposed in the Bill for the redistribution of seats in Parliament, introduced into your honourable House, to grant Parliamentary representation to the Scottish Universities. While rejoicing in the privilege thus proposed to be granted, they, however, submit that the claims of these institutions to Parliamentary representation are inadequately met by the allotment of a single member to the four Scottish Universities, in the same manner as it is proposed to grant a member to the London University and the Queen's University in Ireland respectively. The constituency of the four Scottish Universities, it is computed would amount to at at least 4,000, and it is steadily increasing year by year; whereas the constituency of the London University is only about 1,800, and the Queen's University in Ireland cannot be more than half of this number. The Scottish Universities, moreover, are of ancient foundation, and represent the whole of the higher education of the country; whereas the London University, and the Queen's University in Ireland, merely represent sections of the higher education in England and Ireland respectively—other sections being represented by the Universities of Oxford and Cambridge, already returning four members to Parliament, and by the Dublin University, which already returns two members to Parliament. They therefore urge that the House, taking these premises into their consideration, will assign to the Scottish Universities two seats instead of one."

THE MORTALITY OF CONVICTS AT CHATAAM. The Government have appointed a Commission, consisting of Dr. J. A. Fraser, principal medical officer at Chatham Garrison, Dr. J. B. Cockburn, Royal Engineers, and the Governor of Milbank Convict Prison, to inquire into the circumstances of the recent mortality among convicts at St. Mary's Prison.

THE THREATENED VISITATION OF CHOLERA. In the House of Lords, on the 15th inst., the Earl of Carnarvon said, that there was no doubt as to the origin of the outbreak in Liverpool, which arose in the case of some German emigrants who were landed at Hull and brought to Liverpool. At Liverpool the disease had been hanging about for two months. It was the duty of the Government to pay special attention to persons who came into the country from cholera-infected countries, and, if the theory of quarantine were sound, to take every precaution against the introduction of the disease. It was not for this country to run the risk of infection by receiving emigrants from cholera-infected countries. He did not think that the measures of the Government had had much effect. They ought to have gone farther. He saw no provision made for the separation of the sick and the healthy on board ship; and it would be impossible to effect this without the provision of proper hospital accommodation. He would suggest to the Duke of Somerset to place a sufficient number of hulks at the disposal of the local authorities in the principal ports. These might serve the purpose of a temporary expedient, and they would allow fair ventilation, while isolation might be rendered complete by cutting off communication with the shore.—Earl Granville feared that the course proposed by the noble earl would prove unsuccessful, as it had been tried at Marseilles and had proved ineffectual. It was the opinion of the best medical authorities that, in order to carry out an effectual quarantine which should have any chance of being an absolute bar to cholera, it would be necessary to detain persons who arrived at Dover from Calais ten days instead of two hours. He agreed that some of the outports required sanitary arrangements within them. Liverpool in this respect required reformation; and it was intended to put it under the provisions of the Prevention of Diseases Act. The Government had telegraphed to our foreign consuls to inform intending emigrants to this country that shipowners could not take any more on board. The Government had sent down medical authorities to confer with the local authorities; and floating hospitals had been forwarded by the Admiralty.—The Duke of Somerset said there was a vessel at Cork, one at Liverpool, one at Plymouth, and one in the Thames.——In the House of Commons, on the same day, Mr. Sandford said that he knew that it was the fashion in this country to deny the effect of quarantine; but, in reply to that, he would point to the case of Sicily, which, though the cholera was raging all over the basin of the Mediterranean, enjoyed an absolute exemption from the scourge by means of the stringent quarantine regulations they adopted. The kingdom of Greece had also enjoyed the same immunity through the same means. From all he heard, it would appear from the state of Liverpool, either that there was a great defect in the law, or a defect in the arrangements for putting the law in force. He would remind the Government of the course they had taken on the cattle-plague. If they had used ordinary vigour in adopting measures of precaution, the plague might have been stayed; and, if they now sat with their hands folded, and allowed the cholera to fasten upon our shores, they would assume a fearful responsibility.—Mr. Bruce said the powers of the Government with respect to the cholera were founded on the Act of 6th George IV, which was directed against the plague and the yellow fever; but the words were sufficiently general to include the cholera. With respect to the exercise of those powers, the Privy Council had considerable latitude; but he did not think that it would be expedient to stretch them to the establishment of a quarantine. During the whole of the winter the cholera had been raging in the North of Europe. It would, therefore, have been necessary to put every vessel coming from that part into quarantine for at least ten days. Even that would have been no absolute security, for in the cases that had been reported as breaking out at sea, the disease broke out on the sixth day after the vessel's departure from Liverpool. These passengers had come from Holland; they had passed through England; they had remained for a few days at Liverpool, and they had been six days at sea. So that the least time that could be assigned for the commencement of cholera before it broke out was ten days. It was, therefore, impossible, unless all communication was forbidden between this country and the infected districts, to expect that the quarantine laws could be enforced. That being the case, he came to the consideration how far the powers entrusted to them ought to be exercised. In 1852, when a visitation of cholera was expected, the government of Lord Derby issued general directions on the subject, which were identical with the orders issued by the Privy Council last week. As the cholera was then raging at Dantzic and the Baltic ports, all vessels coming from those ports were ordered to be examined, and if any one on board was found to have the cholera, he was not allowed to land, but all that were free from the disease were allowed to go on shore. In 1859, when a similar visitation was threatened, similar orders were issued. The only ship with cholera on board that had come to this country was the *Helvetia*, with 950 persons on board, including crew and passengers. Of these about 450 were Germans and Dutch, and 400 Scotch and Irish. When the vessel reached Queenstown the cholera had broken out, and the healthy passengers wished to land, but by a somewhat arbitrary exercise of power they were not allowed to do so, but were sent back to Liverpool, whence a telegram reached the government stating that fact, and asking what precautionary measures were to be adopted. Two receiving ships were appointed, one for the reception of the sick, the other for the healthy; but the numbers were so great that the ship could not contain all the healthy persons, and about 400 were landed and placed in the depot belonging to the Emigration Board. The sick were removed in order that the ship might be disinfected. He hardly gathered from the observations of his hon. friend, that he would have preventing the landing of the 600 persons. He must remind him that this country had never adopted in all their strictness the laws of quarantine. They must depend upon the conduct of the local authorities; and in this instance he thought the local authorities had done all that it was possible for them to do. The disease was confined to sixteen Germans, four Irish, and one Scotch emigrant, and appeared to be local and sporadic in its visitation. The Government had restricted the authorities in seaport towns, and other places exposed to infection, as to the course which ought to be taken in case of the disease breaking out. He was sure that his honourable friend and the house would agree with him that the best preventative of cholera would be found in the energy of the local authorities, in the supply of fresh and pure water, and in the drainage and cleansing of the streets and houses.

OPERATION DAYS AT THE HOSPITALS.

ONDAY.....Metropolitan Free, 2 P.M.—St. Mark's for Fistula and other Diseases of the Rectum, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

ESDAY. .... Guy's, 1½ P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.

EDNESDAY... St. Mary's, 1 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.

HURSDAY.....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Great Northern, 2 P.M.—London Surgical Home, 2 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.

RIDAY. ..... Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TURDAY..... St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1·30 P.M.—Charing Cross, 2 P.M.—Lock, Clinical Demonstration and Operations, 1 P.M.—Royal Free, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

ESDAY. Royal Medical and Chirurgical Society, 8.30 P.M. Mr. Gaskoin, "On Continued Syphilitic Inoculation."

TO CORRESPONDENTS.

* *All letters and communications for the* JOURNAL, *to be addressed to the* EDITOR, 37, *Great Queen St., Lincoln's Inn Fields, W.C.*

MMUNICATIONS.—To prevent a not uncommon misconception, we beg to inform our correspondents that, as a rule, all communications which are not returned to their authors, are retained for publication.

RRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

READER.—The first volume of *A System of Medicine*, edited by Dr. R. Reynolds, has been published.

HE FOLLOWING SUBSCRIPTION appears in an advertisement of the *London Surgical Home*:—"Frederick Clowes, Esq., Surgeon, Windermere, an annual thankoffering for the cure of his sister, by Mr. Baker Brown, a £5:0:0." "De gustibus, etc."

YPOPHOSPHITES IN NEURALGIA: ASCARIDES.—SIR: I find in the number of the JOURNAL for March 4th, 1865, at letter from Dr. Hayes Jackson on Neuralgia and *Hyposulphites*. Such is the word in the index on the first page; but in the letter itself they are called hypophosphites. May I ask which is correct?

Your correspondent who asks last week for the best treatment for ascarides, will find as most permanent the use of perchloride of iron in small but long continued doses, combined with chloride of potassium, given at meal-times, the most successful plan.

I am, etc., J. LARDNER GREEN.

Tisbury, Salisbury, May 1st, 1866.

[The word "Hyposulphites" was a *lapsus calami*. Dr. Jackson wrote of the effect of *hypophosphites*. EDITOR.]

E TESTIMONIAL TO MR. GRIFFIN.—SIR: May I ask for a prominent place in your JOURNAL for the annexed circular, which has been forwarded to every known subscriber to the Griffin Testimonial Fund. I am, etc., ROBERT FOWLER, M.D.

145, Bishopsgate Street Without, May 12th, 1866.

Griffin Testimonial.—Dear Sir: The design for the above being nearly completed, I am desirous to receive from every individual subscriber to the Fund a written intimation, as to whether it would be consistent with his desire and convenience to attend a banquet in London (say about 3 P.M. in the day), whereat to publicly present the testimonial to Mr. Griffin.

I would also respectfully ask each subscriber to forward me, at his earliest convenience, his *carte de visite*, having his designation, professional title, and (if a Poor-law medical officer) the name of his union plainly written on the back.

I have reason to believe that it would be most agreeable to Mr. Griffin to additionally receive an appropriate album, containing the photographs of his friends and admirers.

Prompt attention to the above will greatly oblige

Yours faithfully, ROBERT FOWLER,
Treasurer and Hon. Sec.

145, Bishopgate Street Without, London, May 1866.

DR. ARMSTRONG'S PROSECUTION.—A correspondent thus writes:—"Your remarks on the case of Dr. Armstrong, in the JOURNAL of May 12th, will, I am sure, be read with much satisfaction, more particularly by the members of the Association, to whom he is so well known; and that he has the 'entire sympathy of his medical brethren', will be endorsed by all. My object in addressing you is in furtherance of your views respecting the mutual obligation that properly devolves upon us, of sharing the burdens of these malicious prosecutions, to which we are all liable. I quite agree with you, that a general defence fund would be very objectionable; and that it is much better to leave each case to be dealt with according to its merits: and here a difficulty arises. Who is to know what to give? 'Our medical brethren' are a very disunited body, with no one at their head, and consequently incapable of united action; but this does not apply to the members of the British Medical Association, to which every member of the profession should belong. We have it in our power to afford mutual protection, and I feel certain the means will never be wanting in any deserving case.

"I will venture to suggest, that you, through the medium of the JOURNAL, invite those members of the Association who are willing to contribute towards Dr. Armstrong's expenses to send to you their names. Having ascertained the amount required, you will be able to let each subscriber know his share of the liability (to which he may make his own limit); and, with this view, I shall be most happy to be held responsible for any amount not exceeding one guinea."

MR. I. B BROWN'S OPERATION.—SIR: Whatever may prove to be the ultimate estimate put by the profession on Mr. I. B. Brown's recommendation of Excision of the Clitoris, etc., in certain diseases, it will be evident to those who are at the trouble to peruse "J. Benedicti Sinibaldi Geneanthropeiæ sive de Hominis Generatione Decateuchon, lib. iv, tract. i, c. xiii, pp. 443–446, ed A.D. 1640"—that he has acted quite right in not claiming to have originated the operation; as it will be there seen that such a procedure was adopted by Aetius. One caution is given in the book in these words: "At in particulæ hujus abscissione moneo ut religiosè agamus, si tamen mulier sociata conjugi pedagoniæ studere debeat; siquidem inde veneris quoque suaviorem titillum averruncari continget, quare minus ad congressum alacris reddita, generationis munus frigidius ac segnius obibit; hinc vero sæpe sterilitas exoritur." This caution should deter us from inflicting such a serious mutilation.

Would Mr. Brown resort to an analogous deprivation in cases of the same diseases similarly induced in the male? On the strength of the adage that "what is sauce for the goose is sauce for the gander," and to be consistent, he should extend the same advantages to both sexes.

The husbands of the unfortunate creatures who have required such measures may without doubt apply to them the words of Martial, "Uxor vade foras, etc.," Lib II, Ep. 105.

I am, etc.,
THOMAS LITTLETON, M.B., F.R.C.S.

Saltash, May 7th, 1866.

TOSSING FOR A WORKHOUSE.—We have received the following answer to the note on this subject published last week. "I see in your correspondence of May 12th, an account of a transaction that occurred in this town respecting *tossing* and a workhouse appointment. *Audi alteram partem.* I am the one who lost the toss. Mr. —— came to me the evening before the Board meeting straight from the clerk, with all information about what was arranged to be done, to ask me to toss up who should apply for the workhouse. I objected to the tossing altogether. I asked him whether he had obtained any information, or whether he had seen the clerk; to both of which he replied in the negative. We then tossed, as I considered we were on equal terms, and I lost. It was not till a week afterwards that I ascertained all the facts. With the advice of several friends, I decided that, under the circumstances, I was not bound by the arrangement, and accordingly applied for the office, and obtained it. *Hinc illæ lacrymæ.* In the meantime, I had canvassed only one of the guardians, and that was on the day I wrote to Mr. —— to tell him of my decision."

RUDMAN *v.* ARMSTRONG.—The following extract from a report of this trial will go far to explain the position of Mr. Vinall.

"Mr. J. Vinall, a medical practitioner at Hackney, deposed that he was applied to last October to attend the plaintiff, and examined her, and found she was of a weakly constitution and out of health. He declined to attend her, unless some arrangement was made as to payment: and the mother told him that they had got a law-suit against the doctor who had been attending the plaintiff, and that he should be paid out of the money they would get. He declined to look to any such source for payment, and ceased to attend her.

"Upon cross-examination, he stated that when he examined her, he saw no traces of salivation, or the effects of it, and considered the plaintiff chiefly required tonics, fresh air, and proper living."

We are informed that Mr. Vinall attended as a witness on the plaintiff's side much against his own inclination, and in consequence only of having received a subpœna.

COMMUNICATIONS have been received from:—Dr. JAMES RUSSELL; Mr. E. C. BOARD; Dr. P. W. LATHAM; Dr. FREDERICK J. BROWN; Mr. J. ROBERTSON; THE HONORARY SECRETARIES OF THE HARVEIAN SOCIETY OF LONDON; Mr. GASKOIN; Dr. THOMAS SKINNER; Mr. T. M. STONE; Dr. SANDWITH; Dr. HUMPHRY; THE HON. SECRETARIES OF THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY; Mr. A. NAPPER; Mr. T. H. BARTLEET; Mr. WILLIAM PARKER; Dr. HOLMAN; Dr. H. SIMPSON; Mr. P. E. WRIGHT; Dr. FOWLER; Dr. LANCHESTER; Dr. F. BONNEY; Dr. BARCLAY; EMPIRICUS JUNIOR; and Dr. A. RANSOME.

BOOKS RECEIVED.

1. The Forms, Complications, Causes, and Treatment of Bronchitis. By J. Copland, M.D., F.R.S., etc. New Edition. London: 1866.
2. The Toxicologist's Guide. By John Horsley, F.C.S. London: 1866.
3. Elements of Qualitative Chemical Analysis. By W. H. Spencer, B.A. London and Cambridge: 1866.
4. Archives of Dentistry. Edited by Edwin Truman. Vol. I. London and Leipzig: 1865.

ADVERTISEMENTS.

ESTABLISHED 1848.

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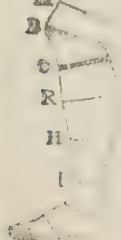
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On the Mercurial and Non- MERCURIAL TREATMENT OF SYPHILIS. By R. WILLIAM DUNN, Surgeon to the Farringdon Dispensary; Vaccinator to King's College Hospital; etc.
London: ROBERT HARDWICKE, 192, Piccadilly.

Just published, fcap 8vo, price 5s.,

Surgical Appliances and Minor OPERATIVE SURGERY. By THOMAS ANNANDALE, F.R.C.S. Edin.
Edinburgh: MACLACHLAN and STEWART.
London: ROBERT HARDWICKE, 192, Piccadilly.

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Original Communications.

REMARKS ON LARYNGITIS.

By E. H. Sieveking, M.D.

The most prominent symptom of laryngitis is a peculiar modification or a complete absence of the voice. It appears worthy of record, that this rule is not without its exception; and, as the point is one materially affecting the question of diagnosis, an exception adds a fresh illustration to those which I have repeatedly given of the importance of a laryngoscopic investigation, wherever this may be practicable.

An elderly female was admitted under my care at St. Mary's Hospital on Monday, April 30th, in the evening. I saw her on the afternoon of the following day, when I was told by the house-surgeon, Mr. Webb, that she came in with urgent symptoms of laryngitis, and with such severe dyspnœa that he almost considered tracheotomy necessary. She was voiceless; the breathing was stridulous and gasping; and there was evident imperfect aëration of the blood. There was no history of the case. The remedies that were directed appeared to give considerable relief to the symptoms first detailed. When I saw her on the Tuesday, all stridulous breathing had disappeared; the voice, though feeble, was clear, and completely free from any of the peculiarities characteristic of affections of the vocal apparatus. The voice was so normal in sound, that I hesitated to accept the diagnosis of acute laryngitis; but the woman was evidently *in extremis*. Although the breathing did not appear very laboured, the countenance was very dusky; no pulse could be felt in either wrist; and there was all the appearance of approaching dissolution. I examined the fauces, and found the uvula of a purple colour, which contrasted strikingly with the normal hue of the surrounding mucous membrane. The patient was not in a condition to bear any further examination, and expired shortly after I had seen her. The *post mortem* examination revealed a state of things which entirely negatived all supposition of a spasmodic affection, such as might have produced a temporary loss of voice. The upper part of the larynx, including the vocal cords, presented a perfect specimen of acute laryngitis. The parts were deeply injected. There was considerable redness and swelling of the vocal cords themselves; and they certainly did not look as if they could possibly have vibrated in a healthy manner, so as to allow of normal phonation.

This and other facts which have been elicited by various observers, especially since the use of the laryngoscope has enlarged, and, on the whole, given more precision to, our knowledge of the physiology and the pathology of the larynx, suggest difficulties which, as yet, can scarcely be quite solved. Thus while, in the present case, the vocal cords, in spite of severe inflammatory congestion and tumefaction, were able to utter what appeared like a healthy sound, in other cases I have found aphonia, or a marked interference with phonation, although the vocal cords appeared, under the laryngoscope, quite healthy, and only a derangement of the condition of the mucous membrane, at a greater or less distance from the vocal cords, could be regarded as the immediate cause of the altered voice. In the case to which I have drawn attention, there was well marked though very recent pericarditis, as shown in vivid scarlet injection of almost the entire parietal surface of the pericardium; but I need not dwell upon this or other points in the *post mortem* examination, as the only fact I desired to bring forward was the one showing that there may be intense laryngitis, causing complete aphonia overnight; and that the aphonia and all stridulous or hoarse breathing may have disappeared in a few hours, although the most indubitable proof is given that the laryngitis has not materially abated. This case is a counterpart to one which I have published on a former occasion, where, with all the local and general symptoms of acute laryngitis, the laryngoscope exhibited the pearly whiteness of a perfectly normal pair of vocal cords.

Transactions of Branches.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT MEDICAL MEETINGS.

ON THE INDUCTION OF PREMATURE LABOUR.

By John Armstrong, M.D., Gravesend.

[*Read at Gravesend, April 6th*, 1865.]

Although this is an operation not often required in general practice, yet circumstances occasionally arise which demand it; and it is, therefore, right that we should be acquainted with the best modes of effecting it, and the circumstances which render it necessary. There can be little doubt that the ancient Romans were acquainted with, and practised, modes of procuring abortion similar to those of the present day; and that they did so upon such slight grounds as the preservation of personal symmetry. It was not till Christianity obtained sufficient hold over the minds of the people, that the sinfulness of the proceeding was recognised; and it may with truth be affirmed that, in proportion as the principles of Christianity are recognised and obeyed by a people, so will the crimes of criminal abortion and infanticide diminish. The frightful revelations of these horrid practices in our own country only indicate the existence of infidelity, or an extremely low state of Christian ethics, in our highly favoured land; and call loudly to us to contribute our part faithfully and fearlessly in shewing our abhorrence of such villany.

In 1756, a solemn consultation of the obstetrical practitioners in London was held, to discuss the morality, safety, and utility, of inducing premature labour; and from that time to the present, various modes of effecting this object have been used. I purpose briefly stating some of those which have occurred in my own time, and then narrating a case in which labour was induced between the seventh and eighth month.

Dr. Tyler Smith, in his valuable lectures, says:

"The cases in which the operation of inducing premature labour may be required, admit of division into three classes:

"1. In which the operation is called for before the date of the viability of the fœtus, in consequence of diseased states of the mother, and in which the ovum has to be sacrificed in order to preserve the life of the mother from great risk;

"2. In which the operation is required for the preservation of both mother and child;

"3. In which it is performed to save the life of the child in conditions which do not involve any question of danger to the mother."

I think this is a very good arrangement. The various conditions requiring the operation, will be

found comprehended by such a division; as, for instance, dyspnœa from continued vomiting; distortion so as to render the birth of a viable child impossible; ovarian and fibrous tumours, cancer, disease of heart, albuminuria, etc.

There is a class of cases where the operation might be performed more frequently than it is. I refer to those cases where gestation goes on till a week or two before the full term, when the child dies. In such cases, inducing labour by the eighth month would probably result in living offspring. I may observe that, as far as my cases of that description have occurred, they have been generally syphilitic; and a mild course of mercury, notwithstanding all that is said against it, has repeatedly in my hands effected a satisfactory change.

Another point of importance is, as to the best time to induce labour, when the safety of mother and child is involved. I suppose it is pretty generally agreed that, although instances are given of children born before the seventh month surviving, yet it is more than probable that the more closely the eighth month is approached the more likely are you to have them live.

As regards the mode of inducing labour, I may say that it was agreed upon at the conference of 1756 to puncture the membranes with a quill sharpened at the point; and I believe this was the mode adopted by Dr. Macaulay, who was the first to perform the operation successfully in London after the conference.

A stiletted catheter succeeded this, and continued to be the favourite mode up to a very recent period. As a certain mode of effecting the object there could be no question; but the fœtal mortality was very high. I have seen living children born after this mode.

Dilatation of the os by tents, and separation of the membranes from the os and cervix, by the finger or a catheter, or a bougie or uterine sound, have also been employed. Ergot of rye was a favourite with Dr. Ramsbotham; but he gave it up in consequence of the mortality to the child. Cupping-glasses to the mammæ have been rarely successful. Injection of water within the os for ten minutes at a time, and repeated every four hours, was very much esteemed.

Of the most recent improvements in this department, one is Dr. Simpson's method, which consists in introducing a male elastic catheter, with its stilette, through the nick, withdrawing the stilette, and pushing it up towards the fundus between it and the membranes, and leaving it there. After a period varying from five to twelve hours labour comes on.

The other plan is that of Dr. Barnes, who induces labour by caoutchouc bags introduced into the os, and distended by water. The great advantage of Dr. Barnes's plan is, that it enables you, in a short and almost definite time, to accomplish the delivery.

To enter into the merits of the different plans, would far exceed the limits allowed for a paper for these meetings. But I may say that the preference is generally given by our most eminent London accoucheurs to Dr. Barnes's bags; and, I suppose, by the Edinburgh men, to Simpson's gum elastic catheter.

I shall now narrate my own case as briefly as possible.

Mrs. S., married, aged 33, is deformed from a fall received towards the end of her first pregnancy. She came under my care about six years ago; when, after a tedious and severe labour, I delivered her with the long forceps. The child was dead. About two years ago, I attended her. The head was above the pelvis; a projection from the sacrum and ilium was distinct; and I delivered her after perforating the head. There was a depression on the side of the child's head into which half a hen's egg might be placed, produced by the severe efforts of the uterus to overcome the resistance made by the projection. She was very unwell for some time afterwards, and recovered slowly. I pointed out forcibly to her the great danger she ran by becoming pregnant again; and informed her that, if she did become pregnant again, the safety of her and the child would require that labour should be induced before the full term. When she was about seven months gone, she sent for me. I asked her to see Dr. Braxton Hicks, who kindly examined her, and advised me to induce labour. On September 19th, I administered an aperient and gave her some saline medicine. On the 21st, I had considerable difficulty in reaching the os, which was tilted up in front and high up and closed. I passed a male gum catheter into the cervix, separating the membranes all round, withdrew the stilette, and passed it some considerable way up between the membrane and the uterus, and left it. I was unable to see her as soon as I intended; and the catheter remained eighteen hours.

September 22nd. The os was open. I withdrew the catheter, which was filled with clotted blood; no liquid blood appeared. As yet, she had no pains. I passed my finger round the os; but it was so high up that I could not do so satisfactorily; and I advised the patient to get up and walk about. In the evening, I found her feverish; she had no pains; the os was closed; there was no discharge. I tried to introduce a piece of sponge; but did not succeed. I therefore re-introduced the catheter on the other side.

September 23rd, 10 A.M. She had had pains during the night, which appeared to be uterine. The os was more open; but no presentation was within reach, and the os was so high, I could barely touch it. I withdrew the catheter, which had some mucus but no blood. I ordered her to take the following.

℞ Pulv. secalis corn., ʒiij; aquæ ʒviij. One sixth part every four hours.

November 12th. She had taken only one dose. The pains had increased; the os was opening, and the presentation (natural) could be felt. At 9 P.M., the pains were strong; the os was opened to the size of a crown-piece. No effect had been produced in advancing the head into the pelvis. The patient perspired profusely; pulse quick and weak. I ruptured the membranes. The pains were very strong and expulsive; but no advance of the head took place. I considered it unsafe to allow matters to go on in this way any longer; and with some difficulty I applied a pair of long thin bladed forceps and drew down the child. It respired feebly at first, but afterwards became vigorous, and appeared likely to live. It was a male, and appeared to be at about seven months and a half. It survived, however, only till the next day. The patient suffered severely from after-pains; but, with that exception, made an excellent recovery.

REMARKS. When this woman applied to me to attend her in her last pregnancy, I was struck with the alteration in her figure. She now was bent to nearly an angle of 45°; the abdomen hanging down in front. Her length, when laid on her back, was lessened. She states that she is considerably shorter than she was prior to the fall. Dr. Braxton Hicks, who kindly examined the case, says there has probably been a fracture into the sacro-ischiatic notch, with enlargement of the bones around the part. I have no doubt this is correct; but I think the spine has been injured and has curved considerably forward. I also think part of the difficulty arose from the manner in which the womb was tilted forward, flexing the neck up behind the pubes, and that this abnormal position greatly affected the force of the

rine and abdominal muscular efforts. I am also opinion that the plugs would not have been so efficious in this case, owing to the position of the os; r do I conceive any other plan offered so likely a ospect of a successful issue as the one which I emoyed.

BATH AND BRISTOL BRANCH.

DEATH FROM THE IMBIBITION OF CHLOROFORM.

By E. C. Board, Esq., Bristol.

[*Read April 12th*, 1866.]

IE case which I purpose bringing before you this ening is one of poisoning by imbibition of chloro-m; and I have thought it worth mentioning, beuse there are so few cases on record, and also cause the *post mortem* appearances were rather inesting.

The patient was named William Wilmot, aged , a porter living in Queen Street, Castle Place. e was a strong muscular-looking man, but had unk hard. The history of the case is as follows.

It seems that he had been working about a chest's shop for some time, and his master had strong ounds for suspicion that he used to drink the irits of wine kept there. On this occasion (May th, 1865) he took up a bottle which he supsed to contain spirits of wine, and drank about ur ounces of the contents, not finding out that it s chloroform till he had swallowed it.

About one hour after this (about half-past 3 P.M.), was brought to the Infirmary, having previously mited once or twice. He could then just manage sit up in a chair, but was very cold, and almost lseless; his pupils were very much dilated; and he uld hardly articulate. He seemed scarcely to unrstand anything said to him, and kept on mutterg. The stomach-pump was then used; and altother about two quarts of warm water were thrown o his stomach, and pumped out again. The water urned almost unchanged as to colour, and with food mixed with it, but was so impregnated with loroform as to fill the room and passage outside h a strong smell of that spirit. Brandy was then ministered to him; mustard poultices were applied the præcordial region and the calves of his legs; d he was galvanised for a considerable time, with apparent effect. I then gave him a drop of ton-oil, and continued to administer small doses brandy. In about an hour and a half after admisn, he rallied a little; the surface became warmer; e pupils contracted; and he was more sensible to e action of the galvanic battery. In half an hour, the worse symptoms returned; the pupils were ly dilated; the breathing stertorous; the surface ered with a cold sweat. He continued to rally a short time, and then sink again, for an hour d a half, when his lips became dark purple, and whole face livid. No action of the heart could be ected; and his respiration was gasping and very errupted. I then applied the galvanic battery nearly half an hour, when his breathing again ame regular, and his lips and face regained their ural colour for a short time; but he then sudly sank into the former state, and died at a rter to nine o'clock P.M., six hours after he had en the chloroform.

Post Mortem Examination, fifteen hours after th. Rigor mortis was well marked. The body s generally well nourished. The calvarium was nly attached to the dura mater along the mesial e. There was a considerable amount of fluid der the arachnoid, which was thickened and aque, and did not readily peel off the convolutions. All the ventricles were full (though not distended) of clear fluid. The brain itself was firm, and appeared otherwise healthy. The veins of the cord and the sinuses were very much gorged with blood. The lungs were very much engorged with blood; there were several small patches of pulmonary apoplexy. The heart was healthy; the blood in all the cavities was quite fluid. The stomach was about one-quarter full of dark fluid, which smelt very strongly of chloroform. Its internal surface was slightly inflamed in patches, and the mucous membrane was softened. The duodenum and commencement of the jejunum were healthy; but the lower part of the jejunum and the greater part of the ileum were of a dark chocolate colour, and became quite black after an hour or an hour and a half. The parts of the intestine round Peyer's patches were not affected in this manner. The large intestine was perfectly healthy throughout. There was no effusion or exudation into the peritoneal cavity. The liver was of usual size, but fatty. The gall-bladder was full of bile. The kidneys were granular; the capsule peeled off with difficulty. The pancreas, spleen, and bladder were healthy.

Reviews and Notices.

On Diseases of the Veins, Hæmorrhoidal Tumours, and other Affections of the Rectum. Entirely Re-written. By Henry Lee, F.R.C.S., Surgeon to St. George's Hospital, etc. Second Edition. Pp. 190. London: 1866.

The subjects of the essays of which this book consists have already been treated of by Mr. Henry Lee at various times during the last eighteen years. These essays have now undergone a thorough revision by him, and are arranged here in two classes—those relating to Diseases of the Veins, and those on Diseases of the Rectum.

In the part on Diseases of the Veins, Mr. Lee gives us his views regarding the pathology and treatment of the condition commonly described as phlebitis, and, in close connection therewith, pyæmia or septicæmia. On the elucidation of this subject he is well known to have bestowed much care; and indeed, as he intimates in his preface, to him is due the merit of having been among the first to point out the way in which the complex phenomena hitherto included under the name of phlebitis should be investigated.

The name Phlebitis, Mr. Lee says, has been made to include three distinct affections; viz.,

"A primary inflammation of one of the larger veins of the body; the secondary affections, which occur in veins situated at a distance from the original lesion; and the general infection of the system, which results from the admixture of diseased secretions with the blood."

What is the relation between inflammation of a vein and the formation of a coagulum in it? This question, Mr. Lee shews, is not always easily answered; for the coagulation may either be the cause or the effect of the inflammation—determined, in the first case, by a diseased condition of the blood independent of the vessels; and in the second by an impression conveyed through the coats of the vessels.

"Practically, these two classes of cases are not easily distinguished; for it is impossible in any in-

dividual case to say how far the blood in a vein may have become directly influenced by the contents of the *vasa vasorum* which are poured into it. The blood from the inflamed cellular coat may in this way be directly conveyed to the interior of the vein, and thus be a means by which the impression is produced which causes the coagulation of the blood in the interior of the affected vessel; or, on the other hand, should the coagulum be first formed, the obstruction of these minute vessels may be the means of producing the characteristic congestion of the venous coats. It is evident, then, that the vein and its contents may act and react upon each other." (P. 24.)

The coats of veins appear, says Mr. Lee, comparatively tolerant of mere mechanical injury; but the case is different when irritants have entered them. An irritating substance may act in different ways. It may induce coagulation at the part, and thus be arrested; or it may be partially arrested in this way, and partly carried on; or it may be only temporarily retained by a clot. In either case, the morbid matter produces disease of the part where it is contained—phlebitis; which, whether primary or secondary, is essentially the same; the latter being the more dangerous because the more important organs are attached, and because the general mass of the blood has become contaminated.

A coagulum in a vein, when formed of healthy blood, produces obstruction, but little local and no constitutional disturbance. The coagulum ultimately dissolves, and the circulation is restored. Or it may remain, and become attached to the vein, allowing, by its gradual recession and the removal of its fluid parts, a channel to be formed for the flow of blood. All this may occur without inflammation; but, when the coagulum is composed of vitiated blood, it becomes a source of irritation and inflammation. These effects are most likely to take place at the point of injury; especially if mechanical injury have involved the veins, thus obstructing the circulation. In this case, also, when large veins are interfered with, the distal veins are liable to be distended, and, as was observed by Hunter, to be inflamed. Or the vitiated blood may stagnate in the smaller vessels of a part remote from the original seat of injury—as in the skin and internal parts. These secondary obstructions, Mr. Lee says, cannot all be accounted for on a merely mechanical view.

"In the skin.....a circular patch will assume a livid hue, and every point will be equally affected. The blood in each capillary branch will become stagnant, while the surrounding skin will retain its natural appearance. It is quite unreasonable to suppose that all the vessels on the affected portions of skin should be obstructed by minute portions of the original clot, and that none of these should have passed into the unaffected portions of the skin. Such an action can only be accounted for by the coagulation of the blood in the part." (P. 30.)

In the smaller veins, a coagulum may undergo the same changes as in the larger veins, by being dissolved and removed, or shrinking into a fibrillated tissue. If irritating matters be present, inflammation is set up; the obstruction is increased by the deposition of lymph; and frequently mortification takes place, especially in the skin; in the lungs, liver, and spleen, a kind of softening or decomposition more generally occurs. If mortification do not occur, the indurated mass becomes softened from the centre to the circumference, and converted into a puriform fluid.

Another of the effects, described and commented on by Mr. Lee, of the admixture of diseased secretions with the blood, is to give the blood a tendency to separate into its elements. In this case, "fibrine in combination with albumen will be deposited in some part of the vascular system, where it may become united to adjacent parts, or the portions of fibrine so deposited may undergo further changes, which bear some resemblance to ordinary suppuration."

Speaking of the decomposition of blood in the living vessels, Mr. Lee says that death in pyæmia more often results from the poisoning of the blood by the introduction of putrid matters than from any other cause. When putrid fluids are injected, there may or may not be coagulation and embolism; but the symptoms produced "are altogether more severe, rapid, and diffused than those which follow the injection of fluid containing solid particles." Mr. Lee relates some experiments of Gaspard bearing on this point; and refers also to an important monograph recently published by Dr. Polli of Milan, who, from experiments, has arrived at the following conclusions:

"1. That the injection of a certain quantity of pus into the circulation produces pyæmia, and such diseases as are characterised by multiple abscesses.

"2. That the injection of putrid matter produces septicæmia, or those diseases recognised by the name of putrid infections, and characterised by a typhoid gastro-enteritis.

"3. That the injection of matter obtained from contagious diseases—glanders, for instance—will reproduce the same affections." (P. 40.)

When a septic agent is introduced into the blood, there is usually an interval before constitutional symptoms are manifested; and this is specially observed in diseases of bone. Here, when there is no adhesive inflammation circumscribing the suppuration, the unhealthy secretions are prevented from escaping by the unyielding structure.

"An unhealthy inflammation is propagated along the endosteal membrane; the cells of the bone may then become infiltrated with inflammatory products, the sinuses and small veins become closed with coagula, and, if these coagula break up, there is nothing to prevent the diseased secretions and pieces of decomposing fibrine from finding their way into the general circulation. The morbid matter is detained for a certain time, during which the process of decomposition is established. The first infected portions of blood, together with the morbid matters which they contain, then pass on to infect the blood in adjacent vessels. The dissolved and putrifying fibrine from these proceed further towards the centre of the circulation; in its course it will loosely coagulate fresh portions of blood, and then determine their decomposition. Every additional quantity of blood that is infected will add to the amount of putrid fluid in the vessels, and thus the disease will propagate itself, quite independent of the original source whence the morbid matter was derived. Each portion of blood which is attacked loses its vitality, passes into a state of decomposition, and becomes itself the means of infecting other portions. The contaminated blood may then be found in the vessels in every stage of decomposition, or it may have passed out of the vessels in which these changes have taken place, having first stained them of a deep

id colour. Long tracks of purple veins will occa-nally be found, some being blocked up with viscid od in various stages of putrescence, and some ving discharged their contents, and being com-ratively empty." (Pp. 42-43.)

At pages 49 to 56, Mr. Lee describes the *post ortem* appearances after the introduction of putrid ids. Among the results produced, some often re-nble similar changes arising from other causes, ile others are peculiar, especially the simultaneous ack of disease in several parts of the same organ in different organs. The changes which occur in e lungs, heart, liver, spleen, kidneys, skin, muscu-structure, and serous membranes, are described.

After a notice of symptoms, Mr. Lee speaks of atment. In the local treatment, the author says, "The distinction between the process by which rine or fibrinous coagula are deposited from the od and that by which lymph is secreted from a ing membrane is of primary importance, not only regard to the pathology of this class of diseases, t also with regard to their surgical treatment. surgical interference could arrest a morbid pro-s which extends by continuity of action in the ing membrane of a vein; but such interference is th indicated and warranted if the occasional and rerer symptoms of phlebitis proceed through its ntents, generally in a more or less coagulated te." (P. 61.)

Hunter proposed compression on the vein at the lamed part, so as to make the sides adhere; or to part just above the suppuration, if this have en place. But, says Mr. Lee, as lymph is not used from the lining membrane of veins in the ly stage of phlebitis, Mr. Hunter's method can ly produce a coagulum, which, for reasons already ven, cannot be depended on for preventing rbid matters from entering the current of the culation. Hence, when superficial veins are af-ted, Mr. Lee obstructs the vessel by a process of pressure. Two needles are introduced under the n; a piece of plaster is laid over the skin in the rse of the vessel, and retained by firm India-ber bands placed over the extremities of the dles; and the vein is divided by subcutaneous tion between the points of compression. The re-t is permanent union, effected between the opposed tions of cellular tissue on the outside of the vessel.

In speaking of the constitutional treatment, Mr. e refers to the experiments of Dr. Polli on the phites. These he regards as having been well igned and carefully performed, and often crucial their nature. But the results obtained by Dr. lli and others require to be verified by clinical perience; if, under this test, the alleged efficacy the sulphites hold its ground, the merit of the covery can scarcely be overrated. Mr. Lee be-es that, "although these remedies may prove ful in cases of putrid infection of the blood from injection or absorption of decomposing agents, y will not be of much use in the ordinary forms pyæmia."

In the remaining parts of his work, Mr. Lee treats Varicose Veins, Varicocele, and Diseases of the ctum—Congestion, Inflammation, Hæmorrhoidal mours, Fistula Ani, Stricture, Obstruction of the wels, Diseases of the Sphincter Ani, Malignant seases, Recto-vaginal Fistula, and Congenital alformations. Various of the modes of proceed-ing which he advises in regard to these affections have at different times been placed before the pro-fession; and the remarks which he has here collected are full of practical instruction.

Mr. Lee merits the thanks of the profession for having thus brought together into one volume his views on various important subjects to which he has devoted much attention, and in regard to many of which he has not only increased our knowledge as regards pathology, but has improved the surgical treatment. Throughout his writings, as here con-tained, one great merit is conspicuous; viz., that his operative proceedings are founded on a consideration of physiological and pathological processes, and are made dependent on these in such a manner as to render the Surgeon the assistant of Nature.

Progress of Medical Science.

MEDICINE.

Lime-Inhalations. Dr. Geiger, of Dayton, Ohio, recommends lime-inhalation in diphtheritic affections. He says that, having obtained the false membrane expectorated by a boy, he placed a portion of it in lime-water, and found that it dissolved very readily, and then felt satisfied that, if some method could be devised to bring the lime into contact with the membrane in the windpipe, it would dissolve it there. He obtained some unslacked lime, placed it in a vessel, and poured upon it first cold water; and upon inhaling it, could discover no effects. He then poured over another portion hot water, and in-haled the steam arising from it. After inhaling it a few moments, he could distinctly feel in the air-pas-sages the smarting action of the lime, and deter-mined to try the effects of the lime inhaled in this way in the next case of diphtheria, or pseudo-mem-branous croup, occurring in his practice. He has, he says, used it in this way, and so have others, with favourable results, already reported. Dr. Schuleck reports to him two cases of pseudo-membranous croup successfully treated by lime-inhalations.

Ear-Cough. Dr. C. Fox believes that a sympathy of action exists between the auditory canal and the larynx. He says: 1. The sympathy between the ear and the larynx, as well as the stomach, has been long known, although the majority of recent writers seem to have overlooked it. 2. This sympathy is not manifested in every individual, but in about seventeen per cent., and seems to depend on a state of hyperæsthesia of the nerve which supplies the auditory canal. 3. The nerve of the ear con-cerned in the production of this phenomenon cannot be a branch of the vagus, as Romberg and Toynbee have affirmed, but is in all probability a branch of the fifth cranial nerve. 4. This sympathy is an example of a reflected or sympathetic sensation, in which the connexion between the nerves con-cerned takes place in the nervous centre. 5. Cases occasionally occur where a cough is solely dependent on the existence of some source of irritation in the auditory canal. 6. The explanation of the sympathy between the ear and the larynx enables us to under-stand the mode in which pain of the ear becomes oc-casionally a symptom of a thoracic aneurism. Dr. Fox advises examination of the auditory canals in all cases of obstinate cough, where none of the more frequent causes of this symptom can be discovered.

The Medical Council.

REPORT OF PROCEEDINGS, May 1866.

The Medical Council commenced its session on Thursday, May 17th, at the Royal College of Physicians.

THURSDAY, MAY 17TH.

G. BURROWS, M.D., President, in the Chair.

A note was read from Dr. Christison, stating his great regret that imperative affairs in Edinburgh would render it impossible for him to be in his place at the meeting of the General Council, until Monday next.

New Member. An official notification was read from the Royal College of Surgeons of England, appointing Mr. Cæsar Henry Hawkins to be a member of the General Council of Medical Education and Registration of the United Kingdom, for the term of five years, from the 4th day of July, 1865.

Mr. Cæsar Hawkins was then introduced by Mr. Cooper.

The PRESIDENT, in opening the business of the season, said that he was much gratified at not having been compelled to summon the Council at a time so inconvenient to many of the members, as was the case last year. He would give a brief survey of some of the most important proceedings of the last session, and of events which had since occurred in reference thereto; and would also briefly advert to the questions the consideration of which might require to be resumed. Although it might be considered needless to give such a recapitulation to members of the Council, he still thought it might be useful to some to have their memory recalled to subjects of interest. The intervals between the sessions were so long, that it was almost impossible for the members of the Council to have before their minds a clear and vivid picture of the subjects left in the preceding session for further consideration.—The Council would recollect that in the last session a Committee was appointed to report on the subject of the General Education of students. This Committee presented a report at an advanced period of the session; and the subject was postponed on the ground that there was not sufficient time for its consideration. The question was one which would not admit of much further delay; and he (the President) was happy to say that the Registrar had lately compiled a document (a summary of the regulations of the various licensing boards and national education bodies, regarding the preliminary examinations) which, he believed, would prove very useful.—In 1864, the report of the Select Committee on Medical Education was circulated, by direction of the Council, among the various colleges and licensing bodies, with an invitation to them to send observations and suggestions on the professional education of students. Many full replies, containing valuable suggestions, had accordingly been sent in; but, he believed, the information thus obtained had not been fairly brought under the consideration of the Council, and had certainly not been utilised. It might with great profit be submitted to digest by a Committee; and the Council might be thereby assisted in determining how far separate examinations might be abolished when two or more qualifications are required, and what might be recognised as the starting point of medical education.—Another matter, which would give satisfaction, was the institution of Visitations of the Examining Boards. The Branch Councils would report the results of the inspection of examinations carried on by them. Any curriculum that could be laid down was of no avail unless completed by a full examination. It was, in his opinion, of less consequence to inquire how a student has commenced and obtained his education, than to ascertain that he really possesses the knowledge necessary to enable him to practise creditably.—In 1864, a Committee was appointed for the preparation of a new edition of the *British Pharmacopœia*. A report was presented and adopted last year; but a resolution was subsequently passed, which had led to some misconception. It had been supposed, that a proof copy of the *Pharmacopœia* was to be produced to the members of the Council one month before the present meeting; but this could not be done, and was not intended in the resolution.—The President next alluded to the duties of the Executive Committee. It had endeavoured to carry out the business entrusted to it, in which was included a most difficult duty. It had been instructed to communicate with the Government on the amendment of the Medical Acts; it being understood that no concession was to be made which was inconsistent with the resolutions passed last year by the Council. As President, he had been compelled to assume a certain amount of responsibility, because some of the communications addressed to him by Her Majesty's Government had been marked confidential, and others required speedy replies, so that there was no time for calling the Executive Committee together. In the latter part of the last session of Parliament, a communication was received from the Home Secretary, to the effect that he would not, at that time, be able to introduce a Bill for amending the Medical Acts. Late in the autumn of last year, the Government and country sustained a great loss in the death of Lord Palmerston; but when at a later period, the members had returned to London, the Executive Committee determined, in December, that he (the President) and the Registrar should seek an interview with the Home Secretary, and bring the subject under his consideration. They accordingly laid the matter before Sir George Grey, who promised that they should hear from him. No reply having been received at the end of a month, Dr. Burrows wrote to Sir George Grey, placing the subject concisely and clearly before him. In return, the Home Secretary favoured Dr. Burrows, in confidence, with a perusal of a memorandum on the Bill, drawn up by Mr. Thring, the Consulting Counsel of the Home Office. At the opening of Parliament in February, the ministers were deeply occupied with matters of great public interest, so that there was apparently little chance of obtaining a hearing for medical legislation. He (Dr. Burrows), however, after a little time, again applied for definite information as to the course which it was proposed to take; and, immediately before the Easter recess, he was placed in communication with Mr. Thring, and favoured with a perusal of the proposed Bill. He found that two new clauses had been introduced, one of which was of considerable importance, being to the effect that holders of foreign diplomas should, under certain restrictions, be admitted to registration. It had been necessary for him to make several suggestions for bringing the Bill more into harmony with the expressed opinions of the Council. The draft Bill was now completed; and contained all the clauses of the Bill of the Council, with the two new clauses. He had on that day received a copy of the Bill, with a letter from Sir George Grey, as to the course which should be followed.—The long intervals between the sessions of the Council interfered greatly with business, and rendered it often difficult to give satisfaction to public bodies

to private members of the profession communicating with the Council. Would it be possible to have more frequent meetings of the Council? or could the constitution of the Executive Committee be altered? The first of these courses would no doubt be attended with inconvenience to the members, and increased expense. But would it not be practicable to modify or enlarge the Executive Committee, as to include members from Scotland and Ireland, and to hold quarterly meetings? If this were done, taller powers—something more than that of transacting routine business—might be entrusted to the Committee; much of the ordinary business now falling to the share of the Council, might be got through; and, he believed, the public business of the Council could be transacted more satisfactorily. He congratulated the Council that but little change had taken place in its constitution; and that able and distinguished members, whose term of office had expired, had been reappointed.

Appointment of Committees. The following committees were appointed. *Business Committee:* Dr. Andrew Wood (chairman); Dr. Alderson; Dr. Embleton; Dr. Smith; Dr. Alexander Wood; Mr. Rumsey. *Finance Committee:* Dr. Sharpey (chairman); Mr. Cæsar Hawkins; Dr. Fleming; Dr. Smith; Dr. Quain.

The Medical Act. Dr. Alexander Wood moved, Dr. Fleming seconded, and it was resolved—

"That a Committee be appointed to consider the amendment of the Medical Acts: the Committee to consist of Dr. Andrew Wood (chairman); Dr. Alexander Wood; Mr. Cæsar Hawkins; Dr. Paget; Dr. Embleton; Mr. Syme; Dr. Apjohn; Dr. Sharpey; Dr. Quain: and Dr. Stokes."

Dr. Storrar moved, Sir Dominic J. Corrigan seconded, and it was, after discussion, resolved—

"That the communication accompanying the Draft Bill, from the Secretary of State, be read."

The following letters were accordingly read.

"Home Department, May 14th, 1866.

"Sir,—I am desired by Sir George Grey to say that Mr. Thring has shown him a revised draft of the Medical Acts Amendment Bill, which seems to him not to be open to the objections which existed to the Bill as it was at first framed. He would be glad the Council would suggest the list of the Universities and Colleges to be inserted in the schedule. He does not feel able to undertake the charge of the Bill at present, owing to the number of Bills which the Government has before the House of Commons, the progress of which is delayed from day to day from the want of the opportunity of advancing them.

"Some member of the House of Lords or Commons might be found by you, who would take charge of it. It would be better, if possible, that it should be brought in in the Lords, with a view to its progress.

"I am, sir, your obedient servant,
(Signed) "Charles Murdoch.

"G. Burrows, Esq., M.D., 18, Cavendish Square."

"Home Department, May 17th, 1866.

"Sir,—I am desired by Sir George Grey to forward to you the draft of the Medical Acts Amendment Bill for the consideration of the Council, and say that he hopes you will communicate to them his opinion on the subject, as expressed in Mr. Murdoch's letter of the 14th inst., which was unintentionally marked 'Private'.

"The draft of the Bill would have been forwarded to you yesterday, but a letter which was written on the subject got mislaid, and the mistake arising from its non-receipt was duly corrected this morning.

"I have the honour to be, sir,
"Your most obedient servant,
(Signed) "Charles Lindley Wood.

"G. Burrows, Esq., M.D."

Dr. Storrar moved, Sir Dominic Corrigan seconded, and it was resolved—

"That the Draft of the Medical Acts Amendment Bill be printed, and circulated among the members of the Council."

Memorial from the Physiological Subsection of the British Association. Dr. Acland presented the following memorial, which had been agreed on at the meeting of the British Association in Birmingham in 1865.

"Having regard to the observations of the President, Professor Acland, in his inaugural address, the Committee of the Subsection of Physiology desire respectfully to intimate their opinion of the great advantage which would accrue to physiological (and thereby to medical) science, if the General Council of Medical Education and Registration should think fit, by pecuniary grants and the appointment of suitable persons, to undertake investigations into the physiological action of medicines.

"A few agents, when administered in poisonous doses, have alone been made the subjects of such research; and, whilst the remedial effects of even such well known agents as quinine have been admitted for ages, their modes of action are still unknown. Even to this moment, our knowledge of the action of remedies rests only upon ordinary observation and general inferences.

"The Committee is well aware of the extreme difficulty of prosecuting exact physiological inquiries in states of disease, and, above all, of the necessity for devising new modes of investigation; but, bearing in mind recent researches of an analogous nature in health, they do not doubt there are physiologists and physicians of proved ability in such researches who would be able to devise the method, and bring the results to a satisfactory conclusion. The Committee also venture to suggest that no experiments should be regarded as satisfactory which (in addition to others) are not made on ordinary medicinal doses, in the diseases for the relief of which the remedies are administered (as well as in poisonous doses), and which are not performed with all the care and exactitude known in modern physiological research.

"That this resolution be signed by the President, Vice-President, and Secretaries, on the part of the Committee; and that the President be requested to present it to the Medical Council of General Education and Registration.

"J. Hughes Bennett, J. Vander Hoeven, Alex. Fleming, Wm. Turner, Henry W. Acland, John Davy, George Rolleston, Edward Smith."

Dr. Acland reminded the Council that, on the last day of the session in 1865, he had proposed the appointment of a Committee, one of the duties of which should be to consider and report on the objects on which the funds of the Council might be expended. The Committee, however, was not appointed; and it would be for the Council to consider whether it could make a grant of the kind recommended in the memorial. If the Council had not such power, he would suggest that provision should be made for giving it that power in the amended Medical Bill; on the other hand, if the Council had the power, it should be exercised. It might be said, that there were no funds for the purpose at the disposal of the Council. He thought that there were; and that a part might be profitably spent in the way suggested. Last year, the expenses of meeting were

about £1700; the *British Pharmacopœia* had cost in all about £5000; and the Council had invested sums amounting to £25,000; besides which, there was the annual income. The merits of the case were very simple, and it might be almost considered impertinent to dilate on them. The Council had been appointed for three purposes: the regulation of registration; the superintendence of professional education; and the preparation of a *Pharmacopœia*. It had been said, as he understood it, that the *Pharmacopœia* was merely a collection of rules and instructions for the making of medicines. He could not allow that its function was limited to this. In selecting medicines, it was necessary to make choice of certain articles in preference to others. It was highly right that a series of investigations into the action of medicines should be made; and none could more properly perform this duty than the Council. The duty was indeed discharged in a certain way by the Pharmacopœia Committee; but he believed there was no grant from the Council for defraying the expenses. He moved the following resolutions.

"That the memorial from the Physiological Section of the British Association be received and entered on the minutes. That, in conformity with the suggestions of the memorialists, the sum of £250 be placed in the hands of a Committee to be hereafter nominated. That it be an instruction to the Committee to expend the whole or part of that sum in obtaining investigations or reports calculated to promote a precise knowledge of the efficiency of remedial agents, either of those heretofore esteemed to be of service, or of substances which the progress of science may point out as likely to be of value in the prevention or the treatment of disease."

If the grant were made, he could foresee a series of most important reports, which would be among the most valuable contributions ever made to physiological and therapeutical science.

Dr. Stokes seconded the motion. The Council was quite rich enough to follow the example of the British Association, and thereby to remove many of the complaints made against it. Medicine required to be placed on a much more scientific basis than it possessed. The investigation might be carried out by persons appointed by the Council.

Dr. Andrew Wood said that the Council had been appointed for the performance of certain important medico-political duties; but, if a new element were introduced, that of making experiments in all departments of medicine, the Council would be departing from its duties, and not spending its money as it was authorised to do by the Medical Act. The thirteenth clause stated that

"All monies payable to the respective Councils shall be paid to the Treasurers of such Councils respectively, and shall be applied to defray the expenses of carrying this Act into execution in manner following; that is to say, separate accounts shall be kept of the expenses of the General Council, and of those of the Branch Councils; and the expenses of the General Council, including those of keeping, printing, and publishing the Register of the United Kingdom, shall be defrayed, under the direction of the General Council, by means of an equal percentage rate upon all monies received by the several Branch Councils; returns shall be made by the Treasurers of the respective Branch Councils, at such times as the General Council shall direct, of all monies received by them; and the necessary percentage having been computed by the General Council, the respective contributions shall be paid by the Treasurers of such Branch Councils to the Treasurer or Treasurers of the General Council; and the expenses of the Branch Councils shall be defrayed, under the direction of those Councils respectively, out of the residue of the monies so received as aforesaid."

Could anything more plainly mean that the money received could only be applied for carrying into execution the objects mentioned in the Act? He believed that the profession would object to the application of the money to the purpose proposed by Dr. Acland. As soon as the Act could be carried out at a lower expense, the Council was bound to give the profession the benefit by reducing the charge for registration, which was now at its utmost limit. He was quite aware that the expenses of the Council had been great; but he could not allow that they had been unnecessarily great, because much work had been required to be done for which there would not be necessity again. He would remind the Council that it had been hindered in carrying out the visitation of examinations for want of power to apply its funds to this purpose. In conclusion, he said that the Council had no power to apply its money for the purpose mentioned; that it ought not to apply for such power; and that it was the duty of the Council, as far as possible, to reduce the expenses of the Act, with a view to the reduction of the taxation of the profession.

Sir J. D. Corrigan coincided with Dr. Andrew Wood, that the Medical Act did not give the Council the power of applying its funds to the purpose mentioned in the memorial. He proposed as an amendment—

"That the proposed investigation of the subjects referred to does not come within the province of the General Medical Council; nor, were it in its power, has it any legal authority to expend funds in such inquiry."

Dr. Storrar seconded the amendment.

Mr. Rumsey could not agree that the preparation of the *Pharmacopœia* was to be considered as a thing to be undertaken merely *pro hâc vice*, and then to be dropped. The necessary knowledge could not be kept up unless by being constantly engaged in some inquiry. New remedies were constantly being introduced, and the action of old ones was questioned. He thought Dr. Acland's proposal for only £250 was a very moderate one, and had no doubt that the profession would approve of such an appropriation of the money. With regard to the power of the Council, if it could prepare and publish the *Pharmacopœia*, it had also the power of rendering the work perfect.

Dr. Alexander Wood protested against the doctrine that the Council had no power of expending money in the way proposed by Dr. Acland. From the beginning it had, though perhaps not ostensibly, been spending money for the purposes referred to. It might be very proper to submit to the consideration of a Committee how far such expenditure of money fell within the range of action of the Council or of the *Pharmacopœia* Committee.

Mr. Hargrave spoke in vindication of the Council from the charge of doing nothing. No body of men ever devoted themselves more earnestly to their work.

Dr. Sharpey said that the subject was one of the highest importance, and that a memorial such as had been presented required respect and consideration. But he could not agree that the institution of an inquiry into the action of medicines fell within the province of the Council. The object of the *Pharmacopœia* was not to point out the qualities of medicines. The Council, in preparing it, must introduce or reject medicines on the authority of eminent men, as had been done by the College of Physicians with regard to the *London Pharmacopœia*. He knew well

how much labour and time were involved in experiments of the kind proposed.

Dr. Apjohn said that Dr. Acland's proposal was breaking new ground. Nothing was said in the Medical Act about the action of medicines.

Dr. Aquilla Smith said that, if the Council agreed to investigate the action of medicines, it might equally well be called on to investigate the cattle-plague or similar subjects of all kinds.

Dr. Quain said the question before the Council could be resolved into two: as to the propriety of applying the funds to the purpose proposed; and how far it was the duty of the Council to carry on such an investigation. He thought that the funds could not be so applied; and even if they could, the Council could not efficiently carry out the inquiry. The Council must take competent authority, and general use, as its guide in regard to medicines, and must simply point out the ordinary means of preparing them.

Dr. Acland, in reply, said that he believed that, though the Council might decide against his proposal this time, the members would ultimately agree with him. He agreed with Dr. Andrew Wood that the Council should aim at reducing the amount of fees paid by the profession; but he thought that £250 or £500 was a very small sum, and that the appropriation of this sum to physiological and therapeutical inquiries would be one of the most popular acts of the Council. He had heard many remonstrances from general practitioners, that the Council did nothing to clear up the knowledge of the action of medicines. As to the legality of the proceeding, he held that it was quite within the province of the Council. It was required to alter and amend the *Pharmacopœia*; and on what ground could it admit or exclude medicines? It was not necessary that there should be such elaborate investigation as Dr. Sharpey appeared to think. The reports of the British Association and of the Royal Society were obtained from individuals or from committees.

The amendment being put to the vote, there appeared, for, 16; against, 5. It was consequently carried; and was also agreed to as a substantive motion.

Time of Meeting on Saturdays. Dr. Alexander Wood proposed, and Dr. Parkes seconded—

"That when the sittings of the Council shall extend over a Saturday, the Council shall on that day assemble at 10 A.M. and adjourn at 1 P.M."

Mr. Hawkins moved as an amendment, and Dr. Quain seconded—

"That the hour of meeting of the Council shall be 1 P.M., and of adjournment 4 P.M., when the meetings shall take place on Saturdays."

After some remarks from Mr. Syme, Dr. Smith, and Sir D. J. Corrigan,

The President thought that no alteration should be made which would interfere with the duties of the Council, which were public and not private. He felt it his duty to oppose Dr. Alexander Wood's motion. There were standing orders as to the hours of business; and it was important to adhere to these because it ensured regularity of attendance. He would observe that it was a mistake on the part of the public if it was supposed that the whole work of the Council was confined to the four hours from 2 to 6 P.M. Some of the hardest work was done in the Committees, which met in the morning; and frequently the Council could not go on with its work until the Committees had prepared their reports. There was no hardship to any member of the Council, as leave of absence could be given on account of important public or private business. Again, it would scarcely, especially if very important documents required to be printed, be possible for the records of Friday's proceedings to be laid before a meeting of the Council at 10 o'clock on Saturday morning. He believed that the proposal, if carried out, would add a day to the session rather than shorten it. Speaking as a private individual, he fully granted that the members who came from a distance sacrificed a great deal of valuable time; but this argument ought not to be pushed too far. The Executive Committee had always endeavoured to meet the general wish of members as to the time of meeting; and now the Council had met at a time most inconvenient to the London members. They could not attend at 10 A.M. If there were any part of the day at which they must remain at their homes, it was from 10 to 1. It was not a mere money question; but frequently patients came from the country with their medical advisers, knowing that it was the custom of London physicians and surgeons to be at home during the hours mentioned.

Dr. Alexander Wood said that the health of the members of the Council who came from a distance, especially those who served on committees, was impaired by their unaccustomed sedentary occupation. He did not think the compromise proposed by Mr. Hawkins sufficient; and was of opinion that a day's freedom from committee business would be of advantage.

The amendment being put to the vote, there appeared, for, 11; against, 6. It was therefore carried; and also passed as a substantive motion.

Dr. Storrar moved, Dr. Embleton seconded, and it was resolved—

"That the motion which has been just carried be inserted in the Standing Orders."

Visitation of Examinations. Dr. Alexander Wood moved, Mr. Hargrave seconded, and it was resolved—

"That the Reports from the Branch Councils, and from the members of those Branch Councils deputed by them for the visitation of examinations, be printed and circulated; and that the Business Committee be instructed to set apart an early day for their consideration."

Returns from Licensing Bodies. Dr. A. Smith moved, Dr. Paget seconded, and it was resolved—

"That the Reports be entered on the minutes, which have been received from the licensing bodies, in accordance with the resolution of the General Council passed on the 12th of April, 1865; viz., 'That those licensing bodies which have not already done so, be requested to furnish a statement of the dates of their examinations, and of the modes in which such examinations are conducted, whether by written, oral, or practical examination, and of the length of time a candidate is under examination in each or all of these ways; and that the Registrar transmit these Reports to the members of the Council, in order that they may be taken into consideration at the next meeting of the several Branch Councils.'"

Friday, May 18th, 1866.

G. Burrows, M.D., President, in the Chair.

The minutes of the preceding meeting were read and confirmed.

Preliminary Education of Medical Students. The Registrar read the Report of the Committee on the subjects of General Education, the consideration of which was deferred from last session; viz.:

"The Committee on the subjects of General Education, having duly considered the subject remitted to them, resolve to recommend to the Council—

"That, after the year 1867, the examinations in subjects of general education be left entirely to the national educational bodies recognised by the Medical Council—the Council confining its regulations on general education to publishing a list of the examinations which may from time to time be approved of by them, it being understood that no certificate which does not affirm the proficiency of the candidate in Latin, and also his knowledge of the elements of geometry, and of the elements of mechanics and hydrostatics, be accepted.

"W. STOKES, *Chairman.*"

Dr. ANDREW WOOD had been greatly disappointed by the report presented last year; the more so, because the regulation of preliminary education might be regarded as of even greater importance than the regulation of professional education. The Council was entitled to have a full report on the question before discussing it. But, as yet, the plan followed had been to recognise a number of examining bodies, differing both in the quantity and quality of their requirements, before inquiring whether these requirements were sufficient. It would, he thought, have been more rational to lay down a minimum curriculum, and recognise all the examining bodies that came up to or exceeded it. In several instances, the examinations of the national bodies was inferior to that of medical licensing boards. He objected to the medical licensing bodies relinquishing the power which they possessed of examining in the subjects of general education, until the Council was assured that the examinations of the national educational bodies in all cases came up to what was required. He moved—

"That the Report of the Committee on General Education be recommitted; and that the Committee be instructed to take into consideration and report upon the examinations in general education at present conducted by the various national educational and other bodies recognised by the General Medical Council."

Dr. PARKES seconded the motion.

Dr. STORRAR supported the motion. The time had come when the Council should define the curriculum of general education more thoroughly than it had hitherto done. In 1859, he (Dr. Storrar) and Dr. Alexander Wood had endeavoured to impress on the Council the advisability of laying down a curriculum, but had not succeeded. A compromise was at that time agreed on; but now, in 1866, the Council might fairly advance a step.

Dr. PAGET said his only objection to Dr. Andrew Wood's proposal was, that it might delay the settlement of the matter; but, if an early day could be fixed for the discussion of the report, he would be satisfied.

Dr. ACLAND said that it had been the nearly unanimous feeling of the Committee on General Education to leave the examinations in the hands of bodies which make education their profession. In 1864, he considered that the time was come for moving that a Committee be appointed to report in the ensuing year what subjects should be required from students. There was a considerable difference of honest opinion on this point. He agreed that the matter should, if possible, be settled at once, and would support Dr. Andrew Wood's motion; but he doubted whether a satisfactory report could be drawn up in two or three days.

Mr. RUMSEY would be sorry to appear in the character of an obstructor; but he did not see how such an important subject could be settled by the deliberations of a Committee appointed during the session. He would ask that time be given for a full consideration of the subject before the presentation of a report.

Dr. ALEXANDER WOOD gave his unqualified support to the proposal of Dr. Andrew Wood. The ordinary course would have been to take up the last year's report for consideration; but, as had been shown, certain important documents (viz., a description of the Preliminary Examinations in Arts recognised by the Council) had come into the possession of the members since the report was drawn up. The Council was now told that, at this its twelfth meeting, it was not able to settle the subject of general education. If a Committee were appointed to report next year, the result would be, that it would do nothing till just before the meeting of Council, and then draw up a hasty report. There was no reason for doubting the power of a Committee to draw up a report which should be laid before the Council during its present session.

Mr. CÆSAR HAWKINS drew the attention of the Council to the difficulty of determining which of the national educational bodies should be recognised. The Royal College of Surgeons of England established preliminary examinations in 1858; and its list of recognised bodies at present contained twelve not on the list sanctioned by the Council. This was not done out of opposition, for the College was glad to cooperate with the Council. The Committee should extend its inquiries into the nature of the education required by the bodies to which he had referred, besides those on its own list. It was very important that there should be an agreement between the Council and the licensing bodies.

Dr. PARKES said it would be advisable that the Committee should have before it the examinations of bodies not contained in the Council list.

Mr. SYME said that he could not see any necessity for delaying the subject, or for gaining any further information than the Council already possessed.

Sir D. J. CORRIGAN said the Council had, on the subject of general education, returned to the point from which it originally started, and he did not see a probability of arriving at any conclusion. The report presented by Dr. Stokes contained an element of discord; for the medical licensing boards could not be expected to give up their right of conducting the preliminary examination. He agreed with Dr. Wood that the time was come for laying down a minimum of preliminary education. If the report were recommitted, the Council should give its instructions to the Committee as to what was the minimum required. He moved as an amendment—

"That, after the year 1867, no certificate of examination in subjects of general education be recognised which does not include Latin and Greek, also a knowledge of the elements of geometry, and of the elements of mechanics and hydrostatics; and that a list of the examining national educational bodies authorised to conduct such examinations, and recognised by the General Medical Council, be published from year to year."

He had inserted Greek, because he considered that, without some knowledge of this language, a student was incompetent to understand even the simplest things. It had long ago been required by the Apothecaries' Hall of Ireland; and he thought the Council should insist on it from all students. He mentioned an instance which had come under his notice, in which a candidate, being asked the meaning of the word "physiology", replied, "I think it is a fungus."

Dr. LEET seconded the amendment.

Mr. HARGRAVE supported the proposal for introducing Greek.

Dr. PAGET hoped that the time would come when it would be possible for the Council to insist on a

knowledge of Greek; but he did not believe it possible at the present time. The report presented last year from the Medical Department of the Navy stated that several of the rejected candidates had been utterly ignorant of Latin. He thought, therefore, that the Council should for the present be content with insisting on a knowledge of Latin and English.

Mr. Cooper, Dr. A. Smith, and Dr. Apjohn made a few remarks.

Dr. Storrar would not be supposed to oppose the introduction of Greek into the curriculum; but, having been for some time a member of the Public Schools Commission, he had been surprised at the amount of defective education existing in the country. What was required was a really sound education. He would advise Sir D. Corrigan to leave the matter to the Committee, whose report might contain the recommendation embodied in the amendment.

The amendment was withdrawn; and the original motion was put to the vote, and agreed to. The following Committee was then appointed: Dr. Stokes (chairman); Mr. Cæsar Hawkins; Dr. Acland; Dr. Paget; Dr. Storrar; Dr. Fleming; Dr. Thomson; Dr. Apjohn; Sir D. J. Corrigan; Dr. Quain; Dr. Parkes.

Army Medical Service. The following correspondence was read.

General Council of Medical Education and Registration of the United Kingdom,
32, Soho Square, London, W., 20th April, 1865.

Sir,—I am directed by the General Council of Medical Education and Registration of the United Kingdom, to convey to you the best thanks of the Council for the valuable returns with which you have favoured them, of the results of the examinations held in 1864, of candidates for medical commissions in the army, accompanied by a copy of the regulations for the admission of candidates and a list of the questions proposed by the examiners.

I am also directed to request that you will be pleased to direct that similar returns for Her Majesty's Indian Service shall be added to those, like the last, with which they hope to be favoured in future years. And, further, I am to request that you will be so obliging as to direct that to the future returns columns shall be attached similar to those in the returns relative to the examinations of candidates for medical commissions in the royal navy (some copies of which I have the honour to enclose herewith) so as to specify, in similar detail, the number of candidates and the heads under which the candidates failed to answer.

I have the honour to be, sir,
Your most obedient humble servant,
(Signed) Fras. Hawkins, *Registrar.*
Sir J. B. Gibson, C.B., M.D., Director-General.

Army Medical Department, May 5th, 1865.

Sir,—In acknowledging the receipt of your letter dated the 20th ult., I have the honour to state that the returns to be hereafter furnished from this Department for the information of the General Council of Medical Education and Registration, as to the result of the examinations held for medical commissions in the army, shall embrace the particulars required in the form which you enclosed; and the examiners will be requested to prepare the return in the manner you have specified.

I have the honour to be, sir,
Your most obedient humble servant,
(Signed) J. B. Gibson, *Director-General:*
Dr. Fras. Hawkins, Registrar, 32, Soho Square, W.

Army Medical Department, Nov. 21st, 1865.

Sir,—In reply to your letter of the 20th April last, requesting to be furnished with a return, on the form which you enclosed, showing the different licences of the candidates for commissions in the Army Medical Department, and the subjects in which the unsuccessful ones were deficient, I am directed by the Secretary of State for War to inform you, for the information of the Council, that, as a return made out on the form required would have the effect of allowing the unsuccessful candidates to be identified, and thereby bringing upon them individually a stigma which they never supposed, on presenting themselves for examination, they would be called upon to incur, the request contained in the last paragraph of your letter cannot be complied with.

I am to add that the usual returns hitherto furnished will be continued.

I have the honour to be, sir,
Your obedient servant,
(Signed) J. B. Gibson, *Director-General.*
Francis Hawkins, Esq., M.D., Registrar, General Medical Council, 32, Soho Square, W.

Dr. Parkes moved, Dr. Andrew Wood seconded, and it was agreed to—

"That the communications from the Director-General of the Army Medical Department be entered on the minutes; and that the Registrar be directed to apply to the Director-General for the returns promised in these letters."

Medical Service of the Navy. The Registrar read the following communication from the Director-General of the Medical Department of the Navy, with returns of the examinations of candidates.

Admiralty, W.C., 21st February, 1866.

Sir,—With reference to your letter of the 27th of May, 1864, I have the honour to forward, for the information of the General Council of Medical Education and Registration of the United Kingdom, a Report from the Board of Examiners on the examinations of candidates for medical commissions in the Royal Navy during the year 1865.

I have the honour to be, sir,
Your very humble servant,
A. Bryson, *Director-General.*
Dr. F. Hawkins, Registrar of the General Council of Medical Education and Registration of the United Kingdom, 32, Soho Square, W.

Admiralty, Somerset House, 14th Feb., 1866.

Sir,—We have the honour to acquaint you, for the information of the General Council of Medical Education and Registration of the United Kingdom, that during the year 1865 twenty-one candidates presented themselves for examination for commissions as assistant-surgeons in the Royal Navy.

2. Of these four had been previously examined and rejected, and one underwent two examinations during the twelve months, having been unsuccessful on the first occasion.

3. Of the total number of candidates who presented themselves, twelve were successful and were admitted into Her Majesty's service, and nine having failed to satisfy us as to their professional knowledge were rejected.

4. Of the twelve successful candidates, five passed good examinations, two moderately good examinations, and five indifferent examinations.

5. Of the five candidates who were twice examined, two passed good examinations on the second occasion, and three were again rejected.

6. The majority of those rejected were utterly ignorant of the Latin language, two failed altogether in Anatomy and Surgery, and two were so ignorant of Materia Medica, that it would have been dangerous to have passed them as qualified.

7. The accompanying table supplies the information requested by the Medical Council, with refer-

ence to the qualifications of the candidates, and the points on which they were chiefly deficient.

8. Appended to our letter to you of the 6th of March, 1865, reporting on the examination during the previous year, was a list of the subjects on which the candidates had at different times been examined, and which, we stated, when put in the interrogative form, gave a fair idea of the general character of the questions put to the candidates. As the nature and scope of the examinations in no respect differed during the year 1865, we do not consider it necessary to forward another list herewith.

9. In renewing our expressions of regret, that so much ignorance of the Latin language should be displayed by a large proportion of the candidates who submit themselves for examination, we are sorry to have to add that many of the manuscripts sent in by the candidates have given evidence of such an ignorance of orthography and of the most ordinary rules of English grammar and composition as could hardly have been credited in members of a liberal profession.

We have the honour to be, sir,
Your obedient servants,

E. Hilditch, *Inspector General.*
John Salmon, *Deputy Inspector-General.*
Wm. R. Smart, *Deputy Inspector-General.*
Alex. E. Mackay, M.D., *Deputy Inspector-General.*
Dr. Bryson, C.B., F.R.S., etc., Director-General, etc.

Dr. Paget moved, Dr. Stokes seconded, and it was resolved—

"That the thanks of the Council be returned to the Director-General of the Medical Department of the Navy, for his valuable communication relative to the examinations of candidates for medical commissions in the navy."

Medical Titles in the Army List. The following communication from the Under-Secretary of State for War was read.

26th May, 1865.

Sir,—I am directed by the Secretary of State for War to acknowledge the receipt of your letter of the 24th ult., forwarding a resolution of the Medical Council, modifying their previous one of the 6th May, 1864, in which it was stated "that it is the opinion of the General Council that the several medical qualifications which army surgeons possess might be entered after their names in the Army List," and substituting a new resolution, in which it is stated that the General Medical Council "are of opinion that initials, indicating the several medical qualifications which army surgeons possess, should be inserted after their names, without distinction or preference to one degree or licence over another, each surgeon, when he possesses more than one medical qualification, having, however, only one medical qualification appended to his name."

In reply, I am to request that you will solicit the Medical Council to favour Lord de Grey with their opinion as to the particular initials which should be used to designate the several medical qualifications described in the table appended to the Medical Act, and for which abbreviations are therein laid down. For example, Licentiates of the King and Queen's College of Physicians of Ireland, in the table of abbreviations appended to the above-named Act, are thus described: "Lic. K. Q. Col. Phys. Irel." What initials should be used in this and similar cases?

In the case, also, of a surgeon who possesses more than one medical qualification, the Council is requested to specify which should be selected for insertion in the Army List.

Suppose, for illustration, a Licentiate of the King and Queen's College of Physicians, Dublin, is also a Doctor of Medicine of the University of Edinburgh, or a Member of the London College of Physicians, or a Licentiate of the Society of Apothecaries; which of these medical qualifications is to have the precedence, and by whom is this to be decided?

I have the honour to be, sir,
Your obedient servant,
Edward Lugard.

The Registrar, General Council of Medical Education.

Sir D. J. Corrigan moved, Dr. Sharpey seconded, and it was agreed—

"That a communication from the Under-Secretary of State for War, be entered on the minutes; and that it be referred for consideration to a Committee, consisting of the following: Sir D. J. Corrigan (chairman); Dr. Alexander Wood; Dr. Embleton."

Letter from Dr. Mackesy. The Registrar read a letter from Dr. Mackesy, President of the Irish Medical Association, and a resolution adopted at a medical meeting held at the Limerick Junction.

Dr. Paget moved, and Dr. Apjohn seconded—

"That the letter from Dr. Mackesy, and the resolution of the meeting of medical practitioners at Limerick Junction, be entered on the minutes, and referred to the Committee of General Education."

The following amendment was moved by Dr. Parkes, and seconded by Mr. Syme—

"That the Council pass on to the order of the day."

The amendment was lost; the votes being, for, 7, against, 15.

A second amendment was then moved by Dr. Acland, and seconded by Dr. Andrew Wood—

"That the letter from Dr. Mackesy, and the resolution of the meeting of medical practitioners at Limerick Junction, be referred to the Committee on General Education."

The amendment was carried by a majority of 13 to 8; and, having been put as a substantive motion, was agreed to.

Saturday May 19th.

G. Burrows, M.D., President, in the Chair.

The minutes of the preceding meeting were read and confirmed.

Restoration of a Name to the Register. The Registrar informed the Council that Mr. William Adams, whose name had been omitted from the *Medical Register* in consequence of an erroneous report of his death, requested the General Council to direct that his name be restored to the Register.

Mr. Hargrave moved, Mr. Cooper seconded, and it was resolved—

"That the Council direct that the name of Mr. William Adams be restored to the *Medical Register.*"

The Case of Richard Organ. The Registrar read the following petition from Mr. Richard Organ, which had been received at the close of the last Session, too late to be submitted to the Medical Council.

To the General Medical Council of Education and Registration.

Cawood, near Selby, Yorkshire, April 15, 1865.

Gentlemen,—I beg most respectfully to lay before you a true statement of my unfortunate position, trusting, when you have perused the same, and seen the testimonials I have to produce, you will kindly reconsider your decision of last year, and allow me the opportunity of retrieving the past *(for which I am truly sorry, and striven hard to amend)* by allowing me to present myself at one of the Examining Boards, to endeavour to legally qualify, which is my most earnest wish. I am, gentlemen, most heartily

sorry for the manner in which I acted when called before you; I was wrongly advised from the first, and have had to suffer most bitterly in consequence of my imprudence, and I pledge my word, that no member of the profession shall have cause of complaint against me for the future.

I was born at Dursley in Gloucestershire, in July 1824. My father, who was a bacon-factor, wished me to follow his business, but my ambition was the Medical profession; this was strongly opposed by him, and when I became a pupil, I had to pay the premium out of my pocket-money saved from year to year. I duly served five years (as seen by certificate marked A), and from that time fought my way in the world without pecuniary assistance from home till the present.

On the first of August, 1851, I became an assistant to Mr. Wightman, M.R.C.S., L.S.A., of this place, and acted as such for five years. Mr. W. then decided removing, and when about to leave, a public meeting was called, and one thousand pounds was raised for me to purchase the practice (this was done, as enclosed transfer marked B will show), the parties being satisfied to take merely a note of hand for that large sum. I have, gentlemen, since my name was removed from the *Register*, attended all lectures and hospital practice required by the different examining boards, *travelling weekly by night* to and from London to accomplish the same. I have also striven to act as I ought to all the members of the medical profession, and Mr. Hare, M.R.C.S., L.S.A., of this place, has kindly allowed me to use his name as a reference to the truth of this my statement.

Anxiously awaiting your reply,
I am, gentlemen, your obedient servant,
RICHARD ORGAN.

Dr. ALEXANDER WOOD said that the licensing bodies had agreed not to admit any one who had been erased from the *Register* without the sanction of the Council, and that there was a standing order to that effect.

Dr. SMITH said that Mr. Organ's name had been erased from the *Register* on account of infamous conduct. His present letter, and that which he addressed to the Council in 1864, shewed the want of power of the Council to restrain unqualified practitioners. There was also evidence that he was in the habit of meeting qualified practitioners. He hoped that the matter would be taken into consideration in the discussion on the amendment of the medical act.

Dr. ALEXANDER WOOD would move the dismissal of the petition, not on personal grounds, but as representing the body on which the fraud was committed for which Mr. Organ's name was struck off. If the offence had been a merely technical one, such even as a misstatement of age, it might be overlooked. But the circumstances of the case were these. A person calling himself Richard Organ applied to the College of Physicians to be admitted to examination. Before the examination, he was taken ill; he presented himself to the examiners when convalescent, and was rejected. It was ascertained, afterwards, that this person had personated the real Richard Organ. The Procurator Fiscal had been consulted, and had informed the College that the offenders would not be prosecuted, as the candidate had been rejected; but if he had passed, there would have been grounds for proceeding against both. Other facts had also come to the knowledge of the Scottish Branch Council regarding the conduct of Richard Organ. The case was one which must not be judged of by any number of testimonials that might be presented, but on its own merits. He considered that Mr. Organ had shewn himself unfit to belong to the medical profession; and that his friends had acted injudiciously in advising him to persevere in urging his claims on the Council. They would have done better if they had advised him to adopt another calling than the medical. He moved—

"That, on a review of the case of Mr. Richard Organ, the Council decline to accede to his petition."

Dr. A. SMITH seconded the motion, which was carried.

Application of a Student to be Registered. A letter was read from Dr. Steele, Registrar of the Branch Council for Ireland, with an application from a student to be registered.

Dr. AQUILLA SMITH read the minute of the Irish Branch Council, referring the matter to the General Medical Council. The student passed his preliminary examination on the day before he made his application to be registered; and, if the Branch Council had registered him, he might have taken credit for three months of medical education which he had not received. On the other hand, to date the commencement of medical education from the middle of the session might have formed an inconvenient precedent. Great care was required, as it was not uncommon in Dublin to give certificates to men who had never attended lectures.

Sir D. J. CORRIGAN, while the case was under discussion, would refer to a document of the Scottish Branch Council. Of what use was it for the Council to make regulations if they were carried out in England and Ireland and not in Scotland? It would be better to abolish the regulations altogether. The Council, he thought, was indebted to the Irish Branch Council for raising the question. It was astonishing, that the case of every student in Glasgow and Aberdeen registered in 1865, was stated to be exceptional to the Council's regulation.

Dr. ANDREW WOOD thanked Sir D. Corrigan for raising the question, because he had felt that the act of the Glasgow University was one of recalcitration: but it did not follow, because the authority of the Council had been set aside, that it had done, could do, and would do nothing. The University of Edinburgh had successfully applied to the Privy Council for an amendment of the ordinance which interfered with the action of the Medical Council; and henceforth in that University no one would be allowed to commence his medical education before passing his preliminary examination. He was convinced that this change had been brought about through the influence of the debates in the Council. He rejoiced that the matter had been brought forward, and hoped that the stigma of opposing the resolutions of the Council would be removed from Scotland.

Mr. SYME had always been of opinion that the preliminary education of medical students should be truly preliminary—that it should not be carried on at the same time with professional education. At first, the ordinances of the University of Edinburgh had prevented the recommendation of the Council from being carried out; but year after year he and Dr. Christison had done their utmost to prevent students from being registered before passing the preliminary examination, until at last there were very few exceptional cases. The University had now obtained a new ordinance which would enable it to carry out the recommendations of the Council, and to act in accordance with its own convictions.

Mr. CÆSAR HAWKINS had been astonished at the statement made regarding exceptions in the report of the Scottish Branch Council; but he was glad to hear the statement made by Mr. Syme in reference to the Edinburgh University. At the College of Surgeons, no one had been admitted since 1861 without having first passed a preliminary examination. Students sometimes applied who had passed part

only of such examination; and the College had been obliged to refuse their application.

Dr. Alexander Wood said that the facts of the case were peculiar. At the same time as the Medical Act, the Scottish University Act was passed; and the affairs of these Universities were placed under the direction of a commission. The words "as far as possible" had been inserted in the recommendations of the Council, in order to give some latitude at first; but he believed that the professors in the University of Edinburgh did all they could to insist on preliminary examination of their students. There were several steps to be gone through in altering the ordinances, one of which was that the alteration proposed in one University should be submitted to the others. This had been done by the University of Edinburgh with regard to the alteration already referred to; but the other Universities had not agreed to adopt the proposal, so that the Edinburgh University stood alone.

Dr. Storrar called attention to the fact that notice had been given for the appointment of a committee on the subject of Registration of Students, and suggested that, if the motion were passed, the communications before the Council might be referred to such Committee.

Dr. A. Smith accordingly moved—

"That a Committee be appointed to consider and to report upon the working of the system of registration of medical students, adopted by the General Council last year."

The motion was seconded by Dr. Storrar, and carried unanimously.

Sir D. J. Corrigan said he had no hope of any improvement, especially after the information given regarding the Glasgow University. The same difficulty in enforcing the recommendation of the Council existed in other places. In Trinity College a student was absolutely entitled to attend the medical lectures on payment of his matriculation fee; and in the Queen's University, the Colleges each year received students who had not passed a matriculation examination.

A committee was then appointed, to consist of Dr. Embleton (chairman); Mr. Hawkins; Dr. Storrar; Dr. Fleming; Dr. Thomson; Dr. A. Smith; Dr. Andrew Wood; Dr. Sharpey; and Mr. Hargrave.

Dr. Storrar moved, Dr. A. Smith seconded, and it was resolved—

"That the cases of students admitted to registration, who have not passed the examination in arts, or only a portion of such examination, be referred to the committee on the registration of medical students, to consider and report upon."

Dr. Storrar moved, Sir D. J. Corrigan seconded, and it was agreed—

"That a letter from Dr. Steele, Registrar of the Branch Council for Ireland, with an application from a student to be registered, be referred to the committee on the registration of medical students."

Conduct of Business. Dr. Fleming proposed the following resolutions—

"That a business committee be elected every session, to act from the close of that session till the close of the next. The election to take place by ballot, by means of marked lists. That the committee consist of five members, exclusive of the president. That the constitution of the committee and the mode of election be as follows:—Two members to be first chosen from the whole body of the Council, and then one member from the English, the Scottish, and the Irish Branches of the Council respectively. That the members of the committee meet before the close of the session during which they have been elected, and appoint one of their number as chairman. That the Chairman summon the committee to meet previous to the commencement of the sessions of the General Medical Council, in order to prepare and arrange, as far as practicable, a programme of the business which they consider should be submitted to the Council during its sittings; in addition to which, during the sessions of the Council, programmes of subjects to be brought forward and of notices of motions, be prepared by the committee and distributed as often as they may consider necessary. In all programmes, business brought forward by the committee to be distinguished from business introduced by individual members. That the committee have full power to regulate the order of business, and to fix what days, or part of days, be appropriated to business introduced either by themselves or by individual members. That the remuneration to the members of the committee while engaged in preparing and arranging the business previous to the meetings of the Council, be on the same scale as for attending the meeting of the General Council."

Dr. Embleton seconded the resolutions. He believed that their adoption would lead to a shortening of the business of the Council and a lessening of the expense.

Dr. A. Smith objected to the introduction of new machinery, and thought that the objects proposed could all be carried out by the Executive Committee.

Dr. Andrew Wood said that much of the important business brought before the Council was not known until it had met for two or three days. It was, he thought, the duty of the Executive Committee to watch the progress of events in the intervals between the meetings of the Council, and to arrange, as far as possible, the business to be brought forward, acting in this way, until the opening of the session, as a business committee. If this were done, the ordinary business committee would be quite sufficient. The work of the business committee had been lightened by the permission given them at the commencement of the present session to fix the orders of the day.

Dr. Alexander Wood did not think that a Business Committee meeting just before the session would expedite the work of the Council; for sometimes, as had occurred on the present day, some of the most important discussions arose in an unexpected manner.

Dr. Fleming withdrew the resolutions.

Preliminary Education of Students. Dr. Stokes presented a report from the Committee on General Education, which, on the motion of Dr. Andrew Wood, seconded by Dr. Acland, was ordered to be received and entered on the minutes.

Monday, May 21st, 1866.

G. Burrows, M.D., President, in the Chair.

The minutes of the last meeting were read and confirmed.

Preliminary Examination of Medical Students. A Report from the Committee appointed to consider this subject was presented; and, on the motion of Dr. Quain, seconded by Mr. Hargrave, it was resolved that it be read and considered paragraph by paragraph.

The first paragraph was adopted without discussion; viz.:

"The Committee have given their best attention to the resolution of the Council of May 18, wherein they were 'instructed to take into consideration and report upon the examinations in general education at present conducted by the various educational and other bodies recognised by the General Medical Council.'"

The second paragraph was adopted in the following form, some verbal amendments having been made.

"The Committee, having had before them a digest, prepared by the Registrar, of the preliminary examinations in Arts recognised by the General Medical Council, consider that an analysis of this document would be unnecessary. A copy of this digest is subjoined."

The third paragraph was adopted in the following form.

"The Committee beg to suggest to the Council what appears to them to be the minimum amount of subjects for examination through which a qualifying body can ascertain whether a student has undergone the mental training necessary for entering with advantage upon professional studies."

Dr. STOKES moved, and Dr. ALDERSON seconded, the adoption of the fourth paragraph; viz.:

"The subjects of examination that the Committee recommend are as follow. *Compulsory.* 1. English Language, including Grammar and Composition; 2. Arithmetic, including Vulgar and Decimal Fractions; Algebra, including Simple Equations; 3. Geometry—First Two Books of Euclid; 4. Latin; and 5. One of the following *Optional Subjects:* Greek; French; German; Natural Philosophy, including Mechanics, Hydrostatics, and Pneumatics."

Sir D. J. CORRIGAN moved as an amendment—

"That the fourth paragraph be adopted, with the addition that Greek be transferred to the compulsory list after the year 1869."

He felt very strongly that Greek should be included among the compulsory subjects of education; and he had intended to bring forward an amendment making a knowledge of that language obligatory after 1867. At the instance, however, of several members who were disposed to support his amendment provided more time were allowed, he proposed to extend the time to 1869. No one, he considered, could properly understand even the most elementary book on the medical sciences—he might say, on any science—without some knowledge of Greek. He did not want that medical students should be accomplished Greek scholars, but that they should understand the scientific names with which they met, and know the reason of their being used. Of the twenty licensing bodies, nine required a knowledge of Greek in the preliminary examination. There might be less necessity for insisting on a knowledge of Greek, if none of the examining bodies required it; but, when nearly one-half of them made it compulsory, the Medical Council, if it did not make Greek a necessary requirement, would (though unintentionally) be allying itself with the boards which admitted a lower standard of education. The Council should lean to the side of those bodies which required the higher education. He could not see that young men would have any difficulty in coming up to the standard two or three years hence. The Apothecaries' Hall of Ireland, he would remind the Council, had during the last fifty years required a knowledge of Greek from students.

Dr. STORRAR seconded the amendment.

Dr. CHRISTISON said that, if the Council began to remove subjects from the optional to the compulsory list, it would be difficult to know where to stop. He had some doubt whether Greek was the most important subject to be transferred. For mental cultivation, French or German were as good; and, as a means of preparing the student for practice, he must give the preference to these languages. Again, he could not allow that natural philosophy was of inferior importance to Greek.

Mr. HARGRAVE supported the amendment, and spoke in favour of raising the character of the general education of medical students.

Dr. ALEXANDER WOOD said that the Committee had not had before them the results of examinations in the subjects of general education, and consequently could know how little of what was required could be performed. His observations had led him, without underrating the value of a good education, to say that he would be satisfied with less profession, if he could get more performance. He had seen the answers to the examination questions of a body requiring Greek, and had found therein a great deficiency in English grammar and spelling. The Council should not elevate the standard of education, unless it were sure that such standard could be reached.

Dr. STORRAR was of opinion that the Council could now improve the curriculum of compulsory subjects, and safely require Greek from all students after 1869. By adopting the amendment, the Council would give notice to all schoolmasters that at that time a knowledge of Greek would be required. Other professions were making endeavours to improve preliminary education: the solicitors, for instance, took off a year of "articles" from every one who was placed in the first class at the Matriculation Examination of the University of London. Natural philosophy, though most valuable, was less a school study than Greek; and the object which he had in view was, to cause boys to be kept at school for a longer time. He regarded Greek as of the utmost importance in regard to scientific nomenclature; for it was almost impossible to teach science to any one who could not analyse a word by the aid of his lexicon. By indifference in the matter, the Council would not only have men of good abilities educated in an inferior manner, but would leave the profession open to the refuse of the schools—to boys whom their parents would put into the medical profession because they did not know what else to do with them.

Dr. ANDREW WOOD would yield to no one in his estimate of the advantage of a liberal education. It was right for men intended to hold the higher positions in the profession; but care must be taken not to put forth regulations which should have the effect of depriving the public of a supply of competently qualified practitioners. The number of optional subjects, he thought, should be increased. The minds of young men were not all cast in the same mould; and therefore some opportunity should be given to them of choosing classical or mathematical subjects according to their abilities. How often was a "double first" met with in the English Universities? To demand Greek at present as a compulsory subject was out of the question. He allowed that, in Scotland, the number of students presenting themselves for examination in Greek was yearly increasing; but, if it were enforced even with a delay of three years, the profession might be deprived of many useful men; and, when the miserable remuneration afforded in some parts of Scotland was taken into account, he feared that such districts might be deprived of the necessary supply of practitioners. It must be admitted, however, that the standard of the practitioners in country districts had in late years reached a much higher level than it previously occupied.

Mr. COOPER supported the amendment, and pointed out the resemblance between the recommendation of the Committee and the regulations in force at Apothecaries' Hall.

Dr. LEET remarked, that it was necessary to avoid interfering with reciprocity between the licensing bodies. The Apothecaries' Hall of Ireland had re-

quired Greek during the last fifty years, and could not receive the certificates of any examining board which did not demand a knowledge of that language.

Dr. Apjohn thought that no man could be successfully educated for the medical profession without a knowledge of Greek. The amount required was not that which would make accomplished scholars; but, as was proved in Ireland, it was possible to obtain a very fair and sufficient amount.

Dr. Parkes considered that the Council would be better prepared to pass an opinion on the subject two or three years hence, after seeing the results of the preliminary examinations; and that no decision should be come to at present.

Mr. Rumsey regretted that the Committee had issued their Report without giving the grounds of their decision. He would have liked to know why certain subjects were excluded, and why some were made compulsory and others optional; and further, what was the opinion of the Committee as to the bearing of certain branches of study on the professional and social position of members of the medical profession. As to the special point under discussion, he had always supported the insertion of Greek as a compulsory subject in the curriculum, believing the course to be necessary to enable the medical profession to maintain anything like an equality with the other professions. He could give examples confirming the observation of Dr. Storrar as to the medical profession being made the refuge for the dunces of families. In reference to the importance of Greek, he would call the attention of the Council to the opinion of an old writer, Lancisi, who said, in his dissertation on Medical Education: "Non moror earum linguarum necessitatem, quibus Ars ipsa principium debet, et incrementum; Græcæ imprimis, et Latinæ; Græca sunt enim omnium fere corporis partium, naturæ operum, et morborum, atque herbarum, et medicamentorum nomina, quorum qui significationes tenet, earundem quoque rerum adumbratas habet definitiones; Græcus est præterea Principum medicorum sermo, è quibus aphorismorum oracula, observationes certas, et Pharmacorum exploratam vim, utendique methodum haurire debemus." A writer in the *Saturday Review*, also, had spoken of the medical profession as one particularly requiring a knowledge of Greek. It was, then, not altogether from the profession that the demand for well educated practitioners came, but also from the public. He did not admit the validity of the argument that, because in some places the remuneration was bad, well educated practitioners were not required there; such an argument would not be applied in the case of curates, with whom medical men ought to be rendered fit to associate. Nor could he admit that ignorance of other subjects was a justification for ignoring Greek. The difficulty of introducing Greek as a compulsory subject had, he thought, been over-rated; he had been assured by several high authorities in education, that if the Council said they should require Greek, in two or three years they would obtain a supply of good scholars equal to the demand.

Dr. Aquilla Smith said that the labour required to be undergone by students not educated in classical knowledge was enormous. He had been informed by persons engaged in the elementary teaching of medical students, that they had found the progress of their pupils much impeded by a want of knowledge of the elements of the Greek language.

Mr. Syme observed that, in the returns of the Medical Department of the Navy, many of the rejected candidates had the diplomas of examining bodies which required Greek.

Dr. Paget had great difficulty in arriving at a judgment on the subject; the more so, from the way in which the curriculum had been arranged. He thought that Natural Philosophy should at some period in the course of a medical student's career be made compulsory. He did not agree with the remarks of Dr. Andrew Wood as to the necessity of providing for differently constituted minds. At Cambridge, no difficulty was found in obtaining a fair amount of classical knowledge from men having an inclination for mathematics, or *vice versâ*. As to the statement about the probable reduction of the numbers of the profession if the standard of education were raised, he thought such reduction would be advantageous, by increasing the remuneration of members of the profession. It would not be the best men that it would exclude from the profession. He thought Dr. Storrar right in desiring that boys should remain longer at school; for the last year was the most valuable to them.

Sir D. J. Corrigan said that he did not recommend that Greek should at once be made compulsory, but in three years; and any one who could not meet the demand then must be a perfect dunce. Dr. Christison had said that French, German, and Natural Philosophy, were equally important with Greek; and, by removing Greek to the compulsory list, the student would be compelled to choose one of these important subjects. In reply to Dr. Andrew Wood's observation, that allowance should be made for the difference in mental capacities in regard to different subjects, he would say that the object was not to have a number of doors at which men might enter the profession, but to provide for the admission of men of higher powers of mind. He believed that, by raising the standard of preliminary education, a great blessing would be conferred on those who were excluded, by compelling them to turn to other callings for which they were more fit. He believed also that the public would gain. He agreed with Dr. Paget that Natural Philosophy should be made compulsory at some period of a medical student's education; but a knowledge of it could not be expected from lads seventeen years of age.

The amendment was put to the vote, and carried by a majority of 14 to 9. It was then put as a substantive motion, when

Dr. Andrew Wood moved as an amendment—

"That each item of the proposed plan of the Committee, as to the subjects of General Education, be put separately to the Council."

Dr. Parkes seconded the amendment.

Dr. Acland believed that the Council could only lay down rules for preliminary education consentaneously with framing a curriculum of professional study. There was one point on which the Council had been unanimous—that of the necessity of coming early to a conclusion as to the preliminary training of students. To do this—to lay down some curriculum—seemed at first easier than it really was. It was the universal feeling that the medical student should have the education of an English gentleman; but it did not follow that this principle should be carried out in every detail. Twenty years ago he had insisted on the importance of a knowledge of physical science to candidates for degrees in arts; but he made an exception as to those intending to enter the medical profession. Natural philosophy could not be eliminated from the preliminary list, unless it were understood that it should be made compulsory in the professional education.

After some remarks from Dr. Storrar, Dr. Andrew Wood's amendment was put to the vote and carried; and was also agreed to as a substantive motion.

The recommendations of the committee as to the four compulsory subjects were then agreed to; the fourth being expressed as "Latin, including transla-

tion and grammar." It was also agreed that Greek should be one of the optional subjects at present.

Sir D. J. CORRIGAN proposed, and Dr. STORRAR seconded—

"That, after the year 1869, Greek shall be one of the compulsory subjects."

Dr. ALLEN THOMSON moved as an amendment—

"That the Medical Council, while fully aware of the importance of a knowledge of the Greek language, as a means of training, in connection with general and scientific education, and most fully desirous to see it included in the list of the preliminary subjects of examination for a medical qualification, are of opinion that it is expedient to defer, for the present, the introduction of Greek into the compulsory part of the curriculum."

He fully acknowledged the value of Greek as a measure of mental training, in both general and scientific education. But the Council should consider what is likely to be attainable. He did not think the Council was at present in a position to decide what should be done in 1869.

Dr. ANDREW WOOD seconded the amendment, which, on being put to the vote, was lost; 9 voting for, and 11 against it.

Sir D. J. CORRIGAN's motion was then carried by a majority of 12 to 7.

It was agreed without discussion to place French and German on the list of optional subjects.

The further discussion of the report was then adjourned.

Medical Acts Amendment Bill. Dr. ANDREW WOOD gave in the Report of the Committee on the Draft of the Medical Acts Amendment Bill transmitted from the Home Office; and moved that it be received and entered in the minutes.

Dr. EMBLETON seconded the motion, which was carried.

The whole time of the sittings on Tuesday, Wednesday, and Thursday, was occupied in considering the Report of the Committee on the Medical Acts Amendment Bill. The Bill was carefully examined clause by clause, and several important modifications were made so as to bring it more into unison with the opinions of the Council. During the last two days, the Council had the advantage of the presence and assistance of their legal adviser, Mr. Ouvry. The proceedings in regard to the subject were terminated on Thursday evening by the adoption of a Report embodying the amended Bill, and the approval of a statement, drawn up by Mr. Ouvry, to be transmitted to the Home Office, together with a letter from the President, soliciting an early reception of a deputation from the Council. We shall next week give a more full report of the proceedings, and a copy of the Bill as adopted by the Council.

Association Intelligence.

CAMBRIDGE AND HUNTINGDON BRANCH.

THE annual meeting of the Cambridge and Huntingdon Branch will be held at St. Neots, in the Committee Room of the Corn Exchange, on Tuesday, June 26th, at 2.30 P.M.; J. J. EVANS, Esq., President, in the chair.

Gentlemen intending to read papers or cases are requested to forward the titles of the same to the Honorary Secretary, without delay.

P. W. LATHAM, M.D., *Hon. Secretary.*

15, Sidney Street, Cambridge.

BRANCH MEETINGS TO BE HELD.

NAME OF BRANCH.	PLACE OF MEETING.	DATE.
SOUTH MIDLAND. [Annual.]	Bedford.	Thursday, June 7, 2 P.M.
LANCASH. & CHESHIRE. [Annual.]	Medical Institution, Liverpool.	Wednesday, June 13.
BIRMINGHAM AND MIDLAND COUNTIES. [Annual.]	Hen and Chickens Hotel, Birmingham.	Friday, June 15th, 3.30 P.M.
NORTHERN. [Annual.]	County Hospital, Durham.	Friday, June 22, 2.30 P.M.
CAMBRIDGE AND HUNTINGDON. [Annual.]	Committee Room of the Corn Exchange, St. Neots.	Tuesday, June 26th, 2.30 P.M.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT MEDICAL MEETINGS.

THE next meeting of this Branch will be held at the Rose Hotel, Canterbury, on Thursday, May 31st, at 3 P.M.

R. L. BOWLES, L.R.C.P., *Honorary Secretary.*

Folkestone, May 22nd, 1866.

SOUTH MIDLAND BRANCH.

THE tenth annual meeting of this Branch will be held at Bedford, on Thursday, June 7th, at 2 P.M.; EDWARD LAWFORD, M.D., President, in the chair.

Dinner will be provided at 5 P.M.

Gentlemen intending to read papers or cases, are requested to forward the titles without delay to Dr. Bryan, Northampton.

JOHN M. BRYAN, M.D., } *Hon.*
G. P. GOLDSMITH. } *Secs.*

LANCASHIRE AND CHESHIRE BRANCH.

THE annual meeting of the Lancashire and Cheshire Branch will be held in the Medical Institution, Mount Pleasant, Liverpool, on Wednesday, June 13th; A. T. H. WATERS, M.D., President, in the chair. The meeting will commence at half-past Twelve. Dinner at the Adelphi at half-past Four.

Gentlemen intending to read papers or cases are requested to forward the titles of the same to the Honorary Secretary, without delay.

HENRY SIMPSON, M.D., *Hon. Sec.*

10, Chatham Street, Piccadilly, Manchester.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.

THE annual meeting of the Birmingham and Midland Counties Branch will be held at the Hen and Chickens Hotel, Birmingham, on Friday, June 15th, at 3.30 P.M. Dr. CARTER, President, in the chair.

The members will afterwards dine together. Dinner on the table at 5 o'clock P.M. precisely.

T. H. BARTLEET, *Hon. Secretary.*

NORTHERN BRANCH.

THE annual meeting of the Northern Branch will be held in the County Hospital, Durham, on Friday, June 22nd, at 2.30 P.M.; SIR JOHN FIFE, F.R.C.S., President, in the chair.

Dinner at the County Hotel, at 5 P.M.

Gentlemen intending to read papers or cases, are requested to forward the titles of the same to the Honorary Secretary without delay.

G. H. PHILIPSON, M.D., *Hon. Sec.*

Newcastle-upon-Tyne, May 19th, 1866.

We are requested to remind members of the Association that the Annual Subscriptions became due on the 1st of January. They can be paid either to the Secretaries of the Branches; or to the General Secretary, T. Watkin Williams, Esq., 13, Newhall Street, Birmingham.

British Medical Journal.

SATURDAY, MAY 26TH, 1866.

HOW SHALL WE TREAT CHOLERA?

THE author of *Medical Errors* is very angry with us for venturing to call scientific what he has condemned as illogical. Dr. Barclay has shown to demonstration, in his Lumleian Lectures, that Dr. Johnson's theory of cholera is absurd; for us, therefore, to speak of this theory in terms of commendation, is an act of Lèse-Majesté to King Logic. He has an unfortunate way of stating his case; and this is not the first time we have had occasion to tell him so.

In his letter of to-day he neither does himself justice, nor any one else with whom he deals. He knows the duty of an editor better than the editor himself does. Instead of thanking us, he thanks Dr. Handfield Jones for doing, a few weeks ago, that which we have been doing for the last six months; viz., urging upon the profession the question at the head of this article. Moreover, he gives an incorrect account of the manner in which we have dealt with Dr. Johnson's theory; and then upon the incorrect statement becomes severely critical. And of all "medical errors", he occasionally commits the worst; viz., substitutes personality for argument. For example, he does not hesitate to assume the right to speak of the reasoning of a man like Dr. Johnson in the following terms. "It indicates an utter incapacity for appreciating the bearing of an analogy on an argument, or the value of language as a symbol of thought." This is not the logical way of carrying on a scientific discussion, or of dispersing medical errors. In such company, however, we can very well bear to be told that Dr. Barclay "cannot feel any confidence in the editor's logical acumen, because to his (Dr. Barclay's) mind the argument wholly breaks down."

Dr. Barclay, again, is incorrect in asserting that "we are advocates of a theory of which we know no more than our readers." Surely it is reasonable to believe that a competent critic, who has studied and carefully analysed a work which involves somewhat abstruse physiological considerations, is better acquainted with it than he is who has never read a line of it. And we may safely say that many of our readers (who, Dr. Barclay says, know as much of it as we do) have not read a line of Dr. Johnson's work. We much doubt, indeed, whether Dr. Johnson would admit that even Dr. Barclay has made himself master of the theory which he criticises. We do not think that he has.

Dr. Barclay, also, is incorrect in his statements. He says, for example, that "one correspondent at least has incurred a severe reprimand (from the editor) on account of venturing to call Dr. Johnson's a fine-spun theory." And, again, he says, "We now come to the fine-spun theory", which the editor calls "a positive pathological fact". Now, the author of *Medical Errors* should surely of all people be careful not to be an erroneous interpreter of other men's words and ideas; but, in this statement, he is doubly —we might call it recklessly—erroneous: first, because we never reprimanded a correspondent; and, secondly, because, in the case alluded to, Dr. Johnson's theory of cholera was not in question at all. Our words are: "Dr. —— has clearly not read Dr. Johnson's book, or he would have seen that what he calls a 'fine-spun theory' about the interruption to the pulmonary circulation in cholera is a *positive pathological fact.*" Now is it consistent with logic or fair-play, to take an expression which refers to one single (and we believe now universally admitted) condition of cholera-collapse, viz., interrupted pulmonary circulation, and apply it as referring to Dr. Johnson's whole theory? Yet this is what the author of *Medical Errors* has done.*

The clear-headed plain-writing Locke it was who said that he knew nothing about logic; and certainly if the possession of the art of chopping that article is to lead men into such deviations from a plain use of language as this, we may, under Locke's shadow, be thankful that we are wanting, as Dr. Barclay says we are, in "logical acumen".

That Dr. Barclay should be ill-pleased with us for considering Dr. Johnson's theory the only rational and scientific one yet propounded, is reasonable enough. But, then, it is worse than unreasonable on his part not to state the exact position which we have all along assumed in dealing with the theory.

If he had put the case fairly as it actually stands, he would have said that we had embraced Dr. John-

* A description of our *positive pathological fact*, and Dr. Barclay's "fine-spun theory", is described minutely by Dr. Parkes. He tells of the contracted condition of the left cavities of the heart in cholera-collapse, of the distension of the right cavities and pulmonary artery, and the deficiency of air and blood in the minute texture of the lungs; and then says: "The conditions of the heart and lungs seem to point out unequivocally that in cholera the blood does not pass freely through the lungs; and this agrees with the independent inference drawn from the symptoms, that the essential signs of loss of animal heat, etc., are produced by some aberration of, or impediment to, the proper respiratory changes." He then adds: "As the mechanical part of the respiration is perfect, and as there is no impairment in the voluntary command of the respiratory muscles, and as the heart evidently beats, in many cases, till stopped by want of blood on the left side, and by its accumulation on the right side, we are compelled to look for the cause of such arrest of circulation in the only remaining element of respiration—namely, in the blood itself. So far, induction appears to me authorised and legitimate." Will Dr. Barclay venture to fling the words "fine-spun theory" in Dr. Parkes's face also? Will he still venture to deny the accuracy of our words, *a positive pathological fact*?

son's theory as a reasonable explanation of the disease; and that, using it as a standpoint, we had asked the profession to try and test its value by their experience—to tell us, in fact, whether opium and brandy and astringents are useful or hurtful in the cure of cholera—whether an astringing or an eliminating theory is to guide us in the business.

We looked back into the records of men's past experience, and found, to the best of our belief, that trustworthy evidence corroborated Dr. Johnson's pathology and treatment of cholera. We appreciated the vital importance of getting at some settlement of the question; and, therefore, have urgently asked the profession now for six months to tell the tale of their experience; so that out of the sum of many men's knowledge, we might perchance elicit a light to guide us in the future. And now comes Dr. Barclay himself, paying high, though very querulous and indirect, homage to our prescience, and does the very same thing—earnestly asks our readers to communicate their experience. He says he may one day be officially called on to try conclusions with cholera; and therefore he calls on his brethren for help. He confesses that he knows nothing of a theory, has no remedy for cholera. "It is quite clear," he says, "that no induction has been established indicating that any remedy possessed curative powers in the treatment of cholera."

His letter indeed admits that he knows not what to do or what not to do; whether to try the eliminative or the astringing method, or a combination of both, or neither of these methods. But, in thus candidly crying out for the help he so "earnestly" needs, why does he blame us for helping him to get it?

If Dr. Barclay, in the midst of so much darkness, obtains the light for which he asks, assuredly he will have to thank us, and us alone, for the benefit. Even if he found it necessary, as a master of "medical errors", to blame our want of "logical acumen", he might surely have complimented our common sense for having months ago anticipated his "earnest" appeal. Dr. Barclay, confessing his ignorance of the nature and treatment of cholera, and anticipating that he may have at any early moment to deal with the disaster, at last discovers that he would like further information on the subject. And his acknowledgment to those who have not been, like himself, content to remain silently in the want of better knowledge, but who have taken much trouble to try and get it, is expressed in his letter! Dr. Barclay may be logical, but certainly he is not very grateful for favours bestowed on him.

It is as impossible, as it would be vain, for us to attempt to follow Dr. Barclay in his wanderings through the crooked byways of medical logic; but some few considerations closely touching this case of cholera, which he appears to have totally overlooked, we will venture to throw out for his future consideration.

Few authorities of our profession will, we fancy, admit that Dr. Barclay represents modern medical science when he makes this general statement: "In other disorders, we do not hesitate to endeavour to check a secretion which seems to be excessive." Does Dr. Barclay really mean to say that he does not hesitate to check the cutaneous secretion in rheumatic fever? that he does not hesitate to try to suppress the cutaneous element of measles, small-pox, or scarlatina, however excessive it may be?

If we know anything of modern medicine, we know this, that the greatest advances which have been made in the treatment of acute diseases have been in a negative sense—in the sense of letting them alone—of not thwarting their natural or unnatural progress—*of ministering rather to the indications of cure which the disease itself may offer, than of roughly and rashly ignoring or opposing them.* Is it, then, unreasonable to anticipate, when we consider the opposing and conflicting opinions of experience in reference to the treatment of cholera, that here also the best treatment—the least dangerous—is that which interferes least with what appears to be the natural progress of the disease? Dr. Barclay does go so far as to admit that "all diseased processes are efforts of Nature". Of course, therefore, he admits inferentially that the vomiting and purging of cholera are natural efforts. But then, he says, the efforts of Nature in this wise must be checked when in "excess". Now we will leave aside all vain verbal hair-splittings, and take the words "poison" and "eliminative" in the sense in which every practical medical mind understands them; and will then ask Dr. Barclay to inform us what he means when he talks of checking or controlling the eliminative efforts of Nature in diseases. Can he mention one single acute disease (wherein we admit the presence of a natural eliminative effort) in which he is able, or, if he were able, would attempt, to limit this excess of action? Can he limit, or, if he can, dare he attempt to limit, the eliminative efforts—the eruption—in small-pox, in scarlatina, or in measles, or the sweating in rheumatic fever? However dreadful, and violent, and in "excess", the eruption of small-pox may be, what should we say of that physician who attempted its suppression? If Dr. Barclay will reconsider his words "in excess", he may, perhaps, discover that they mean something beyond what he at present sees in them. The efforts of Nature "in excess", we venture to say, may reasonably be regarded simply as the representative of the violence of the disease. The disease is excessive, and so also are the symptoms. Surely it is little better than indulging in vagueness of medical language to talk of controlling the "excess" of an eliminative curative effort of Nature. We ask for

the instance in which the physician of modern ideas attempts to practise this control; and we venture to say that the only instance which will be adduced is that of cholera. And this is the very disease in which the practice is now called in question. Men of experience in the treatment of cholera doubt the efficacy of the practice; and analogy assuredly contradicts the propriety of it. It is, in fact, the subject of our present discussion.

Arguing from the analogy of other "eliminative" diseases, we have a right to say that the excessive action of elimination in cholera is but the equivalent expression of an excessive disease in the body—an action which we neither can nor ought to attempt to check, whose suppression, in truth, may be as hurtful as the suppression of the cutaneous element of small-pox or of scarlatina. This position analogy suggests; and this position, to say the least of it, is not overthrown by experience. It has yet to be proved that cholera patients die from loss of blood-serum; and it is yet to be proved that the treatment which is directed to the suppression of the loss of blood-serum—of the eliminative, the "natural effort"—is not hurtful.

In conclusion, with the hope of preventing future vagueness in discussion, we will submit for the consideration of unprejudiced minds the following propositions, which seem to us to contain the gist of the matter in dispute. Some of these propositions are positively true, and the others highly reasonable.

1. There exists in the body of a cholera-sufferer something equivalent to a "poison".

2. This poison is received from without, is rapidly multiplied within the body of the patient, and is eliminated with altered blood-materials through the mucous membrane of the alimentary canal.

3. The symptoms of collapse are not explicable by the hypothesis of a mere drain of liquid from the blood.

4. Cholera-collapse is never more deadly than when there is little or no vomiting or purging. Eliminative efforts, therefore, appear to be necessary to recovery.

5. Pathology demonstrates that there is, during collapse, a partial and considerable arrest of the pulmonary circulation, and consequently of the respiration.

6. This arrest of blood in the lungs explains those symptoms of collapse which have been attributed to exhaustion; and the defective aëration occasioned by the impeded circulation explains the most striking chemical phenomena of collapse—the blueness and coldness, the suppression of bile and urine, and the blood-thickening.

7. This explanation of collapse is supported by the fact of the benefit often derived from hot injections into the veins and from venesection.

8. Death from exhaustion by excessive purging is a rare and exceptional occurrence.

9. In the great majority of fatal cases, death occurs either during collapse from arrest of the circulation, or, during reaction, from consecutive fever, with symptoms of blood-poisoning by retained excreta.

10. The indication for treatment, so far as it is prescribed by the course of the disease itself, points to the theory of cure by elimination.

A fair discussion of these particulars, aided by the light of the results of a large experience, would probably settle, in unprejudiced minds, the question as to whether the practice which takes its indication of treatment from the "natural efforts of the disease", or the practice which opposes the natural efforts—which, in fact, regards those efforts, viz., purging and vomiting, as the cause of death, and therefore to be arrested (if so it may be) at any cost—is the more reasonable method of cure.

This, then, is the "responsible position" which Dr. Barclay is so horrified at our having assumed. We have ventured to say that, in our opinion, the theory and treatment of cholera proposed by Dr. Johnson is more in accordance with modern scientific medical knowledge than any other theory and treatment yet proposed; that it seems to us a theory which gives a physiological explanation of the phenomena of collapse of cholera, and a treatment which does not interfere with the natural indications of cure presented by the disease. Of the value of castor-oil as a fulfiller of those indications, we have nothing to say; we leave that to the decision of experience. But this much we may further say. Acute specific diseases have a definite course to run; and it does not appear that our art can arrest that course. The great object of medicine in the cure of these diseases is, as far as may be, to sustain and nourish the body of man, so as to keep him alive whilst engaged in the specific combat. Experience does not show that we should regard the treatment of cholera in any other light. No acute specific disease has in modern days been more largely and scientifically studied than Cattle-Plague; and with what result? Drugs are declared useless as remedial agents. The only treatment which is asserted to be of any avail is that which supplies suitable nourishment to the failing and struggling body. Is not this, in truth, the general sum and substance of our modern treatment of these diseases? The prime indications for treatment in extreme cholera-collapse seem to be the setting free of the arrested respiration and circulation, and the administering of nourishment; and we ventured, in our last number, to suggest an *à priori* reasonable means for the fulfilling of those ends. Experience proves to demonstration that hot injections will effect the first indication; and the experiments of Brown-Séquard and of Panum justify

us in believing that in suitable injections of hot blood might perchance be found a fulfilment of both indications.

The following memorial, which was agreed to at a highly influential meeting of the members of the profession has been forwarded to the General Medical Council.

"The Memorial of the County and City of Cork Medical Protective Association, respectfully showeth: That your memorialists look forward with deep interest to the measure which they understand is likely soon to be introduced into Parliament to amend the Medical Act of 1858. That this Act must be looked upon as having, up to the present time, fallen short of what was expected from it, in its two principal objects; viz., the protection of the public, and a really improved system of medical education. That, with respect to the first of these objects, it appears to your memorialists that registration must continue to be all but nugatory, unless the new legislation render it imperative on the Council to order, through duly authorised officers, the prosecution of all persons incurring the penalty specified in Clause XL of the Medical Act, or that which may be substituted for it. That the vastly more important object of securing a sound and adequate education for all candidates for medical and surgical qualifications, is not, in the apprehension of your memorialists, likely to be attained whilst the powers of the Council continue to be limited as they are at present. To be enabled efficiently to provide for the country a body of properly qualified practitioners, it appears to memorialists that the Council should be empowered to prescribe and enforce such educational regulations as may be found requisite for the attainment of that important object. That no education, memorialists respectfully submit, can be considered sound and adequate, which does not include, as preliminary to entering on medical studies properly so-called, such a course, both literary and scientific, as will enable the student effectively to master the varied subjects of professional study with which he will have to grapple, and afterwards, to take such a position amongst men of general information, as will be calculated to maintain for medical science the estimation in which it is desirable, for the good of mankind, that it should be held. That the course for a degree in Arts in the different Universities, should, in the opinion of your memorialists, be essential preliminary to that for a degree in Medicine; and that a course of education, embodying both classical studies and the various branches of physical science, should be indispensable before entrance on medical and surgical education of whatsoever character. Wherefore, your memorialists would respectfully suggest the expediency of the Council seeking for such a modification of Clause XLI of the Medical Act, as will secure the prosecution of offenders against its provisions. But especially of seeking for the power to establish a uniform curriculum of studies, preliminary and professional, which shall be binding on all the educational bodies of the country. And your memorialists, etc."

At the ordinary meeting of the Bath and Bristol Branch, held at Clifton on May 17th—Dr. Falconer in the chair—the following resolution was unanimously adopted.

"That this meeting desires to express their sincere and cordial sympathy with Dr. Armstrong and his son Mr. J. C. Armstrong, under the frivolous and vexatious prosecution to which they have been subjected, and to assure those gentlemen of their earnest desire to assist and relieve them of their pecuniary liability incurred by successfully defending the integrity of the profession assailed in their persons."

Nearly every gentleman present put down his name as a subscriber, and almost all the subscriptions were paid at the close of the meeting.

Mr. Charles Hawkins will, it is to be much desired, present himself as a candidate at the next election of Councillors of the College of Surgeons. It is not alone because he stands next on the list of seniority that we desire his election; but because we believe that his presence in the Council would greatly promote the best interests of the College. Mr. Charles Hawkins would enter the College unembarrassed. He would not be trammeled, as so many before him have been, by future considerations. Every member of the profession who knows him knows well that if he enter the Council he will, to the best of his ability, have justice administered there. From the unfortunate constitution of the Council, it happens that most men who enter there have distracting objects to attend to—the interests of the College and their own private interests; and it happens at times that the two sets of interests do not coincide. Under such circumstances as that the members of the Council are not angels, but most of them fathers of families, they very naturally are apt to regard first that interest which begins at home. Really we do not blame them as individuals for so doing; but we do blame the system which places men in such a false position, and sometimes puts in opposition private interest and public duty. We have often said it, and have maintained it for years as a most reasonable proposition, that Examiners ought not to be members of the Council; ought not, in a word, to have the power of aiding in their own election. A man in Council ought to stand free of all personal considerations. He should be able to express freely his best opinions without a dread that he may by so doing injure his private interests. Now, most assuredly Mr. Charles Hawkins would be such a man. We do not for a moment doubt of his election; and we believe, to the credit of the Council, that very many influential members of it would gladly welcome him amongst them—gladly hear his independent voice raised in the Chamber. It is understood that Mr. Prescott Hewett, who is senior to Mr. Charles Hawkins, declines to come forward on the present occasion. Mr. Spencer Smith stands next on the list after Mr. Hawkins, and will no doubt successfully present himself for the Council at the succeeding election.

A WRITER in the *Times*, "Medicus", ridicules the proposal of injection of blood as a cure for Cattle-Plague. His objection we have already anticipated. It is founded on a manifest fallacy; and on so patent a fallacy that we can hardly believe a practitioner of medicine could have seriously adopted it. Dr. Sanderson has shown that the poison of Cattle-Plague is very rapidly communicated through the whole mass of the blood. Consequently, it is certain that healthy blood injected into a diseased animal will also become similarly tainted. "Medicus" therefore assumes that the injected blood is worse than useless. Now the patent fallacy here is the assumption, that the diseased blood does not nourish the animal. Why, what does the animal live on except this tainted blood? What sustains it through the disease but tainted blood? The Cattle-Plague Commissioners have proved that nourishing food is the only remedy which diminishes the mortality of Cattle-Plague. Well, this food must become blood, and tainted blood too, before it is available as food to the diseased animal. Unless an animal, therefore, can live without blood, it is as sure as *b* follows *a* in the alphabet, that the diseased blood nourishes the animal; and equally sure that the objection to transfusion because the healthy blood becomes tainted is founded on a gross fallacy. The proposal by us to inject healthy blood was founded on the principle, that the animal's digestive apparatus is so deranged that it cannot take sufficient food to keep it alive whilst struggling with the disease—*i.e.*, cannot make sufficient blood; and upon the statement of the Cattle-Plague Commissioners, that the animals die not so much from the force of the fever as from asthenia—want of force—or, as we may put it, want of blood. If the animal can be kept alive for a certain number of days, it will (as has been shown) probably recover. Is it, then, unreasonable to conjecture that a supply of injected blood may be the means of keeping it alive long enough to live down the disease?

THE medical officers of the metropolitan workhouses have met together to consider the answers which they should give to questions put to them by the Poor-law Board. The Board wish to know how many feet of air each medical officer considers requisite for sick paupers; how many patients he attends; what his salary is, and what he thinks it ought to be; etc. The medical officers have done wisely in discussing the questions before sending in replies to them. At the meeting some remarkable revelations were made as to the medical management of workhouse hospitals. Of these we shall next week give an account. Why the Poor-law Board ask these gentlemen questions which their own medical adviser might better answer does not seem clear.

Reports of Societies.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, APRIL 4TH, 1866.

ROBERT BARNES, M.D., President, in the Chair.

NINE gentlemen were elected Fellows.

Specimens. Dr. GERVIS exhibited a specimen of a Fœtus possessing many points of interest in its physiological development.

Dr. MEADOWS exhibited a specimen of Cystic Development of the Fallopian Tubes, consequent on obstruction at the ostium uterinum. The left tube contained two cysts; the right, one. They were each about the size of a small walnut, and filled with a thick brownish fluid. The patient had died of pelvic peritonitis, the result of menstrual suppression from cold.

Dr. MEADOWS also showed a new Intrauterine Stem. It consisted simply of a solid glass rod, the size of No. 6 catheter, two inches long, and having a flat disc at the vaginal end. He had been led to adopt this form from the inconvenience sometimes arising from the irritation of the ordinary metal or ebonite stems, glass being the only cleaner and free from corrosion, but for these reasons more easily borne than either of the others.

Disease of the Placenta. By J. MARSHALL, Esq. (Dover). The narrative was accompanied with notes by Dr. GRAILY HEWITT, who considered that the condition of the placenta was not one of fatty degeneration, but likely to be the result of effusion of lymph at a period probably two or three months antecedent to delivery. The yellow layer described had the appearance of syphilitic disease: but there was no history of that disease having affected the patient.

The PRESIDENT considered the case not so very uncommon. The physiological explanation consisted in the fact of there being an excess of fibrine in the blood of pregnant women. He believed the case to be neither one of fatty nor of fibrous degeneration, but one in which fibrine had been thrown out. The yellow layer and whole appearance of the placenta did not, in his opinion, necessarily indicate the existence of syphilis in the system.

Obstructive Dysmenorrhœa. By R. GREENHALGH, M.D. He considered dysmenorrhœa to be either congenital or induced; and the stricture to be of two kinds, absolute or relative. After referring to the various modes of treatment, the author stated that, in the case under consideration, he had had extreme difficulty in passing a sound. He was obliged to draw the uterus down by Sims's needle, and then made use of his (Dr. Greenhalgh's) metrotome. In the course of four days after the operation the patient complained of an ill defined pain all over her. She gradually got worse, vomiting came on and she died on the ninth day after the operation. At the *post mortem*, peritonitis of a low form, with considerable tubercular deposit, was found; the uterus was bound down by old adhesions, and the incision had not gone right through the os internum. Her death was considered to be due to her want of care after the operation. The author concluded by referring to all the cases he had operated on, which had usually done well, and stated his strong objection to the introduction of sponge-tents after operating.

Dr. BARNES considered that the danger rested in cutting the os internum. He thought very little danger was to be feared from incision of the os ex-

ternum. The cervix uteri might be treated by dilatation. He agreed with Dr. Greenhalgh that absolute rest was necessary after operation. and believed that the case would be a lesson to all, and make them adopt every precaution, or even hesitate to incise the internal os.

Dr. ROUTH thanked Dr. Greenhalgh for bringing the case before the Society. He thought the operation was one of danger, and required the greatest possible care both before and after. The case was a very unfortunate one, from the length of time occupied in operating, as also from there being no loss of blood; he always liked to see three or four ounces lost. He did not think there was any danger from cutting the internal os when the fundus uteri was free from inflammation. Fatal cases were known after passing the ordinary sound.

Dr. ROGERS agreed with all that Dr. Routh had said. He considered the internal os to be frequently the seat of stricture. He added his testimony to the danger that sometimes attended incision of the cervix, and stated that he had also lost a case after operation.

Dr. RASCH said that he had never met with a case where there was stricture of the internal os, nor had he ever failed to pass a sound. Cases said to be strictured, he had found flexed, which on being reduced admitted the sound.

Dr. MEADOWS remarked upon the necessity of ascertaining, as far as possible, the condition not only of the uterus, but of its appendages also, in all cases where operative measures were contemplated. He believed that in those cases where a fatal result had followed, even so simple a proceeding as the passage of the uterine sound, some organic lesion would be found to have been the cause of the mischief, the uterus being exceedingly sensitive of any interference under these circumstances. Unfortunately the diagnosis of some of these conditions was often very difficult, and the real state of the case was only discoverable on a *post mortem* examination. In Dr. Greenhalgh's case there was reason to suppose that some displacement of the uterus existed, and the history was one indicative of previous metro-peritonitis. This being so, and the fundus uteri having become adherent in its malposition, he would regard such a case as positively contraindicating any operative interference. He believed that in all cases of flexion of the uterus, especially when of long standing, or of version when replacement was a matter of difficulty, the use of the knife was very likely to lead to evil and even fatal results.

Dr. Gervis, Dr. Head, Dr. Balls, Dr. Eastlake, and Mr. Baker Brown, jun., also took part in the discussion.

Dr. Greenhalgh having replied to the various speakers, the meeting adjourned.

ST. BARTHOLOMEW'S HOSPITAL. The following have been the successful candidates at the examinations for 1865-1866. *Senior Scholarship in Medicine, Surgery, and Midwifery*—1. W. Square; 2. H. C. Upton. *Senior Scholarship in Anatomy, Physiology, and Botany*—1. W. D. Butcher; 2. E. B. Crowfoot. *Junior Scholarship*, 1865—1. E. B. Crowfoot; 2. W. Thurston; 3. L. Newton. *Bentley Prize*—F. H. Haynes. *Wix Prize*—T. Cole. *Practical Anatomy, Senior; Foster Prize*—1. W. W. Saul; 2. L. Clapham; 3. J. T. Hickman, J. Kirkman (equal); 5. J. T. Williams; 6. J. O. Sankey; 7. T. W. Lee. *Practical Anatomy, Junior; Treasurer's Prize*—A. F. Field. 2. *Examiner's Prize*—E. A. Brickwell; 3. T. H. Hendley; 4. C. Bennett, J. T. Hartill (equal); 6. J. Rouch; 7. F. J. Glencross, E. Groves (equal).

Correspondence.

THE TREATMENT OF CHOLERA.

LETTER FROM A. W. BARCLAY, M.D.

SIR,—I shall, I trust, not be thought unreasonable, in asking you to give insertion to a few observations on a question of such importance at the present time as the treatment of cholera. When I ventured to take the method of reasoning by which Dr. Johnson had arrived at his conclusions, as an illustration of one of the fallacies which *Medical Errors* was intended to point out, I little thought that so much of your valuable space would be appropriated to the discussion. Feeling that I had no claim to oppose any views of mine to those which Dr. Johnson was advocating in your pages, I have hitherto maintained a perfect silence on the subject of his papers; and am now tempted to break it, only for the purpose of wishing success to the suggestion of Dr. Handfield Jones, that the readers of your JOURNAL would speak out boldly their experience in answer to his questions. For my own part, I do not hesitate to avow my most firm conviction that, in cholera times, if one dose of castor oil, followed by free evacuation of the bowels, did not arrest an attack of diarrhœa, the administration of a second dose would be unjustifiable. Further, my whole experience teaches me that, when the bowels are fully unloaded, purgative remedies are powerless to check the diarrhœa; that purgatives very generally need to be followed by astringents to complete the cure; and that patients get well who are so treated; whereas, those left to nature, are apt to subside into genuine cholera. So much for personal experience, which I shall be glad to hear contradicted, if contradiction be possible.

But let me not be misunderstood. This is no argument. In the Lumleian Lectures, the criticism of Dr. Johnson's reasoning was on the ground of that it appeared to me to stand on no better foundation than the inferences drawn from his personal experience; and this was of such a limited character, that it did not seem to justify his laying down rules for the guidance of others, when he was unable to deduce from his observations any law of causation. The experience of a number of persons, if arguing on one point, is somewhat more trustworthy, but is still only a very imperfect substitute for a higher kind of knowledge. Dr. Handfield Jones is anxious to ascertain if there be any such agreement in regard to choleraic diarrhœa; and it is most desirable that this information should, if possible, be obtained, because we have absolutely nothing at present to guide us in the treatment of epidemic cholera and diarrhœa.

I have read with some surprise the editorial remarks on Dr. Johnson's later writings on this subject. It seems to me a very responsible position for the editor of a journal to assume, when he leaves his fair ground as a critic, and becomes an advocate of a theory of which he knows no more than his readers. In acknowledging that he has no personal knowledge of the question, he must have a very strong confidence in the line of argument taken, and his own power to appreciate a process of ratiocination, when he assumes that the conclusion arrived at is the only philosophical determination of the question. I confess that the argument to my own mind wholly breaks down, and I cannot, therefore, feel any confidence in the editor's logical acumen. Others may differ from me, but I think I do not stand alone; one correspondent at least

having incurred a severe reprimand on account of venturing to call Dr. Johnson's a "fine-spun theory."

We are indebted to Dr. Johnson for pointing out more forcibly than had been hitherto done, that the relation between serous evacuations and collapse is not a direct one, a position which few would be disposed to assert who had witnessed cases of extreme collapse with comparatively scanty evacuations. He has also investigated with much force and clearness the necessary consequences of the impeded and tardy circulation of the thick treacle-like blood of cholera; and I gladly acknowledge that though no new light has been thrown on these questions, he has at least suggested the right point of view from which they are to be regarded. He has, on the other hand, fallen into the very common error of taking instances of the excessive administration of one remedy as a type of the effect likely to be produced by others of the same class used in moderation. He contrasts most unfairly the employment of small doses of a mild relaxant like castor oil, with the administration of poisonous doses of opium, and cites the results as evidence of the beneficial action of purgatives, and the injurious effects of astringents. We may well ask whether it would not be just as fair to contrast the drastic action of croton-oil with the astringent properties of dilute sulphuric acid in the treatment of choleraic diarrhœa.

But now we come to the "fine spun theory" which the editor calls a "positive pathological fact." If language means anything, Dr. Johnson's view is that there is a "poison" in the blood in cholera, which causes such "spasm" of the larger branches of the pulmonary artery, that the blood cannot pass on to the smaller subdivisions; it consequently accumulates in the right side of the heart and the venous system. This is collapse. The same poison finds its natural outlet through the mucous membrane of the stomach and bowels, and carries with it a large quantity of serosity which is rejected by vomiting and purging. The two conditions of collapse and evacuation constitute cholera; of which the direct cause is the poison in the blood. Further, as I understand Dr. Johnson, his proposal is to use means to get rid of this fluid from the stomach and bowels because it contains the poison; but he has no belief whatever that the means he employs expel the poison from the blood. There has always been in England a school which estimated very highly the removal from the canal of the effete material. But I cannot conceive on what principle it can be maintained that a little more or a little less purging and vomiting materially influences the result, except on the supposition that the matter is poisonous, and will be re-absorbed with injury to the patient. If this be the theory, I must say that the term "eliminative" is utterly wrong as applied to the treatment, and only calculated to mislead.

It seems perfectly vain to repeat that the whole vice of Dr. Johnson's argument begins and ends in an entire misconception and misapplication of the term poison. He brings forward as an instance illustrating his meaning, the case of diarrhœa produced by breathing the unhealthy atmosphere of the dissecting-room, and seems to think that it affords a perfect parallel to a person imbibing cholera poison. No reasoning can be more conclusively illogical. It indicates an utter incapacity for appreciating the bearing of analogy on an argument, or the value of language as a symbol of thought. That the blood is in an unhealthy state, its appearance abundantly testifies, and perhaps it may be admissible to speak of poisoned blood in such a case; or even to extend the term a little further and call cholera, small-pox, scarlatina, etc., blood-poisons. But to speak of a *poison in the blood* which has to be eliminated is to confound at once all the recognised distinctions between specific diseases and the effects of mephitic gas, arsenic, opium, etc.

Some indication of a consciousness of this confusion appears in Dr. Johnson's last communication on the subject; and yet, to the utter discomfiture of all logic and argument, he proceeds to declare the existence of a drastic purgative, which he calls cholera-cathartine, and compares in its action to elaterium. Really it looks almost as if this was said in jest. I would ask Dr. Johnson, with the greatest possible respect, if a patient happen to have got an overdose of elaterium, whether "castor oil" would act as an eliminant. I trust my professional brethren will pause before they take on themselves the responsibility of acting on such crude theories. The astringent treatment at King's College Hospital must have been a very strange one, if a patient, as described by Dr. Johnson, took "repeated doses of opium" for several days, while he had "a hot skin, a quick pulse, a coated tongue, headache, and other febrile symptoms." The diagnosis must also have been somewhat peculiar, when such a case could be called choleraic diarrhœa. I cannot think that any of your readers will be misled by the bold assertion that the tendency to collapse is increased by the employment of astringents, when it is contrasted with the equally dogmatic assertion of other observers, that the administration of a cathartic in cholera times was certain to bring on the disease. Such combatants may well be left to fight out the question between themselves, while we try humbly to aid Nature by the best means in our power.

This is a question of no small importance to myself, as I may at any moment be called on to determine the course to be pursued in the district entrusted to my charge as Officer of Health. It will be my duty to seek out the cases of choleraic diarrhœa, and to direct their treatment on some broad principle or other. I would therefore earnestly call on your readers to communicate their experience. Is it, in their view, good or bad practice to endeavour to stop the bowel flux as soon as unhealthy ingesta are freely and fully evacuated, when the tongue is clean and there is a painless serous diarrhœa? In other disorders we do not hesitate to endeavour to check a secretion which seems to be excessive, and this we do, although we know it to be an effort of Nature for some purpose or other. All morbid processes, whatsoever, are "Efforts of Nature," but it surely does not follow that they are never to be checked; and that, even if in moderation, they are beneficial, they can never run into excess, but must always require additional development by the aid of remedies. This I conceive to be the principle contended for in the eliminative theory. I believe that every practitioner will agree with me that *some* cases of diarrhœa require a mild purgative; and most of us would do anything to excite vomiting and purging in cases suddenly struck down by the disease, in which these symptoms are wholly suppressed. It would be at least an approach to vitality, a return to something less like a mere conscious corpse, if such action could be excited. For my own part I hold that in diarrhœa castor oil is not always the best purgative, when one is needed, and that our first duty is to put a stop to the process, if possible, by proper means; and I hold that in cholera, where purging and vomiting are going on, the attempt to increase these symptoms is generally wrong, and fortunately seldom successful; and that when the vitality is low enough to put a stop even to the excretory process, some other agent is likely to be more effectual. I do not deny that benefit may be obtained

from exciting vomiting and purging in proper cases, but I have certainly heard or read more probable explanations of its advantages than that afforded by the eliminative theory. I should always recommend copious draughts of cold water, but not as a means of "flushing the sewer"; on the contrary, my experience points to excretion diminishing under their use, and absorption returning to a more natural condition.

In conclusion, let me say that if I have expressed myself strongly, it has been because I felt that if I did not avow my own convictions, I could not reasonably ask others to do so. The time has not yet come to place any other theory of cholera in opposition to that which has been propounded by Dr. Johnson; but as my former criticisms have been challenged in your pages, and a further stage has been reached, in the development of the hypothesis, it was impossible to avoid pointing out the manifest fallacies into which so competent a writer has fallen.

I am. etc., A. W. BARCLAY.

Bruton Street, May 15th, 1866.

UNIVERSITY COLLEGE OF LONDON. The annual distribution of prizes to the students in the faculty of medicine, took place on May 7th, in the Botanical Theatre of the college. The Hon. George Denman, Q.C., M.P., occupied the chair. From the report, which was read by the secretary, it appeared that there had been a considerable increase in the number of students. The total number in the college last year was one hundred and sixty one, whereas it had now increased to one hundred and ninety seven; of which number, sixty seven had entered during the present year. The prizes were awarded as follows: *Practical Physiology and Histology: Silver Medal:* W. H. Allchin. *Certificates of Honour*: Tempest Anderson, John Howard Mummery and Henry C. Gill, (equal) Arthur Hensman. *Anatomy and Physiology: Gold Medal:* J. R. Loy. *Silver Medals:* W. H. Allchin and Tempest Anderson, (equal). *Certificates of Honour:* Ethelrid Dessé, A. P. Hurlstone and H. Cass, (equal) David Havard and Adam John Whiteford, (equal) Samuel Alford and E. W. Minter, (equal) J. H. Mummery and Thomas Grosvenor Lee, (equal). *Anatomy: Senior Class: Gold Medal:* R. L. Roberts: *First Silver Medal:* D. L. Havard. *Second Silver Medal:* A. Hensman. *Certificates of Honour:* E. W. Minter, William Kipling, John J. Bingham, Samuel Alford, H. Cass. *Junior Class: Silver Medal:* Stanley Peacock. *Certificates of Honour:* Enoch Snell, James James, William H. W. Wilkinson, J. G. Bolton. *Chemistry: Gold Medal:* Theodore Maxwell. *First Silver Medal:* Alfred Shewen. *Second Silver Medal:* Frederick Leonard. *Certificates of Honour:* R. T. Smith, Alexander Muirhead and W. W. Houlder (equal), Alexander Gray and Frank Salter (equal), J. R. W. Seymour, J. Hallowes, R. Parker, John Cameron Graham and G. Benezedi, (equal). *Principles and Practice of Medicine: Gold Medal:* Henry Clothier. *First Silver Medal:* F. B. Nunneley. *Second Silver Medal:* Thomas Baily. *Certificates of Honour:* Thomas Bell Hay, Edward C. Shoppee, Henry C. Gill, Richard Matthews Pryce, Louis Le Grand. *Surgery: Gold Medal:* Thomas Bailey. *First Silver Medal*: George Vivian Poore. *Second Silver Medal:* S. Morrison. *Certificates of Honour:* Frederick Young and Richard M. Pryce (equal), Louis Le Grand, J. E. Grinfield Coxwell, John Creed. *Fellowes Clinical Medal: Gold Medal:* Henry Clothier. *Silver Medal:* Timothy Lewis. *Special Class of Clinical Medicine: First Prize:* H. Clothier. *Second Prize:* E. C. Shoppee. *Certificates of Honour:* George G. Spencer, T. B. Hay.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND. The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at a meeting of the Court of Examiners, on May 22nd.

Adams, Edward John, Charlton, Kent
Archdall, Gordon, Bundoran, co. Donegal
Birch, George, L.S.A., Kingsland
Carver, Charles Handasyde, L.S.A., Nottingham
Fair, Campbell, Auterrard, co. Galway
Galton, John Charles, M.A.Oxon., Exeter
Horsfall, John, B.A.Oxon., Leeds
James, John Rees, Llanelly, Carmarthen
Johnston, David, Magherafell, co. Derry
Levy, Julius Lawrence, Westbourne Terrace
Lloyd, Thomas Franklin, L.S.A., Finsbury Circus
Morgan, Richard, Aberdare, South Wales
Murray, Berkeley, Barbadoes
Perry, Michael, Hanwell, Berkshire
Pughe, David Roberts, L.S.A., Aberdovey
Sansome, Thomas, Birmingham
Schott, Georg Friedrich Julius, M.D.Gottingen, Frankfort-on-the-Main
Smee, Alfred Hutchinson, Finsbury Circus
Stevens, George Jesse Barnabas, Southgate Road

Admitted on May 23rd—

Evans, Julian Augustus Michael, Pinner
Malloch, Edward Cruikshank, M.D., Ottawa, Canada West
Parker, Leander Van Ess, M.D., Nova Scotia

It is stated that seven candidates for the membership out of the twenty-eight who recently offered themselves for examination, were referred back to their studies for six months.

Naval Surgeons. At a meeting of the Court of Examiners, on May 23rd, the following gentlemen passed their examinations for full surgeons in the Royal Navy.

Middleton, James, M.D. and L.R.C.S.Edin., 1860, of the Royal Hospital, Greenwich
Peckthorne, George Russell, M.D.Aberdeen, 1862, of H.M.S. *Challenger*, Sheerness

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS, EDINBURGH. (Double Qualification.) The following gentlemen passed their first professional examinations during the April and May sittings of the examiners.

Allan, William M., Newfoundland
Anderson, John, Forfarshire
Brass, Joseph T. W., Orkney
Brown, Henry, Belfast
Brown, Samuel, Jamaica
Brownrigg, Henry T., Waterford
Campbell, Archibald, Argyleshire
Clumpett, Richard Vought, Devonshire
Easby, William, Durham
Fell, Thomas, Sunderland
Jones, David Edgar, Cardiganshire
Little, John F., Kilkenny
M'Cormac, J. M'Gee, co. Down
Macnamara, L. J., co. Clare
Maker, Nicholas, Thurles
Menzies, Douglas Donald Cameron, New Amsterdam
Meehan, James, Limerick
Norman, Edwd. T., New Orleans
Paterson, Andrew M'M., Madras
Rutherford, J. H., Newcastle
Stevenson, Robert, Kilwinning
Stockwell, James, Musselburgh
Vaughan, Jeremiah, co. Clare
Wickham, R. H. B., Ascension
Wood, Charles Wellis, Askrigg
Woodifield, T. R. J., Sunderland

And the following gentlemen passed their final examinations, and were admitted L.R.C.P.Edinburgh, and L.R.C.S.Edinburgh.

Affleck, James, Ayr
Allcock, Christopher, Nottingham
Bates, Tom, Cambridgeshire
Bradley, Daniel, Dudley
Brayton, J. G., Whitehaven
Clarke, Wm. H., Birmingham
Gailey, Edgar, Annan
Griffith, Wm. B., co. Mayo
Hayes, Joshua, Cork
Jones, Charles, Herefordshire
Kehoe, Thomas B., Cork
M'Carthy, John, Cork
M'Dougall, Finlay, Argyleshire
MacRury, C. W., Inverness-shire
Mortimer, Richard, Cork
Murray, William, co. Westmeath
Myles, George, Limerick
Purcell, Edward G., Limerick
Robinson, James, Lancashire
Roche, Arthur W., Cork
Stanley, W. E. S., Cumberland
Stewart, Robert, Perthshire
Straton, Charles R., Montrose
Tait, Robert L., Edinburgh
Wicks, Aubrey, Cambridge
Wood, Wm. Dyson, Wakefield
Woodcock, Samuel, Derbyshire
Young, Richard, Lanarkshire

ROYAL COLLEGE OF SURGEONS, EDINBURGH. The following gentleman passed their final examinations,

and were admitted Licentiates of the College during the April and May sittings of the examiners.

Brown, Hugh, Lanarkshire
Cox, James N., Dumfriesshire
Gray, George, Newry
Lindsay, Joseph, co. Antrim
M'Caskie, Chas., Edinburgh
Moir, John W., Musselburgh
Palanque, John A., Windsor
Rhind, John, Cheshire
Skene, Wm., Helensburgh
Smith, Robert Ayre, Monkwearmouth
Wood, Joseph, Northumberland

APOTHECARIES' HALL. On May 17th, 1866, the following Licentiates were admitted:—

Bush, John Dearden, Newcastle-upon-Tyne
Evans, Arthur Griffith, Narberth, Pembrokeshire
Gell, Thomas Silvester, Stafford
Macaulay, James Campbell, Leicester
Milward, James, Cardiff
Newsam, Alderson, Totnes, Devon
Smith, Edward Robert, Dudley, Worcestershire

At the same Court, the following passed the first examination:—

Sanders, Richard Careless, London Hospital

APPOINTMENTS.

ARMY.

LEET, Assistant-Surgeon C. H., 13th Foot, to be Staff-Assistant-Surgeon, *vice* W. H. T. Power.
POWER, Staff-Assistant-Surgeon W. H. T., to be Assistant-Surgeon 13th Foot, *vice* C. H. Leet.

ROYAL NAVY.

CRAWFORD, John, M.D., Staff-Surgeon, to the *Trincomalee*.
GABRIEL, John T., Esq., Surgeon, to the *Pearl*.

INDIAN ARMY.

HARPER, Deputy Inspector-General G., Bengal Establishment, to have the honorary rank of Inspector-General of Hospitals.
MACFARLANE, Surgeon-Major D., Madras Establishment, to have the honorary rank of Deputy Inspector-General of Hospitals.

MILITIA.

CURME, D., Esq., to be Assistant-Surgeon Dorsetshire Militia.

VOLUNTEERS, (A.V.=Artillery Volunteers; R.V.=Rifle Volunteers):—

FITZGERALD, C. E., M.D., to be Surgeon 2nd Administrative Battalion Cinque Ports R.V.
HUNT, T. O., Esq., to be Honorary Assistant-Surgeon 1st Radnorshire R.V.
LOANE, J., M.D., to be Assistant-Surgeon 1st Administrative Battalion Tower Hamlets R.V.
RICKARDS, A., Esq., to be Assistant-Surgeon 1st West Riding A.V.

BIRTHS.

ASHENDEN. On May 16th, at Hastings, the wife of Charles Ashenden, Esq., Surgeon, of a son.
CRAIGIE. On May 14th, at Doddington, Kent, the wife of John Craigie, Esq., Surgeon, of a son.
JONES. On May 17th, at Chichester, the wife of C. Sturges Jones, Esq., Surgeon, of a daughter.
KELSON. On May 16th, at 130, St. Paul's Road, Camden Square, the wife of *George Kelson, Esq., of a daughter.
KIRBY. On May 18th, at Cambridge Terrace, Hyde Park, the wife of Thomas C. Kirby, L.K.Q.C.P., of a daughter.
SECCOMBE. On May 18th, at Terrington, King's Lynn, the wife of John T. Seccombe, M.D., of a son.
SUMNER. On May 18th, at Wellington Terrace, St. John's Wood, the wife of W. Allen Sumner, Esq., Surgeon, of a son.
YELF. On May 12th, at Moreton-in-Marsh, the wife of L. K. Yelf, M.D., of a son.

MARRIAGES.

FOTHERBY, Henry I., M.B., of Trinity Square, Tower Hill, to Louisa Mary, only daughter of Chas. F. ENGSTROM, Esq., Her Majesty's Consul at Gothenberg, at Tottenham, on May 22.
LEATHEM, James, M.D., of Stratford, Essex, to Matilda, daughter of Alfred NEWMAN, Esq., of Alfred Street, Cavendish Square, on May 12.
LITTLE, Archibald J., Esq., Staff-Surgeon Royal Navy, to Bessie, widow of the late Charles G. D. ANNESLEY, Esq., Captain 18th Royal Irish, at St. Brelade's, Jersey, on May 16.

DEATHS.

BRABANT, R. H., M.D., at Bath, aged 85, on May 13.
*HARE, Henry C., Esq., at Cawood, Yorkshire, aged 39, on May 15.
HARVEY, William H., M.D., Professor of Botany in the University of Dublin, at Torquay, aged 55, on May 15.
MCRAE. On May 15th, at Bath, aged 9, Alexander, eldest son of the late A. McRae, M.D., H.M.'s 97th Regiment.
SMITH, Samuel, Esq., formerly Surgeon to the Forces, at Ardres, France, aged 91, on May 15.
STEVENS, James, L.R.C.P.Ed., at 26, Bloomsbury Square, aged 46, on May 16.
VISE. On May 20th, at Holbeach, aged 76, Elizabeth, wife of *Edward Blithe Vise, Esq.

MR. I. BAKER BROWN has been elected an Honorary Member of the Physico-Medical Society of the University of Moscow.

UNIVERSITY OF CAMBRIDGE. It is proposed to confer honorary degrees upon Alphonse De Candolle, Professor Sedgwick, Professor Phillips, of Oxford, Dr. J. D. Hooker, and Professor W. Thomson, of Glasgow.

POPULATION OF THE UNITED KINGDOM. The Registrars-General of the three kingdoms estimate the population at the middle of the year 1866, as follows:—England and Wales, 21,210,020; Scotland, 3,153,413; Ireland, 5,571,971; total, 29,935,404.

A CHOLERA HOSPITAL SHIP FOR THE THAMES. The Lords of the Admiralty have granted the ship *Belleisle* for use in the Thames as a cholera hospital. It is to be under the charge of the committee of the Seamen's Hospital Society, and will be moored in the neighbourhood of the *Dreadnought*.

BRITISH HOME FOR INCURABLES. The Board has received a second donation from the Princess of Wales, the patroness of the institution; and the Marquis Townshend has presented a sum of £1,000 to found a perpetual maintenance for one in-patient, in memory of his father, the first President of the institution.

THE ROYAL MEDALS for the encouragement of geographical science and discovery, entrusted annually for award to the Geographical Society, will this year be given to Dr. T. Thomson, Himalayan traveller and botanist, and to Mr. W. Chandless, who performed the wonderful exploration of the Purus river, in South America, mapping it in detail for a length of 1900 miles. (*Athenæum.*)

DEATH OF DR. W. H. HARVEY. The papers announce the death of Dr. William H. Harvey, F.R.S. and L.S., M.R.I.A., etc., Professor of Botany in Trinity College, Dublin, and keeper of the University Herbarium, a highly distinguished botanist, and a most amiable and accomplished man. Dr. Harvey, who had long been ill, died of phthisis on the 15th instant, at Torquay.

THE SCOTCH UNIVERSITIES. The Senatus of Edinburgh University have sent to the care of Sir William Stirling-Maxwell a petition to the House of Commons, pressing the claims of the Scotch Universities to be represented by two members instead of one, as proposed in the Seats Bill; and suggesting that the Universities should be formed into two groups, one comprising Edinburgh and St. Andrew's, the other Glasgow and Aberdeen, each group to return a member. (*Scotsman.*)

SUPPLY OF GAS. The Select Committee on the metropolitan gas bills have arrived at a decision which cannot fail to give general satisfaction. The committee report that they have found the illuminating power greater, and the quality of the gas better, in Manchester, Birmingham, Edinburgh, Plymouth, Brighton, and other large towns, than in the metropolis, and the price cheaper to the consumers: that the purification of the metropolitan gas is imperfect, leaving an excess of sulphur, which is most injurious to health, pictures, metals, etc. The report suggests many improvements as to tests, district arrangements, and other matters, and recommends that the legal minimum illuminating power should be increased, and the maximum price reduced.

R. B. SEEMANN, formerly naturalist on the British *Herald*, on her voyage round the world, in 1845 1851, is on his way to Nicaragua, to make reports egard to the mines of Lemon and Matagalpa.

HE EDINBURGH MUSEUM OF SCIENCE AND ART opened by Prince Alfred on the 19th instant. opportunity was taken by the magistrates and ncil to present his Royal Highness with the free- of the city, and the Senatus Academicus of the versity conferred upon him the honorary degree L.D.

HE LECTURES given for assisting the funds of the iety for Assisting Scientific Men in Paris in need now concluded, and have added considerably to funds. M. Frémy's lecture on ozone and oxygen perhaps the greatest success of the course. The tinued presence of the Empress at these lectures erves to be recorded.

HOLERA. Dr. Trench, the medical officer of lth for Liverpool, reports five deaths from cholera hin the borough during last week; this increase lue to the removal of the passengers from the *vetia* and *War Cloud*, to a depôt within the ough. The registrar of Swansea has reported a th from cholera, which occurred in his district on 14th inst. The disease proved fatal in four hours. the morning of the 17th, a woman, who had laid the deceased, was attacked with all the symptoms he same disease.

HE CHOLERA IN LIVERPOOL. From a statement de by Dr. Trench, at a meeting of the Health nmittee, it appeared that up to that time there l been a total of thirty-one deaths in the port, and t all had occurred among German emigrants, and se connected with the *Helvetia*. Hitherto the ease had attained no foothold in the town, and re was no reason to fear that it would do so. He es it as his opinion that the disease, with ordinary cautions, is not contagious.

HARMACEUTICAL SOCIETY. The annual conver- ione of the Pharmaceutical Society was given on 15th inst. Dr. Thudichum gave a lecture on trichina spiralis, exhibiting specimens both of living and dead animal, by means of the oxy- lrogen light. Mr. Debenham took a photograph the audience by the aid of the magnesium light, iting an ounce of magnesium filings at one in- nt. Mr. S. Highley exhibited a number of en- ged microscopic and other objects on the screen, the aid of his lantern and the lime light. The ibition of microscopes was very extensive. Mr. Browning exhibited some useful spectroscopes. ssrs. Horne and Thornthwaite exhibited a most enious engine, devised by Mr. Acland, for dividing es, eudiometers, burettes, thermometers, etc. Ansell described his diffusion instruments for ecting fire-damp in mines. Dr. Bence Jones ex- ited Schultze's electrical induction machine. other novelty was a number of joints of meat eloped in paraffine, according to Dr. Redwood's cess. It is simply to dip the joint in melted affine; the hot liquid drives out the air from the ue, and on the joint being withdrawn and put in der paraffine, an additional layer coats it, and a ck white envelope is completed. Specimens have n sent in ships to various foreign parts, to test process, but none of these examples have yet had ne to return for that necessary examination, which requisite to stamp a permanent commercial value the method. Around the walls were displayed cimens of ferns and seaweeds, by Mr. Jardine. ofessor Bentley brought a number of rare plants, e of which was *Sarracena purpurea* in flower.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....Metropolitan Free, 2 P.M.—St. Mark's for Fistula and other Diseases of the Rectum, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TUESDAY. .... Guy's, 1½ P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.

WEDNESDAY... St. Mary's, 1 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.

THURSDAY.....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Great Northern, 2 P.M.—London Surgical Home, 2 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.

FRIDAY. ..... Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

SATURDAY..... St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1·30 P.M.—Charing Cross, 2 P.M.—Lock, Clinical Demonstration and Operations, 1 P.M.—Royal Free, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

FRIDAY. Western Medical and Surgical Society of London, 8 P.M. Annual Meeting. Dr. Blandford, "Some Cases of General Paralysis of the Insane."

TO CORRESPONDENTS.

*** *All letters and communications for the* JOURNAL, *to be addressed to the* EDITOR, 37, *Great Queen St., Lincoln's Inn Fields, W.C.*

COMMUNICATIONS.—To prevent a not uncommon misconception, we beg to inform our correspondents that, as a rule, all communications which are not returned to their authors, are retained for publication.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

DOES Mr. Clowes intend his note for publication?

WE have been compelled to defer several letters of correspondents, on account of the length of the report of the proceedings of the Medical Council.

VOLUNTEER UNIFORMS.—SIR: Will you, or any of your readers, kindly state what are the exact accoutrements, uniform, and ornaments, of—1, a surgeon to a battalion of volunteers; 2, an assistant-surgeon to ditto; 3, a surgeon or assistant-surgeon of a company. I am, etc.,

May 21st, 1866. F.R.C.S.

THE GRIFFIN TESTIMONIAL FUND.—SIR: The following subscriptions have been further received on behalf of the above Fund:—W. B. Irving, Esq., Newark (second), 1s.; Thomas Robinson, Esq., Alton (second), 5s.; H. J. Mathew, Esq., Horsham, 10s.

Amount previously announced, £136 : 6 : 3. Received at the office of the *Lancet*, £13 : 11 : 6.

I am, etc., ROBERT FOWLER, M.D.,
Treasurer and Hon. Sec.

145, Bishopgate Street Without, May 23rd, 1866.

A SENSIBLE PROPOSAL.—M.D. writes: "I beg leave to endorse the views expressed by a correspondent in the JOURNAL of last week, that the expenses incurred by Dr. Armstrong and his son in resisting the attempts to extort money from them, should be defrayed by voluntary contributions. As mostly happens in these cases, more money is raised than is required, and then a difficulty arises what to do with the surplus; to obviate which, I propose that each subscriber be asked to advance five shillings, and in case that is not sufficient, each be expected to give an equal amount to make up the deficiency. By that means, I think many will be induced to join, who otherwise would not; and as the object of such subscriptions is to show our sympathy for our unfortunate *confrères*; by adopting this course, two good things would result—a hearty response on the greater part of the profession, and a grateful proof to the Messrs. Armstrong of the esteem and respect entertained for them by a large body of their medical brethren. Should you consider my suggestion practicable, I beg you will put my name down as a subscriber."

[M.D.'s views on this subject are quite in accordance with the expressed opinion of the committee. EDITOR.]

PARADOX IN THE TREATMENT OF CHOLERA.—SIR: In the JOURNAL of May 5th, the word "elimination" is used in the curing of cholera. It strikes me, and it may strike others, that giving aperient medicines of any kind, as therein prescribed, would not produce such an act of Nature as would be desirable. It will be admitted that elimination may be normal and abnormal in effect. We cannot say that we can grow wheat, or make an ox fat; but we can use the proper and usual manure and food to effect each object. If disease exists in the wheat or the ox, the one would not grow nor the other get fat, through the exertions of the most attentive farmer; so also in the treatment of cholera by the use of aperients—viz., castor oil, calomel, rhubarb, salts, etc.; or by other means, as opium, brandy, and chalk mixture, which were found wanting on former occasions amongst persons of distinction, whose cases at the *first moment* of attack were considered hopeless, especially in the late Mr. Key's case, of Guy's Hospital. The proposal of such means seems a paradox to physiological knowledge.

I beg to say that the abnormal state of the blood in cholera, marked by low degree of heat at 77° (see Müller's *Physiology* by Baly, second edition), has again and again been found and suspected to be the seat of disease in cholera; therefore, restoring the blood to its normal condition, seems to be the *only* mode of cure, which was practised by myself in the Barnstaple Union in 1849, where the guardians had full power of knowing the facts, when one hundred and eleven cases were cured, without a single death occurring, under the same (published) treatment, whilst forty or more cases died under others' treatment. Furthermore, the disease is so very weakening, that the abstraction of blood has been found injurious, and the evacuation of other fluids from the system seems also palpably wrong; whereas, in addition to the system, should be sought to make good the loss from excessive evacuations.

Further communication on the subject with you may be desirable, if my views are worthy of notice in your columns.

I am, etc., WILLIAM PARKER, M.R.C.S.

Bath, May 10th, 1866.

ANIMAL QUININE.—P. Z. writes: "I was delighted to see the way in which you notice Dr. Bence Jones's speculations on his new fluorescent substance. I had intended to write to you on the subject, and to call your attention to the absurdity of any such hypothesis being based upon such facts as Dr. B. Jones appeared to have made out. The reasoning reminds me very much of the hypothetical views which we are apt to hear very frequently in our admirable societies, and where, besides the accurate and cautious men, there are always two or three who are distinguished for the extraordinary hypotheses which they are always building up."

COMMUNICATIONS have been received from:—Mr. RICHARD GRIFFIN; Mr. E. B. VISE; Dr. CANNEY; Mr. STONE; Dr. JAMES RUSSELL; Mr. I. B. BROWN; Dr. PHILIPSON; THE HONORARY SECRETARY OF THE WESTERN MEDICAL AND SURGICAL SOCIETY OF LONDON; Dr. SIEVEKING; Dr. ARMSTRONG; THE SECRETARY OF THE MEDICAL SCHOOL OF ST. BARTHOLOMEW'S HOSPITAL; Mr. R. W. WATKINS; Mr. E. P. HARDEY; Mr. SKEY; Mr. HENRY LOWNDES; Dr. D. MACKINDER; Mr. C. HEATH; Mr. THOMAS HEWLETT; Dr. JOHNSON; Mr. F. CLOWES; Mr. THURSFIELD; Mr. C. H. MOORE; Mr. STEELE; THE HONORARY SECRETARY OF THE HARVEIAN SOCIETY OF LONDON; Dr. BOWLES; Dr. THOMAS SKINNER; Dr. SHAPTER; Dr. LUDLOW; Dr. DAVEY; Dr. ROBERT FOWLER; Mr. C. STEELE; Mr. R. W. DUNN; Dr. A. RANSOME; Dr. BARCLAY; Dr. J. H. BENNETT; and Dr. H. GREENHOW.

BOOKS RECEIVED.

1. Asiatic Cholera. By F. A. Burrall, M.D. New York: 1866.
2. Thermometric Observations on Fever. By Thomas W. Grimshaw, A.B., M.B. Dublin: 1866.
3. The Mercurial and Non-mercurial Treatment of Syphilis. By R. W. Dunn. London: 1866.
4. Sisterhoods in Asylums. By W. A. F. Browne, F.R.C.S.E., etc. London: 1866.
5. A Treatise on the Principles and Practice of Medicine. By Austin Flint, M.D. Philadelphia: 1866.
6. Sussex Lunatic Asylum, Hayward's Heath. Seventh Annual Report, 1865. Lewes: 1866.
7. A Guide to the Practical Study of Diseases of the Eye. By J. Dixon, F.R.C.S. Third Edition. London: 1866.
8. Observations on the Arrested Twin Development of Jean Battista Dos Santos. By P. D. Handyside, M.D. Edinburgh and London: 1866.
9. Lectures on Mental Diseases. By W. H. O. Sankey, M.D. London: 1866.
10. On the Safe Abolition of Pain in Labour and Surgical Operations, by Anæsthesia with Mixed Vapours. By Robert Ellis. London: 1866.
11. A Practical Treatise on Diseases of the Testis. By T. B. Curling, F.R.S. Third Edition. London: 1866.
12. A Lecture on Posterior Staphyloma. By J. F. Streatfeild, F.R.C.S. London: 1866.
13. Surgical Appliances and Minor Operative Surgery. By Thomas Annandale. Edinburgh: 1866.
14. Ophthalmic Surgery. By J. Z. Laurence, F.R.C.S., and R. C. Moon. London: 1866.

ADVERTISEMENTS.

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Illustrations
OF
HOSPITAL PRACTICE:
METROPOLITAN AND PROVINCIAL.

BIRMINGHAM GENERAL HOSPITAL.

LOSS OF THE FACULTY OF EXPRESSION, IN CONNECTION WITH INJURY TO THE PORTION OF SKULL CORRESPONDING WITH THE LEFT ANTERIOR LOBE OF THE BRAIN.

By Jas. Russell, M.D., Physician to the Hospital.

I published a case in the *Medical Times and Gazette*, September 9th, 1865, in which considerable defect in the faculty of expression (by writing and by speech) was found after death to be associated with deficiency in certain convolutions of the left anterior cerebral lobe. An extract from a valuable paper by Dr. Sanders of Edinburgh, on the Connection between Loss of Speech and Disease in the Convolutions of the Left Anterior Lobe, founded upon a *post mortem* examination of the patient's brain, appears in this Journal on February 24th of the present year. The following case, though differing in some respects from those already mentioned, yet bears directly upon the subject which they were cited to illustrate. It occurred in the practice of my colleague, Mr. Pemberton, with whom I saw the patient, and to whose kindness I am indebted for permission to publish my notes.

J. W., aged 62. I saw him three days after he had fallen from a cart upon his head. He then presented the following symptoms: complete paralysis of the right arm, with so much insensibility to contact that it was necessary to score his arm before he felt the presence of the instrument; sensibility to warmth, however, remained undiminished. The right leg was moved freely as the patient lay; but I had not the opportunity of testing his power to walk; sensation in this extremity was intact. The mouth and tongue were carefully ascertained to be quite free from paralysis. The pupils were equal, and contracted thoroughly. Intelligence was unaffected; and speech was complete. It was of course ascertained that none of the symptoms mentioned were present before the accident. A considerable portion of skull was found depressed for a depth answering to the thickness of the bone (the bone being thin). As much of the depressed portion as was possible was removed.

On the following day, the condition of the patient remained in all respects unchanged; but, on the second day, I found him perfectly unintelligible. He understood what was said, for he obeyed directions instantly; but to every question, even though requiring a simple negative or affirmative, he replied by a series of perfectly unintelligible sounds arranged in the form of a short sentence. It was not that he was incoherent; he might have been; but it was that his utterance did not take the form of words, though he evidently employed it to express his thoughts. Not a single word could be made out, although he uttered very freely; and he could not be induced to make any sign, whether of negation or of assent. There was still no paralysis of the mouth. He died on the following day apparently simply from sinking.

Post Mortem Examination. The fractured portion of skull extended from the anterior edge of the left parietal bone to within an inch and a quarter of the posterior edge. Above, it extended to an inch below the sagittal suture. In front and behind, a fissure extended to the base. The bone had been removed from the upper portion for the breadth of rather more than an inch; and a piece an inch broad remained depressed just below. A tolerably thick clot between the dura mater and the skull extended from the vertex nearly to the base, forming a visible depression upon the surface of the brain, deepest above, but much shallower, though still evident, on the convolutions above the fissure of Sylvius. The pia mater of the left hemisphere was generally infiltrated with bloody fluid.

A thin layer of purulent lymph, chiefly running along the vessels, existed in the upper part of the left side of the brain corresponding to the portion of bone removed, and here the arachnoid was decidedly thickened. The convolutions near the Sylvian fissure were free from lymph, and the arachnoid covering them was not thicker than usual. The convolutions were uninjured, but were decidedly, though not greatly, softened; and, by microscopic examination, they were found to contain lymph-cells, some of which almost presented the character of true pus-cells. The whole of the remainder of the brain was carefully examined, but not a trace of injury or disease was discovered. I was not able to witness the remainder of the autopsy; but Dr. Steell informs me that a considerable quantity of blood was effused in the pia mater of the spinal cord, as low down as the third dorsal vertebra, involving the roots of the nerves. It was in larger quantity on the right than on the left side. The cord itself was healthy.

The entire brain was manifestly small by comparison with the size of the skull.

One or two comments are suggested by the foregoing details.

As regards the general subject of cerebral hemiplegia, there were two particulars in which the symptoms were not conformed to the rule of the common form of the disease, that, namely, from affections of the upper part of the motor tract; the entire absence of paralysis of the mouth, and the presence of very considerable anæsthesia in the paralysed arm. We were unable satisfactorily to test the state of motor power in the leg by walking. Both these phenomena were satisfactorily explained by the presence of effused blood in the spinal sheath, thereby transferring the probable source of the paralysis from the brain to the cord. It will be noticed (with reference to the source of this effusion) that the coagulum within the skull was external to the dura mater, and therefore could not have supplied the blood poured out upon the pia mater of the spinal cord.

Such being the case, we can explain the existence of the paralysis for four days without impairment of speech, consistently with the hypothesis which connects the faculty of language and of expression generally, with certain convolutions of the left anterior lobe, which, in the present case, suffered more or less from the injury. M. Broca having mapped out a particular district of the brain to be associated with the faculty in question, we naturally start, in our inquiries, from the localty specified by him.

Now, the injury certainly affected this district; and yet it was not until the fifth day that the associated function suffered. But, in the first place, the shrunken state of the patient's brain, incident to his age, would much lessen the pressure exerted by the depressed bone and extravasated blood. Secondly, the chief seat of injury was above the convolutions specified by M. Broca (I conducted the examination with Dr. Arbutin's plate, copied by Dr. Hughlings

Jackson in the *London Hospital Reports*, vol. i, before me); and the coagulum effused between the dura mater and the skull had manifestly compressed the lower convolutions much less than it had those occupying a higher level.

But, on the fifth day, decided defect in the faculty of expression manifested itself, involving incapacity to make signs, and entire inability to form words. Thus the defect becomes associated with the injuries present in the case; and two suggestions may be made to explain its late appearance: first, a gradual increase in the quantity of extravasated blood, causing an increase of the pressure in the *lower* regions, particularly at a late period—an explanation quite consistent with what is often observed under such circumstances; secondly, an altered state of nutrition in the convolutions themselves, in consequence of the commencing inflammation of the membranes noticed at the *post mortem* examination. The softened condition of the substance of the convolutions, and the presence of lymph-cells in their tissue, manifestly favour this supposition.

It is hardly necessary to add that, although my remarks naturally group themselves around M. Broca's hypothesis, the phenomena observed cannot be understood to point to the particular convolution he has selected as the seat of the lost function. They can do no more than connect, with considerable probability, the entire region with that function; the probability being stronger in respect of the lower than of the higher convolutions.

I have at present under my care a very interesting case of loss of expression, which I hope to make the subject of a future communication.

P.S. Since the preceding report was drawn out, another case has served to illustrate the remarks I have made, by contrast as regards the patient's age, and the consequent absence of wasting of the brain; as regards, also, the situation of the clot, and the cause of the paralysis—the compression from the clot falling on the region of the extraventricular part of the corpus striatum.

A boy received a blow on the left side of the head. I only saw the skull removed after death. It contained a clot between the dura mater and the bone, nearly half an inch thick, limited in extent, and situated in the left temporal region, resting on the petrous process—chiefly compressing, therefore, the *lower* convolutions. The boy continued at work for two hours after receiving the blow; he then suddenly became giddy, and "lost his speech". His mother twice volunteered the assertion that loss of speech was his first symptom. On being removed home, he became comatose and stertorous. He died on the following day. He had convulsions, once unilateral on the right side, afterwards general. The left pupil was widely dilated and insensible; some paralysis of the right side of the face existed.

Dr. Steell was kind enough to give me the foregoing particulars.

The Mecca Pilgrims. From information received by the Board of Health of Alexandria, it appears that the sanitary condition of Mecca has not this year been affected by the arrival of pilgrims in that city, and that a party of devotees were about to return to Suez on the 7th ult., perfectly free from cholera. The pilgrims were subjected to examination upon their embarcation at Djeddah, and up to the present time their general state of health has been completely satisfactory. There are, therefore, grounds for hoping that the Mecca pilgrimages may be performed in 1866 under more satisfactory conditions than in former years.

The Medical Council.

REPORT OF PROCEEDINGS, May 1866.

Tuesday, May 22nd.

G. Burrows, M.D., President, in the Chair.

The minutes of the preceding meeting were read and confirmed.

Medical Acts Amendment Bill. The Report of the Committee on the Draft of the Medical Acts Amendment Bill, transmitted from the Home Office, was read.

Dr. Andrew Wood said that, in the discussion last year on the amendment of the Medical Acts, several subjects were introduced which, he hoped, would not be again referred to; especially the question of giving the Council greater powers for the regulation of medical education. The great object in applying to Parliament was to obtain the amendment of Section xl of the Medical Act. The clause, in the Bill sent from the Home Office, made it penal to assume the title of "Doctor of Medicine."

"xvi. If any person practising medicine or surgery, or engaged in the cure or treatment of diseases or injuries, not being registered under the Medical Acts, takes or uses any of the designations enumerated in Schedule (a) to the Medical Act (1858) as amended by Schedule (b) to this Act, or by any other of the Medical Acts, or the designation of physician, surgeon, doctor of medicine, or apothecary, or any other designation used by or used to distinguish duly qualified practitioners of medicine or surgery, or any class thereof, or the designation of professor of medicine or of professor of surgery, he shall for every such offence be liable, on summary conviction, to a penalty not exceeding twenty pounds."

If the words "of medicine" were allowed to remain, unqualified men would be enabled to practise and assume the title of doctor, without incurring penalties. Some modifications had been made in the clauses relating to registration proposed by the Council. It was proposed, that an erased name should not be re-inserted except by order of the Council or "by order of a Court of Competent Jurisdiction." This was apparently inserted to remove any doubt as to the power of appeal; and he believed the Council would not object to it. The preamble agreed on by the Council had been omitted in the Draft Bill; but he considered that, if possible, it should remain, in order to show the reason why application was being made for an amendment of the Medical Acts. It was proposed to recognise the degree of Bachelor of Surgery conferred by the University of London. Last year, he had opposed the proposal in the Council for the recognition of this degree, because he did not think the Council ought to make additions to Schedule (a); but now, when the matter was put in a legal form, he did not see how the recognition of such a degree, granted after a full examination, could be objected to. The Bill also contained important clauses relating to the registration of foreign and colonial diplomas.

"xi. Every person shall be entitled to be registered under the Medical Act 1858, who is qualified as follows.

"First. Is at the time at which he applies to be so registered legally possessed either of one of the qualifications described in Schedule (b)* of this Act,

* Schedule (b) includes the diplomas of certain eminent foreign and colonial schools of medicine.

or of some other foreign or colonial diploma, obtained in the opinion of the General Council after such course of study and such examination as guarantee to their satisfaction the possession by the applicant of sufficient knowledge and skill for the efficient practice of medicine and surgery.

"Secondly. Has resided in the United Kingdom for a period of not less than twelve months immediately previous to making his application.

"Thirdly. Has not been guilty of any offence which, according to the laws of the country to which he belongs, would disentitle him to practise medicine and surgery, or which, according to the Medical Act 1858, would enable the General Council to strike his name off the *Register*.

"XII. If it appears to the Privy Council, on the representation of the General Council, that any qualification other than those described in Schedule (A) to the Medical Act 1858, and in Schedule (B) to this Act, is granted by any university, college, or body in the United Kingdom or elsewhere, after such a course of study and such examination as guarantee to the satisfaction of the General Council and Privy Council that any person to whom such qualification has been granted possesses the requisite knowledge and skill for the efficient practice of medicine and surgery, it shall be lawful for the Privy Council (in the case of any qualification granted by any university, college, or body in the United Kingdom) to direct by order that every person holding such qualification shall be entitled to be registered under the Medical Act 1858, in the same manner and with the like effect as if the qualification were described in the Schedule (A) to the Medical Act 1858, and (in the case of any qualification granted by any university, college, or body elsewhere than in the United Kingdom) to direct by order that every person holding such qualification shall be entitled to be registered under the Medical Act 1858, in the same manner and with the like effect as if the qualification were described in the Schedule (B) to this Act."

When the Medical Act of 1858 was passed, it was thought right that foreign and colonial degrees obtained before the passing of the Act should be registered; but not those subsequently obtained. He did not think that the Council would *proprio motu* have made the proposal contained in the above clause; but it seemed that, under strong pressure, the Home Office felt that they were not at liberty to refuse any longer the registration of foreign graduates. Apart from all other considerations, he must say that at present an injustice was committed towards the colonies; for, while all persons registered in England were entitled to practise in them, colonial degrees were not recognised here. There ought to be reciprocity. In some of the colonies, as in Canada, there were first-rate universities, holding preliminary and professional examinations equal to those in the United Kingdom. In India, also, universities had sprung up, from which highly qualified men came year by year to take British qualifications. Universities were being established in several parts of Australia; but as yet sufficient information had not been obtained regarding their degrees and examinations. As to foreign degrees, there might be some difficulty, because the universities were altogether beyond the reach of British control; but it could not be ignored that there were some of very high repute, giving qualifications in medicine perhaps superior to those in Great Britain. There was no difficulty in learning the condition of the European universities; but, in the United States, the information in the possession of the Committee was not so full as could be wished. The Home Office had requested the Council to fill up the Schedule (B). The Committee had felt that this would be a most difficult duty; and it was questionable whether such a schedule were desirable, as it would be difficult to remove the name of any institution inserted on it. An alternative was proposed, which he hoped the Council would adopt; viz., "to make a provision in Clause XII of the proposed Bill, by virtue of which it shall be lawful for the General Medical Council annually to prepare and submit to the Privy Council, for approval, a list of those foreign and colonial qualifications which, from time to time, the General Medical Council may consider worthy of recognition —this list to be published in the *Gazette* and in the *Medical Register*." He concluded by moving—

"That the Draft Bill be read, clause by clause, with the corresponding clauses of the Report of the Committee."

Dr. CHRISTISON seconded the motion, which was carried.

Dr. ANDREW WOOD moved, Dr. PARKES seconded, and it was resolved—

"That it is desirable, if there be no legal objection, that the preamble of the Draft Bill of the Council—viz., "Whereas the Medical Act (1858) has been found ineffectual to enable persons requiring medical aid to ascertain who are qualified practitioners'—be inserted in the Bill before the words 'be it enacted'."

Clauses I to IX inclusive were then severally put to the vote and approved, without discussion.

Clause X of the Draft Bill was then read; viz.:

"Each Registrar may erase from his Register the name of any person who has ceased to practise; and, in order to the better execution of that duty, each Registrar may send by post to any person registered in his Register a registered letter, addressed to that person according to his registered address, inquiring whether or not he has ceased to practise, and if the Registrar does not, within *three months* after sending such a letter, receive any answer thereto from the person to whom it is sent, he may, within *fourteen days* after the expiration of the said period of *three months*, send by post to that person another registered letter, addressed to him according to his registered address, referring to the first letter, and stating that any answer thereto has not been received by the Registrar, and if the Registrar does not within *three months* after sending such second letter receive any answer thereto from the person to whom it is sent, that person shall, for the purpose of the present section, be deemed to have ceased to practise; and the name of any person shall not (without his consent) be removed from the Register on the ground of his having ceased to practise, except in pursuance of the provisions of the present section. Provided that a person whose name has been erased from the Register with his consent, on the ground of his having ceased to practise, shall not be liable to any penalty under this section, by reason of his being engaged gratuitously in the cure or treatment of any disease or injury."

After some remarks from Dr. Christison, Dr. Storrar, Dr. A. Smith, and Dr. Sharpey, in the course of which it was pointed out that the provision here made was for erasing the name of a practitioner merely because he had ceased to practise, while in the Bill proposed by the Council last year this was made contingent on the desire of the practitioner, it was determined to defer the further consideration of the clause until Mr. Ouvry's opinion had been obtained.

Clause XI was then read; viz.:

"Every person shall be entitled to be registered under the 'Medical Act, 1858,' who is qualified as follows:

"*First.* Is at the time at which he applies to be

so] registered legally possessed either of one of the qualifications described in Schedule (B) of this Act, or of some other foreign or colonial diploma, obtained, in the opinion of the General Council, after such course of study and such examination as guarantee to their satisfaction the possession by the applicant of sufficient knowledge and skill for the efficient practice of medicine and surgery.

"*Second.* Has resided in the United Kingdom for a period of not less than twelve months immediately previous to making his application.

"*Thirdly.* Has not been guilty of any offence which, according to the laws of the country to which he belongs, would disentitle him to practise medicine and surgery, or which, according to the 'Medical Act, 1858,' would enable the General Council to strike his name off the Register."

Dr. ANDREW WOOD moved, and Dr. PARKES seconded, the adoption of the clause, substituting for the first condition the following.

"*First.* Is at the time at which he applies to be so registered legally possessed of a foreign or colonial diploma, obtained, in the opinion of the General Council, after such course of study and such examination as guarantee to their satisfaction the possession by the applicant of sufficient knowledge and skill for the efficient practice of medicine and surgery."

Sir DOMINIC CORRIGAN saw no objection to admitting the holders of colonial degrees to the *Register*; but it would be going too far to admit foreign degrees. An Englishman with a degree from his own country is not allowed to practise in France without undergoing an examination; and foreigners ought not to be admitted here, unless there was reciprocity. He foresaw that difficulties would arise, if the proposal were adopted. He moved—

"That the words 'foreign or', in Clause XI, be omitted."

Dr. A. SMITH seconded the amendment.

Dr. ALEXANDER WOOD said that, having been on a former occasion chairman of the Committee appointed to examine the foreign diplomas presented for registration, he would be inclined in favour of the amendment; because, while there could be no doubt as to the high character of some foreign universities, others sprang up from time to time regarding which the Council had no satisfactory information. He must, however, support the original resolution, because it was apparent that the admission of foreigners was insisted on by the Home Office. The admission would not be so dangerous as Sir D. Corrigan appeared to think; for certain universities only would be placed on Schedule (B); or, still better, there was the alternative of delegating to the Medical Council the task of annually preparing a list with the consent of the Privy Council. With regard to reciprocity, he thought that the example should be set in this country; and that, as liberal feelings made progress, others would follow it.

Mr. SYME said that the Bill would not be accepted if the recognition of foreign degrees were omitted.

Dr. QUAIN said that Government had long been of opinion that the holders of foreign and colonial degrees should be admitted to the *Register*.

Dr. ANDREW WOOD thought it would not be good policy to refuse to register foreign degrees, if the Council were satisfied as to their character. He had no fear that inferior degrees would be admitted, because he was certain that the Council would exercise the utmost care in selection.

After some remarks from Dr. Christison, Mr. Rumsey, Dr. Paget, and Mr. Hawkins,

The PRESIDENT said that it was apparent that the Government was desirous of giving the Council the power of admitting foreign and colonial graduates. If the Council agreed to this principle, he did not think there would be any difficulty in carrying out the matter in the way suggested by the Council; and he would prefer the alternative of having an annual list. He believed that it was never intended that there should be a large number of foreign bodies recognised.

Some further discussion took place, after which Sir D. J. Corrigan's amendment was put to the vote, when there appeared, for, 6, against, 13. It was consequently lost.

The original motion was then put to the vote, and carried by a majority of 14 to 5.

Dr. ALEXANDER WOOD moved, and Mr. RUMSEY seconded, the adoption of Clause XII, omitting the words included within brackets; viz.:

"If it appears to the Privy Council, on the representation of the General Council, that any qualification other than those described in Schedule (A) to the 'Medical Act, 1858,' [and in Schedule (B) to this Act,] is granted by any university, college, or body in the United Kingdom or elsewhere, after such a course of study and such examination as guarantee to the satisfaction of the General Council and Privy Council that any person to whom such qualification has been granted possesses the requisite knowledge and skill for the efficient practice of medicine and surgery, it shall be lawful for the Privy Council (in the case of any qualification granted by any university, college, or body in the United Kingdom) to direct by Order that every person holding such qualification shall be entitled to be registered under the 'Medical Act, 1858,' in the same manner and with the like effect as if the qualification were described in the Schedule (A) to the 'Medical Act, 1858,' and (in the case of any qualification granted by any university, college or body elsewhere than in the United Kingdom) to direct by Order that every person holding such qualification shall be entitled to be registered under the 'Medical Act, 1858,' [in the same manner and with the like effect as if the qualification were described in the Schedule (B) to this Act]."

The debate was adjourned.

The Pharmacopœia. Dr. QUAIN gave in the Report of the Pharmacopœia Committee.

Medical Titles in the Army List. Sir D. J. CORRIGAN gave in the Report of Committee on a communication from the Under-Secretary of State for War, relative to the insertion of medical titles in the *Army List*. (See JOURNAL, May 26, p. 550.)

WEDNESDAY, MAY 23RD, 1866.

G. BURROWS, M.D., President, in the Chair.

The minutes of the last meeting were read and confirmed.

Mr. OUVRY, the Solicitor to the Council, was present.

Medical Acts Amendment Bill. On the motion of Sir D. J. CORRIGAN, the Council resolved itself into a Committee for the purpose of considering the Bill.

Mr. OUVRY said that he saw no objection to the insertion of the preamble.

Dr. ANDREW WOOD proposed, and Dr. PARKES seconded, the adoption of Clause X in the following amended form.

"Each Registrar may erase from his Register the name of any person who, having ceased to practise, shall desire to have his name removed from the Register; and each Registrar may send by post to any person registered in his Register a registered letter, addressed to that person according to his registered address, inquiring whether or not he has ceased to

practise, and whether he desires his name to be retained on the Register; and if the Registrar does not, within three months after sending such a letter, receive any answer thereto from the person to whom it is sent, he may, within fourteen days after the expiration of the said period of three months, send by post to that person another registered letter, addressed to him according to his registered address, referring to the first letter, and stating that any answer thereto has not been received by the Registrar; and if the Registrar does not, within three months after sending such second letter, receive any answer thereto from the person to whom it is sent, that person shall, for the purpose of the present section, be deemed to have ceased to practise and not desire to have his name retained on the Register. And the name of any person shall not (without his consent) be removed from the Register on the ground of his having ceased to practice, except in pursuance of the provisions of the present section. Provided that a person whose name has been erased from the Register with his consent, on the ground of his having ceased to practise, shall not be liable to any penalty under this section, by reason of his being engaged gratuitously in the cure or treatment of any disease or injury."

The motion was carried.

The proposal for the adoption of Clause XII was withdrawn; as was also a technical amendment, proposed by Dr. Acland.

Dr. CHRISTISON said that Mr. Ouvry had made some correction in Clauses XI and XII. The foreign and colonial degrees were mixed up together, and there was also an important matter which had been overlooked in the discussion—that of giving the Council power to register new degrees granted by examining bodies in England. The matter might be made much more clear by separating this privilege of the Council from the recognition of foreign and colonial degrees. He would propose that foreign degrees should be recognised only if they conferred a right to practise in the country where they were obtained. He moved—

"That, instead of Clause XII, the following clause be substituted.

"'1. Every person who has resided in the United Kingdom for a period of not less than twelve months immediately previous to making his application, shall be entitled to be registered under the Medical Act 1858, who legally possesses a colonial or foreign diploma from a university, college, or other body, qualifying him to practise medicine or surgery in the colony or foreign country where such diploma was obtained. Provided such diploma shall have been granted by a university, college, or other body recognised in a list of such qualifications, as shall from time to time appear to the General Medical Council as proper to be included in a list to be annually prepared by such Council, which list shall be submitted to Her Majesty in Council for approval, and shall thereupon be published in the *London Gazette*.

"'2. If it appear to the Privy Council, on representation by the General Medical Council, that any qualification other than those described in Schedule (A) to the Medical Act 1858, as amended by this or any other of the Medical Acts, is granted by any university, college, or body in the United Kingdom, legally entitled to grant the same, after such a course of study and such examination as guarantee to the satisfaction of the General Medical Council that any person to whom such qualification has been granted possesses the requisite skill and knowledge for the efficient practice of medicine or surgery, it shall be lawful for Her Majesty in Council to direct by order that every person holding such qualification shall be entitled to be registered under the Medical Act 1858, in the same manner and with the like effect as if the qualification were inserted in the Schedule (A) to the Medical Act 1858.'"

Dr. ALEXANDER WOOD seconded the resolution, which was carried.

Clause XIII was then adopted.

Dr. ANDREW WOOD moved, and Dr. PARKES seconded, the adoption of Clause XIV; viz.—

"The degree of Bachelor of Surgery conferred by the University of London shall, for the purpose of enabling any person to be registered under the Medical Act 1858, be deemed to be one of the qualifications described in Schedule (A) of that Act."

Dr. PAGET thought that, if the recognition of the degree of Bachelor of Surgery were desirable, the privilege should not be confined to one university. He proposed as an amendment—

"The degree of Bachelor of Surgery conferred by any university in the United Kingdom, which now is or hereafter shall be legally entitled to confer the same, shall, for the purpose of enabling any person to be registered under the Medical Act 1858, be deemed to be one of the qualifications described in Schedule (A) of that Act."

Mr. HARGRAVE seconded the amendment.

Dr. STORRAR did not make any objection to the amendment; but reminded the Council of the course pursued last year in relation to this question. The University of London had appealed to the Home Secretary; and it was no part of its duty to ask for the recognition of all other universities.

The amendment was carried; and was also agreed to as a substantive motion.

Dr. ANDREW WOOD moved, and Dr. PARKES seconded, the adoption of Clauses XV and XVI, with the omission of the words, "Schedule (B) to" and of the words "of Medicine", after "Doctor".

"XV. Section Forty of the Medical Act (1858) is hereby repealed; but this repeal shall not apply to or in respect of any offence committed before the passing of this Act, or affect any proceeding pending at the passing of this Act.

"XVI. If any person practising medicine or surgery, or engaged in the cure or treatment of disease or injuries, not being registered under the Medical Acts, takes or uses any of the designations enumerated in Schedule (A) to the Medical Act (1858), as amended by Schedule (B) to this Act, or by any other of the Medical Acts, or the designation of physician, surgeon, doctor of medicine, or apothecary, or any other designation used by or used to distinguish duly qualified practitioners of medicine or surgery, or any class thereof, or the designation of professor of medicine or of professor of surgery, he shall for every such offence be liable on summary conviction to a penalty not exceeding *twenty pounds*."

Dr. CHRISTISON said that, in Section 40 of the Medical Act of 1858, the prosecution was not required to prove, not that the accused person was engaged in the practice of medicine or surgery, but that he was registered. It was well known that, in the actions which had been brought, it was almost impossible to prove the fact of practice; and by the new clause the difficulty of prosecution was increased. As to the title of Doctor, it had been objected that men might be prevented from using the title where it related to other than medical degrees. He suggested that it might be possible to make it necessary merely to establish a connection between the use of the title of Doctor and the practising of medicine in the case of unregistered persons. In regard to other titles, the proof would not be required, as they were not used except for practice.

Sir D. J. CORRIGAN thought it would be almost

impossible to alter the clause so as to take in all cases. He agreed with Dr. Christison as to the difficulty of establishing the proof of practising.

Dr. Andrew Wood said the clause had been carefully considered last year, and was agreed to by the Council nearly in the form in which it at present stood. Clause iv had proved inefficient, because the penalty was not for practising, but for implying that an individual was registered. Some persons, practising without qualification, had impudently announced themselves as "Practitioners in Medicine and Surgery—*not registered.*" He believed that the proposed clause was satisfactory to the profession, and that there would be much disappointment if it were not passed. Prosecution would be facilitated by the new clause; because it would be easy to ascertain whether the name of any one, who was in practice, was in the *Register*. He hoped that the Council would not vacillate or take a retrograde step. Trial should be made of the new clause, whether it ultimately succeeded or not.

After some further discussion, in which several members of the Council took part, the motion was carried.

Clause xvii was then adopted; viz.:

"Nothing in this Act shall prejudicially affect any occupation, trade or business, rights, privileges, or employment expressly saved from the operation of the Medical Act (1858), or affect the rights or interests of any person or class of persons expressly exempted or protected by any provision of any of the Acts described in the schedule to this Act."

The Report of the Committee was then read paragraph by paragraph, and amended; and the Council resumed.

Dr. Alexander Wood moved, Dr. Embleton seconded, and it was resolved—

"That it be remitted to the Medical Acts Amendment Committee to prepare and bring up the Bill, as now amended in Committee of the whole Council. That the Report of this Committee take precedence of all other business to-morrow."

Thursday, May 24th, 1866.

G. Burrows, M.D., President, in the Chair.

The minutes of the preceding meeting were read and confirmed.

Medical Acts Amendment Bill. Dr. Andrew Wood brought up the following

REPORT OF COMMITTEE ON THE DRAFT BILL OF THE HOME OFFICE FOR THE AMENDMENT OF THE MEDICAL ACTS.

The Committee beg leave to bring up their Report as it was finally adjusted by the Committee of the whole Council at their meeting of yesterday.

The Committee having fully considered the Bill and compared it with that which was drafted during the last Session of the General Medical Council, beg leave to submit the following Report.

The Bill of the Home Office embraces substantially the Bill of the Council, with, however, some important additions and alterations which require specific notice.

1. The Preamble. The Council's Draft Bill commenced with the following Preamble: "Whereas the Medical Act, 1858, has been found ineffectual to enable persons requiring medical aid, to ascertain who are qualified practitioners, etc." This Preamble the Home Office draft leaves out.

The Committee are of opinion that, if there be no valid reasons against its being retained, it would be desirable that it should be restored as part of the proposed Bill.

2. The Registration Clauses. The object of the Clause as to Registration, proposed in the Council's Draft Bill, was to facilitate the duty of the Registrars in keeping their Registers correct; to enable persons who, having ceased to practise, may desire it, to have their names erased from the *Register*; to render it imperative on the Registrar to address to any registered medical practitioner (instead of one letter within six months, as in the Medical Act, 1858) two letters within six months, at an interval of three months, inquiring as to change of residence, before erasing his name from the *Register*, and to prevent any person who has been once erased from the *Register* from being re-registered without the instruction of the General or Branch Councils.

In the Home Office Bill this Clause has been substantially adopted, though the phraseology has been somewhat varied, and the Clause has been subdivided for convenience into eight Clauses. The Home Office Bill contains, however, two additions requiring mention, viz.:—

I. The Council's Draft Bill provided that when the name of any person shall have been erased from the *Register* by the General Council, or by any Branch Council, it shall not again be registered in in any *Register*, except by direction of the Council which directed the erasure. The Home Office Bill adds the words, "or by order of a Court of competent jurisdiction." The Committee see no objections to this addition.

II. The Council, in their Clause, had provided that the Registrar should address to any registered medical practitioner two letters within six months, at intervals of three months, inquiring as to whether he had ceased to practise, or had changed his residence, before erasing his name from the *Register*. The Home Office Clause diminishes still further the chance of any mistake, by providing that the letters to be addressed by the Registrar shall be registered letters; and also that the second letter shall be addressed within fourteen days after the expiration of the first three months.

3. New Clauses as to Registration of Foreign and Colonial Practitioners. The Home Office Bill embraces three new Clauses (xi, xii, xiii), which provide for the Registration of Foreign and Colonial Practitioners, under certain conditions, these conditions being (1) That only those foreign and colonial diplomas and degrees shall be registered which have received the sanction of the General Medical Council, and shall be included in a new Schedule entitled Schedule (b), which the General Council have been requested by the Home Office to prepare. (2.) That the provisions contained in Sections xx, xxi, xxii, of the Medical Act, 1858, shall apply to all qualifications contained in the Schedules to the proposed Bill; that is to say, that the Council, if they do not consider the course of study and examinations to be gone through in order to obtain any such qualifications sufficient, shall be entitled to represent the same to the Privy Council, who shall have power to suspend the right of registration. (3.) That no qualification, whether British, Foreign, or Colonial, other than those included in Schedules (a) and (b) in the proposed Bill, shall be entitled to registration unless by order of the Privy Council, or the representation of the General Medical Council. (4.) That no person shall be registered upon any Foreign or Colonial diploma or degree who has not resided in the United Kingdom for a period of not less than twelve months immediately previous to his making his application for registration.

The Council are aware that, though there was power in the Council to register, if they saw fit, persons holding only foreign or colonial diplomas

and degrees, provided they had obtained them previously to the passing of the Medical Act, 1858, yet they had no power to register any such diplomas and degrees obtained after the passing of that Act. The Committee consider it fair and right that some provision should be made for the registration of foreign and colonial diplomas and degrees (especially if registration be rendered indispensable for practice under recognised Medical titles), as it would be a harsh measure to deny the privilege of registration in this country to persons who may come from abroad or from the colonies, holding foreign or colonial diplomas or degrees, provided these qualify for practice in the countries where they have been granted, and are deemed deserving of recognition by the General Medical Council, as implying Education and Examination not inferior to the minimum required in the case of qualifications granted in the United Kingdom.

In the Home Office Bill a new Schedule (B) is proposed to be introduced, for the purpose of including those foreign and colonial degrees and diplomas which are to qualify for Registration. The duty of preparing this Schedule has, as already stated, been committed to the Council by the Home Office.

Whilst the Committee have done their utmost to meet the wishes of the Government in framing a Schedule (B), they have found the difficulty of the task to be so great, that they consider it preferable to make a provision in Clause XII of the proposed Bill, by virtue of which it shall be lawful for the General Medical Council annually to prepare and submit to the Privy Council, for approval, a list of those Foreign and Colonial qualifications, which, from time to time, the General Medical Council may consider worthy of recognition, this list to be published in the *Gazette* and in the *Medical Register*.

4. Registration of the Degree of Bachelor of Surgery of the University of London. The Committee see no reason why the degree of Bachelor of Surgery, conferred by any University in the United Kingdom which now is, or hereafter shall be, legally entitled to confer the same, should not be included in Schedule (A).

5. The Penalty Clause. This important clause, as framed by the General Council last year, has been substantially adopted in the Home Office Bill. There is only one important point requiring notice, viz.: that instead of the word "Doctor," as in the Council's draft Bill, the words "Doctor of Medicine" have been used in the Home Office draft Bill. The Committee believe that the effect of this alteration is materially to weaken the clause; as, if it be retained, unqualified persons will continue as now to practise medicine, calling themselves "Doctors," but not "Doctors of Medicine," and will thus evade the penalties. It might be said that by using the word "Doctor" only you include all Doctors, whether of Philosophy, Law, etc. The answer to this is, that it is only those who, not being registered, are "practising Medicine under the title of Doctor," who are affected by the Clause. The Committee would advise the Council to represent this matter very specially to the Home Office.

The Committee believe that the Home Office Bill, with the amendments suggested by them to be adopted by the Council would prove a salutary Amendment of the Medical Act, one calculated to benefit the medical profession, and the public, for whose protection from unqualified practitioners it makes more efficient provision. They therefore trust that the Council will adopt it, and will, before the conclusion of the present Session, send a Deputation to the Home Office to state the views of the Council regarding the Bill; and further, to urge on the Government the expediency of the Bill being introduced as a Government measure.

The Committee have carefully gone over, with Mr. Ouvry, the Draft Bill, with the alterations adopted by the Committee of the whole Council. They beg leave to make the following suggestions in reference to the Bill as it now stands:

I. The Committee recommend, that as Clause XI, as originally adopted by the Council, is inconsistent with Clauses XI and XII, as subsequently agreed to by the Committee of the whole Council, the first mentioned Clause XI be omitted from the Draft Bill.

II. The Committee recommend, with a view of simplifying the language of the clause adopted in place of Clause XI by the Committee of the whole Council, that these words should be erased, viz.: "of such qualifications as shall from time to time appear to the General Medical Council as proper to be included in the list;" and that the words "General Medical Council" should be substituted for "such Council."

III. The Committee recommend, in lieu of the third division of Clause XI of the Home Office Draft Bill, it be provided in Clause XIII that Sections XXIX and and XXXIX of the "Medical Act of 1858" be added, so as to bring persons registered under foreign and colonial qualifications under the same liability of removal from the Register for offences as those registered under Schedule (A) to the Medical Acts.

The Committee submit for consideration of the Council a copy of the Bill with the Amendments above suggested.

DRAFT OF A BILL TO AMEND THE ACTS RELATING TO PRACTITIONERS IN MEDICINE AND SURGERY.

Arrangement of Clauses: Section 1. Construction and short titles; 2. Amendment of Section 7 of Act of 1858; 3. Erasure by Order of Council; 4. Restoration of name; 5. Repeal of Sect. 14 of Act of 1858; 6. Registers to be corrected; 7. Erasure on death; 8. Alteration of address, etc., 9. Evidence of death, etc.; 10. Erasure on ceasing to practise; 11. Registration of foreign and colonial practitioners; 12. Privy Council may add to list of qualifications; 13. Application of Provisions 20, 21, 22, 29, and 39, of the Medical Act, 1858; 14. Degree of Bachelor of Surgery to be a qualification; 15. Repeal of Sect. 40 of Act of 1858; 16. Penalty for the Assumption of Titles, etc., by Unregistered Persons practising medicine or surgery; 17. Extension of Savings to former Acts.

Whereas the "Medical Act, 1858," has been found ineffectual to enable persons requiring medical aid to ascertain who are qualified practitioners, and it is desirable to amend the said Act in several respects.

Be it enacted by the Queen's most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the authority of the same, as follows:

Preliminary. I. The Acts described in the Schedule to this Act and this Act shall be construed together as one Act; and for that purpose the expression "this Act," when used in the Medical Act (of the Session of 1858), shall include the present Act; and the Acts described in the Schedule to this Act and this Act may be cited together as "the Medical Acts," and are comprised in that expression when hereafter used in this Act; and this Act may be cited separately as the Medical Acts Amendment Act, 1866.

Members of Council. II. Section Seven of the Medical Act (1858) shall be read and have effect as if the words "qualified to be" were omitted therefrom.

Registration. III. Where, under the authority of

the Medical Acts, the General Council or any Branch Council direct the erasure of the name of any person from any Register, the name of that person shall not be again registered in any Register except by direction of the Council which directed the erasure, or by order of a court of competent jurisdiction.

IV. If the General Council think fit in any case they may direct any Registrar to restore to his Register any name erased by him therefrom, and the Registrar shall restore the same accordingly.

V. Section Fourteen of the Medical Act (1858) is hereby repealed, but this repeal shall not affect the past operation of that section, or anything already done under it, or invalidate any existing register, order, or regulation kept or made under it, or affect any proceeding or thing commenced under it, or the power of the General Council to make any order in relation thereto; and every such proceeding or thing may be carried on and done as if the said Section had not been repealed.

VI. Each Registrar shall keep his Register correct in accordance with the Provisions of the Medical Acts and the general regulations and special directions of the General Council (whether made or given before or after the passing of this Act.)

VII. Each Registrar shall erase from his Register the name of any person deceased.

VIII. Each Registrar shall from time to time insert in his Register any alteration in the address or qualification of any person registered.

IX. In the execution of the aforesaid duties, each Registrar shall act on such evidence as in each case appears to him sufficient, subject to any regulations of the General Council.

X. Each Registrar may erase from his Register the name of any person who, having ceased to practise, shall desire to have his name removed from the Register; and each Registrar may send by post to any person registered in his Register a registered letter, addressed to that person according to his registered address, inquiring whether or not he has ceased to practise, and whether he desires his name to be retained on the Register. And if the Registrar does not, within *three months* after sending such a letter, receive any answer thereto from the person to whom it is sent, he may, within *fourteen days* after the expiration of the said period of *three months*, send by post to that person another registered letter, addressed to him according to his registered address, referring to the first letter and stating that any answer thereto has not been received by the Registrar, and if the Registrar does not within *three months* after sending such second letter receive any answer thereto from the person to whom it is sent, that person shall, for the purpose of the present section, be deemed to have ceased to practise, and not desire to have his name retained on the Register. And the name of any person shall not (without his consent) be removed from the Register on the ground of his having ceased to practise, except in pursuance of the provisions of the present section. Provided that a person whose name has been erased from the Register with his consent, on the ground of his having ceased to practise, shall not be liable to any penalty under this section, by reason of his being engaged gratuitously in the cure or treatment of any disease or injury.

XI. Every person who has resided in the United Kingdom for a period of not less than twelve months immediately previous to making his application, and who legally possesses a colonial or foreign diploma from a University, College, or other body qualifying him to practise medicine or surgery in the colony or foreign country where such diploma was obtained, shall be entitled to be registered under the "Medical Act, 1858." Provided such diploma shall have been granted by a University, College, or other body recognised in a list, to be annually prepared by the General Medical Council, which list shall be submitted to Her Majesty in Council for approval, and shall thereupon be published in the *London Gazette*.

XII. If it appear to the Privy Council, on representation by the General Medical Council, that any qualification, other than those described in Schedule (A) to the "Medical Act, 1858," as amended by this or any other of the Medical Acts, is granted by any University, College, or body in the United Kingdom, legally entitled to grant the same, after such a course of study and such examination as guarantee to the satisfaction of the General Medical Council, that any person to whom such qualification has been granted, possesses the requisite skill and knowledge for the efficient practice of medicine or surgery, it shall be lawful for Her Majesty in Council to direct by order that every person holding such qualification shall be entitled to be registered under the "Medical Act, 1858," in the same manner and with the like effect as if the qualification were inserted in the Schedule (A) to the "Medical Act, 1858."

XIII. The provisions contained in Sections 20, 21, 22, 29, and 39 of the "Medical Act, 1858," shall apply to any qualification which in pursuance of this Act entitles persons to be registered under the "Medical Act, 1858."

XIV. The degree of Bachelor of Surgery conferred by any University in the United Kingdom, which now is, or hereafter shall be, legally entitled to confer the same, shall, for the purpose of enabling any person to be registered under the "Medical Act, 1858," be deemed to be one of the qualifications described in Schedule (A) of that Act.

Unregistered Persons. XV. Section forty of the "Medical Act, 1858," is hereby repealed; but this repeal shall not apply to or in respect of any offence committed before the passing of this Act, or affect any proceeding pending at the passing of this Act.

XVI. If any person practising medicine or surgery, or engaged in the cure or treatment of diseases or injuries, not being registered under the Medical Acts, takes or uses any of the designations enumerated in Schedule (A) to the "Medical Act, 1858," as amended by this Act, or by any other of the Medical Acts, or the designation of physician, surgeon, doctor, or apothecary, or any other designation used by or used to distinguish duly qualified practitioners of medicine or surgery, or any class thereof, or the designation of professor of medicine or of professor of surgery, he shall for every such offence be liable on summary conviction to a penalty not exceeding *twenty pounds*.

Saving. XVII. Nothing in this Act shall prejudicially affect any occupation, trade or business, rights, privileges, or employment expressly saved from the operation of the "Medical Act, 1858," or affect the rights or interests of any person or class of persons expressly exempted or protected by any provision of any of the Acts described in the Schedule to this Act.

The Committee would further recommend that, instead of communicating to the Home Office the report of the Medical Act Amendments Committee, as finally adjusted by the Committee of the whole Council, the Council should transmit a succinct statement, prepared by their solicitor, Mr. Ouvry, of the reasons for such alterations in the Government Draft Bill as may be adopted by the Council. Finally, the Committee recommend that a letter be, without loss of time, addressed by the President to Sir G. Grey, requesting that he will receive a depu-

tation from the Council in reference to the Bill, on as early a day as he can conveniently appoint.

ANDREW WOOD, *Chairman.*

Dr. ALEXANDER WOOD moved, Dr. EMBLETON seconded, and it was resolved:—

"That the Report of the Committee on the Medical Acts Amendment Bill be received, and that the recommendations contained in it be considered *seriatim.*"

The Report was accordingly read.

Sir D. J. CORRIGAN said that the concluding sentence of Clause x ("Provided that a person, etc.") appeared to indicate that the Council did not care whether a person practising were competent, provided he did not receive remuneration. He believed that the provision was intended to meet the case of clergymen who, having once belonged to the medical profession, were desirous of practising among their parishioners; but he thought that they ought to be required to keep their names on the *Register*. The clause would sanction the practice of medicine by unqualified persons over whom the Council could have no control. He moved—

"That, in Clause x, the four last lines, viz.:—'Provided that a person whose name has been erased from the Register with his consent, on the ground of his having ceased to practise, shall not be liable to any penalty under this section, by reason of his being engaged gratuitously in the cure or treatment of any disease or injury,' be omitted."

Mr. SYME seconded the motion.

Mr. OUVRY thought it was not desirable to dispute the matter with the Home Office. The removal of a person's name from the *Register* would not make him less qualified than before.

Dr. SHARPEY thought the words "shall not be liable to penalty" were very like an exception to Clause XVI.

The motion being put, there appeared 9 for, and 9 against. The President gave his casting vote against it.

Sir D. J. CORRIGAN required that the names and numbers of the majority and minority, and of those who declined to vote, be entered on the minutes.

The votes were: *For*—Mr. Cooper, Dr. Embleton, Dr. Alexander Wood, Mr. Syme, Dr. A. Smith, Mr. Hargrave, Dr. Apjohn, Sir D. J. Corrigan, Mr. Rumsey—9. *Against*—The President, Dr. Alderson, Mr. Hawkins, Dr. Storrar, Dr. Andrew Wood, Dr. Thomson, Dr. Leet, Dr. Sharpey, Dr. Parkes—9. *Declined to Vote*—Dr. Acland, Dr. Paget, Dr. Fleming, Dr. Christison, Dr. Stokes.

Clause XI, as agreed to by the Council at the meeting on Tuesday, was withdrawn.

Mr. HAWKINS moved, and Dr. PAGET seconded—

"That a new clause be drawn up, or some words added by Mr. Ouvry to a clause like Clause XXIX of the Act of 1858, which shall apply to persons registered under Clause XII of the Draft Act on foreign or colonial qualifications, for crimes and offences committed in their own countries, of the same nature as those referred to in Clause XXIX of the Act 1858, when committed in England, Scotland, or Ireland, by persons registered under the Act of 1858."

The motion was negatived, 7 voting for, and 8 against it.

Dr. ANDREW WOOD moved, Dr. PARKES seconded, and it was resolved—

"That Clause XIII, which is as follows; viz., 'The provisions contained in Sections 20, 21, and 22 of the Medical Act 1858, shall apply to any qualification which in pursuance of this Act entitles persons to be registered under the Medical Act 1858—be amended, by inserting after 22 the words '29 and 39,' and by striking out the word 'and' between 21 and 22."

It was agreed that Mr. Ouvry should be requested to prepare a succinct statement of the reasons for the alterations made in the Government Bill by the Council for transmission to the Home Office; and that a letter should be addressed, without loss of time, by the President to Sir G. Grey, requesting that he would receive a deputation from the Council in reference to the Bill on as early a day as he could conveniently appoint.

Dr. ANDREW WOOD moved, and Dr. PARKES seconded—

"That the Report of the Medical Acts Amendment Committee be adopted, as amended by the Council."

Sir D. J. CORRIGAN said that he was convinced that there could be no more mischievous or useless Bill, or more likely to be unfavourably received by the legislature, than that which was under the notice of the Council. His objections to the Bill were founded not merely on its own merits, but on the circumstances in which the Council was placed. He moved as an amendment—

"That the Secretary of State be requested to take the necessary steps to procure the issuing of a Royal Commission to inquire into the working of the Medical Acts, and to examine the members of the Medical Council, and such other persons as they may see fit, with a view of framing a report that may lay the ground for a medical bill that will ensure the better education of candidates for the practice of the medical profession, and better protection for the rights of qualified practitioners than the present Medical Acts afford."

He must express his obligations to the President for having put the case in a nutshell by stating that the main object of the Bill was to obtain the insertion of the word "doctor" in the penalty clause, and that it might be worth while to give up other points in order to gain this. On looking to the new Bill, it would be found that a most important section (34) of the Act of 1858 had been repealed. It had been resolved by the Council that it was fit that a man should be allowed to put his name on the *Register* and then withdraw it, reserving his privilege of being considered a duly qualified practitioner. The clause which had been approved provided, in fact, that persons over whom the Council had no control might place their names on the *Register* and remove them, and then say: "Under that clause we are qualified practitioners, and cannot be punished so long as we do not take money for practising." The Council had failed to protect the profession; and what had the Committee on the Bill proposed to do? It had proposed the recognition of a number of foreign and colonial universities; the result of which recognition would be to admit into the profession a flood of men of the lowest social status—a horde of unwashed foreigners.

Dr. ALEXANDER WOOD wished to know whether the discussion was to be opened again and again, after the Council had approved of a Bill and ordered it to be sent to the Home Office.

The PRESIDENT decided that Sir Dominic Corrigan was in order in proposing an amendment; but observed that the Council had agreed with him (Sir D. Corrigan) on the subject of the foreign universities, and had adopted the suggestion of the Committee regarding the preparation of a list by the Council in place of Schedule (B).

Sir D. J. CORRIGAN resumed. He objected to the manner in which it was proposed to bring forward the Bill. The Home Secretary had declined to have any hand in it; and had suggested in his letter to the President that some one might be found to take charge of the Bill. Was this a proper posi-

tion for the Council, that the President should be expected to go, hat in hand, to the lobby of the House of Lords, and ask some private member to take charge of the Bill? The Council was a public body; and this position was not a right one. The onus of refusing to introduce the Bill should be thrown altogether on the Government. The Council applied to Sir George Grey to take charge of the Bill; but his answer was that he could not. Every thing, even the health of pigs, seemed of more importance than a medical bill. He would now give the reasons for the course which he proposed. The Council was, in his opinion, putting the cart before the horse. It stated, that qualified practitioners required to be protected; but the public and the House of Commons would reply, "You speak of the protection of qualified practitioners; but the returns from the Admiralty report the gross ignorance of many of the candidates, men belonging to the medical profession." This must not be shirked. These men, found unfit for the navy, had received their diplomas from bodies represented in the Council. The Council should have asked for powers to enforce their regulations for the improvement of professional education, so as to prevent the profession from appearing in such a humiliating position before the Navy Board. The Council, by taking his view, would put themselves right with the legislature and the public; it would be able to say that it had done its best. Let it state its difficulties to the Government, and ask for the appointment of a Royal Commission, and let the members of the Council be examined before the Commission and state what they wished to be done. A report would probably be drawn up on which the Government would act; and if not, the position of the Council would still be better than before. Up to the present time not one licensing body had complied with the recommendations of the Council, except by accident. The University of London, indeed, insisted that all its graduates in medicine should give proof of a preliminary education; and it retained in its own hands the power of examining, not recognising the certificates of other boards. But the case was different elsewhere. According to the Report of the Scottish Branch Council, all the students in 1865 in the Universities of Glasgow and Aberdeen were exempted from the examination in subjects of general education. The University of Glasgow had also declared, that it was inexpedient to adopt the plan of registration recommended by the General Medical Council. The Queen's University of Ireland was in the same predicament; it did not comply with the regulations of the Council. The College of Surgeons in England, also, had set aside the recommendation as to the passing of the preliminary examination before the commencement of professional study. The Council was utterly powerless to enforce regulations providing for a good education of medical students. It should, therefore, first ask for power to enable it to render the members of the profession better qualified, and then for power to protect them. Sir D. Corrigan here read an extract from a pamphlet on the subject of education; and also a letter which he had addressed to Dr. Mackesy, in which he had said that the Medical Council wanted power, and that, in the present state of free trade and the underselling one another, on the part of the Corporations, for the profit of diplomas, he saw no hope of amendment. What could the Council say, if accused in the House of Commons of not having enforced its powers? There was no improvement in the profession; the returns of the Navy Board sufficiently showed this. With what face could the Council ask for protection, when it had evidence that such men as were referred to in the navy reports were let loose to practise on the public; and when it took no steps to obtain improvement? By proceeding with the Bill the Council would place itself in a humiliating position; and he feared that, if it did not ask for a Royal Commission, other bodies, such as the Irish Poor-law Board, which possessed very large powers, might follow the example of the Army and Navy Departments, and insist on holding their own examinations on men who had already obtained licenses from the examining boards. By applying for a Commission, the Council would show that it desired to conceal nothing; that it was anxious to attain the objects desired. It would, with the assistance of the profession, be able to lay before the Commission such an ameunt of information as would form the foundation of as perfect a Bill as could be made, and which Government would adopt. But if the application for a Royal Commission were not granted, and if the Government refused to take charge of the Bill, then the Council would be able to say that it had done its best; that it had asked the Government for assistance, and had been refused He apologised for the length of time during which he had occupied the attention of the Council; but he felt that a very important crisis had arrived. If he had given annoyance by any expression which he had used, it was not his intention to do so.

Mr. Rumsey seconded the amendment. He hoped that, if he should say anything disagreeable to the Council or to its members, it would be excused in consideration of the gravity of the subject. He did not support the amendment quite on the same grounds as had been alleged by Dr. Corrigan. It was impossible to ignore the dissatisfaction which existed in the profession—not only among the uninformed, but among persons well competent to judge—with regard to the working of the Medical Act and the state of medical law. A correspondent had informed him that "he agreed in the general opinion that, if the Council would adjourn its sittings for a very long period, the loss would be very small." He did not endorse this opinion; but still the grounds of complaint, even though apparently unreasonable, ought to be considered. No amount of legislation could establish all the rights and remove all the wrongs of the profession; but there were defects in the Act of 1858, to which he would refer. The preamble was defective; for not only were the measures taken to distinguish qualified from unqualified practitioners very imperfect, but even this was not the sole object of the Act. As to education, probably as much had been done as was possible under the present Act. He was, indeed, surprised that so much had been accomplished; and would not have the powers of the Council, as the body was at present constituted, made more compulsory. With regard to the *Pharmacopœia*, he hoped that the Council would be able to give a satisfactory account next year; but it must be remembered that the main part of the work was done out of the Council. There were important questions which might be considered by a Royal Commission: for instance, whether the Council was constituted in the best way for carrying out its functions; and whether the combination of representative with executive function was advisable. He thought that such a combination was not advisable; for, in proportion as a body was representative, its executive power was impaired—and this defect would not be remedied even by the addition of representatives of medical men in general practice. If the executive power were strengthened, the constitution of the Council must necessarily be modified. Another question for the consideration of the Commission would be, whether such a Council as the present

ought to settle all details of education for the entire kingdom. In the several divisions there were long established differences, founded on national character; and many of these seemed irreconcileable. It would be better that each Branch Council should regulate the education of medical students in its own division of the kindom, provided that reciprocity of practice were secured. If this were left to the Branch Councils, a few questions would still remain for consideration by the General Council. It would, however, be still better to have a small body, directly responsible to Government, entrusted with what Mr. Stuart Mill called the *legisfactive* function; while the deliberative power would still belong to the larger body. The views which he had expressed were shared by many who had carefully studied the matter.

Mr. HARGRAVE was astonished at the remarks made by Sir Dominic Corrigan. With reference to the imperfect education of the candidates for the medical service of the navy, it must be remembered that no young man of good family or acquirement would enter it, on account of the frequently overbearing conduct of the commanding officers. There must be dross in every society; and the dross of the medical profession went to the navy. He feared that the medical service of the navy was descending to the state in which it was in the time of "Roderick Random". He must say that, in Ireland at least, the profession was decidedly improving as regarded the acquirements of those entering it. Twelve months ago, when the question of visitation of examinations was brought forward, he was opposed to it; but ultimately consented to act as a visitor, Sir Dominic Corrigan alone persisting in his opposition. He (Mr. Hargrave) had attended the examinations in the University of Dublin, and was glad that he had done so, as he had thereby had an opportunity of seeing the improvement in professional acquirements on the part of the candidates. There could be no question that the Council had done good.

Dr. ACLAND said that, when a member of the Council had made such a proposition as that brought forward by Sir D. Corrigan, and had enforced it by such a speech as he had just delivered, it would be most unseemly to hurry over the question. He could not give Sir D. Corrigan the opportunity of saying that the Council had shelved his motion without examining it. The Council had indeed been sitting seven days; but he would ask whether much of the delay had not been caused by the conduct of Sir Dominic Corrigan. He (Sir D. Corrigan) had an undoubted right to bring forward his amendment; but might not the discussion of the last three days have been spared, if Sir Dominic had at first informed the Council of his intention? He had always been of opinion that the constitution of the Council rendered it very difficult to work; but the Council did not make itself, and the question to be considered was, whether each member of the Council did his best to make it efficient, according to his ability. He had not the slightest doubt that all could answer that question honestly in the affirmative. Sir D. Corrigan had alluded to a "battle of shops" being carried on in the Council. As far as his knowledge went, he (Dr. Acland) entirely denied the correctness of the statement. He himself would deservedly forfeit the confidence of his University, if it were supposed that he advocated its interests in opposition to the public good; and he believed that the other members of the Council could make a similar declaration. It was an insult to the members of the Council to state repeatedly that they had other motives than the general good. He had no objection to a Royal Commission; but he did not think it either politic or necessary to ask for this at the present time. If a Commission were likely to help the Council out of its difficulties, he would heartily welcome it, at a proper time. But the Council was constituted to meet the necessities of the case; and all that could be done was to make it work as well as possible. It must be representative; and the members were bound not to throw difficulties in each other's way. There were certain circumstances which had induced him to hesitate whether he should retain his seat in the Council; but he had decided on remaining, both on account of personal regard for his colleagues, and because he did not think that his objections to special proceedings ought to prevent him from aiding the Council to the best of his power. One of these circumstances was the admission of reporters for the press—a step to which he objected, because he believed that it was necessary that the Council should be entirely unfettered in its deliberations. The other circumstance was the rejection of his proposal for the appointment of standing Committees, which, he believed, would have relieved the Council of much work. He would deny, as strongly as he ought, the statement that the Council had done nothing and had no power. A great deal had been done; and it was simply throwing dust in the eyes of the public to say that nothing had been effected by the Council. Did Sir Dominic Corrigan mean to say that the condition of the practitioners throughout the United Kingdom was to be altered in a moment? For some time, insufficiently prepared men must enter and would enter the profession. He lamented that there were such men, and defied Sir D. Corrigan to charge him or any member of the Council with being indifferent to the existence of the evil. Was it true, as asserted by Sir D. Corrigan, that there was no improvement in medical education? Was it true that not a single corporation had been endeavouring to meet the moral suasion of the Council? He would like to know what body had set itself determinedly to keep up abuses in spite of the Council. He firmly believed that the licensing bodies had a sincere desire to improve the qualifications of their candidates. There might be mistakes and difficulties; but, if any one would point out the wilful commission of error, it would be more than he (Dr. Acland) could now see. By all means let there be a Royal Commission, if it were necessary; but now he must vote against it. Referring to the history of the Council, he observed that the members had at first come together imbued with jealousies; these, however, had been gradually removed, and the members were all uniting together for the public good as honestly as could be expected of any body of men so heterogeneously constituted. He admired the ability and energy of Sir Dominic Corrigan; and hoped that, if the amendment were not carried, he (Sir D. Corrigan) would, with full confidence in his colleagues and in the good intentions of the examining bodies to do their best, join in examining how the Council could best exercise the powers which it already possessed.

Dr. STOKES could not give a silent vote on the occasion. As a teacher of medical science during forty years, and as a visitor of examinations, he could testify to the remarkable improvement which had taken place in Ireland in the acquirements of candidates for admission into the medical profession from the first year in which the subject of education was mooted in the Council; and others in Ireland had made the same observation. It seemed, without exaggeration, as though they had reached a new stratum of medical students. This improvement, too, had commenced before any regulations were issued by the Council. The rejected candidates of the Navy Board must not be taken as a fair specimen of the medical students. For many years there

had been an indisposition on the part of the better qualified men to enter the navy. The improvement in Ireland was due to moral suasion; and it was steadily increasing.

Mr. Syme said that, some years ago, attempts had been made to enforce regulations which were beyond the power of the Council. But, following the moral suasion of the Council, the University of Edinburgh had of its own voluntary act raised the character of its qualification—not at once, but step by step; and had at last obtained a new ordinance.

Dr. Andrew Wood said that Dr. Acland's speech, in which he repelled the charges brought against the Council and against the individual members, did him great honour. He could tell Sir Dominic Corrigan that the members of the Council, like other men, had feelings which could be troubled by accusations being brought against them. He was surprised that Sir D. Corrigan, whose eminence as a physician, especially in diagnosis, was unsurpassed, should take such a course as that which he had adopted. Would he follow a similar course after making the diagnosis of the disease of any of his patients? He (Dr. Andrew Wood) would remind the Council that, when a motion was made to represent the conduct of the College of Surgeons of England to the Privy Council, Sir Dominic Corrigan voted against it. Again, when in the course of last year's session the Council was endeavouring to institute visitation of examinations, Sir D. Corrigan refused to take any part in carrying out the plan. He believed that every member was impelled by a conscientious desire to do his duty; and that the benefit conferred by the Council on the profession was going on in an increasing ratio. He (Dr. Andrew Wood) had been in a minority as often as any member; but he would not therefore cease to aid the Council to the best of his power, and to urge on his colleagues in doing their duty.

The amendment being put to the vote, there appeared: for, 3, against, 19. Sir D. J. Corrigan required that the names and numbers should be taken down. The result was: *For*—3; Dr. A. Smith, Dr. Apjohn, and Sir D. J. Corrigan; *Against*—19; viz., the President and all the remaining members, except Dr. Paget, who declined to vote.

The original motion was then put to the vote, and carried by a majority of 15 to 6. The names and numbers were again taken down, at the request of Sir D. Corrigan. The minority (6) were, Dr. Acland, Dr. Paget, Dr. A. Smith, Dr. Apjohn, Sir D. J. Corrigan, and Dr. Stokes. Mr. Syme declined to vote.

Mr. Ouvry read the statement of reasons for suggested alterations in the Home Office Draft Bill, to be sent with the Council's Amended Draft Bill to the Home Office; and also the letter to be addressed by the President to Sir George Grey.

REASONS OF THE GENERAL MEDICAL COUNCIL FOR SUGGESTED ALTERATIONS IN THE DRAFT BILL TO AMEND THE ACTS RELATING TO PRACTITIONERS IN MEDICINE AND SURGERY.

Preamble. In the Draft Bill prepared by the Home Office, the preamble suggested by the Council has been omitted. The Council would submit, that it is desirable to state the grounds on which fresh legislation is thought necessary; and, therefore, that the preamble, either in the form suggested by the Council or in any more apt words, should be adopted.

Clauses x. The clause, as framed by the Home Office, is considered open to objection, inasmuch as it would give to the Registrar power to erase from the Register the names of gentlemen who have ceased to practise, although such gentlemen may wish to retain their names on the Register. This is not desired; the main object of the clause is to enable the Registrar to remove the names of persons who have really ceased to practise, and whose addresses are not known. This will be effected by the proposed mode of sending letters; and the Council, therefore, have suggested a slight alteration in the clause, in accordance with this view.

Clauses xi and xii. The Council have ventured to suggest a modification of these clauses. The main feature of the alteration is the doing away with the proposed Schedule (b) to the Act. The Council has done its utmost to meet the wishes of the Government in framing such schedule; but they have found the difficulty of the task to be so great, that they have ventured to propose that the list of bodies, whose diplomas shall confer a qualification, shall be inserted in a list to be annually prepared by the General Medical Council and submitted to the Privy Council. By this means the General Medical Council will have the opportunity, from time to time, of making inquiries as to the status of the several foreign and colonial bodies, the nature and extent of their studies, and the quality of their examination, so as to judge whether they are worthy of recognition in the proposed list.

It has appeared to the Council that the third provision of Clause xi, which authorises the Registrar to refuse to register any person who shall have been guilty of an offence which would prohibit him from practising in his own country, is open to objection on several grounds. 1. It would cast a judicial responsibility on the Registrars, which, by the twenty-ninth section of the Medical Act, 1858, is given only to the General Council. 2. The terms of the clauses might be considered to cover offences which, although they might disqualify the practitioner from practising in his own country, would not be considered as any objection to his practising in this country, offences, for instance of a political nature or otherwise, not involving moral guilt. On these grounds, the Council considers it safer to leave foreign practitioners in the same position as the practitioners of the United Kingdom, by making them amenable to the Sections 29 and 39 of the Medical Act, 1858.

Clause xiii. The Council proposes to amend this section, so as to bring Clauses xxix and xxxix of the Medical Act, 1858, within its operation.

The Council is aware that the proposed addition to this clause does not fully meet a difficulty which the Draft Bill prepared by the Home Office was intended to meet, inasmuch as there is no power to remove from the Register the name of any colonial or foreign practitioner who may, in his own country, have been convicted of any crime or offence.

The Council has failed to perceive any means in which this difficulty can be effectually met, owing partly to the difficulty of obtaining evidence of any such conviction, and the further difficulty of defining the class of offences which ought to exclude from the Register.

The Council would be very glad if the advisers of the Government could suggest a clause adapted to the case.

Clause xiv. The Council consider it would be expedient not to limit this clause to the London University, but to extend it to any university in the United Kingdom which now is, or hereafter shall be, legally entitled to confer the degree of Bachelor of Surgery.

Clause xvi. The Council proposes to amend this clause by striking out the reference to the proposed Schedule (b) to the Act, and by striking out the words "of Medicine" after the word "Doctor". It is to be observed that the taking of the title of "Doctor of Medicine" is prohibited by the earlier part of the

clause, inasmuch as it is one of the designations enumerated in Schedule (A) to the Medical Act, 1858. Its subsequent introduction, therefore, is wholly unnecessary; whereas the introduction of the title "Doctor" simply is all important to the efficiency of the operation of the clause. The title "Doctor" is the one most commonly assumed by unqualified persons practising medicine; and, if such practice be allowed to continue, it is obvious that any unqualified person, by assuming that designation, might evade the penalty of the clause. If it be said, by using the word "Doctor" only in the clause, all Doctors, whether of Philosophy, Law, etc., are included, the answer is, that the clause applies only to those who, not being registered, are practising medicine under the title of Doctor. The Council beg to submit a print of the Bill amended in accordance with the above suggestions.

Copy of the Letter to be presented by the President to Sir George Grey.

SIR,—The Draft Bill framed by the Home Office for the Amendment of the Medical Acts has been very carefully considered by the General Medical Council; and, at the request of the Council, I have the honour to transmit herewith a print of the Bill framed by the Home Office, with such amendments therein as appear to the Council advisable.

I have also the honour to transmit a statement of the reasons which have induced the Council to suggest the amendments; and I am to ask that you will, at your earliest convenience, be pleased to receive a deputation from the Council, to consider the amendments in question.

I have the honour to be servant,
Your most obedient humble servant.

The Right Hon. Sir George Grey, Bart.

Dr. ANDREW WOOD moved, Dr. EMBLETON seconded, and it was resolved—

"That the statement of reasons prepared by Mr. Ouvry, and the letter to be addressed by the President to the Home Secretary, be entered on the minutes."

Registration of Medical Students. Dr. EMBLETON brought up the Report of the Committee on the Working of the System of Registration of Medical Students, adopted by the General Medical Council last year.

Returns from Licensing Bodies. Dr. EMBLETON moved—

"That a Committee be appointed to report on the returns from the licensing bodies in compliance with Recommendation No. 6, Section v, of the Recommendations of the General Medical Council of 1865, and the Register of Students for the past year. The Committee to consist of Dr. Embleton (chairman), Mr. Cooper, Dr. Thomson, Dr. Leet, Dr. Apjohn, and Dr. Stokes."

Dr. AQUILLA SMITH seconded the resolution, which was carried.

Standing Orders. On the motion of Dr. EMBLETON, seconded by Dr. THOMSON, a Committee, consisting of Dr. Embleton (chairman), Dr. Thomson, and Mr. Hargrave, was appointed to revise the Standing Orders.

Recommendations of the General Council. On the proposal of Dr. EMBLETON, seconded by Dr. THOMSON, the Recommendations of the General Medical Council on the subjects of Preliminary Examination, of Registration of Medical Students, and of Professional Education and Examination, were referred for re-arrangement to a Committee consisting of Dr. Embleton (chairman), Dr. A. Smith, and Dr. Thomson.

We are requested to remind members of the Association that the Annual Subscriptions became due on the 1st of January. They can be paid either to the Secretaries of the Branches; or to the General Secretary, T. Watkin Williams, Esq., 13, Newhall Street, Birmingham.

British Medical Journal.

SATURDAY, JUNE 2ND, 1866.

A PROPOSED TESTIMONIAL.

A PRINTED circular is in course of distribution amongst members of the medical profession, which states that on the 16th of February, at a meeting held in the Hanover Square Rooms (J. Propert, Esq., in the Chair), the following resolution was unanimously passed.

"That this meeting, having regard to the long-continued zeal, skill, and boldness with which Mr. Baker Brown has laboured in the face of many obstacles for the advancement of 'obstetric surgery', and fully recognising the great improvements he has achieved therein, spreading the fame of his operations throughout the world, in every part of which his merits have been fully acknowledged, is of opinion that a testimonial should be presented to him, as a mark of personal esteem and the general appreciation of his eminently practical services as a surgeon and operator; and the meeting pledges itself to use its best exertions, individually and collectively, to carry out this object."

The document does not state who was present to compose the unanimity, nor even who proposed the unanimously carried resolution. On the face of the thing, as it at present stands, Mr. Propert is the proposer and seconder, and, in fact, the embodiment of the meeting. To this resolution of February 16th, recently issued, are appended the names of "gentlemen who have consented to act on the Committee"; and Dr. Holt Dunn issues with it a note, stating that he "should be gratified to add your name", and "shall be happy to hear from you by an early post".

Now, surely it is not usual or regular to issue resolutions without giving the name of the resolvers. Surely also the profession ought to know who called the meeting, and under what auspices it was held. There is positively no proof that, at the getting up of this testimonial-proposal, any one else was present besides Mr. Propert and the doorkeeper.

We are, we suppose, to conclude from the proceeding that Mr. Propert considers, either that Mr. I. B. Brown's services have not been hitherto sufficiently appreciated by the profession and the public, or that they are so greatly appreciated as to require testimonialising. As Mr. I. B. Brown's claim to a testimonial must mainly be founded on the services

which he has rendered to science at the Surgical Home, we will give our readers an account of his merits, as told by himself and his friends in the last Annual Report of the London Surgical Home. This Report is an official document, and, as we understand, was issued with the knowledge and approval of its medical officers. Being addressed to the public, it is probably better known out of than in the profession.

The meeting was held at the "Home", on July 25th, 1865; Mr. Jolliffe, M.P., in the Chair. The Report is forwarded to all the governors and friends of the institution, and of course, amongst others, to the *ninety-eight lady patronesses* and the *hundred and two vice-presidents*, whose names figure at the head. The Rev. Mr. Gell, after "offering up prayer", opened the proceedings. He is convinced that

"The cases treated here could not—not, perhaps, so much from the nature of the maladies, as from the position of the patients—be so well treated in any other establishment. It is not so much the case, the treatment of which is undertaken with a skill and with a boldness that will find no rival either in England or, I may say, out of England, etc." "I cannot think that our friend, upon whom the surgical management of this place depends, has any higher claim upon the sympathy and support of the public than the boldness and kindness with which he undertakes to help and assist where other members of his profession, how skilful and how exalted soever, have turned away, unable to help, unwilling to risk.....Here is the clergyman's wife.....who has come to receive that help.....which requires a very large expenditure of money, if it is to be purchased at all any where else. .....There are things to be obtained here, there is care here given, and skill here exercised, which cannot be obtained elsewhere."

Dr. H. Dunn, in moving a resolution, said, amongst other things: "Having been connected with this institution some years as one of its practical medical officers, humbly endeavouring to follow in the wake of our noble master, Mr. Baker Brown," etc. He also remarked, that the first thing he had ever heard of the institution was in some articles that were written against it; and he believed that "he had the pleasure of hearing in this room the gentleman who, if he did not write those articles, edits the paper that contained them, declare that he had become one of the warmest friends of the institution." In concluding his observations, he said that it must be a great gratification to Mr. Brown to find his efforts successful.

"True, he may himself get a little reward; but would you begrudge a man those rewards that God always gives to those who do their duty in life, as evidence that he is looking down upon their efforts with satisfaction?"

Mr. Victor de Méric, in proposing thanks to Mr. Brown, said:

"One speaker who preceded me has used an epithet which combines almost everything that I desire to say; he has spoken of Mr. Baker Brown as our 'noble master'; and I feel that I need add nothing more."

Mr. I. B. Brown then returned thanks. We give a few of his remarks.

"Can any one in this room take up a paper of any institution in London, and show such a noble list of patrons as we can show?"

He then details the successes of the Home. Of one case he thus speaks:

"She was a patient sufferer truly, and a great invalid when she came into this Home. I said to her: 'I think I can cure you, but the operation is new*; it is almost experimental.' She replied: 'Do what you like;' and I think her expression was, 'Cut me to pieces, if you can cure me.' That patient was one of the first trophies of this institution in the first year of its existence. She returned home perfectly well. She has brought with her to-day a young child.....now upstairs as a living trophy of the success of this institution."

Mr. Brown then referred to the statistical records, and remarked:

"It is not too much to say that, before the foundation of this Home, a very large number of these cases would not have been cured...Professional men come from abroad, from every part of the world, and imitate the work which we have been enabled, under Providence, to carry out here.....You may recollect a few years ago I said I thought we had discovered a mode of curing a class of cases hitherto perfectly incurable, and most painful to the domestic hearth: I mean cases of epilepsy, sometimes including insanity and hysteria, and other affections so lamentable to witness, and hitherto considered incurable."

Mr. Brown then details instances of the success of his method of cure of epilepsy; so much so that, naturally, all the patrons and patroness of the institution will be asking the nature of this remedy, which is not given in the Report. It is not to be supposed that the feminine curiosity of princesses, duchesses, marchionesses, and so on downwards, will rest satisfied until they know something about this means of cure. Whether the discovery of the wrapped-up enigma—viz., that the disease to be cured is feminine masturbation, and the mode of cure excision of the clitoris, etc.—will excite in their minds curiosity, imagination, admiration, or disgust, we will leave our readers to decide.

Self-laudation and interchange of compliments run bravely through the Report, and were carried on mainly, if not entirely, by gentlemen officially connected with the "Home". The Rev. Mr. Gell is visiting clergyman. Dr. Holt Dunn, Dr. George Dale, Mr. Harper, Dr. Royston, Mr. Chambers, Mr. De Méric, Mr. Brown, jun., are all medical men, and most of them attached to the institution. Captain Roberts seconded a resolution; and Mr. Solly, the accountant, as well as the Chairman and a Mr. Stewart, said a few words of laudation; but, with these exceptions, we believe the whole talking, etc., was in the hands of the above named

* How does Mr. Brown reconcile this statement with his public declaration, that the operation is not new; and that he is not the originator of it?

gentlemen. The saying, that a man is not a prophet n his own country, is assuredly not verified in the present case.

The friends of Mr. I. B. Brown have, therefore, perhaps done well in thus eliciting an expression of opinion on the part of the profession outside the somewhat narrow limit of the staff of the Surgical Home. At all events, the profession now has an opportunity of testimonialising their appreciation of Mr. I. B. Brown's services in the cause of medical science.

OUR WORKHOUSE HOSPITALS.

The attempts of Metropolitan Poor-law Guardians to resist necessary reforms are vain. These gentlemen have now the public to settle accounts with. They may turn a deaf ear to their doctors; but they will be more skilful than we take them for, if they stem the current which is setting in so strongly against them. If they are wise, they will rather try to direct the stream.

We last week referred to the fact that the Poor-law Board had addressed to the medical officers of the London workhouses a series of questions concerning the accommodation, nursing, and treatment, of the sick poor in workhouse infirmaries; and that the medical officers had met in conference, and agreed upon certain principles which should guide their answers. Thus united, they were able to speak out freely; and certainly gave some facts which the guardians will hardly digest with satisfaction. As to pauper nurses,

One medical officer stated that he had found that of thirteen pauper nurses only one could read, and how they had distributed the medicines, or of what use his labels and directions had been, it was difficult to say. Another said that his nurses were good, except that they were universally drunken. Another, that his nurses were over 60; and he had found one this week to be imbecile. All agreed that it was not safe to trust pauper nurses with stimulants for the patients. A resolution was passed unanimously, that pauper nurses were insufficiently trained and untrustworthy, and should be substituted by paid nurses. On the subject of space, it was resolved that not less than a thousand cubic feet of air and eighty feet of area per bed should be asked for to sick paupers, that being the allowance of sick convicts, and less than the allowance of sick soldiers. The present average in infirmaries of workhouses is about five hundred feet, often less, and thirty to forty feet of area per bed. As to light, they asked for one window to two beds, which is the military allowance. One medical officer said that he had only one to four beds and a half; and others had less than that. Instances were quoted by medical officers present to illustrate the importance of having resident medical officers, and of relieving the medical officer from the charge of providing the drugs which he prescribes. In order to carry out these requirements, and to give day-rooms to the infirm, it was stated that every workhouse in London would require to be considerably enlarged, and that a majority would need to be reconstructed in a manner to fit them for receiving sick persons.

As a set-off against this proceeding, the guardians of the Metropolitan parishes have had a meeting for the purpose of protesting against the proposed scheme of building monster hospitals for the reception of the sick poor; Major Lyon in the chair. Of course, the Major condemned the assertions as to the bad administration of the Poor Laws by the Association for the Amelioration of the Sick Poor; but he did not disprove them. Dr. Brewer, also, was very angry at the idea of large pauper hospitals. The Rev. Mr. Hansard told the medical doctor that the picture drawn by him as to the good management of the London workhouses and infirmaries was not generally true; and explained that the proposed provision for the sick poor did not contemplate doing away with parochial government. Mr. Hart also stated that no such idea was ever contemplated. What the association actually proposed to do was, that the sick poor should be separated from the able-bodied poor; and that, instead of being treated in thirty-nine places, they should be treated in six large infirmaries. A Mr. Marshall wound up the proceedings with the good honest assertion, that the Poor Law was all that could be desired, if proper people could be got to work it.

In the meantime, Lord Carnarvon's Committee is not asleep. It has, in fact, brought forward another fact or two for the consideration of optimist guardians.

At a late meeting was brought forward an account written by a person who had been the head-nurse in several workhouses. She is no longer a nurse, and well authenticated testimonials show that she left the services of the workhouses of her own free will, proving beyond doubt that her statement could be received in good faith; in addition to which there is the fact that at one of the workhouses described, there was lately held a private inquiry before the guardians on a question of so-called "workhouse discipline" which resulted in a recommendation by the guardians themselves that the master should be dismissed. The late nurse describes horrors which cannot be printed, as things against which she protested without avail on entering the service of certain named workhouses. Among the least offensive of these statements, it is said that the sick who need poultices are allowed one a day, and if they require more they have to use the bread given them for their food; that they pay with their rations the pauper nurses, who sell the food and get drunk with the proceeds; that there is little, if any, medical supervision of the wards; that the iniquities of the wards are winked at by the officials; and that many deaths on which there should be inquests are registered as natural. Rotherhithe workhouse is described in terms too disgusting to recount; but it may be said the horrors related fully equal those found to be true in St. Giles's last year. It was resolved by the committee that the statement should be laid before the Poor-law Board, and inquiry asked for.

Whilst such statements as these can be brought forward and authenticated, the wailings of Major Lyon and his *protegés* will, we suspect, avail them but little.

The Rotherhithe guardians have begged Lord

Carnarvon to visit their Infirmary, and satisfy himself as to the errors of the charges made; but, happily, the President of the Poor-law Board has anticipated the guardians' wishes by ordering an official inquiry on the subject.

REPORT ON CATTLE-PLAGUE.

"A Report on the Origin, Propagation, Nature, and Treatment of the Cattle-Plague, from Information received at the Veterinary Department of the Privy Council from June 1865 to March 1866, etc.," has just appeared, from the pen of Dr. Alexander Williams, Secretary to the Veterinary Department of the Privy Council. The title of the document led us to expect a report full of authoritative information and reflective of the wisdom of the Commissioners. It is, however, in truth, a very disappointing affair; though evidently got up at the expense of great labour and much money. Dr. Williams seems to have so busied himself in details as not yet to have attained a knowledge of even the first principles of this Cattle-Plague business. We really may legitimately express surprise when we read, as the first words of this Report, "that we have not received any evidence of a satisfactory and conclusive nature with reference to the origin of the Cattle-Plague in this country"; and that "it may have arisen spontaneously in the London dairies." Why this is just about on a level with the Cattle-Plague pathology of the *Times* six months ago! How a gentleman holding such an official position could venture, in the face of facts lying broadcast before him of the deeply and essentially contagious character of the disease, to talk of its spontaneous origin in London cow-sheds, without producing one item of proof of the probability even of such an occurrence, is really incomprehensible. Why Lancisi and Ramazzini and Lanzoni, a hundred and fifty years ago, laughed this idea of a cow-shed origin out of the scientific field. Dr. Williams, however, does admit that it is more probable the disease was imported than that it arose spontaneously; and having said this, he then gravely adds: "I do not consider that the afterspread of the disease in this country is incompatible with the hypothesis of its importation."

Of the sort of barren information which the Report contains, we will give a few specimens. "Geological formation" was supposed to have some connection with the spread of the disease, Dr. Williams says; and on this head we are told, as a result of a long analysis, that, "as a rule, those formations having the largest amount of outbreaks have also the largest amount of pasture-land." That is, we suppose, in other words, that where cattle most abound there the disease has been most rife! "It has been asserted," he says again, "that limestone is a preventive against the disease"—not meaning thereby, we suppose, the swallowing of limestone as a drug, but the feeding of cattle in a limestone district. "The next physical cause affecting the progress of the disease" to be considered is altitude. Facts obtained, though too few for use, seem to show that the higher the country the less the number of animals affected; and that at an elevation of 1000 feet the Cattle-Plague disappears. Our author seems to be ignorant of the fact that our cattle are made fat in pastures, and that pastures usually lie in valleys—that cattle are reared in the hills, and are driven down from the hills to be fattened, but never up the hills. The "only other local circumstance" which assists in spreading the disease, is "the size of farms. The smaller the farms, the more rapid the progress (the spread?) of the disease." The period of the incubation of the disease is said to be from six to twenty days; and its duration has been stated to be from twenty-four hours to ten or twelve days. We are told that the returns indicate that the disease is gradually assuming a milder form; but this bit of satisfaction is entirely knocked on the head by the additional words, "this must be taken with a certain amount of caution"—*cum grano salis*, as we say.

As regards Treatment, the Reporter says the returns show that no efficient method has been discovered.

It is much to be regretted that so very poor and lame a Report should have been issued under such respectable and official auspices.

At a meeting of the Metropolitan Counties Branch on the 25th May—Dr. Sieveking, President, in the chair—the following resolutions were unanimously adopted.

"That this meeting desires to express its sympathy with Dr. Armstrong of Gravesend and his son, on account of the annoyance and expense to which they have been put by the vexatious and groundless action for malpraxis recently brought against them, of Rudman *versus* Armstrong and another.

"That this meeting considers that Dr. Armstrong, in allowing himself to be subjected to the inconvenience of public trial in a court of law rather than make a pecuniary compromise with the plaintiff, acted consistently with his own honour and with the honour of the medical profession; and that his conduct is worthy of approbation.

"That this meeting offers its sincere congratulations to Dr. Armstrong and his son on the result of the trial."

We are glad to learn that the subscription for reimbursing Dr. Armstrong's expenses is making most satisfactory progress.

There is, we believe, good reason to hope that the Reports of the Army and Navy Admiralty Committee, etc., will eventually be carried. The opposition which is said to exist to the Report on the part of

ıe Commander-in-Chief, so far as it affects the my surgeons, cannot prevail against the War-ffice. We have heard, from excellent authority, ıat the Secretary of War and the Lords of the Ad-ıiralty are quite ready to carry out the recommend-ıions of the Reports. The hitch seems to be mainly ith the Treasury, who are indignant that they have ot been consulted in the matter, and were not epresented in the Committee. Their indignation, owever, we may reasonably suppose, will evaporate ı face of the joint forces of the War-Office and the ıdmiralty.

T is reported that the question as to the promotion f assistant-surgeons in the Guards is still under onsideration. The Marquis of Hartington, we ıope, at length sees and admits the injustice of the ıew mode of promotion as regards the present men.

A SERIES of Biographical Sketches of Distinguished Living New York Surgeons, by Dr. Francis, lately ıppeared in the *Philadelphia Medical and Surgical Reporter*. They have been reprinted and published ın a separate form, and are commented on as follows ›y the journal which originally produced them.

"These sketches are certainly interesting. As a matter of taste, some may question the desirableness of such cotemporary biography. The precept, never to call any man fortunate before the end of his life, is as old as Crœsus. To call no man great before he has either died or become President, might still suit our times. Still, if done, we desire such a task to be done agreeably. These cannot be called *critical* biographies. Nothing but eulogy seems to have been thought of in their composition. As they claim only to be sketches, and appear to be carefully made upon authentic information, they no doubt deserve, and will have, many professional readers."

PRESENTATION TO A MEMBER OF THE MEDICAL PROFESSION.

THE members of the Liverpool Medical Institution have recently presented a valedictory address to James Dawson, Esq., F.R.C.S., of Wray Castle, Windermere, who was one of the chief promoters in founding the Institution some thirty years ago, and who has ever since maintained a warm interest in its progress—having on several occasions given liberal donations towards different objects for the improvement of the building. A deputation, consisting of two Vice-Presidents, Dr. Gee and Mr. Steele, and the Honorary Secretary, Mr. McCheane, arrived at Wray Castle on May 16th, where they were courteously received and hospitably entertained by their venerable host, who, although numbering more than fourscore years, is still in the enjoyment of excellent health and full vigour both of mind and body.

The address, engrossed on vellum and illuminated in the highest style of art by Messrs. W. and J. Audsley of Liverpool, and handsomely bound in morocco, was as follows.

"*To James Dawson, Esq., F.R.C.S.*

"We, the undersigned, members of the Liverpool Medical Institution, cannot allow the occasion of your ceasing to hold the office of President to pass away without recording our high appreciation of the valuable services you have rendered in the long period of twenty-six years during which you have occupied that important official position.

"We desire gratefully to acknowledge the cordial co-operation and the substantial aid you have from time to time afforded us in carrying out various efforts to increase the efficiency of the Institution with the rise and progress of which your name has been so honourably and so usefully identified; and we gladly avail ourselves of this opportunity of recognising the due regard for the duties as well as for the privileges of professional reputation and success evinced by you, in thus maintaining in your retirement from the active duties of your profession, and in the removal from the scene of your early labours, an unceasing interest in the prosperity of a Society which has proved so valuable and so useful to the medical profession of your native town.

"With every sincere wish that you may yet be spared to enjoy much happiness in your peaceful retirement.

"We remain, dear sir, your faithfully."

(Here follow 87 signatures.)

The presentation having been made, with a few appropriate remarks by Mr. Steele on behalf of the deputation and the members generally, Mr. Dawson briefly acknowledged the same, and placed in the hands of the deputation the following written reply.

"Wray Castle, Ambleside, May 1866.

"Gentlemen,—The address, now read and placed in my hands by a deputation from the members of the Liverpool Medical Institution—viz., Dr. Gee, Mr. McCheane, and Mr. Steele—has gratified me exceedingly. The tone of earnestness that runs through the entire address is most comforting to my feelings. Of the duration of our Institution, under the watchful and skilful guidance of its present officers, I am hopeful. I beg to add my own ardent good wishes—'*esto perpetua.*'

(Signed) "JAMES DAWSON,

"*Late President of the Liverpool Medical Institution.*"

On the same occasion, Dr. Gee handed to Mr. Dawson a presentation copy of an inaugural address delivered by him at the opening of the last session of the Medical Society, which bore the following dedication.

"To James Dawson, Esq., F.R.C.S., of Wray Castle, Ambleside, who filled the office of President of the Liverpool Medical Institution for twenty-six years consecutively, and who, by his honourable character and munificence, endeared himself to all its members; and to the memory of the late Mrs. Dawson, through whose instrumentality and great exertions the bazaar held in 1838 for the liquidation of the debt on the building was originated and carried to a successful issue, and to whom the grateful respect of the profession is still due—the following pages are respectfully dedicated by

"THE AUTHOR.

"5, Abercromby Square, Liverpool, May 1, 1866."

From a note on the title-page of the address, it appears that it has been printed for distribution amongst the members at the request and at the cost of Mr. Dawson.

THE WOUNDED AT SOLFERINO. After the battle of Solferino, the number of wounded was so large in proportion to the medical attendance that many of the wounded remained twenty-four hours on the field; and a great number died eight days after the battle without even having had their wounds dressed.

Association Intelligence.

BRANCH MEETINGS TO BE HELD.

NAME OF BRANCH.	PLACE OF MEETING.	DATE.
South Midland. [Annual.]	Bedford.	Thursday, June 7, 2 P.M.
Lancash. & Cheshire. [Annual.]	Medical Institution, Liverpool.	Wednesday, June 13.
Birmingham and Midland Counties. [Annual.]	Hen and Chickens Hotel, Birmingham.	Friday, June 15th, 3.30 P.M.
Northern. [Annual.]	County Hospital, Durham.	Friday, June 22, 2.30 P.M.
Cambridge and Huntingdon. [Annual.]	Committee Room of the Corn Exchange, St. Neots.	Tuesday, June 26th, 2.30 P.M.
East Anglian. [Annual.]	Museum Room of Hospital, Norwich.	Friday, June 29th, 2 P.M.

SOUTH MIDLAND BRANCH.

The tenth annual meeting of this Branch will be held at Bedford, on Thursday, June 7th, at 2 P.M.; Edward Lawford, M.D., President, in the chair.

Dinner will be provided at 5 P.M.

Gentlemen intending to read papers or cases, are requested to forward the titles without delay to Dr. Bryan, Northampton.

John M. Bryan, M.D., } *Hon.*
G. P. Goldsmith. } *Secs.*

LANCASHIRE AND CHESHIRE BRANCH.

The annual meeting of the Lancashire and Cheshire Branch will be held in the Medical Institution, Mount Pleasant, Liverpool, on Wednesday, June 13th; A. T. H. Waters, M.D., President, in the chair. The meeting will commence at half-past Twelve. The members will dine together at the Adelphi at half-past Four. Tickets Eight Shillings each, including dessert, but not including wine.

Gentlemen intending to read papers or cases are requested to forward the titles of the same to the Honorary Secretary, without delay.

Henry Simpson, M.D., *Hon. Sec.*

10, Chatham Street, Piccadilly, Manchester.

NORTHERN BRANCH.

The annual meeting of the Northern Branch will be held in the County Hospital, Durham, on Friday, June 22nd, at 2.30 P.M.; Sir John Fife, F.R.C.S., President, in the chair.

Dinner at the County Hotel, at 5 P.M.

Gentlemen intending to read papers or cases, are requested to forward the titles of the same to the Honorary Secretary without delay.

G. H. Philipson, M.D., *Hon. Sec.*

Newcastle-upon-Tyne, May 19th, 1866.

CAMBRIDGE AND HUNTINGDON BRANCH.

The annual meeting of the Cambridge and Huntingdon Branch will be held at St. Neots, in the Committee Room of the Corn Exchange, on Tuesday, June 26th, at 2.30 P.M.; J. J. Evans, Esq., President, in the chair.

Gentlemen intending to read papers or cases are requested to forward the titles of the same to the Honorary Secretary, without delay.

P. W. Latham, M.D., *Hon. Secretary.*

15, Sidney Street, Cambridge.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.

The annual meeting of the Birmingham and Midland Counties Branch will be held at the Hen and Chickens Hotel, Birmingham, on Friday, June 15th, at 3.30 P.M.; Dr. Carter, President, in the chair.

The members will afterwards dine together. Dinner on the table at 5 o'clock P.M. precisely.

T. H. Bartleet, *Hon. Secretary.*

EAST ANGLIAN BRANCH.

The annual meeting of the East Anglian Branch will be held at Norwich, in the Museum Room of the Norfolk and Norwich Hospital, on Friday, June 29th, at 2 P.M.; T. W. Crosse, Esq., President, in the chair. The members will afterwards dine together at 5.30 P.M.

Gentlemen intending to read papers or cases are requested to forward the titles of the same to the Honorary Secretary, without delay.

J. B. Pitt, *Hon. Secretary.*

St. Stephen's Street, Norwich.

BATH AND BRISTOL BRANCH: ORDINARY MEETING.

The fifth and last ordinary meeting of the session was held at the Victoria Rooms, Clifton, on Thursday evening, May 17th; R. W. Falconer, M.D., in the Chair, There were also present thirty-six members and two visitors.

New Members. The following gentlemen were unanimously elected members of the Association and of this Branch:—R. Tibbits, M.B. (proposed by Mr. Prichard and seconded by Mr. Ludlow); J. T. Maule, M.D. (proposed by Dr. Falconer and seconded by Mr. Fowler); R. Bartley, M.D. (proposed by Dr. E. L. Fox and seconded by Mr. Morgan).

Amendment of Sanitary Laws. Dr. Falconer brought before the notice of the meeting a resolution of the Committee of Council, to the effect "that communications be made to all the Secretaries of the Branches of the Association, as to the necessity of pressing on the Legislature, by petition or otherwise from their respective Branches, the importance of improvement in the Sanitary Laws." Observations were made by Mr. Bartrum, Mr. Bush, Dr. Davey, Dr. Falconer, and Mr. Davies. Dr. Falconer suggested that a Committee be appointed to act for the Branch in the matter.

Mr. Bartrum proposed and Dr. Swayne seconded—"That a Committee, consisting of Dr. Brittan, Mr. Davies, Dr. Martyn, Dr. Herapath, Dr. Davey, and the Bristol Secretary, be appointed."

This was unanimously agreed upon, and the Committee appointed to meet on Tuesday, May 22nd.

The Case of Rudman v. Armstrong. Dr. Falconer drew attention to the case of Dr. Armstrong and son, suggesting an expression from the Branch to these gentlemen of sympathy under their trial and admiration of their conduct, and a promise of assistance.

Dr. Davey strongly urged a vote of sympathy and pecuniary aid, promising a subscription of two guineas; and proposed the following resolution, which was seconded by Dr. Herapath, and unanimously adopted—

"That this meeting desires to express their sincere and cordial sympathy with Dr. Armstrong and his son Mr. J. C. Armstrong, under the frivolous and vexatious prosecution to which they have been subjected, and to assure those gentlemen of their earnest desire to assist and relieve them of their pe-

uniary liability incurred by successfully defending he integrity of the profession assailed in their persons."

Nearly every gentleman present put down his name s a subscriber, and almost all the subscriptions were aid at the close of the meeting.

Papers. The following papers were read.

1. A Case of Poisoning by Opium; Recovery. By . Ludlow, M.B.

Dr. HERAPATH asked how the galvanic current had een used. (A current from the wheel-apparatus assed chiefly through the diaphragm.)

Mr. DAVIES related a case which occurred before he Marshall Hall method, or the wet towel plan, ere invented; in which a man, who had taken four unces of laudanum, was found apparently dead, and ith no beating of the heart; by pressing the abdonen and chest for a quarter of an hour, respiration as established; the man was kept walking all night, nd he recovered.

Mr. STONE said that, in fenny districts, laudanum as taken in much larger quantities than four ounces t a time.

Dr. BUDD had recovered many by the wet towel, nd considered no means equal to it.

Dr. DAVEY supported Dr. Marshall Hall's views, hat the most powerful stimulus to respiration is the lternate application of heat and cold.

[This paper will be published in the JOURNAL.]

2. The Late Fever in Bristol. By David Davies, sq.

Dr. HERAPATH supported the idea of pregnant omen in typhus fever aborting and recovering, and isapproved of stimulants until convalescence.

3. Dr. J. G. SWAYNE exhibited a specimen of ouble Monstrosity, which was born alive, but died n an hour. The chief peculiarity lay in the head; here being a large central orbit containing two eyes, ith two outer orbits each containing one eye; the ongue was bifid. Mr. Talbott, who had confined he mother, described the appearance of the child hen alive, rolling its four eyes and moving its bifid ongue, as extremely hideous.

Dr. FALCONER said that many gentlemen present ad expressed a wish that Mr. Davies's most excelent paper should be published.

Dr. BUDD warmly eulogised it, considering it one f the most important contributions to practical cience; also, that the profession and the citizens enerally should congratulate themselves upon havng Mr. Davies as their Medical Officer for Health.

Amendment of Sanitary Laws. The Committee appointed by the Bath and Bristol Branch to consider he resolution of the Committee of Council with reerence to the Sanitary Laws, met on the 22nd and gain on the 24th May.

The following memorial to the Privy Council has een agreed on.

"May it please your Lordships.

"We, the undersigned, on behalf of the members f the Bath and Bristol Branch of the British Medical Association, beg to convey to your lordships the eeling entertained by the said Branch with regard o the state of the sanitary laws; and respectfully o express to your lordships their strong conviction hat these laws are inefficient; and, also, to submit o the attention of your lordships the annexed recomnendations for their improvement.

[Here follow the recommendations (*i. e.*, 1 to 7) lready adopted by the Metropolitan Counties Branch, and published in the JOURNAL for April 14. The following are added by the Bath and Bristol Branch.]

"8. That power should be vested in the Medical Officer of Health to order the immediate burial of a corpse dead of infectious disease.

"9. That the early removal of persons labouring under infectious diseases should be rendered compulsory by an order of the magistrates, on proof of defective isolation or overcrowding by the Medical Officer of Health.

"We earnestly pray for your lordships' influence to carry the above propositions into practical effect.

"F. BRITTAN, M.D., *President.*
"J. G. DAVEY, M.D.
"S. MARTYN, M.D.
"W. BIRD HERAPATH, M.D.
"DAVID DAVIES, M.R.C.S.
"CHARLES STEELE, *Secretary.*

"To the Lords of Her Majesty's Privy Council."

Correspondence.

POOR-LAW MEDICAL REFORM, AND VACCINATION.

LETTER FROM RICHARD GRIFFIN, ESQ.

SIR,—I shall feel obliged by your giving insertion to the annexed letter, addressed to the Poor-law Board, but to which I have not as yet received a reply.

I have been in correspondence with members of the Select Committee on Vaccination, and have forwarded my opinion on the Government Bill to the Committee. Mr. Bruce, the Chairman, has written to a member of Parliament as follows: "Should the Committee on the Vaccination Bill decide upon taking evidence, I will not fail to bear in mind your desire that Mr. Griffin should be examined."

Since the last list of subscriptions was published, I have received the following:—F. Eaton (Grantham), 10s.; J. D. Hulme (Blaby), 5s.; F. S. Garlick (Halifax), 20s.; T. Crowther (Halifax), 10s; W. Nowell (Halifax), 10s; D. Mackinder (Gainsborough), 5s.

I am, etc., RICHARD GRIFFIN.

12, Royal Terrace, Weymouth, May 21st, 1866.

Mr. Griffin to the Poor-law Board.

12, Royal Terrace, Weymouth, May 17th, 1866.

MY LORDS AND GENTLEMEN,—On the 3rd of February last, I forwarded to your honourable Board the draft of a proposed Bill "for the better Regulation of Medical Relief to the Poorer Classes in England and Wales", which was acknowledged in these words: "I am to inform you that the provisions contained in the Bill shall receive the consideration of this Board." My object in now writing is to ask you to do the Poor-law medical officers the favour to receive a deputation from them, in order that they may urge upon your honourable Board the desirableness of sanctioning some at least of the propositions named by them in their proposed Bill; and that you will recommend them to Parliament for adoption, either as a distinct Bill, or as part of the intended Poor-law Continuance Bill. Any day, after next Saturday week, that the Board may fix to receive a deputation, will give time for me to communicate the fact to the Poor-law medical officers, through the medium of the medical journals, provided the reply be received on or before next Tuesday; otherwise I must ask for the postponement of the deputation until the following week.

I have the honour to be, my lords and gentlemen,
Your obedient servant,
RICHARD GRIFFIN,
Chairman of the Poor-law Medical Reform Association.

The Poor-law Board.

THE NATURE AND TREATMENT OF CHOLERA.

LETTER FROM GEO. JOHNSON, M.D.

SIR,—Dr. Barclay has written you a long and a very querulous letter. He quarrels with you, with me, and, alas! with himself also. That he should quarrel with me is only natural; for, having done me a manifest injustice by his former misstatement of my method of reasoning on the nature and treatment of cholera, and having subsequently refused to acknowledge that I had any ground of complaint against him, he naturally feels that my continued existence in the world of pathology is a personal offence. I ought to have succumbed to the logical blow which he administered to me in the Lumleian Lectures.

That Dr. Barclay should quarrel with you, Sir, is intelligible enough. No other result was to be expected, when he discovered that doctrines which had received his unqualified condemnation had found in you so zealous and able an advocate.

But that Dr. Barclay should quarrel with himself—that he should contradict the author of *Medical Errors*—is surely a most remarkable phenomenon; yet this is what he does. The author of *Medical Errors* assumed to know much of the nature and treatment of cholera. Dr. Barclay now declares that he knows nothing of either. He says, "We have absolutely nothing to guide us in the treatment;" and he makes a pathetic appeal to others to give him the guidance which he needs. Strange that so much "logical acumen" should have been so unfruitful in practical results. The author of *Medical Errors* declares that "the idea of increasing the discharges from the bowels is opposed to the fact that the thickened condition of the blood following on the abstraction of the serum is prejudicial to life;" and this, he thinks, "has been proved by the wonderful efficacy of fluid injected into the veins in bringing back temporarily to life and consciousness patients who were in the last stage of collapse." Dr. Barclay now asserts that "benefit may be obtained from exciting vomiting and purging in proper cases." If, then, even he does not accept the judgments recorded in *Medical Errors* as final and infallible, he cannot be surprised that others should presume to be sceptical.

It would be vain to follow Dr. Barclay through all the tortuosities and contradictions of his remarkable letter; but, if he could for once be induced to confine himself to the discussion of one definite proposition, it would be interesting to learn from him why, with singular inconsistency, he in one breath admits, and then angrily denies, the existence of a morbid poison as the essential cause of such diseases as small-pox and cholera. He apparently cannot or will not, except in a doubtful and intermitting fashion, admit the existence of any poison which is not either a mineral or a vegetable poison. In *Medical Errors*, he erroneously asserts that my theory of cholera is based on the analogy of mineral or vegetable poisons; whereas my arguments are mainly drawn from the analogy of other undoubted *morbid poisons*. Dr. Barclay admits that the cholera poison is a reality. It is admissible, he says, to speak of poisoned blood. He cannot, then, deny that a poison enters the blood, and that poisonous secretions are discharged from the blood into the alimentary canal. Obviously, then, the poison must be eliminated from the blood, since it does not carry *all* the blood with it, but at length leaves some unpoisoned blood in the vessels. Yet Dr. Barclay declares that "to speak of a *poison in the blood* which has to be eliminated is to confound at once all the recognised distinctions between specific diseases, and the effects of mephitic gas, arsenic, opium, etc." It appears to me that the confusion here is in Dr. Barclay's own mind, and nowhere else.

Dr. Barclay considers it little better than a "jest" to speak of there being in the body of a cholera patient some drastic agent, which is the actual cause of the violent purging. He considers this a "crude theory", and warns his professional brethren not to act upon it. But surely, if "logic and argument" oppose themselves to such indisputable facts as this, their "utter discomfiture" is a necessary and wholesome result of their unreasonable opposition.

Dr. Barclay maintains that, if the purpose for which a purgative is given be merely to remove poisonous secretions from the bowel, the term eliminative is inapplicable to this method of treatment. He would perhaps restrict the term elimination to the process of excretion from the blood. I am not aware that there is any reason or authority for so limiting the application of the term; which, in the sense of ejection or casting out, may, with equal propriety, be used to designate the excretion of morbid materials from the blood, and their subsequent expulsion from the alimentary canal. It may, however, tend to prevent confusion and misapprehension, if the term intestinal *evacuation* be substituted for intestinal elimination. We may then speak of the three successive stages of the eliminative process as follows. 1. Blood fermentation, or zymosis; 2. Vascular excretion of morbid materials from the blood into the alimentary canal; 3. Gastro-intestinal evacuation of the morbid excreta by vomiting and purging. The main intention and effect of emetics and purgatives in cholera, is to assist the third stage of the eliminative process. It is to be hoped that the author of *Medical Errors* now perceives—I do not expect him to acknowledge—that there is really no analogy, as he formerly supposed, between the administration of a purgative to a cholera patient and the absurd suggestion to rub croton oil on the skin of a sufferer from small-pox. The real analogy here is between gastro-intestinal evacuation in cholera and free ventilation of the sick man's chamber in the case of small-pox.

The small-pox poison, thrown into the skin, is out of the circulation; but a neglect of ventilation may lead to the re-absorption of the poisonous emanations from the skin through the lungs. In like manner, the choleraic secretions are out of the circulation when they are thrown into the digestive canal; but their retention there may result in their being re-absorbed by the blood-vessels.

With reference to my theory of collapse, Dr. Barclay says: "If language means anything, Dr. Johnson's view is that there is a 'poison' in the blood in cholera, which causes such 'spasm' of the larger branches of the pulmonary artery, that the blood cannot pass on to the smaller subdivisions; it consequently accumulates in the right side of the heart and the venous system."

In this sentence there is imputed to me the strange notion that the circulation is arrested by spasm of the *larger branches* of the pulmonary artery; these larger branches not having muscular walls, and therefore being absolutely incapable of undergoing spasmodic contraction. This statement affords a good illustration of Dr. Barclay's accuracy in the use of "language as a symbol of thought", and it will assist us in forming a judgment of his competency to criticise "the fine-spun theory" which he thus misrepresents.

I am, etc., GEORGE JOHNSON.

Savile Row, May 28th, 1866.

"HOW SHALL WE TREAT CHOLERA?"

LETTER FROM THOMAS SKINNER, M.D.

SIR,—I have headed this epistle with the very imple and practical question of Dr. Handfield Jones; ut, simple as it may appear, I believe it to be, with ll deference to the enthusiasm of Dr. Johnson, of all uestions at the present moment, the most difficult o answer: therefore, on the present occasion, I shall ot attempt to do so.

I presume that there are very few medical men who have been fifteen or twenty years in practice, who have not seen and read a great deal about holera, and its treatment, its natural history, its norbid anatomy, its varieties, its various and oppoite phases in the same epidemic, its fatal dealings with mankind in almost every country, the many, ery many, long and short lived theories as to its ature, and modes of action, and the effects, almost ext to *nil*, of every kind of specific treatment. In pite of all our vast accumulation of facts, I maintain hat we are still in gross darkness as to the real ature and modes of action of Asiatic cholera.* In ur blindness some of us lay hold of the more proninent symptoms, namely, collapse and rice water tools, stools with a total absence of bilious matter, tc., and from their arguments and practice one is lisposed to think that they really do believe they are rappling and dealing with the disease itself. One heorist strongly maintains that the therapeutic inlication is to stop the rice water diarrhœa with ice, randy, opium, astringents, antacids, and mineral cids; the serum of the blood is draining away, and he life must certainly follow. Another says, the loss f serum has nothing to do with it; it is the absence f bile in the dejections, arising from congestion, r some deranged condition of the liver;—give choagogues and salines. Another theorist, fascinated y the eliminating process, and believing strongly in he humoral theory of medicine, believes himself, nd would have all the world of the same belief, that he phenomena of the disease are owing to a blood oison, which he calls "*Cholera-Cathartine*," and vhich he holds to be of the nature of a "self-multilying" purgative. A very rare form of cathartic ndeed, whatever may be said of the theory; because, ccording to the author of it (Dr. George Johnson) t is, at one and the same time, both *self-multiplying* nd *self-eliminative*. Being sceptical, however, as to Nature's judgment in the process of elimination, Dr. Johnson adopts a system of *emesis et catharsis* (as if here was not in general enough and to spare) by neans of ordinary emetics and castor oil, as the only afe and "perfect cure"; and it is not a little susicious that, in the last number of the JOURNAL, he equired to assure his "weaker brethren" that in reating cholera by purgatives, they are to be under o apprehension or fear that they are acting upon he homœopathic dogma of "like is cured by like." am perfectly indifferent whether I am included mongst the weaker sort or not, but I have no hesitation in challenging Dr. Johnson, if his theory be a true one, to prove that the system of treatment founded thereon is not, in the strictest meaning of the term, *purely homœopathic!* It seems to my comprehension that Dr. Johnson's theory and practice in regard to Cholera, contain the very essence of the Hahnemannic "dogma" as he terms the therapeutic law "*similia similibus curantur.*" Let us compare Dr. Johnson's theory and practice with the so-called dogma. The homœopathic law as generally understood, is, so far as I know, thus correctly expressed: In the treatment of diseased action, give a smaller dose of a medicinal substance than will induce the nearest approach to the totality of the symptoms in a state of health. So much for the dogma. What does Dr. Johnson teach? He assumes, because he has nowhere proved it, that cholera consists in a blood-poison; and with no other proof than this blood-poison's presumed effects, he firmly believes it to be of the nature of elaterium, and he positively has named or misnamed it "*Cholera-cathartine.*" I presume I may add with advantage, *et emetine.* He tells us that this same Cholera-cathartine-et-emetine poison, unlike all other emeto-cathartics, has unfortunately for the patient, not only a self-eliminative, but also a self-multiplying action going on in his body at one and the same time. So much for the theory, now for the practice. Dr. Johnson selects for his remedy, *par excellence,* the mildest and least irritating hydragogue cathartic and emetic, and he gives them in smaller doses than will induce hypercatharsis and hyperemesis (he now confesses that he "often gave excessive quantities of castor oil.") Mark well! The disease, according to Dr. Johnson, consists in a *Cholera*-cathartine-et-emetine poison, and he meets it, he exorcises it with a *Ricino*-cathartine-et-emetine remedy! What is this pray, if it is not undisguised homœopathy? It would be interesting to know whether the Ricino-cathartine-et-emetine has a greater homœopathic affinity for the self-multiplying or the self-eliminative action of the cholera-cathartine-et-emetine blood-poison, or if it prefers to attack them both at once. I should like Dr. Johnson to inform us why he is ashamed to own his theory and practice as homœopathic? The great father of medicine, Hippocrates, himself, thought it no disgrace to believe that "like is sometimes cured by like." In treating of suicidal mania, he says, "Give the patient a draught made from the root of mandrake, in a smaller dose than will induce mania." What is this, let me ask, if it is not an instance, whether true or false, that Hippocrates recognised the so-called Hahnemannic law in therapeutics, "like is cured by like"? Further on, in the same treatise, he makes the important remark, that "although the general rule of treatment be '*contraria contrariis curantur*,' the opposite rule also holds good in some cases, namely, '*similia similibus curantur.*'" Dr. Johnson's theory and practice in cholera is evidently a case in point. Possibly, the following from the same distinguished pen may throw a ray of light on the castor oil treatment of cholera. Hippocrates in the same treatise "insists, in strong terms, that, under certain circumstances, purgatives (castor oil?) will *bind* the bowels, and astringents *loosen* them." It is to be hoped that Hippocrates is not included amongst Dr. Johnson's "weaker brethren." I have dwelt longer upon this theory than upon the others, simply because of its newness. I have selected these three theories and methods of treating cholera, not because they are the only ones, but because they are typical of the prevailing ideas of very large bodies of intelligent practical men in the profession, and as such, are certainly deserving of every respect. For myself, I claim the privilege of belonging to a large

* May 23rd, 1866. We cannot have better evidence of the gross darkness which prevails, than what we find in the JOURNAL of the 19th instant, where "our own Liverpool correspondent", at p. 532, advocates *blood-letting* in the stage of collapse, and the writer of the principal leading article, at p. 526, advocates *transfusion* for the same condition. Of course, each has his own pet theory with which to vindicate his practice; and, however much they may be opposed, neither will have any difficulty in reconciling his practice as consistent with what is right. For my own part, I believe that the success likely to attend either plan will be pretty much the same; viz., *nihil*, or at most but temporary relief. Theories have always been, and it would appear still are, to a great extent the bane of medicine. They are a remnant of the deductive system of logic as applied to medicine, and the sooner we throw the system overboard and begin to reason from fact to theory, instead of from theory to fact, the better.—T. S.

body in the profession who give implicit credence to no theory as yet offered to the profession.

The object of my addressing you on the present occasion is not to uphold any old, or to trouble the profession with any new, theory or mode of treating Asiatic cholera; but principally to raise a voice, and it may be but a feeble one, against dogmatic teaching in general, and particularly when it concerns the best treatment which ought to be adopted in a disease which has up to the present moment baffled the wisest heads in the profession in every country and in every age. With such a terribly humiliating truth before us, it behoves us, as in the case of the cattle-plague, to put on the garb of genuine humility, and wait for further light before we presume to suggest a new theory as the only true one, or castor-oil or any drug as a panacea in Asiatic cholera. To say the least of it, there is a want of magnanimity in turning upon all the great thoughtsmen of the past and many of the present, and telling them that they have all along been in the dark, that they are all in the wrong, and that we, with an experience, a theory, and a practice as of yesterday and small in amount, are infallibly in the right.

On viewing the professional as well as the lay literature of cholera of the day, we are forced into the belief that the successful treatment or management of it lies, as Dr. Handfield Jones has put it, in "*checking or encouraging the intestinal evacuations.*" No one seems to think of the advisability of *letting them alone* in some cases, or of moderating or entirely suppressing them in others; in short, in checking, encouraging, or leaving them to Nature, according to the circumstances of each individual case, perfectly irrespective of any dogma or theory whatsoever. The same, in fact, as we do with the bowels in the management of any other disease. The proof of the pudding has nothing whatever to do with any theory in the cooking; but the proof of the theory as well as of the pudding lies simply in the eating! In this I thoroughly believe, as also that in medicine there is infinitely more judgment displayed in knowing when to keep one's hands off than when to put them on; and certainly is this more particularly true when all our best theories, as in the present instance, are but impotent hypotheses!

In conclusion, I feel every confidence that when Asiatic cholera next makes its appearance—and it is already, to say the least, sporadic amongst us in Liverpool—the *individual* members of the profession will not be found wanting; nor will they find any difficulty in judging for themselves as to the best line of practice to adopt, not only as regards a successful issue to the lives of their patients—so far as that lies within their power—but what is sometimes of no less importance—though seemingly overlooked in the present discussion—they will be found equal to lessening the pain and mitigating the sufferings attendant upon the disease, and last, but not least, of smoothing the passage to a higher and a nobler sphere of those whom it is God's will to remove.

I say nothing of treatment at present; on another occasion I may. It is not because I am sceptical or have lost faith in the *management* of the disease; but simply that so far as the *medicinal* treatment is concerned, I have nothing to offer with which the profession is not thoroughly well acquainted.

I am, etc., THO. SKINNER.

1, St. James Road, Liverpool, May 12th, 1866.

P.S. Dr. Johnson, in your last number, in answer to Dr. Handfield Jones, "ventures to suggest that the oil may have relieved the patient by driving some irritating material from the *more highly* sensitive small intestines into that *more* torpid receptacle the large bowel." The italics are my own. Might I venture to ask Dr. Johnson to favour us with satisfactory proof or evidence that the surfaces of the jejunum and ileum are *more highly* sensitive than the surface of the colon; and that the colon, *cæteris paribus*, is *more* torpid than the small intestines.

[Does Dr. Skinner call it homœopathic to wrap up a sweating rheumatic fever in blankets and give diaphoretics? But where is the difference in intention between this rational practice and Dr. Johnson's treatment of cholera? Surely the question which all the world wants answered, is not whether the eliminative treatment in cholera can be verbally brought under the head of homœopathic; but whether it is a correct treatment. If Dr. Johnson maintain his theory, and can satisfy the world that brandy and opium are injurious in cholera, and that the true art of treating it is to regard the purging and vomiting as efforts of Nature by which the body gets rid of the disease—if Dr. Johnson prove this, surely Dr. Skinner would not refuse to follow the practice merely because he thinks it smacks of the homœopathic. How little there really is of the homœopathic in the case, is shown by Dr. Skinner's own words. Did he ever hear of the "totality of the symptoms" of cholera being produced by purging. We sincerely wish our talented correspondent had occupied our pages with a criticism of Dr. Johnson's theory and practice. Criticism such as the above deals only with collateral issues. How can Dr. Skinner be satisfied that the profession will know how to deal with the cholera, when he tells us that we have learned nothing to lighten our ignorance? Does he not see that the eliminative is, in fact, an approach to the *let alone* treatment? If Dr. Skinner will consider the pathological indication which bleeding and hot injections fulfil, he will find that there is nothing whatever incompatible in the two proceedings. Both fulfil the same object; viz., relieve the oppressed pulmonary circulation. EDITOR.]

LETTER FROM R. W. WATKINS, ESQ.

SIR,—I read with much regret, in the letter of your Liverpool special correspondent, that "the eliminative treatment of cholera has not found favour there"; and with some surprise, that "the records of the last epidemic in Liverpool are irreconcileable with the views recently enunciated by Dr. Johnson."

Your correspondent adduces, in support of the latter proposition, the fact that, as soon as house to house visitation by medical men was organised, the cases detected in the early stage of diarrhœa or incipient cholera were treated generally, if not uniformly, by astringents, opium, and stimulants; and that the impression left on the minds of many, if not all, those who had opportunities of forming an opinion was, that the most successful mode of treatment was to arrest the premonitory diarrhœa.

My experience in the treatment of more than one hundred cases of cholera and about four hundred cases of diarrhœa in 1854 exactly corresponds with this statement; but I demur entirely to the proposition founded on it. I believe it is admitted by all who have any extensive experience of cholera, that that disease may generally (not always) be prevented by checking the premonitory diarrhœa; also, that this can be done either by astringents or by mineral acids, with or without opium; but it is also admitted that, when cholera is fully established, about fifty per cent. of the cases treated by astringents and opium will prove fatal.

I see nothing in this established fact that is irre-

ncileable with Dr. Johnson's views; nor can I dmit that the success of the astrigent treatment in ie premonitory stage is irreconcileable with a dif-erent treatment in an advanced stage. The condi-ion of a patient with diarrhœa and with true cho-era, is as dissimilar as is the congestive stage of neumonia from that of hepatisation of the lung; nd it would be equally rational to argue that, be-ause venesection will often relieve congestion of the ung, and prevent the further progress of the dis-ase, it is therefore irreconcileable with the fact that enesection is prejudicial, and that a different treat-ient is necessary in the later stage.

I commenced the treatment of cholera with full onfidence in the astringent plan; but this theory, r rather my faith in it, was soon dissipated by the 'inexorable logic of facts". After three weeks' per-everance with this treatment, I abandoned it, not nly because I found it very unsuccessful, but for the ollowing reasons.

1. That, of the cases treated by the astringent nixture of chalk, catechu, and opium, several of hose who recovered had always vomited the mixture s soon as it was swallowed.

2. That, although in many cases the purging was hecked, the patient nevertheless died in collapse.

3. That in several patients who recovered from ollapse, the purging still continued, though with ess violence.

These were my reasons for abandoning the astrin-gent and adopting the eliminative treatment; which ad been more successful than any other in the cases reated by Dr. Johnson at King's College Hospital. The result was that about fifty per cent. of the cases reated by astringents terminated fatally, and only bout ten per cent. of those treated by eliminatives. I know that it is easy to diminish the percentage of atal cases by including in the account several cases f choleraic diarrhœa; but, in my reports, I took are, from its commencement to its termination, that one but true cases of cholera were reported as such. I have given the result of my cases more in detail in he number of the JOURNAL for October 21st, 1865; nd the object of my now addressing you is to endea-vour to remove some of the prejudices which still ppear to exist against the eliminative treatment.

This treatment was at that time empirical, I ad-mit; but I now contend that Dr. Johnson has, in his ew theory of the cause of choleraic collapse, given a ational explanation of its action; and I would espe-ially remark that his observations have not been made to support a preconceived theory; but that the facts have been recorded by many observers in dif-erent parts of the world, and that his theory has been deduced from previously recorded facts. I would even suggest to those who refuse to adopt Dr. Johnson's theory, that there are certain admitted facts which will justify this treatment. It is ad-mitted that the cholera-germ (whatever may be its nature, and by whatever name we call it) has the power of rapidly reproducing itself in the human intestine—it is believed that it acts as a poison, pro-bably by absorption into the blood, possibly (as some imagine) by local irritation; that the host of reme-dies which have been recommended, as antidotes to the poison, or as specifics for preventing its repro-duction, have hitherto proved ineffectual. Is it not, then, rational treatment to endeavour to remove these cholera-germs from their peculiar matrix, and so arrest the process of reproduction? It is idle to object that the eliminative treatment may be styled homœopathic. There is here no question of infini-tesimal doses. The terms homœopathic and allopa-thic have no very definite meaning, and are often misapplied; and it would be absurd to reject a sys-tem of treatment of which a rational explanation has been given, and which, so far as it has yet been tried, has been attended with a greater amount of success than any previously adopted, simply because some persons may misapply to it an objectionable epithet.

I would earnestly appeal to our Liverpool associates to give the eliminative treatment a fair trial, either in a number of cases consecutively, or *pari passu* with an expectant treatment, or with the moderate use of stimulants, and to publish the result of their observations. I am, etc.,

R. W. WATKINS.

Towcester, May 21st, 1866.

ON THE TREATMENT OF CHOLERA AND DIARRHŒA.

LETTER FROM ARTHUR RANSOME, M.B.

SIR,—In his recent article on the Treatment of Cholera, Dr. George Johnson quotes a passage from Sydenham's writings, which appears to support his own views. If, however, the whole of the paragraph quoted had been given, it would have been evident that no such support can be derived from this high authority. At the commencement of the passage referred to by Dr. Johnson, he says, "By careful reflection, by observation, and by the result of a manifold experience, I have thoroughly convinced myself that to expel the acrid humours, the focus of the malady, by cathartics, is just to add fuel to flame. The mildest operation of the mildest purge disturbs the whole system, and induces fresh commotions."

Moreover, at paragraph 6, he says, "If the physician has not been called until after the patient has been purged and vomited for some hours—say ten or twelve—so that he is exhausted and cold at the extremities, the remedies aforesaid (*i. e.*, copious draughts and enemas of warm chicken broth) must be laid aside. Laudanum must be his sheet anchor, and it must be resorted to at once."

In this most important controversy, strict accuracy should be studied. No one who has read the able papers by Dr. Johnson on this subject can fail to have been much impressed by his arguments against the use of astringents, opiates, and stimulants in true cholera; but Dr. Handfield Jones has rightly pointed out that the treatment of cholera and that of the premonitory diarrhœa may need to be very different. It seems to be at least a doubtful pathology which would class all cases of diarrhœa occurring in a cholera season as choleraic diarrhœa.

Is not the balance of evidence from former epidemics, and from the experience of the Parisian medical men during the late autumnal visitation, strongly in favour of at once arresting the premonitory diarrhœa? Is it true or not that, if this ailment be treated promptly, cholera rarely or never supervenes? It does not seem unlikely that this would be the right treatment.

We know that a weakened or exhausted condition of body predisposes to attacks of such epidemic diseases as typhus or typhoid fever; that measles and whooping-cough and influenza are most rife in seasons when bronchitis and catarrh are prevalent. May it not be equally true that the cholera-poison finds its most fitting soil in a system already weakened by diarrhœa?

I am, etc., ARTHUR RANSOME.

1, St. Peter's Square, Manchester, May 14th, 1866.

THE PRINCE OF WALES has consented to lay the foundation-stone of the New North Staffordshire Infirmary, at Hartshill, near Stoke-upon-Trent, on Monday, the 25th of June.

Medical News.

APOTHECARIES' HALL. On May 24th, 1866, the following Licentiates were admitted:—

Aveling, Charles, St. Thomas's Hospital
Hills, Rowland, Conisborough, Yorkshire
Phillips, Edward England, Norfolk Crescent, Bath
Williams, John, Fishguard, Pembrokeshire

At the same Court, the following passed the first examination:—

Hickman, Thomas Henry, St. Bartholomew's Hospital
Salzmann, Frederick William, Guy's Hospital
Smith, Frederick, Westminster Hospital

BIRTHS.

BOWMAN. On May 25th, at Sunderland, the wife of Henry O. Bowman, M.D., of a son.

BURKE. On May 13th, at Bighi, Malta, the wife of John Page Burke, M.D., Staff-Surgeon, Royal Naval Hospital, of a daughter.

FORESTER. On May 25th, at Claremont Square, the wife of H. Forester, M.D., of a son.

LONGMORE. On May 20th, at Hamble, near Netley, the wife of Deputy Inspector-General *T. Longmore, of a daughter.

MIDDLETON. On May 23rd, at Brussels, the wife of J. W. Middleton, M.D., of a daughter.

MOULD. On May 24th, at Cheadle, Cheshire, the wife of *G. W. Mould, Esq., of a son.

PHELAN. On May 19th, at Kilmoganny, County Kilkenny, the wife of William Bernard Phelan, M.D., of a daughter.

PHILLIPS. On May 22nd, at Manchester, the wife of Charles D. F. Phillips, M.D., of a son.

POTTER. On May 24th, at Cullompton, Devon, the wife of S. Reginald Potter, M.D., of a son.

SMITH. On May 22nd, at 9, Finsbury Pavement, the wife of *W. Abbotts Smith, M.D., of a daughter.

SPENDER. On May 21st, at Bath, the wife of *John K. Spender, Esq., of a daughter.

MARRIAGES.

*ERRAGE, Thomas, Esq., of Leamington, to Amelia, elder daughter of the Rev. C. JEAFFRESON, M.A., retired Chaplain H.E.I.C.S., at Edmonton, on May 24.

HALL, Marriott, Esq., Surgeon, Sheffield, to Sarah, elder daughter of Mark FIRTH, Esq., of Oak Brook, Sheffield, on May 24.

*HARRIS, William John, Esq., of Worthing, to Florentia Caroline, younger daughter of the Rev. C. JEAFFRESON, M.A., retired Chaplain H.E.I.C.S., at Edmonton, on May 24.

*ORMEROD, Henry, Esq., of Westbury-on-Trym, to Mary Anne Burk, second daughter of *J. J. EVANS, Esq., of St. Neots, on May 23.

*WALTER, Walter W., Esq., of Stoke-under-Ham, to Mary Drury Grace, eldest daughter of the Rev. — GREENSLADE, Incumbent of the same parish, on May 26.

WATSON, A. M., M.D., of Little Huthwaite, Sheffield, to Fanny Elizabeth, younger daughter of F. EATON, Esq., of Ancaster, Grantham, on May 24.

DEATHS.

BEATSON. On May 18th, at Castletown, Isle of Man, Mary Jane, wife of *W. B. Beatson, M.D., Inspector-General of Hospitals in India.

BROUGHAM, Stephen, Esq., Surgeon, at Falmouth, aged 72, on May 20.

CANNON, Æneas, M.D., at Cheltenham, aged 79, on May 15

GILLILAND, William L., M.D., at Hereford, aged 81, on May 21.

*NESBITT, Francis A., Esq., of Wolverhampton, at Norwood, aged 34, on May 27.

NOYES. On May 19th, at Lee, Kent, Louisa, wife of Henry G. Noyes, M.D.

SISSONS. On February 21st, at Brisbane, Queensland, Cordelia Matilda, wife of Richard Sissons, Esq., Surgeon, late of Huddersfield.

TATUM. On May 21st, at 3, George Street, Hanover Square, aged 50, Fanny Maria, wife of T. Tatum, Esq., Surgeon.

SIR DOMINIC CORRIGAN, it is reported, will come forward as a candidate to represent the Queen's University in Ireland, should Mr. Gladstone's Bill pass the Houses of Parliament.

THE CHARTERHOUSE. Dr. F. Farre has been appointed Consulting Physician to the Charterhouse. He was himself a distinguished Carthusian. Mr. Nicholl, late of the Guards, is Resident Medical Officer, succeeding Mr. Miles, who retires.

THE WILL OF SIR JOHN M'GREGOR, M.D., K.C.B., Inspector-General of Hospitals, late of Ryde, Isle of Wight, has been proved in London under £14,000 personality.

THE AUSTRIAN MEDICAL SERVICE. It is said that there is such a dearth of physicians and surgeons in the Austrian navy, that the Government offers to engage young men who have not yet completed their medical studies.

MISS ISA CRAIG, on resigning her post as Assistant-Secretary of the Social Science Association, on the occasion of her marriage, has received a silver tea-service and salver, the latter bearing the inscription, "To Isa Craig, from her grateful and attached friends of the National Social Science Association, 17th May, 1866."

CHOLERA. The *Philadelphia Medical Reporter* records two cases of cholera in New York. The first case occurred on the 1st of May. The patient was attacked with diarrhœa at 10 P.M., and died about twelve hours afterwards. The cholera has ceased at Guadaloupe, after carrying off 10,856 out of 149,107 inhabitants—14 per cent.

VETERINARY SURGEONS. A deputation from the Royal College of Veterinary Surgeons, consisting of the President, Mr. Holland, M.P., Mr. Newdegate, M.P., Mr. J. Lawson, Professor Varnell, Professor Simonds, Professor Gamgee, Mr. E. Harrison, and the Secretary of the College, have had an interview with the Right Hon. H. A. Bruce, at the Privy Council Office, with reference to the bill now before parliament relative to the veterinary profession.

QUADRUPLE BIRTH. Mr. J. Wilson gives in the *Lancet* a case of quadruple birth. Three of the children were born alive; the fourth showed some signs of vitality, but could not be resuscitated. Out of 140,000 deliveries in the Dublin Lying-in Hospital, only one such case is recorded. Four cases only are given by Dr. Fleetwood Churchill as occurring in 666,000 deliveries (*Theory and Practice of Midwifery*, 4th edition).

OUR SOCIAL BEES, by Dr. Wynter, is a collection of charming essays and chapters on various branches of industry. There are few of the contributors to periodical literature who possess in so high a degree as Dr. Wynter, the industry to collect information respecting comparatively common things, or the art to make those details interesting to the general reader. Things which are perfectly familiar to all of us are seen in a new light under the magic of his pen, and things of which we may know very little are by the same power made quite familiar to us.

INFANTICIDE. At the meeting of the Harveian Society held on May 17th, it was proposed by Mr. Curgenven, and seconded by Dr. Hare, "That a Committee be formed, consisting of the following members—Dr. Tyler Smith, the President; Mr. J. Brendon Curgenven and Dr. Charles Drysdale, the Honorary Secretaries; Dr. Hardwicke, Deputy Coroner; Mr. Ernest Hart; Dr. Sanderson, Medical Officer of Health for Paddington; Mr. Benson Baker; and Mr. Sedgwick; with whom will be associated Dr. Lankester, the Coroner for Central Middlesex; to draw up a Report on Infanticide, with the object of suggesting the best means of checking the crime; and to report on the causes of death of young children, the best means for preventing excessive infant mortality, and to suggest some plan for the care and rearing of illegitimate children other than the present workhouse system." Communications on these subjects are solicited by the Committee, and should be addressed to Mr. Curgenven, 11, Craven Hill Gardens, W.

Bequests. Mrs. Waddell, of the Regent's Park, as bequeathed £200 to St. Bartholomew's Hospital, nd £50 each to the Charing Cross, and King's ollege Hospitals.

University of Durham. The following examiners *r Licenses and Degrees in Medicine*, have been ap-ointed: the Reader in Medicine; the Lecturer in hemistry; W. C. Arnison, M.D.; A. S. Donkin, I.D.; G. Y. Heath, M.D.; T. C. Nesham, M.D.

Royal College of Surgeons. The annual election f Fellows into the Council of the College will take lace on Thursday, July 5th. The retiring members, ho, however, offer themselves for re-election, are lessrs. Hilton and Luke. Ten days is the time llowed for sending in the names of candidates.

Action for Recovery of Fees: Ladd *v.* Fennitore. This was an action to recover £21, charged y Dr. Ladd for attendance on the defendant's nother who broke both bones of her leg and dis-ocated her ancle. The plaintiff's case was that he eclined to undertake the case on the mother's re-ponsibility because she could not pay him; that the efendant was told that the charge would be twenty r twenty-five guineas, and that he undertook to be esponsible for it. The defendant, on the other and, denied that he had undertaken to be responsi-le for twenty guineas, and thought the charge was xcessive. The sum of £7:7 was paid into court. he jury found that there had been a special agree-ent for twenty guineas, and they found for the laintiff for the balance £13:13.

Successful Treatment of Hydrophobia. We *Wolverhampton Chronicle*) regret to have to record a ase of hydrophobia in this neighbourhood. In our ast we mentioned that a dog, which showed signs of abies, had escaped from Mr. Higgs's, of Trescott, ommunicating the disorder to other dogs, and doing ther mischief. We learn that about a month ago a ervant girl in Mr. Higgs's service was tying up the log in question, when the animal bit her on the ight thumb. She experienced no serious results ntil Tuesday week, when her thumb, arm, and chest ecame considerably swollen, accompanied with reat heat, pain, redness, stiffness and numbness, he arm being so stiff that she was almost unable to nove it. Mr. Higgs sent for Mr. Pope, surgeon, of leobury Mortimer, who saw the girl on Thursday, nd found her evidently suffering from hydrophobia, he result of the bite of the dog. On Friday night he became very ill, biting and tearing at almost verything near her, and suffering much from con-ulsions. She repeatedly declared that she heard he dog growling at her, indeed, she displayed all the ymptoms of this dreaded disease. As surgical vriters on the subject do not lay down any specific node of treatment in cases of this kind, Mr. Pope letermined to cause profuse salivation in the patient vith the view of neutralising the poisonous character f the saliva of hydrophobia. This is a course of pro-edure not often pursued, but its beneficial effects vere soon apparent. On Sunday the convulsions nd the spasms from which the poor girl also suffered ad ceased, and there now appears to be every pro-pect of her ultimate recovery.

Varieties.

Quarantine at New York. Nothing in heart-lessness, laziness, indifference, and want of con-rivance, in the history of Turkish and Oriental quarantines ever surpassed this. Here, as Dr. Stone remarks, comes into port, "a poor devil of a captain, with a pest-house under his command, and he dare not move here or there lest he should violate some law, and nobody is there to tell him what course to pursue. So, a thousand human beings are imprisoned many hours longer than they need be, in the midst of death in its most fearful forms." For thirty-six hours this floating pest-house (the *Virginia*) lay without succour or message from the shore; the steerage crowded with the sick and the dying, and the dead towed in boats at the stern. These hundred poor men and women constantly on the verge of riot and mutiny. The first supplies that came from the shore, we are assured by a passenger, were three barrels of sawdust! When at length the sick are to be removed, there is no steam-tug or proper means of transference. The poor dying emigrants are tied into a rude seat made of a hogshead, and lowered from the yardarm, under the hot sun, after much difficulty, into one row-boat, and then again hoisted in the *Falcon*. Three persons on an average are thus transferred in three-quarters of an hour. One poor woman died during the process, and no doubt the majority of the others died afterwards. It forcibly occurs to the quarantine officials that this is a very slow and cruel process, and on the urgent representation of the sanitary superintendent of the city, they condescended to request the captain to assist them with the ship's boats. We cannot wonder that after this performance the cholera raged fearfully in the hospital ship. There ought to be some place where, after the weary voyage, the quarantine patient can step on shore, and where the poor steerage passengers can escape the effluvia and poison generated in those close holds after a long crowding of human beings together. (*New York Times.*)

Precaution. The United States Treasurer, at Washington, recently burned one hundred and ninety-nine dollars in greenbacks, which had been forwarded by the surgeon from a small-pox hospital in Kentucky. The money was supposed to be infected.

Smoke in Towns. A letter was recently sent from the Home Office to local authorities in several of the principal towns, making inquiries in relation to the prevention of the nuisance arising from smoke. From Stoke-on-Trent we learn that the law is a dead letter throughout the pottery districts. At Derby the law is not so generally observed as it ought to be; at Sheffield the nuisance has been to some extent diminished; at Sunderland the nuisance has diminished. The Liverpool return states that the smoke nuisance has considerably diminished. The Birmingham return is, that the quantity of smoke issuing from the various furnaces has been greatly diminished. At Huddersfield the average amount of reduction of dense smoke is from 10 to 6. At Leicester the small amount of smoke, considering the number of long chimneys, is the subject of observation to all strangers. At Newcastle-upon-Tyne a considerable reduction of the nuisance has been effected; and so also at Leeds. From Manchester the result is stated to be "a marked improvement." But there is another return from Manchester, just published by the Registrar-General, and here is what is said by Mr. Leigh, the registrar of the district of Deansgate, in that city: "Coal smoke forms a continual dark and dense canopy over the town. On the finest day the air is darkened by haze, through whose wide extent the prospect seems bounded as by an impenetrable wall. 'Blacks' settle on the streets and footpaths, find their way into the houses, soil and damage furniture and wearing apparel, and other things, till it is generally recognised that light-coloured clothes cannot be worn in Manchester,

nor the hands remain clean, if ungloved. The constant inhalation of these black particles (of which an analysis is given) must be highly irritating to the lungs, and productive in many instances of an amount of inflammation sufficient to induce incipient phthisis or bronchitis, or to determine the recurrence of these where a predisposition exists. There is, besides these black particles issuing from our factory chimneys, a more finely precipitated matter, which in the country curls among the trees from the roof of a cottage, and in Manchester forms the constant haze of our streets. I do not think any scientific investigation has yet been made of it. It is not gaseous, for it does not diffuse; it is not simply vaporous. When it saturates or charges a November fog it is sticky and excessively irritating to the eyes and throat. It must in a less degree be a constant source of irritation, under the ordinary conditions of a smoky atmosphere. It proceeds from the imperfect combustion of bituminous matter, and partially from the distillation of the least volatile products of coal. From experiments I have made on it, I am satisfied that it is in some degree bituminous.....A smoky town atmosphere must contain an abnormal amount of carbonic acid, and a distinct amount of sulpuretted hydrogen and of sulphurous acid; and I know of no circumstance more likely to predispose a population for the reception of fever or cholera, than the constant inhalation of an atmosphere vitiated by the presence of sulphuretted hydrogen. This gas does exist in the atmosphere of Manchester. From the chimney of a perfect furnace nothing ought to be evolved but invisible carbonic acid, sulphurous acid, and watery vapour; all else means waste of coal and injury to health.....Manchester must be regarded in many respects as a model town; but it is one of the least healthy in the kingdom. Children under five years of age contribute half of the total mortality, while in the agricultural districts one third of the deaths is their proportion. The artisan's wife dies in middle age; and his own career is cut short long before he has reached the 70 years' term allotted to man."

THE LONDON SICK POOR. The guardians of St. George's, Hanover Square, have called a conference of all the London guardians, "with a view to procure the fullest information necessary to determine the proper action to be taken in relation to the resolutions submitted to the Right Hon. C. P. Villiers, the President of the Poor-Law Board, by Lord Carnarvon and others, members of an Association for the Improvement of Workhouse Infirmaries." The resolution submitted to this meeting was as follows: "That the removal of paupers from the control of parochial management, and placing them under a central or imperial authority, would be subversive of the principles of local self-government, and that the collecting together of the sick paupers in large hospitals containing 1,000 beds each, would not be conducive either to the cure or the well-being of the inmates." The St. Pancras guardians approved both the meeting and the resolution. They spoke vehemently against centralisation, and strongly urged the rights of local self-government. It was acknowledged that the workhouses were not faultless, but St. Pancras workhouse infirmary was upheld, on the authority of Mr. Farnall, as superior to any other in London, and the guardians expressed their determination to make a stand, with the St. George's guardians, for the right of keeping the sick poor under their governance. The late "laying out" case cropped up again, through a letter of Mr. Hillocks, who was the means of bringing the case to light.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....Metropolitan Free, 2 P.M.—St. Mark's for Fistula and other Diseases of the Rectum, 9 A.M. and 1.3 P.M.—Royal London Ophthalmic, 11 A.M.

TUESDAY. .... Guy's, 1½ P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.

WEDNESDAY... St. Mary's, 1 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.

THURSDAY.....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Great Northern, 2 P.M.—London Surgical Home, 2 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.

FRIDAY..... Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

SATURDAY..... St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1·30 P.M.—Charing Cross, 2 P.M.—Lock, Clinical Demonstration and Operations, 1 P.M.—Royal Free, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY. Epidemiological Society, 8 P.M. Election of Officers. Dr. Dickson, R.N., "On Scurvy in the Merchant Navy."—Odontological.

TUESDAY. Anthropological Society, 8 P.M.

REGISTRATION OF DISEASE.

RETURN of new cases of disease coming under treatment in public practice. (A.) Manchester and Salford (Sanitary Association). (B.) Preston (R. C. Brown, Esq.). (C.) St. Marylebone, London (Dr. Whitmore). (D.) Birmingham (Dr. Alfred Hill).

In the 4 weeks ending Feb. 24th, 1866.

Diseases.	A.	B.	C.	D.
Small-Pox	20	31	7	6
Chicken-Pox	1	1	7	4
Measles	10	2	37	105
Scarlatina	28	3	20	22
Diphtheria	—	—	5	—
Hooping-Cough	113	20	59	162
Croup	2	1	1	2
Diarrhœa	111	16	226	122
Dysentery	8	8	2	16
Cholera	—	—	1	—
Erysipelas	32	1	18	7
Insanity	26	2	18	—
Bronchitis and Catarrh	866	137	949	705
Pleurisy and Pneumonia	54	15	36	22
Carbuncle	—	—	5	1
All other diseases and accidents	4340	571	3668	2504
Totals	5611	808	5059	3678

TO CORRESPONDENTS.

*** *All letters and communications for the* JOURNAL, *to be addressed to the* EDITOR, 37, *Great Queen St., Lincoln's Inn Fields, W.C.*

COMMUNICATIONS.—To prevent a not uncommon misconception, we beg to inform our correspondents that, as a rule, all communications which are not returned to their authors, are retained for publication.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

WE are again compelled to delay the publication of some of our correspondence.

STATISTICS OF CANCER.—Mr. Moore has the pleasure to acknowledge the receipt of returned Registers for Cases of Cancer from John H. James, Esq., F.R.C.S., Exeter; Thomas Pope, Esq., Cleobury Mortimer; Clement S. Barter, Esq., F.R.C.S., Bath; Benjamin Blower, Esq., Liverpool; T. W. Nunn, Esq., F.R.C.S., 8, Stratford Place, London; and J. H. Casson, Esq., Alfreton, North Derbyshire.

CLITORIDOTOMY.—SIR: So long as letters with reference to me and the operation of clitoridotomy were anonymous, I did not think them worth answering. The letter, however, of Mr. Littleton, in your issue of May 19th, is of a different class; and, in reply to it, I beg leave to make a few remarks.

I have first to thank Mr. Littleton for having answered those who have said that I was the originator of this operation. It was my knowledge of the works of Aëtius and others, that led me to the opposite conclusion.

The operation is mentioned as early as the time of Paulus Ægineta. Aëtius speaks of it at some length. Dionis, the celebrated French surgeon, in 1738, not only minutely describes the mode of performing it, but gives illustrations of the instruments to be used. These instruments were copied and exhibited at the *conversazione* of the Obstetrical Society, held on March 28th, for the exhibition of obstetrical instruments. Finally, in 1827, Nagrodsky, a German, wrote a most elaborate Latin essay, *De Nymphomanid et ejusdem Curatione.* Not only is this essay a most complete account of the disease, but it gives a full history of the literature of the subject. It is in the Library of the Royal College of Surgeons; and to it I would refer your reviewer of my work, and all others who believe me to have been the originator of this operation.

I find, by reference to the *Medical Directory*, that Mr. Littleton has taken high honours at the London University in nearly every branch of medical study. I am, therefore, rather surprised that he should have quoted, as believing them, the words of Aëtius, "*Hinc vero sæpe sterilitas exoritur.*" If Mr. Littleton will do me the honour of *reading* my book, he will find that this and other fallacious objections to the operation are fully answered by Cases III, IX, XI, XIX, XLVIII, etc. I conclude my book with these words: "A careful perusal of the cases related in the foregoing pages, will show that all the theoretical objections mentioned in the introductory chapter, as having been raised against my treatment, have been fully contradicted by facts."

I think I have just reason to complain that my critics have been too ready to reiterate these objections, and have not been so willing to notice the facts which contradict them. I could, if it were necessary, give the names of the medical attendants on all the cases of pregnancies recorded in my book. This, however, I may, for many reasons, be excused from doing publicly. One instance only I would except—that of a lady, brought to me in 1863 by Dr. Willshire. From long continued injurious excitement, her health was thoroughly broken down, and there was complete retroversion of the uterus. I operated for the latter condition, and also excised the clitoris. She made a good recovery, and three months later became pregnant. She is now the mother of a healthy son, and herself in robust health. So grateful is she, that she has expressed her willingness to see, privately, any gentleman who may doubt this statement. This case I have quoted, not only because Dr. Willshire's name is one of very high professional standing, but also because the facts can be verified by reference to that gentleman. I have ever courted publicity; and there are thousands of my professional brethren, from all parts of the world, ready to bear testimony to the truth of my cases.

I shall be happy to give any additional information to any gentleman actuated by an honest desire to know the truth; but I do not feel disposed to enter into a wordy warfare with those who, professedly seeking for light, hide themselves under the mantle of an anonymous contribution. I am, etc.,

I. BAKER BROWN.

17, Connaught Square, Hyde Park, W., May 19th, 1866.

CLITORIDOTOMY.—SIR: In reference to Mr. I. B. Brown's operation—viz., the removal of the clitoris as a remedy for masturbation and its effects, including hysteria, mania, etc.—will you allow me to remark, for the information of those of your readers interested in this matter, that at pages 585 and 586 of Thomas's *Practice of Physic*, article "Nymphomania", are to be found these words:—"As the clitoris is the seat of pleasure during the act of coitus, nymphomania might possibly be cured by extirpating the organ. The following case, recorded by a French writer (Richeraud), is much to the purpose. A young woman was so addicted to masturbation, that she was nearly exhausted by marasmus. Sensible of the danger of her situation, yet not possessed of sufficient fortitude, or else irresistibly impelled by the pleasurable sensations to which she yielded, she could not command herself, and excited profuse emissions. Her parents took her to Professor Dubois, and, upon the authority of Leoret, he thought it advisable to propose amputation of the clitoris, which the patient and her parents agreed to. The organ was removed with one stroke of the bistoury, and the bleeding prevented by an application of the cautery. The operation completely succeeded, and the patient was cured of her fatal habit, quickly recovering her health and strength." I may add, that Thomas treats of the effects of "masturbation" as involving "a high degree of hysteria, or a species of madness".

That the starting point of "habitual onanism" is cerebral, there can be, I think, no doubt. Nevertheless, it may be that the removal of the clitoris, as practised first by Aëtius,* and after him by Dubois, then by Brown and "Braun of Vienna", can do much good, and prove of eminent service, in certain and exceptional cases. I am, etc.,

JAMES G. DAVEY, M.D., M.R.C.P.London.

Northwoods, Bristol, May 21st, 1866.

* See the note of Dr. T. Littleton, in the JOURAL of May 19th.

WE have received a letter from Mr. Clowes, referring to a paragraph in the JOURNAL of May 19th, and have no hesitation in saying that we regret admitting the paragraph into the JOURNAL. It was undoubtedly written under a misconception of the facts.

INOCULATION OF INDURATED CHANCRES.—Mr. James Lane says, that there have been no less than five successful cases of inoculation from indurated sores at the Lock Hospital during the last six months—one by Dr. Boeck, one by Mr. Gascoyen, one by himself, and two by Mr. W. J. Coulson.

TREATMENT OF ASCARIDES.—A correspondent writes: "I would feel obliged if your correspondent, Dr. J. L. Green, would inform me what dose of the *chloride of potassium* combined with perchloride of iron he administers in the treatment of ascarides. These parasites occasionally resist all treatment for their permanent removal. This is very discouraging, both to the medical man and his patient."

COMMUNICATIONS have been received from:—Dr. GEORGE JOHNSON; Mr. A. B. STEELE; THE HONORARY SECRETARY OF THE EPIDEMIOLOGICAL SOCIETY; Mr. G. GREENSLADE; Mr. THOMAS POPE; Dr. BEIGEL; Dr. J. B. PITT; Dr. NOBLE; Dr. BARCLAY; Mr. M'KEAND; Dr. WALTERS; Mr. C. STEELE; SIR HENRY COOPER; Mr. WM. PARKER; Mr. P. N. ROBERTS; Mr. WILLIAM COPNEY; Mr. F. CLOWES; Mr. T. M. STONE; Dr. H. SIMPSON; Dr. DESMOND; Dr. W. DOBIE; Dr. FOSTER; Mr. C. H. MOORE; SIR HENRY COOPER; and Mr. J. F. HOLDEN.

BOOKS RECEIVED.

1. The Chemistry of Common Things. By Stevenson Macadam, Ph.D. London and Edinburgh: 1866.
2. The Poor-Law Surgeon's Vade Mecum. By N. C. Walsh. London: 1866.
3. On Dropsy. By W. R. Basham, M.D. Third Edition. London: 1866.
4. On the Application of Sulphurous Acid Gas to the Prevention, Limitation, and Cure of Contagious Diseases. By James Dewar, M.D. Edinburgh and London: 1866.

ADVERTISEMENTS.

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Original Communications.

ON PROGNOSIS IN HEART-DISEASE.

By W. H. Broadbent, M.D., Assistant-Physician to St. Mary's and the Fever Hospitals; Lecturer on Physiology at St. Mary's Hospital Medical School.

In all disease, next in importance to Treatment, is Prognosis. Diagnosis is required for both; but, on the whole, a more accurate knowledge of the pathological organic condition, and a more careful estimation of symptoms or departures from normal function, are needed for the prognostication of the result than for the application of remedies. In no class of cases is it more important to be able to foresee the probable course and term of the malady than in heart-disease; in none is there a wider range of contingencies, sudden death, a short and miserable existence, or life prolonged indefinitely and untroubled by evil consequences; in none is prognosis attended with greater difficulty.

It has appeared to me that prognosis has scarcely received adequate attention in systematic treatises on the diseases of the heart; and that it may be of service to bring to a focus on this point the opinions and experience of different writers, giving also the results of my own thought and observation on this subject, and on some collateral questions which arise in the discussion.

I have confined my observations almost exclusively to the chronic valvular affections. These are generally what we have in mind when we speak of heart-disease; and it is to them especially that the remarks which have been made as to the importance and difficulty of prognosis apply. In acute affections, the elements of prognosis lie on the surface; the degree of danger is shown by the general symptoms. Structural changes in the muscular substances not related to valvular disease—such as fatty degeneration and softening—are, on the other hand, often more obscure in their indications than chronic affections of the valves. They may be altogether latent up to a certain point, and indeed up to the moment of death. When they announce themselves by symptoms, or are capable of detection by physical examination, the danger is always considerable, but its imminence most uncertain. Adhesion of the pericardium, again, is attended with so much difficulty in the diagnosis, and so much uncertainty in its effects upon the heart and its influence on the duration of life, that an attempt to reduce its prognosis of definite rules would be unsatisfactory.

There can be no doubt that the tendency of valvular disease of the heart is to shorten life; but it is difficult to institute any comparison between it and other diseases in this respect. Statistics give little assistance. According to the Registrar-General's returns, out of 1000 deaths, 39 are from heart-disease, acute and chronic, valvular and muscular, together. At St. Mary's Hospital, in the years 1859-61, valvular disease was the cause of death in 49 cases; the total number of deaths in the same time in the medical wards being 315. And the average age at death of all the sufferers from this affection from 1858 to 1864 was, for males 40, for females 34; the extremes being 78 and 7. It is obvious that no conclusion can be drawn from these facts, and we must fall back upon clinical observation. It is found, then, that usually, sooner or later, valvular disease of the heart gives rise to secondary consequences which destroy life; or that, in affections themselves not directly dependent on the heart-disease, its symptoms arise and complicate the malady which has disturbed a nicely adjusted balance between the power of the heart and the mechanical difficulty with which it had to contend. And, although we meet almost daily with patients who have been the subjects of heart-disease for many years, it is by no means common to meet with cases cut off by other diseases in which this has existed, and has taken no part in the fatal result.

We may be called upon to form an opinion as to the probable course and term of heart-disease under very various circumstances. 1. The patient may be apparently in perfect health, free from inconvenience of any kind, capable of exertion, and having only a murmur at one of the valves. 2. He may be suffering from one or more of the symptoms to which heart-disease gives rise in different degrees, more or less shortness of breath on exertion, etc. 3. He may be in some stage of dropsy, or in the crisis of some pulmonary complication. Many considerations will enter into the inquiry; and these will have very different weight under the different conditions named.

One of the first of these will be the nature of the pathological process by which the valves have been injured. Setting aside congenital malformations, this may be acute endocarditis (usually rheumatic), chronic endocarditis, degenerative change, or accidental rupture. We may, in most cases, distinguish between these by inquiry into the history of a patient; for, while valvular disease is met with at every period of life, it has generally a different origin at different ages. In childhood and adolescence, almost the sole cause is rheumatic endocarditis. This may also be the cause later in life; but acute rheumatism is less common, and is less liable in adults to be complicated with endocarditis. In a case of heart-disease, however, an attack of acute rheumatism, at whatever age it may have happened, and especially if the heart have been affected, is an important fact in the history, as fixing the probable date and character of the valvular lesion. It is not often possible to assign a date to chronic endocarditis, or to be sure that this has given rise to a given murmur. We may conjecture that this is the case when the patient, especially if young, suffers from chronic rheumatism or gout, or is the subject of kidney-disease, and there is no history of acute cardiac mischief. Degenerative changes, atheroma, and its sequences, do not commonly arise till middle age or afterwards. Rupture may occur almost at any time; but very rarely happens to a healthy valve.

The great point to be ascertained, and fortunately this is in most cases easy, is whether the valvular change has had its origin in an acute inflammatory attack, or is the result of a chronic degenerative process. Most authors, however, neglect this as an element in prognosis. Drs. Walshe, Stokes, Markham, and Chambers, do not allude to it; and Dr. Fuller formally repudiates it. He says: "Clinically speaking, the precise form of lesion is of little importance"; and again (p. 112): "In all cases where a permanent endocardial murmur exists, obstruction or regurgitation is unmistakeably indicated; and whether the disease from which it originated was of an acute or chronic character, is perfectly immaterial."

My own observation of many cases has led me to an entirely different conclusion—that this is an element of the greatest importance in the estimation of the probable duration of life. In the numerous in-

stances in which valvular disease of the heart has been known to exist for twenty, thirty, or forty years, it must almost necessarily have come on in early youth or childhood; at a time, therefore, when chronic degenerative change is out of the question, and acute inflammatory mischief very common; in many, indeed, the history is clear. If degenerative disease were as frequently harmless, we should meet with it much more commonly in old people who had died from other causes. So also the cases which come into hospital again and again, with pulmonary or dropsical consequences brought on by exposure and hard work, and are again and again relieved and enabled to return to their occupations, the valvular disease apparently no worse, are mostly cases originating in acute rheumatism.

It is easily understood how it is that, in a given case of heart-disease, the prognosis is more favourable when it can be traced back to acute rheumatism. Inflammatory mischief in the heart, as elsewhere, after a certain stage, is stationary; degenerative change inevitably progressive. After acute endocarditis, the lymph deposited in and upon the valves and tendinous cords is developed into fibrous tissue; this process being accompanied by thickening and contraction according to the amount of exudation. These changes are comparatively rapid, and are soon completed. After a certain time therefore, when the lymph is organised, the unsoundness and impaired action of the valves remain at the same point, in the absence of new attacks. If the mischief is serious, it will soon give rise to secondary changes in the muscular walls of the heart and to symptoms; and when these do not appear, there is every reason to believe they may be indefinitely deferred.

The case is otherwise when the change in the valves is degenerative in character. The heart and system may have accommodated themselves to the existing amount of disease; but there is little hope that this will remain *in statu quo*. Slowly or rapidly it will progress; the obstruction to the circulation will gradually increase, and that at an age when the heart is little able to adapt itself to change or to meet a difficulty, and is moreover itself liable to structural decay. There is further the probability that the arteries and viscera may be undergoing degenerative change.

Dr. Latham who, considering heart-disease from a clinical point of view, has given greater prominence to prognosis than most other writers, presents this point so admirably, that I am tempted to give a rather long quotation from his 30th Lecture.

"There are cases," he says, "in which experience allows us to hope sanguinely and to promise largely upon the faith of good resolutions and fair obedience on the part of our patient. For, though he have immoveably fixed within his heart the elements of fatal disease, yet, upon the condition of strict and habitual temperance, and habitual self-control over body and mind (no easy condition, I allow), he may count upon postponing to a distant period the evils which threaten his state, or even upon escaping them altogether. Now there is in these cases a special and peculiar ground of hope; and it is well that we should see and clearly understand what it is. The small amount of valvular injury, and the probability that the heart has hitherto undergone little or no change of structure besides, and the present unembarrassed state of the general circulation, are all favourable conditions. Yet the special ground of hope does not rest here; but upon the fact that the valvular injury had its origin in a certain casual attack of inflammation. The valvular injury from this cause, hough it be incurable, does not increase, but remains (there is reason to believe) of the same exact amount, be it more or less, at which it was left when the inflammation finally ceased. If it be small, it remains small; and the evil consequences to which it naturally tends, such as dilatation and hypertrophy, are slow to emerge. If it be large, it remains large, but does not become larger, and its evil consequences emerge more rapidly.

"But the amount of valvular unsoundness left by acute rheumatism is not always small. It may be very large. And this is the chief cause of the widely different periods to which men are found to survive the damage thus done to the heart. The valvular unsoundness, according as it is small or great, considered as the form of future evil, takes a longer or shorter time to develope its consequences and to bring them to their fatal maturity. Be it, however, small or great, if its evil consequences have not yet arisen, there is always a better chance of postponing them in these than in other cases where there is the same amount of valvular unsoundness from other causes. That such is the matter of fact, *I am sure, from experience;* and that the reason of the thing is as I have stated I am pretty confident."

Having thus allowed Dr. Latham to speak for me, I have only to add that the cause and character of the valvular lesion is not of equal moment under all circumstances. It will not, for example, aid greatly in judging whether a patient will survive an existing attack of pulmonary apoplexy, or recover from present dropsy; but it is unquestionably a most important element in the estimation of the value of a life before these complications have arisen, its importance increasing as structural changes in the heart and symptoms of embarrassed circulation are less evident.

Little can be said as to chronic endocarditis. It is rare that a diseased condition of the valves can during life be referred to this with certainty. In adults near or after the prime of life, there are no means of distinguishing it positively from degeneration; and, were this possible, the prognosis would be similar in the two cases, as both might be expected to be progressive. Accidental rupture of a valve is attended with great danger. The history is usually clear: sudden pain in the heart during exertion, with dyspnœa or fainting; and, if not at once fatal, followed speedily in most cases by evidences of embarrassed circulation.

Age has, of course, to be taken into consideration in forecasting the probable course of heart-disease; but except as it aids in the determination of the character of the lesion, it furnishes no special indication. It is to be noted, however, that valvular disease is attended with greater danger in early childhood, when growth is very active, than at a rather later period. For this reason, we watch with the greatest anxiety the first few months after acute rheumatism with endocarditis in a child. If enlargement of the heart and symptoms of cardiac difficulty come on, even in a slight degree, the probabilities are that they will increase and prove fatal in a comparatively short time. Under these circumstances, puberty is often retarded; and not uncommonly it is at this period that the heart fails to keep pace with its difficulties. If, on the other hand, the heart remain of the natural size, and no symptoms appear although a permanent murmur remains, we can promise immunity with greater confidence than under any other circumstances.

Any of the valves of the heart may be the seat of disease, giving rise to constriction of the orifice, with obstruction or insufficiency of the valve and regurgitation; the relative frequency of the different affections being, according to Dr. Walshe, in the follow-

ing order,* MR, AC, AR, MC; TR, PC, PR, TC; and of combinations of two or more of them, AC + MR, AC + AR, MR + AR, MR + AC + AR, MR + MO, MR + TR, MR and C + AC + TR, TC + MC.

Different estimates have been given by other authors. This by Dr. Walshe, however, is founded on an application of the numerical method to his own cases, and may be taken as an exact representation of his extensive experience. It is the more valuable, as it distinguishes between obstruction and regurgitation, and does not, as is often the case, state merely that one or other valve was affected.

The source of danger is, of course, the mechanical interference with the onward course of the blood; and the degree of danger will be proportionate to the amount of this interference. It will vary, therefore: 1, according to the valve affected; 2, according to the effect of the disease on the action of the valve, giving rise to obstruction on the one hand or regurgitation on the other, or both; 3, according to the extent of the morbid change, and the amount of obstruction or regurgitation resulting therefrom.

But the circulation may be delayed in two ways; by an obstacle in front, or by interference with the propulsion from behind, the capillaries in the one case being full or even overloaded, in the other inadequately supplied with blood. These conditions, to which, for want of better, I shall apply the terms "obstruction" and "stagnation", are attended with distinct kinds of danger. "Stagnation" may lead to fatal syncope, by an insufficient supply of blood to the nervous centres. This most frequently occurs when the walls of the heart are fatty or feeble, from want of force to propel the blood; but waste of the *vis a tergo* will have a similar tendency, and, in so far as changes in the valves conduce to this result, they will share with structural changes in the muscular walls the liability to produce sudden death. Obstruction, on the contrary, tends towards congestion and dropsy, and very rarely causes sudden death; if it do this at all, it is by pulmonary or cerebral apoplexy, not by syncope.

Returning now to the three conditions named above, as affecting the transmission of blood through the heart—the seat, the character (obstructive or regurgitant), and the extent of the disease—we should *à priori* expect that affections of the arterial orifices and valves would cause less interference with the circulation than corresponding affections of the auriculo-ventricular valves, and that this interference would be in the direction of stagnation. In the latter case the tendency will be towards "obstruction" in the sense in which I have used this term.

Again, we should expect that constriction would cause less interference than regurgitation, and would be more easily compensated by increase of power in the heart.

It would be difficult to arrive by a mere process of reasoning at any conclusion respecting the comparative amount of danger attending disease of the right or the left side of the heart; and, fortunately, the comparative rarity of primary affections of the valves of the right side does not allow of the question being settled by extensive experience.

Too much weight must not be attached to *à priori* considerations as to the degree of danger to which affections of the different valves may give rise. It is easy to see what the mechanical effects of the changes must be at the valve itself; but these are modified by subsequent changes in the muscular walls, and complicated by the fact that the heart is double, so that a comparison between the ultimate result on the circulation is extremely difficult. We pass from them to the results of clinical observation.

Dr. Walshe places the valvular affections in the following order of relative gravity, considered not merely with respect to their fatal tendency, but also as to the amount of complicated misery they inflict: tricuspid regurgitation, mitral constriction and regurgitation, aortic regurgitation, pulmonary constriction, aortic constriction. Tricuspid regurgitation is, however, rarely primary; but occurs as a result of obstruction to the transit of blood through the lungs, either from disease in these organs or from valvular disease in the left side of the heart. It is, therefore, a mere link in the chain of disasters, and can scarcely be considered as the cause of the subsequent suffering and fatal termination. If we set aside tricuspid regurgitation as rather an important diagnostic and prognostic indication than itself a cause of death, and leave out of consideration pulmonary constriction, as we may safely do on account of its rarity, the valvular lesions would stand in the following order of gravity, mitral constriction and regurgitation, aortic regurgitation, aortic constriction.

Dr. Stokes, however, says that, if the cavities be yet unaltered, and the heart's action tranquil, there is in mitral disease a better chance of the prolongation of life than in a corresponding affection of the semilunar valves; giving as a reason, that the latter commonly leads to hypertrophy and dilatation. Dr. Chambers also places aortic before mitral disease in the scale of danger, founding his conclusion on statistics not merely of the numbers dying from each, but also of the effects produced on the walls of the heart. My own experience tends to confirm the conclusion of Dr. Walshe, with one important reservation—viz., that aortic regurgitation, coming on late in life from degenerative change in the valves, runs a more steadily downward course than any other form of heart-disease. Probably this reservation would bring all authorities into accord.

It is comparatively easy to learn which of the lesions named, mitral constriction or regurgitation, aortic regurgitation or constriction, is present in any given case; to ascertain two of the three conditions on which the amount of interference with the circulation will depend—(*a*) the seat and (*b*) character of the disease. The third and most important condition—the extent of this disease—is not so easily made out. By means of the murmurs to which changes in the valves give rise, we fix with an approach to certainty upon the valve affected, and upon the nature of its functional imperfection; but we cannot gather with any confidence from the loudness, tone, harshness, or any other character of the murmur, the degree of constriction or amount of regurgitation. A loud murmur may be heard when the lesion is comparatively trifling; and the murmur may be feeble, occasional, or may even disappear as the injury becomes most grave. But though, as a rule, the murmur tells us little beyond the seat and character of the valvular change, and though this, taken alone, teaches us very little as to the gravity of the disease, a careful study of the murmur has its use in prognosis. When, and especially in the early stage of degenerative affections, the murmur is found gradually to alter in tone, character, or force, and we can be sure that it is not merely from accidental circumstances, such as momentary excitement of the heart's action, we may conclude that change is going on in the orifice or valve; and, as this cannot be for the better, we have an unfavourable note to add to other indications. I may here mention also a physical sign proper which furnishes direct information

* A. Aortic. M. Mitral. P. Pulmonary. T. Tricuspid. } C. Constriction. } R. Regurgitation.

as to the amount of valvular change—the presence or absence of the second sound in the neck in aortic regurgitation. At the base of the heart, a second sound will be heard, whatever the condition of the aortic valves may be, produced by the pulmonary valve; but if, with a diastolic aortic murmur, this sound is heard in the great vessels of the neck, it may be concluded that the aortic valves still act, and that the regurgitation is probably inconsiderable. When it is altogether absent, the probability is in the other direction. I ought to say that I owe the appreciation of this sign to Dr. Sibson.

With the exceptions just mentioned, as has already been said, the "physical signs proper" of valvular disease, the murmurs, fail to furnish any reliable measure of the extent of the morbid change or degree of obstruction or regurgitation. We possess such an indication, however, first, in the effects on the walls and cavities of the heart produced by the mechanical difficulty arising from the imperfect action of the valves—the degree of hypertrophy and dilatation; secondly, in evidences of obstructed circulation through the lungs or system.

[*To be continued.*]

EPILEPSIA ERRATICA.

By Draper Mackinder, M.D., Gainsborough.

On the 9th of October last, I was requested to visit a decorative painter, a well built, robust man, 27 years old, of florid complexion. He was just recovering from a fit of epilepsy, during which he had been struggling vigorously. These fits, I was informed, began in April 1865, whilst the patient was engaged in his business in London, and without apparent cause, an occasional "dizziness" only having been previously observed. The attacks had been very severe and very frequent, and were affecting the intellect, converting a clever into a stupid man. There was ptosis on the right side.

For several months he had been under the care of some eminent London physicians, but without benefit, his case being regarded by them as mysterious and incurable. Beyond a few general directions, I did not advise any treatment, but watched the case, as commanded.

One day it occurred to me that these fits might have been induced by excess in some vicious habits or immoral indulgence, and I questioned his father on the subject, but no further information could be gained. The fits continued with unabated force, and hopes of recovery had nearly fled; when, to the surprise of his relatives and friends, just twelve months after the first attack, he suddenly got married, suddenly heard his infant's cry, suddenly became well, and, as though forgetful of the frightful past, he suddenly began business on his own account, and is now thriving and enjoying the comforts of a happy home.

Resection of Scapula. At the New York Pathological Society Professor Hamilton presented a scapula which had been removed entire from a soldier, who had been wounded at Fredericksburg by a shell. Necrosis of the scapula ensued, necessitating its entire removal with the acromion and coracoid processes. The patient had power to use the coracobrachialis and biceps, also tolerably well, the triceps and deltoid. He was able to carry the arm without a sling, although attachment of these muscles was simply to cicatricial tissue, there having been no formation of new bone.

The Medical Council.

REPORT OF PROCEEDINGS, May 1866.

Friday, May 25th.

G. Burrows, M.D., President, in the Chair.

The minutes of the preceding meeting were read and confirmed.

Preliminary Education of Medical Students. The consideration of this subject was resumed. (See Report of Proceedings of May 21st.)

Dr. Stokes proposed, and Dr. Storrar seconded—"That Natural Philosophy, including Mechanics, Hydrostatics, and Pneumatics, be adopted as one of the Optional Subjects."

Dr. Acland suggested that the optional subjects should be arranged in two divisions, one including Greek and Physics (or Natural Philosophy), and the other French and German; and that students should be required to take up one subject in each division. He suggested that some specific details as to the subjects required in Natural Philosophy should be given.

Mr. Syme said that no man ought to be admitted into the medical profession who had not been educated in Natural Philosophy.

Dr. Storrar objected to specifying the details in regard to Natural Philosophy. He agreed with Mr. Syme that Natural Philosophy should, at some period, form part of the education of a medical man; but the Council at present was dealing with school education. He thought it better not to lay down a temptation to boys to take up Natural Philosophy in place of Greek, which would be the case if Dr. Acland's proposal was carried out. Those examining bodies which attached importance to Natural Philosophy should insist that an examination in it should be passed at some time, either in the preliminary or in the professional examination.

Dr. Stokes said, that the object of the Committee had been to lay down a curriculum which should be within the reach of schools. If Natural Philosophy were made compulsory in youths just leaving school, nothing would be got but a superficial knowledge of the subject. The Council must remember, too, that Algebra and Geometry were made compulsory.

Sir Dominic Corrigan would ask for the withdrawal of Natural Philosophy from the curriculum of preliminary education. It should form one of the subjects of the first part of the professional examination.

Dr. Paget said that to make Natural Philosophy one of the subjects on which boys just fresh from school should be examined, would be to accept a very meagre knowledge.

Dr. Christison asked whether it was intended to introduce Natural Philosophy into the curriculum of professional education. There was already a complaint that this contained too many subjects. It would be better to leave Natural Philosophy in the preliminary curriculum, with the option of taking it up during professional study. His observations in Scotland led him to question the statement as to the impossibility of obtaining a fair knowledge of Natural Philosophy from youths sixteen years of age.

After some further discussion, in which Dr. Andrew Wood, Mr. Hawkins, Mr. Syme, Dr. Sharpey, Dr. Acland, Dr. Apjohn, Mr. Cooper, Dr. Storrar, and Dr. Alderson took part, the motion was put to the vote and carried.

Dr. Stokes moved, and Dr. Storrar seconded, the adoption of the following paragraphs of the Report.

"The Committee recommend that certificates of oficiency be received from all bodies legally autho-zed to examine in general education in Great ritain and Ireland, and from the several licensing odies enumerated in Schedule (A) of the Medical ct in Great Britain and Ireland, which bear idence that the candidates have been examined d approved in the above subjects.

"In the case of certificates received from similar ucational and licensing bodies in other parts of the pire and foreign countries, satisfactory evidence ust be given to the Medical Council (or Branch uncils) that such certificates are equivalent to ose recognised in the United Kingdom."

Dr. EMBLETON moved as an amendment, the adop-n of these paragraphs with the following addition. "That it be delegated to the Executive Committee prepare annually, and lay before the Council for cognition, a list of examining bodies, whose examin-ons shall fulfil the conditions of the Medical uncil as regards preliminary education."

Mr. HAWKINS seconded the amendment, which was ried, and was also agreed to as a substantive tion.

Dr. EMBLETON moved, Mr. HARGRAVE seconded, d it was resolved—

'That the regulations of the General Medical uncil as to preliminary education, adopted during present session, do not come into operation till tober 1868, and that in the meantime the previous ulations remain in force."

Dr. STOKES moved, and Dr. STORRAR seconded, the ption of the following paragraph, which formed conclusion of the report as presented.

'The Education Committee having considered the er and resolution of the Irish Medical Associa-n forwarded by Dr. Mackesy, and referred to them, ommend that the resolution be entered on the nutes. The Committee further recommend the warding this resolution of the Council to Dr. ckesy."

Dr. ANDREW WOOD objected to placing such a re-ution on the minutes without any explanation n the Committee. He moved as an amendment e previous question."

r. PARKES seconded the amendment; which, r some remarks from Dr. Stokes, Mr. Hargrave, Sir . Corrigan, Dr. Alexander Wood, and Dr. Storrar, negatived; 6 voting for, and 13 against it.

r. EMBLETON proposed, and Dr. ALEXANDER OD seconded, as a second amendment—

That the concluding paragraph of the report be adopted; but that the Registrar be requested to owledge the receipt of Dr. Mackesy's letter, and esolution of the Irish Medical Association, and form him that the subject of them has received ull consideration of the Council."

e amendment was carried, and having been put substantive motion, was agreed to.

the motion of Dr. STOKES, seconded by Dr. RAR, the report was adopted in the following ded form.

REPORT ON GENERAL EDUCATION.

e Committee have given their best attention to resolution of the Council of May 18th, 1866, ein they were "instructed to take into consi-ion and report upon the examinations in general ation at present conducted by the various na-l educational and other bodies recognised by eneral Medical Council."

e Committee, having had before them a digest, ared by the Registrar, of the Preliminary Exa-tions in Arts recognised by the General Medical cil, consider that an analysis of this document l be unnecessary.

The Committee beg to suggest to the Council what appears to them to be the minimum amount of subjects of examination through which a qualifying body can ascertain whether a student has undergone the mental training necessary for entering with advantage upon professional studies.

The subjects of examination that the Committee recommend are as follows:—*Compulsory Subjects*—1. English Language, including Grammar and Composition; 2. Arithmetic, including Vulgar and Decimal Fractions; Algebra, including Simple Equations; 3. Geometry—First Two Books of Euclid; 4. Latin, including Translation and Grammar; and 5. One of the following *Optional Subjects*—Greek (after the year 1869, Greek shall be one of the compulsory subjects); French; German; Natural Philosophy, including Mechanics, Hydrostatics, and Pneumatics.

The Committee recommend that certificates of proficiency be received from all bodies legally authorised to examine in general education in Great Britain and Ireland, and from the several licensing bodies enumerated in Schedule (A) to the Medical Act in Great Britain and Ireland, which bear evidence that the candidates have been examined and approved in the above subjects.

In the case of certificates received from similar educational and licensing bodies in other parts of the empire and foreign countries, satisfactory evidence shall be given to the Medical Council, or Branch Councils, that such certificates are equivalent to those recognised in the United Kingdom.

The Committee recommend that it shall be delegated to the Executive Committee to prepare annually and lay before the Council for recognition a list of examining bodies, whose examinations shall fulfil the conditions of the Medical Council as regards preliminary education; that the regulations of the General Medical Council as to preliminary education, adopted during the present session, shall not come into operation till October 1st, 1868; and that in the meantime the previous regulations shall remain in force.

The Report of the Pharmacopœia Committee was read; viz.:

REPORT.

The Pharmacopœia Committee have to report that, since the date of their last Report, Messrs. Redwood and Warrington have continued to be engaged in the duty assigned to them; and they have so far completed their work, that the whole of the matter, with the exception of the Appendix, is now in type. The Committee have reason to hope that the volume will be ready for circulation, in proof, amongst the members of Council, in three months from the present time. Under these circumstances, the Committee beg leave to direct the attention of the Council to the resolution adopted at the meeting of last year, as follows.

"That it is desirable to have a proof copy of the new *Pharmacopœia* in the hands of the members of the General Medical Council at least one month before the meeting of the General Medical Council, at which the opinion of the Medical Council is to be given relative to its being published, in order to afford to each member of Council the opportunity of making such suggestions to the Committee as may appear desirable."

As the Committee anticipate that the work will be ready some considerable time before the next ordinary general meeting of the Council, the Committee would wish to receive such further directions as the Council may feel it necessary to give them on this subject. The Committee, before concluding their Report, desire, in reference to an impression which seems to prevail that some unnecessary delay has

taken place in the production of the *Pharmacopœia*, to assure the Council that no time has been spent in the work which was not necessary.

The Committee beg to inform the Council that they have not hitherto had occasion to draw upon the fund placed at their disposal by order of the Council. R. CHRISTISON, *Chairman.*

Dr. CHRISTISON moved, and Dr. QUAIN seconded—"That the Report be adopted."

After some remarks from Dr. A. Smith, Dr. Sharpey, and Dr. Apjohn, the debate was adjourned.

Army Medical Department. The Returns of Examinations from the Army Medical Department were laid on the table; and, on the motion of Dr. ANDREW WOOD, seconded by Dr. PARKES, were ordered to be received and entered on the minutes.

Army Medical Department, May 23, 1866.

SIR,—In acknowledging the receipt of your letter dated 18th instant, and with reference to former correspondence relative to the number of candidates who have presented themselves for examination, and to the points upon which the Council of Medical Education request information to be furnished annually, I have the honour to forward a statement of the number of candidates examined for this department during the year 1865, and a list of the questions proposed by the Examiners.

I beg to add, that the general nature and scope of the examination has not been altered since my last communication, of February 23, 1865, on this subject.

I have the honour to be, sir,
Your most obedient humble servant,
J. M. GIBSON, *Director-General.*

F. HAWKINS, Esq., Registrar, General Council of Medical Education, 32, Soho Square.

Statement of the Degrees, Diplomas, and Licences of the Candidates for Commissions in the Medical Department of the Army, who during the year 1865 have presented themselves for Examination, showing the number that passed, and did not pass, distinguishing the Qualifications, both Medical and Surgical, under the Heads of the several Licensing Bodies.

Names of the several Licensing Bodies.	Total Qualifications.	No. passed.	Failed.
Royal Coll. Physicians, London	1	1	—
Royal Coll. Physicians, Edinburgh	28	12	16
King and Queen's College of Physicians, Ireland	16	10	6
Royal Coll. Surgeons, England	24	16	8
Royal Coll. Surgeons, Edinburgh	13	11	2
Royal Coll. Surgeons, Ireland	38	21	17
Society of Apothecaries, London	12	10	2
Apothecaries' Hall, Dublin	2	—	2
Doctor of Medicine, University of Edinburgh	6	6	—
Doctor of Medicine, Queen's University, Ireland	13	11	2
Master of Surgery, ditto	1	1	—
Doctor of Medicine, University of Dublin	1	1	—
Bachelor of Medicine, ditto	6	2	4
Master of Surgery, ditto	6	2	4
Licence in Medicine, ditto	1	1	—
Doctor of Medicine, St. Andrew's	1	1	—
Doctor of Medicine, University Aberdeen	1	1	—
Bachelor of Medicine, ditto	4	4	—
Master of Surgery, ditto	4	4	—
Doctor of Medicine, University Glasgow	2	1	1
Master of Surgery, ditto	2	1	1
Total	182	117	65

Candidates.		*Diplomas and Degrees.*	
Successful	56	Successful*	118
Failed	33	Failed	62
Total	89	Total	180

* Four candidates held three qualifications each.

[Copies of the questions proposed to the candidates at the last examination were appended.]

Report of Finance Committee. Dr. SHARPEY gave in the Report of the Finance Committee, which was ordered to be received and entered on the minutes.

REPORT.

The Finance Committee beg leave to present, in the table subjoined, a statement of the estimated and actual income and expenditure of the year 1865; also an estimate of the income from ordinary sources, and of the expenditure, as far as the Committee are able to judge, for the year 1866.

From the figures in the table it will appear that the actual income of the past year fell somewhat short of the estimate; but as, on the other hand, the actual expenditure is less than what was estimated, there is a small balance in favour of the Council.

In reference to these estimates, the Committee have to observe that it is scarcely possible to judge of the prospective expenditure with any near approach to accuracy, inasmuch as the amount is greatly dependent on the duration of the sessions of Council, which cannot with certainty be determined beforehand.

A statement of the receipts and disbursements on account of the *British Pharmacopœia*, since the date of the account presented last year, and of the balance in the Bank at the credit of the General Council, is given up to January 1866.

W. SHARPEY, *Chairman.*

Income for the Year 1865.

	£ s. d.	£ s. d.
Fees received by—		
Branch Council for England	2287 10 0	
" " Scotland	591 0 0	
" " Ireland	735 15 0	3614 5 0
Dividends received by—		
Branch Council for England	616 17 6	
" " Scotland	94 7 6	
" " Ireland	76 12 9	787 17 9
Sale of Registers		286 1 6
		4688 4 3

Expenditure for the Year 1865.

	£ s. d.	£ s. d.
Expenses of—		
General Council		3339 19 9
Branch Council for England	741 5 8	
" " Scotland	270 11 2	
" " Ireland	314 5 8	1326 2 6
Total Expenditure		4666 2 3
Total Income		4688 4 3
Balance in favour of Medical Council		22 2 0

British Pharmacopœia.—Statement.

From Jan. 5, 1865, to Jan. 5, 1866.

CHARGE.

	£ s. d.
To balance due to the Council on account of publishing the *British Pharmacopœia*, Jan. 5, 1865	723 0 7
Paid for Reporting on the Progress of Pharmacy—	
Dr. Farre, to Oct. 1865	31 12 4
Dr. Moore, to March 1865	20 0 0
Advertisements	10 6 6
Carriage of Parcels and Booking	0 15 8
Banker's Commission	0 2 0
	785 17 1

DISCHARGE.

	£ s. d.
By sale of 29 copies 8vo.	10 14 2
By sale of 572 copies 32mo.	118 16 0
	129 10 2
Balance due to the Council on account of publishing the *British Pharmacopœia*	656 6 11
	785 17 1

Cash Account.—British Pharmacopœia.

January 5, 1866. RECEIPTS.			
Balance in the Bank at credit of General Council, Jan. 5, 1865	1532	3	5
Sales of *Pharmacopœia*	129	10	2
	1661	13	7
DISBURSEMENTS.			
Reporting on Pharmacy	51	12	4
Advertisements, etc.	11	4	2
	62	16	6
Balance in the Bank, January 5, 1866	1598	17	1
	1661	13	7

Note.

The number sold of the 8vo. edition is	12,866
The number given to Members of Council, Pharmacopœia Committee, Stationers' Hall, British Museum, etc. ..	62
	12,928
Stock on hand	72
	13,000
The number sold of the 32mo. edition is	4,602
The number given to Members of Council, Pharmacopœia Committee, Stationers' Hall, British Museum, etc. ..	56
	4,658
Stock on hand	10,342
	15,000

SATURDAY, MAY 26TH, 1866.

G. BURROWS, M.D., President, in the Chair.

The minutes of the last meeting were read and confirmed.

The British Pharmacopœia. The adjourned consideration of the Report of the Pharmacopœia Committee was resumed.

The President laid before the Council the following letter, which had been addressed to him by the President of the Chemical Society.

To the President of the General Council of Medical Education and Registration.

Burlington House, 19th March, 1866.

SIR,—The President and Council of the Chemical Society venture to call the attention of the Medical Council to the system of chemical notation adopted in the *British Pharmacopœia;* and, as they are informed that a new edition of that *Pharmacopœia* is in course of preparation, they entertain a hope that it may not be an inopportune moment to urge upon the Medical Council the desirableness of considering whether, in the forthcoming edition of the work, the use of chemical symbols could not be advantageously dispensed with altogether. In the few cases which may seem specially to call for the use of such formulæ, a percentage representation of the composition of the body would, it appears, supply all the necessary data.

The grounds on which the President and Council of the Chemical Society have been induced to suggest this course are these:

The system of notation at present adopted in the *British Pharmacopœia* is constructed in conformity with views which are rapidly disappearing from chemical teaching in this country.

The *Pharmacopœia* is necessarily the text-book on which the examinations of students of medicine and pharmacy in pharmaceutical chemistry are based. It appears, therefore, extremely desirable that no work shall be put forth on official authority, such as that of the Medical Council, which shall be at variance with the views propounded by many of the most active experimental leaders and principal teachers of chemical science, or which shall oblige the teacher to adopt a double numerical system in his exposition of the facts of chemical science to his pupils—a course which is always a source of embarrassment both to professor and learner.

It is obvious that the adoption of a plan such as the one now suggested does not necessitate any expression of opinion on the part of the Medical Council upon a subject which is still under discussion. At the same time, it will relieve the Council from the inconvenience of appearing pledged to the maintenance of doctrines which are no longer believed to be correct by many of the most competent to form an opinion on the subject.

The President and Council of the Chemical Society trust that the importance of the subject will sufficiently explain their anxiety to bring this matter under the consideration of the Medical Council.

WM. ALLEN MILLER,
President of the Chemical Society.

To Dr. Burrows.

On the motion of Dr. QUAIN, seconded by Dr. STORRAR, the letter was ordered to be entered on the minutes of the Council.

Dr. STORRAR moved, Dr. ALDERSON seconded, and it was resolved—

"That, as soon as the proof of the new edition of the *Pharmacopœia* is ready, a copy of it be sent to each member of the Council, with instructions that he will, within one month, return it to the Secretary of the Pharmacopœia Committee, with such observations as he shall see fit to make thereon, to be submitted to the Pharmacopœia Committee; and that the Pharmacopœia Committee shall, after due consideration of such observations, hand over the proof, when finally approved, to the Executive Committee for publication."

Dr. APJOHN said that the letter proposed the abolition of chemical notation in the *Pharmacopœia;* but he held that the expression of the composition of bodies was necessary in the teaching of chemistry. If it were omitted, the *Pharmacopœia* would be a very imperfect work; and it would be impossible to supply the defect by merely stating percentages. He moved—

"That it be an instruction to the Pharmacopœia Committee to give for each therapeutic compound, of definite constitution, occurring in the forthcoming edition of the *Pharmacopœia,* two formulæ,—the first being that in ordinary use at present, the second being one constructed in accordance with the more recent views of what is called the 'unitary system'."

Dr. A. SMITH seconded the motion.

Dr. ANDREW WOOD could not have consented to retain merely the old notation in the *Pharmacopœia;* but, by inserting both the old and the new notations, teachers and students would be assisted.

Dr. CHRISTISON said that, after careful inquiry, he had found that there was a very general approval of the *Pharmacopœia.* Various difficulties in regard to its use had arisen, especially in England; and these, he believed, had been produced by the changes introduced, which required practitioners to depart from their old customs. Now, however, there was a growing inclination to value the work more highly than before. He thought that the insertion of chemical symbols in the *Pharmacopœia* was not necessary. There had been a discussion on the subject in the Pharmacopœia Committee; and Professor Redwood had advised that symbols should not be introduced. He (Dr. Christison) advised the Council not to load the *Pharmacopœia* with superfluous matter, but to make it scientifically useful and practical.

After some remarks from Dr. Sharpey, Dr. Smith, and Dr. Apjohn, the motion was put to the vote and carried; 11 voting for and 8 against it.

Dr. Acland proposed, and Dr. Paget seconded—

"That it be an instruction to the Pharmacopœia Committee to take steps to ascertain whether any or what limits have been imposed by the Medical Act, on the reports and investigations which the General Council might see fit to obtain or direct into the properties of the medicines and compounds of which the Council is required to furnish a list; and especially whether the Council is limited by the Act to inquiries as to the composition of articles of the materia medica and the modes of preparing and compounding them."

Sir Dominic Corrigan hoped that the motion would be withdrawn. The Pharmacopœia Committee had quite work enough on their hands.

Dr. Christison said that, while there was no doubt as to the Committee being entitled to inquire into certain subjects, there were others regarding which it might be advisable to have legal opinion. There was one point especially which required to be settled by physiological experiment—that of the proper means of preparing medicines of uniform strength. He stated in the course of his remarks, that he had had in his possession since 1819 extract of belladonna prepared by evaporation of the fresh juice *in vacuo;* and that it was still capable of dilating the pupil when tested in the present year.

Dr. Andrew Wood said that the matter alluded to by Dr. Christison was germane to the *Pharmacopœia*, and came properly within the cognisance of the Committee; but, while he gave Dr. Acland great credit for persevering in his attempts to induce the Council to undertake scientific investigations, he thought that it should rather adhere to its functions as defined in the Medical Act.

Dr. Stokes said that all that Dr. Acland asked was, that, as there was a difference of opinion in the Council as to its power in regard to scientific investigations, the matter should be decided by legal opinion.

Dr. Alexander Wood thought that the question had been brought forward in a perfectly legitimate form. One duty of the Council was the formation of a *Pharmacopœia;* and perhaps, when other matters now engrossing attention should have been settled, the preparation of the *Pharmacopœia* might become even its most important function. He would support Dr. Acland's proposal.

Dr. A. Smith said that the question whether the Pharmacopœia Committee had the power of applying money to scientific purposes had long since been practically settled in the affirmative.

Dr. Acland, in reply, said that his only desire was that the *Pharmacopœia* should be rendered as perfect as possible. He had pressed the matter on the consideration of the Council, because on a former occasion it had been decided that that body had not the power to apply its funds for the purpose of investigating the action of medicines.

The motion was not carried, there being 9 votes for, and 9 against it.

Dr. Acland required that the names and numbers of those who voted, and of those who declined to vote, be taken down. There were: *For*—9; Dr. Acland, Dr. Paget, Dr. Alexander Wood, Dr. Thomson, Dr. Leet, Dr. Apjohn, Dr. Parkes, Dr. Christison, Dr. Stokes; *Against*—9; Mr. Cooper, Dr. Embleton, Dr. Storrar, Dr. Andrew Wood, Dr. A. Smith, Mr. Hargrave, Sir D. J. Corrigan, Dr. Sharpey, Dr. Quain. *Declined to vote*—4; The President, Dr. Alderson, Mr. Hawkins, Dr. Fleming.

On the motion of Dr. Christison, seconded by Dr. Quain, the Report of the Pharmacopœia Committee was adopted.

In the course of the debate, some personal discussion took place between Dr. Apjohn, one of the members of the Committee, and Dr. Quain, who had acted as Secretary; Dr. Apjohn apparently attributing the delay in the production of the work to Dr. Quain. The remarks made led Dr. Christison, Dr. Sharpey and the President, to bear strong testimony to the energy and ability which Dr. Quain had shown in carrying on the business of the Committee.

Monday, May 28th.

George Burrows, M.D., in the Chair.

The minutes of the preceding meeting were read and confirmed.

Medical Titles in the Army List. A report was read from the Committee appointed take into consideration a communication from the Secretary of State for War in reference to the mode of appending the medical qualifications of army surgeons after their names in the *Army List.* (See Journal, May 26th, p. 550.) The report embodied a letter proposed to be sent to Sir E. Lugard, in which the following suggestions were made.

"It appears to the General Medical Council that it is only necessary to insert after the names of surgeons having medical qualifications from any one of the Royal Colleges of Physicians of England, Ireland, or Scotland, or from any University giving a license in medicine, the letters 'Ph', signifying Physician, indicating that the qualification is that of physician, in like manner as the initial letters, 'M.D.' and 'M.B.' not distinguishing the particular College or University from which the title 'Physician' is obtained.

"These observations apply equally to the only other initial letters proposed in the case of licentiates of Apothecaries' Companies of England and Ireland; viz., that the initial letters 'Ap.' should be inserted in like manner, indicating the qualification without distinguishing the particular Company from which the qualification has proceeded.

"The case put of a surgeon having more than one medical qualification is, and will be, of frequent occurrence in the army. It is not uncommon for an army surgeon to have two medical qualifications, one of 'M.B.' or 'M.D.' of an University, and another 'Ph.' from a College of Physicians.

"It is only necessary to signify that one medical qualification alone will be inserted, leaving it to the discretion of the surgeon himself as to which he would select, or whether he would select any."

Sir D. J. Corrigan moved, and Dr. A. Smith seconded, the adoption of the Report.

Dr. Parkes considered that it would be impolitic to accede to the proposal made. He said that the addition of the abbreviations proposed now or at previous times would be likely to bring much ridicule on the army medical officers; and further, that the letters proposed to be inserted were not among the titles recognised in the *Register*. The Council had last year pointed out this to the Secretary for War; and, if Sir D. Corrigan's proposal were adopted, the Council would be asked to reconcile its previous and its present decisions. The subject, if brought forward, might pass into the limbo of great questions which agitated the Council year after year; and perhaps, like others, be the subject of debate for eight years, in the course of which time every member would think it his duty to express his opinion—and some, as dire experience had taught, several times—on the merits of "Ph." and "Ap." Perhaps, also, some might feel impelled to tell their colleagues, not only what they thought on the matter in 1863 or 1864, but what they were likely to think in 1869.

Year after year, the question would be brought forward. The proposal made was impracticable and unfortunate, and he hoped Sir D. Corrigan would not press it. He moved as an amendment—

"That the Registrar acknowledge with thanks the receipt of Sir E. Lugard's letter, and inform him that on further consideration the Medical Council has decided not to urge the matter referred to in Sir Edward's letter on the attention of the Secretary of State for War."

Mr. SYME seconded the amendment; which, after some remarks from Dr. A. Smith, Dr. Andrew Wood, Mr. Cooper, Mr. Hargrave, Dr. Embleton, Dr. Storrar, and Sir D. Corrigan, was put to the vote and carried.

Dr. PARKES required that the names and numbers should be taken down. These were: *For*—12; Dr. Alderson, Mr. Hawkins, Mr. Cooper, Dr. Embleton, Dr. Storrar, Dr. Andrew Wood, Dr. Fleming, Dr. Thomson, Mr. Hargrave, Dr. Leet, Dr. Sharpey, Dr. Parkes. *Against*—4; Dr. A. Smith, Dr. Apjohn, Sir D. J. Corrigan, and Dr. Stokes. The President, Dr. Paget, Dr. Alexander Wood, and Dr. Quain, declined to vote. Mr. Syme was at the time absent.

The amendment was then put as a substantive motion, when

Dr. QUAIN moved, and Mr. HARGRAVE seconded, as a second amendment—

"That it be recommended to the Secretary of State that, under the difficulties of adapting initials capable of indicating the qualifications possessed by all army surgeons, to omit all initials as indicating professional qualification."

The amendment was negatived; and the substantive motion was then put to the vote, and carried. The names and numbers being taken down, there appeared 14 for and 4 against. The minority was the same as in the previous division; and the majority was increased by the addition of Mr. Syme and Dr. Alexander Wood.

*Visitation of Examinations.** Dr. ALEXANDER WOOD, in proposing the adoption of the reports presented on a previous day, congratulated the Council on the results obtained in the first attempt to carry out the visitation of examinations. Much good had been effected already; and the visitations were susceptible of being made still more useful. He still retained the opinion which, with others of his colleagues, had been expressed some years ago, that the visitations should be made by inspectors appointed by the Council; but he must acknowledge that the results of the visitations already made were very satisfactory, and he believed that, if continued in the same way as hitherto, they would prove highly useful. He would, if it were necessary to prepare a new Medical Act, be in favour of inspectors appointed by Government, and having similar powers and functions to those of the inspectors of schools; but he hoped that the Council would not render this step necessary, but would shew that it was not the useless and effete body which some imagined it to be. What was to be done with the Reports? The Branch Councils should be requested to continue the visitations which, though tentative as yet, had produced very creditable results. One effect of them would be, that those examining bodies which desired to raise their standard of education would look into the reports for information as to what they might usefully select from the regulations of other bodies. The Edinburgh College of Surgeons had, with this view, deferred the revision of its rules. After some further remarks on the manner in which he considered that the utility of the visitations might be increased, he moved—

"That the reports of the visitations of examinations be received and entered on the minutes.

"That the General Medical Council, on the first occasion on which they have received reports on the examinations of candidates for diplomas and licences, do not think it expedient to do more than direct a copy of the reports to be transmitted to each of the bodies in Schedule (A) to the Act."

Mr. SYME seconded the motion.

Mr. HARGRAVE considered it a hardship that the visitors of the examinations were not paid. The public were too apt to expect medical men to work for nothing; and the Council ought not to give such an example. He was sure that Dr. Stokes, in his visitation of the examination at the Royal College of Surgeons of Ireland, must have suffered great pecuniary loss.

Dr. ANDREW WOOD said that the question raised by Mr. Hargrave was a very proper one for discussion; for there was no duty more worthy of being rewarded. He was thankful that, notwithstanding the resolution of the Council last year against payment, the visitors had discharged their duty to the best of their ability. The great point for the consideration of the Council was, what should be the nature of the reports, and what duties should be expected from the visitors. The members of the Branch Council for Scotland had felt great difficulty in determining whether they were merely to report facts—to see whether the tests were rigidly enforced—or to give opinions on the facts observed by them. It was necessary to state this, because the reports would go before the public; and he hoped that a judgment would not be formed as to the character of future reports from those which had now appeared. The most creditable reports, he considered, were those of the English Branch Council. In some cases, much pains had been taken, and much valuable matter was placed on record, so as to show what was good and what was defective. In other reports, there was less detail; which might lead to the formation of incorrect conclusions. The object of the visitations was not to pick holes in the examining bodies, but to aid in maturing and improving the systems of examination. There were one or two circumstances in the printed reports on which he would offer some remarks. One was, that the College of Physicians in London had ceased to hold preliminary examinations in Arts, leaving these to the national educational bodies. The Edinburgh College of Surgeons had instituted these examinations before they were recommended by the Medical Council; but, since the recommendations had been issued, there had been an increasing number of candidates presenting themselves to the College who had already passed an examination by one of the public bodies, and the College was in a fair way of being altogether relieved of the task of conducting such examinations. He believed, indeed, that there was every prospect of being able to relieve the medical corporations of this onerous duty. In their report of the first visitation of the University of Glasgow, the visitors had stated that: "During a considerable part of each examination there was no one present excepting the examining professor and the candidate. We think it would be an improvement, were it so arranged that no examination should be conducted unless in the presence of not less than two professors, or one professor and one non-professional examiner, one of whom should take jottings of the subjects of examination." At a subsequent visitation he was glad to find that provision had been made for remedying the defect pointed out, and also for increasing the time during

* The Report is too long to be printed in this place. We shall give extracts from it in a future number. EDITOR.

which candidates were under examination. Thus, the object was gained by moral suasion, without the necessity of more forcible means; and he believed that the wishes of the Council would be carried out if communicated liberally and in a generous way to the examining boards. He also found that at Glasgow it was the practice to exempt candidates who had creditably passed the class-examinations in surgery and some other subjects from further examination in them. This was apparently contrary to the ordinance by which the Scottish universities were governed; and the Edinburgh professors had on this ground decided that it was not in their power to recognise the class in place of the final examinations. The Professor in Surgery in Glasgow, however, had informed him (Dr. Andrew Wood) that the course followed in that University was believed to be in accordance with the spirit, if not with the letter of the ordinance. This was one of the best proofs of the utility of the visitations. He (Dr. Andrew Wood) was surprised that any professor should venture to supersede legal ordinances. If class examinations were really better than graduation examinations, let application be made to the Privy Council for the necessary change of ordinance; but, if the Edinburgh University carried out the existing ordinance to the letter, it was hard that the University of Glasgow should act otherwise. It must be remembered also that the recognition of class-examinations in this way was liable to controvert the recommendations of the Council as to the period of study at which the examinations for diplomas and licences should be undergone, and would defeat the object of these final examinations, which was to ascertain whether the candidate had his knowledge in a form available for use. Class-examinations were of great value; but they must not be substituted for final examinations. He did not expect that the illegal practice to which he had alluded would be found prevailing next year in Glasgow. He believed that, both in this case and in others, that which might be recommended by the Council would be complied with; and if not, it would be for the Council to take further steps. In conclusion, he said that it would have been better if the visitation reports of the English and Irish Branch Councils had, like those of the Scottish Branch Council, been circulated among the members some time before the meeting of the General Council.

Mr. Cæsar Hawkins thought that it would be well to appoint a Committee to examine and combine the reports. No instruction had been given to the visitors as to the way in which they should act. Dr. Storrar and himself in visiting the College of Physicians, and, he believed, Drs. Acland and Paget in making their respective visitations, had considered it their duty merely to see that no candidate passed who was not qualified. They did not think it necessary to make any suggestions, although several had occurred to them. The visitations should be conducted on an uniform system; but it must be remembered that there were differences in the circumstances of the examining boards. Like conditions must be compared with like. He did not consider himself competent to judge of the examinations conducted in an university; nor could Dr. Paget, although able to judge of the higher qualifications required in the universities, be competent in his (Mr. Hawkins's) belief to give an opinion on the examinations of the corporate boards. It would be a better plan than the present, he thought, to have persons specially appointed to visit the universities throughout the United Kingdom, and others to visit the corporate bodies.

Dr. Sharpey approved of the suggestion made by Mr. Hawkins, that the same visitors should inspect the examinations of similarly constituted bodies. With regard to class-examinations, they were most valuable as a means of teaching; but, in the present state of the constitution of the examining boards and medical schools, in London at least, they could not be admitted as substitutes for final examination. The College of Surgeons, for instance, could not take his (Dr. Sharpey's) statement as to the attainments of a candidate in physiology, as shewn by the class-examinations. Even in Edinburgh, where the professors were the examiners, the candidates did not pursue the whole of their studies in the university; and the exemption of some from the final examinations would be unfair to others. It would be right to send the reports to all the examining bodies. In conclusion, he observed that the visitors of examinations should not be restrained by false delicacy from pointing out such facts as they might consider worthy of notice.

Dr. Allen Thomson assented to the opinion that great good must result from the visitation of examinations; not in establishing uniformity, but in calling attention to defects, and hence in raising the character of the examinations throughout the country. It was not wonderful that there should be defects in the first reports, considering the circumstances under which the visitations were undertaken, and the nature of the duties imposed on the visitors. The difficulty of conducting examinations was well known to examiners. He had been engaged in the duty twenty-five years, and still found it a difficult one. Few men, indeed, were aware how many years were required to make a good examiner. The duties of visitors were even more difficult than those of examiners; and he could not agree to the opinion that all the members of the Council were equally qualified to conduct the visitations. Referring to the University of Glasgow, he said that it was a matter of great satisfaction to him that it had been decided to have more than one examiner present at the examinations; this not only removed any appearance of partiality, but was more satisfactory to the examiners themselves. He had felt greatly embarrassed when left alone with candidates. Publicity was not desirable; but certainly more than one examiner should be present. The idea of exempting from the final examinations those candidates who had passed the class-examinations originally sprang up in Edinburgh; but a majority of the Senatus there was opposed to the proposal. At Glasgow, however, it was held that the exemption was not in opposition to the University ordinance. The Council would remember that last year there was much said on the evils of over-teaching; but he thought that over-examination was a greater evil—he alluded especially to the necessity for passing a multiplicity of examinations before different boards. There was too much cramming for examination, and too little time was allowed for assimilating the knowledge obtained from lectures. The great argument in favour of class-examinations was, that they gave the teacher an opportunity of directing the course of his pupils; and it would be a great pity if some credit could not be given to a pupil who had distinguished himself in his classes. It might be said that such a pupil would be equally competent at the final examination; but this would not always be the case. He would report to his colleagues in Glasgow the opinions of the Council on the subject; and it would be for the professors of the University to consider whether they should continue to follow their present course or alter it.

After a few remarks from Mr. Syme, Mr. Cooper, Dr. Fleming, and Dr. Paget, the motion proposed by

Dr. Alexander Wood was put to the vote, and carried unanimously.

Dr. Andrew Wood moved, and Dr. Allen Thomson seconded—

"That the visitation of the examinations, preliminary as well as professional, of the qualifying bodies, by the Branch Councils, or such of their members as they may depute, be continued during the ensuing year.

"That the reports of the visitors shall apply to every part of the examinations of each body, and shall include a statement of the facts observed, and of the opinions of the visitors as to the efficiency of the examinations, as also such remarks and suggestions on defects in them as circumstances may indicate.

"That the reports of the visitors be submitted in the first instance to the Branch Councils; and that thereafter the Branch Councils shall direct them to be printed and circulated confidentially amongst the members of the General Council, so that they may be in a condition, at the meeting of the General Council in 1867, to consider them maturely."

Sir Dominic Corrigan moved as an amendment—

"That visitation of examinations carried out by members of the General or Branch Medical Councils, being a reciprocal visitation by the representatives of the several licensing bodies of one another's examinations, is faulty in principle, and therefore can never command confidence.

"That any visitation of examinations would be worthless which did not include every examination, inasmuch as partial visitation could only testify as to the examinations visited—necessarily a very small proportion—and be no evidence whatever of the character of the examinations not visited, the larger proportion; that visitation of every examination would be impracticable, inasmuch as, in addition to preliminary examinations, there are annually about three thousand five hundred professional examinations in the United Kingdom for degrees or licences."

He (Sir D. Corrigan) said, that men utterly ignorant were able to present themselves for examination and were let loose on the public. So much was this the case, that the Army and Navy Medical Boards had very properly decided not to entrust the lives of soldiers and sailors to the care of those who had received qualifications from the various examining bodies, but had instituted examinations for themselves. The Council was on its trial before the public; and what was the course adopted? A visitation—of what? Of examinations—a proceeding to which there was no parallel. The degrees and licences being condemned by the highest authorities, the examining bodies, as represented in the Council, proposed to inspect each other. He would remind his hearers of the old Scottish proverb, "Caw me, and I'll caw thee." Would such a course be considered rational on the part of the managers of lunatic asylums, or of boards of guardians, or of unpaid magistrates in Ireland, or of captains of emigrant ships? The Council must look beyond the narrow circle of the medical profession, and ask whether reports presented under such circumstances would be likely to inspire confidence. In the next place, it was quite impossible to carry out visitations. In the course of the year, there were 3500 examinations in the United Kingdom. Supposing that 500 of these were visited, could any opinion be formed as to the character of the remaining 3000? Alluding further to the difficulty attending visitation of examinations, he said that once, as visitor of a lunatic asylum, he had noticed a number of females very neatly dressed, one of whom had observed to him, "Do not be a fool, and think that we are rigged out in this way every day." Again, the plan was opposed to the common sense rule of the world outside. If a man wanted to ascertain the purity of a gold article, he would not take the certificate of the maker, but would test the article itself. The same rule was followed in regard to cannon and armour-plates. The London University had followed a course which he had always approved; it did not recognise the examinations of any other board, nor send visitors to the schools, but tested the results of the education by its own examinations. How was the test which he advocated to be applied? If his amendment were carried, he would suggest the appointment of a board of independent examiners, who should test the students admitted by the various licensing bodies, and, if they were then found competent, put its *imprimatur* on them and give them licence to practise. It might be said that the Council had not the power to do this; but he thought that the appointment of such a board would be consistent with Section 20 of the Medical Act. Appearance before such a board would not be compulsory; but the diplomas of those who did not pass, or feared to present themselves before it, would be worth nothing. He had carefully considered the subject of visitations; and was still of opinion that the system at present carried out was radically wrong.

Dr. A. Smith seconded the amendment.

Dr. Alexander Wood said that the remarks made by Sir D. Corrigan ought not to go forth uncontradicted. He could not admit the correctness of the analogies drawn between the Council and other bodies of men; nor that the object of the visitations was to enable the examining bodies to justify each other before the public. Their aim was to improve the examinations. The amendment denoted a want of faith in his colleagues on the part of Sir D. Corrigan. Some days ago he (Sir D. Corrigan) had represented the various representatives of the licensing bodies in the Council as being antagonistic to each other, and had spoken of a "battle of shops"; but now he intimated that their friendly regard for each other would prevent them from telling the truth. No doubt it was impossible for the Council to inspect all the examinations; but neither could any board that might be appointed make a complete visitation. As to the army and navy, it was not the best qualified students who entered these services. He would give his support to the motion proposed by Dr. Andrew Wood.

The amendment was lost by a large majority, there being 2 (the proposer and seconder) for, and 15 against it.

Dr. Andrew Wood's resolutions were then put to the vote and carried.

Returns from Licensing Bodies. Dr. Embleton presented the Report of the Committee on Returns of Examinations and their Results from the Licensing Bodies, and on the Register of Medical Students for the last year. The report was ordered to be received and entered on the minutes.

REPORT.

The Committee beg leave to lay before the Council—

1. A table, accurately compiled from the returns of examinations and their results, from the licensing bodies, according to Recommendation 6, Section v, of the Recommendations of the General Medical Council, of 1865; and have to remark, that these returns have this year assumed a more complete and regular form than heretofore.

Form of Return, according to the Recommendation 7, Sect. IV, of the Report of the Select Committee on Education, May 5, 1864 (previously Recommendation No. 23), of the General Medical Council, 1862.

Licensing Bodies.	Passed.		Rejected.	
	1st Exam. No.	2nd Exam. No.	1st Exam. No.	2nd Exam. No.
Royal Coll. Physicians, Lond.	75	75	10	13
Royal Coll. Surgeons, England	372	365	132	58
Society of Apothecaries, Lond.	281	264	28	22
University of Oxford	3	3	2	..
University of Cambridge.....	4	3	2	..
University of London	*25	23	11	1
Royal Coll. Physicians, Edin...	81	213	23	48
Royal Coll. Surgeons, Edin. ..	+71	+125	24	30
Fac. Phys. Surg. Glasgow	12	74	2	22
University of Aberdeen.....	(1st) 35 (2nd) 25	(3rd) 49	(1st) 3 (2nd) 5	(3rd) 4
University of Edinburgh	(1st) 93 (2nd) 71	(3rd) 74	(1st) 16 (2nd) 27	(3rd) 6
University of Glasgow.....	40	30	9	..
University of St. Andrew's....	..	‡5	..	‡1
		6	..	..
K. & Q. Coll. Phys. Ireland..	..	66	..	1
	..	48	in mid.	2
Royal Coll. Surgeons, Ireland	103	103	12	12
	in surg. 12	—	1	..
	in mid.		in mid.	
Apothecaries' Hall, Ireland ..	18	22	2	9
University of Dublin	12	30	4	4
	1343	1578	313	233

2. The Committee find, on examination of the Students' Register for last year, that it contains a list of all students registered by the Branch Councils, in compliance with the recommendations in Section XI, of the Report on Education, of April 15th, 1865, and that the entries extend from October 1st, 1865 (when they were ordered by the Council to be commenced), to February 19th, 1866.

The numbers so registered are as follows; viz.:

In England	313
In Scotland	128
In Ireland.....	212
Total	653

Of these, they find that 8 students registered in England and 60 in Scotland, belong to the year 1866, whilst the Register for Ireland is strictly confined to 1865. They recommend that the names of these 68 students, in order to keep their yearly Registers distinct, shall be carried on to the Register of 1866; this would leave for 1865 the following number of students registered:

In England	305
In Scotland	68
In Ireland.....	212
Total	585

This total, however, is very far from representing the actual number of students who have commenced their medical education in the United Kingdom during the year 1865, for the Committee have learnt that, for instance, at St. Mary's Hospital, London, forty students have been entered who have not been registered by the Branch Registrar for England, as required by the General Medical Council.

* By the regulation, University candidates are allowed, under certain conditions, to postpone their examination in physiology until the first M.B. Examination of a subsequent year.

† In this return, those gentlemen having the letter D prefixed to their names in both columns, were candidates for the double qualification in medicine and surgery of the Royal College of Physicians and Surgeons of Edinburgh.

‡ Final examination for M.D. under old regulation.

It is probable that other students in the three divisions of the kingdom are in the same case; but to what amount, the Committee have no means of ascertaining.

This statement will be sufficient to enable the Council to form an opinion as to the present very imperfect state of the Students' Register; and though it is much to be regretted that this great imperfection exists, yet the Committee trust that when the revised and simplified Recommendations of the present Session become thoroughly known and understood, this imperfection, by the loyal and willing co-operation of the Bodies in Schedule (A), will next year disappear.

Recommendations of the Council. Dr. EMBLETON presented the Report of the Committee appointed to re-arrange the Recommendations of the General Medical Council on Education and Examination, and suggested, on the part of the Committee, that they be printed in a separate form, and distributed, as in previous years.

On the motion of Dr. ANDREW WOOD, seconded by Dr. LEET, it was resolved—

"That the Report be received, and entered on the minutes."

TUESDAY, MAY 29TH, 1866.

G. BURROWS, M.D., President, in the Chair.

The minutes of the preceding meeting were read and confirmed.

During a part of the sitting, the chair was, in the absence of the President, occupied by Mr. Syme.

Registration of Medical Students. On the motion of Dr. EMBLETON, seconded by Mr. HARGRAVE, the Report on this subject was adopted in the following amended form.

REPORT.

1. The Committee, having taken into consideration, the working of the system of the registration of students of last session, find that in each division of the kingdom there have been a certain number of students unregistered, in consequence of the difficulty of making the new regulations sufficiently understood by the students and their friends, and by the authorities of the several universities, schools, and hospitals; but they believe that this difficulty is likely to be materially lessened in future years, and they recommend that the Council should leave the several Branch Councils to make such exceptions in reference to the year 1865 as may seem to them advisable, enforcing the regulations strictly for the future.

2. The Committee have also considered "the cases of students admitted to registration who have not passed the examination in Arts, or only a portion of such examination," and they find that in certain schools several students have been allowed to commence their recognised medical education before having passed a preliminary examination in Arts; but they do not find that any student has actually been registered before having passed the preliminary examination.

The Committee strongly disapprove of the above irregularity on the part of schools, and recommend that in future the whole of the preliminary examination should be required to be passed at one time, and *that* before either registration be allowed or medical education be commenced; and this recommendation, from the assurances they have received, they believe will now be literally complied with.

With respect to the students concerned, the Committee see no other course open to them than that of advising the Council that, under the circumstances named, they should be left to the favourable consi-

deration of the Branch Councils; for they consider that it would be hard that, in the first year of a new system of registration, students should suffer through the irregularities above referred to.

3. The Committee have also paid attention to the "letter from Dr. Steele, Registrar of the Branch Council for Ireland, with an application from a student to be registered", and recommend that, as the registration of medical students has been placed under the charge of the Branch Registrars, the decision in this case be left to the Branch Council for Ireland.

4. The Committee have carefully gone over the whole of the regulations respecting the registration of students, as laid down by the Council during the last session, have remodelled them in accordance with existing circumstances, and beg leave to submit them in the following form for the approval of the Council, believing as they do that, having been made more simple and clear, the new regulations will be found well adapted to secure for the future a correct register of medical students.

Registration of Medical Students, 1866. The following regulations have been adopted by the General Medical Council, in reference to the registration of medical students.

1. Every medical student shall be registered in the manner prescribed by the General Medical Council.

2. No medical student shall be registered until he has passed a preliminary examination, as required by the General Medical Council.

3. The commencement of the course of professional study recognised by any of the qualifying bodies, shall not be reckoned as dating earlier than fifteen days before the date of registration.

4. The registration of medical students shall be placed under the charge of the Branch Registrars.

5. Each of the Branch Registrars shall keep a register of medical students according to the subjoined form.

Form for the Registration of Medical Students.

Date of Registration.	Name.	Prelim. Exam. and Date.	Place of Medical Study.

6. Every person desirous of being registered as a medical student, shall apply to the Branch Registrar of the division of the United Kingdom in which he is residing, according to the annexed form, which may be had on application to the several qualifying bodies, medical schools, and hospitals; and shall produce or forward to the Branch Registrar, a certificate of his having passed a preliminary application, as required by the General Medical Council, and a statement of his place of medical study. (See next column.)

Students who have commenced their professional studies more than fifteen days before October 2nd, 1865, are not required to be registered by any Branch Registrar.

7. The Branch Registrar shall enter the applicant's name, and other particulars, in the student's register, and shall give him a certificate of such registration.

8. Each of the branch registrars shall supply to the several qualifying bodies, medical schools, and hospitals, in that part of the United Kingdom of which he is registrar, a sufficient number of blank forms of application for the registration of medical students.

9. The several branch councils shall have power to admit special exceptions to the foregoing regulations as to registration, for reasons which shall appear to them satsfactory.

10. A copy of the register of medical students, prepared by each of the branch registrars, shall be transmitted, on or before December 31st, in each year, to the registrar of the General Council, who shall, as soon as possible thereafter, prepare and print, under the direction of the Executive Committee, an alphabetical list of all students registered during the year, and supply copies of such authorised list to each of the bodies enumerated in Schedule (A) to the Medical Acts, and through the branch registrars to the several medical schools and hospitals.

11. The several qualifying bodies are recommended not to admit, after October 1870, to the final examination for a qualification under the Medical Acts, any candidate (not exempted from registration) whose name had not been entered in the medical student's register at least four years previously.

In the case of candidates from other than schools of the United Kingdom, the Branch Councils shall have power to admit exceptions to this recommendation.

*** The Branch Councils are desired to take every means to make these regulations known to the medical students at the various medical schools.

Form of Application for Registration as a Medical Student.

I hereby apply to be registered as a student in medicine, in conformity with the regulations of the General Council of Medical Education and Registration of the United Kingdom, for which purpose I submit the following particulars..

Name of Applicant. (To be written in words at length.)		Preliminary Examination.	Date of Preliminary Examination.	Place of Medical Study.
Surname.	Christ. Name.			

Applicant's signature .....
Address .....
Date of application .....

To the Registrar of the Branch Council for.....

N.B. The above form of application, duly and legibly filled up, must be forwarded to the Registrar, post free, and be accompanied by a certificate of the applicant's having passed a preliminary examination, as required by the General Medical Council; and a statement of his place of medical study.

Dr. A. Smith moved, Dr. Alexander Wood seconded, and it was resolved—

"That it be delegated to the Branch Councils to report to next meeting of the Medical Council as to whether the column headed place of medical study, in the form of register of medical students now adopted, should, in future, define more clearly the manner in which it is to be filled up, and, if it is their opinion that it should, to suggest what appears to them to be the best means of doing so."

Weights and Measures of the Pharmacopœia. The following letter from the Metric Committee of the British Association for the Advancement of Science was read.

To the General Council of Medical Education and Registration.

10, Farrar's Building, Temple, May 1866.

Gentlemen,—We are desired by the Metric Committee of the British Association for the advancement of Science to seek your aid in promoting the practical adoption of the Metric Weights and

Measures Act, passed in 1864, being the 27 and 28 Vict., c. 117: "An Act to render permissive the use of Metric Weights and Measures in the United Kingdom." Although this law is of a permissive character only, yet it allows full scope for the extensive application of the new system, and we trust that every opportunity will be seized for resorting to it, with a view of putting an end to the manifold defects and inconveniences of the present practice.

We understand, with pleasure, that such an opportunity now occurs for introducing the metric decimal system into medicine and pharmacy, since the *British Pharmacopœia*, published in January 1864, is about to appear in a second edition. The objection formerly urged to the introduction of the metric system side by side with the imperial, in all the formulæ for the preparation of drugs and chemicals, that the metric weights and measures were not yet sanctioned by the legislature, is now removed by the passing of the Act; and we hope, therefore, that your Council will give its sanction to the proposed useful addition.

In submitting to you the desire of the Metric Committee of the British Association, that the knowledge of the metric system may be promoted in medicine and pharmacy, we would only add that, for international purposes, and especially for the use of foreign practitioners, and of British chemists in foreign countries, the ready comparison of the imperial with the metric weights and measures will be of great practical value; and, moreover, will tend to give effect to a reform expected to be highly useful to this country, and of extensive influence in social and international intercourse.

We have the honour to be, Gentlemen,
Your obedient Servants,
JOHN BOWRING, F.R.S., LL.D.
Chairman of the Committee.
JAMES YATES, M.A., F.R.S.
Member of the Committee.

After a short discussion, the following resolution, proposed by Dr. SHARPEY, and seconded by Dr. APJOHN, was adopted.

"That the General Medical Council are not prepared to adopt, in its full extent, the suggestion of the Metric Committee of the British Association, but the Council will direct that a complete comparative table of metric and imperial weights and measures, with instructions for their mutual conversion shall be inserted in the forthcoming edition of the *British Pharmacopœia*."

The Returns from the Medical Department of the Navy were considered.

Dr. ANDREW WOOD said that the Council, as well the licensing bodies and the profession, were under deep obligations to the Medical Department of the Navy for these returns. There was no doubt that they brought out the fact that candidates had been admitted to the profession by the examining boards though not properly qualified; and he would not attempt to justify the conduct of any board that admitted such men. But, with regard to those who had been rejected by the Navy Board, after having already passed two examinations, it must be remembered that in all probability most of them began their studies before the regulations of the Council were issued. He was not disposed to despair because of these returns; for he believed that their publication, together with the regulations issued by the Council, and the supervision of examinations, must produce a good effect. If returns shewing similar deficiency on the part of candidates should be produced in future years, there would then be ground for great regret. The statement of the reasons for rejections was a valuable point in the naval medical returns; but they would be still more complete if, like the Army Medical Department, they contained copies of the examination papers. He moved—

"That the Director-General of the Medical Department of the Navy be respectfully requested to furnish in future the Council with copies of the questions proposed to candidates for navy medical commissions in the same way as is done by the Army Medical Department authorities."

Dr. FLEMING seconded the motion.

Dr. ALEXANDER WOOD, referring to the deficiency in general education mentioned in the returns, said that when a candidate had previously passed a preliminary examination, he was not required by the licensing boards to undergo another. He had sometimes seen bad spelling in the written papers at the professional examination of candidates; but the examiners did not think it right to reject on this ground, because the candidates had the *testamur* of other boards. Rejection depended very much on the manner in which questions were put to candidates; and the fact of rejection, taken alone, was no proof of a want of stringency on the body from which the license had been obtained. At the same time, there was much room for improvement in the examining boards.

Mr. SYME mentioned that an Edinburgh student of great talent and assiduity, after obtaining his degree and the license of the College of Physicians, presented himself to the Navy Board and was rejected. He (Mr. Syme) had communicated with the Director General on the subject, and had received a report of the examination, which was apparently fair. The gentleman referred to had since been appointed to the India Medical Service.

Dr. PARKES said that it was worthy of serious consideration whether the examinations in the public departments should be taken as tests of the efficiency of the examinations of the licensing boards. Great good, however, had resulted from bringing the matter forward, especially inasmuch as the necessity for visitation was shewn. He believed that it would be inexpedient to use the army and navy returns as constant tests of ordinary examinations; and that the authorities would be scarcely justified in furnishing them if they were made the ground of attack on those who entered the public services. Many unqualified men, he believed, attempted to enter the army and navy, but were excluded; and he could say of those who did enter, that they were thoroughly qualified for their duties.

Sir DOMINIC CORRIGAN said that he was not aware that it was ever intended that the returns from the army and navy medical departments should be used as a test of other boards; but he regarded them as affording valuable information, and proving that some boards had admitted ignorant men into the profession. The Council should be grateful to the Army and Navy Boards for the information furnished. As to the statement that a licensing board is not answerable for the deficiencies of a candidate who had passed elsewhere, he could only say that the fact mentioned shewed that the preliminary examination was recognised from educational bodies which were unfit to perform their duty.

Mr. HAWKINS suggested that the rejection in Latin might have arisen from the want of opportunity on the part of candidates to keep up their knowledge of a subject in which they had passed an examination several years previously.

After further discussion, the motion was adopted.

Returns from the Army Medical Department. Dr. ANDREW WOOD moved, Dr. FLEMING seconded—

"That the best thanks of the Council be given to the Director-General of the Army Medical Depart-

ient, for the returns which he has been good enough
) transmit to the Council, and that he be requested
) furnish the Council in future with a statement of
ie subjects in which the rejected candidates have
iled."

Dr. ANDREW WOOD believed that a general state-
ient of the kind asked for would be free from the
bjection made by the Director-General, to the former
equest of the Council on the ground of identifying
ie candidates.

After a short discussion, the motion was carried.

The Report of the Finance Committee (see p. 600) as then adopted, on the motion of Dr. SHARPEY, econded by Dr. STORRAR.

Returns of the Licensing Bodies. The adoption of ie report on these returns was moved by Dr. LEXANDER WOOD, seconded by Dr. LEET, and greed to. (See p. 605.)

Conduct of Business. Dr. ALEXANDER WOOD ioved, Dr. A. SMITH seconded, and it was resolved—

"That the following addition be made to the tanding orders of the Council.

"That no report from any Committee of the Council shall appear in the minutes, until it has first een printed in the programme of business."

Dr. ALEXANDER WOOD moved, Dr. A SMITH econded, and it was resolved—

"That the following recommendations be remitted o the Executive Committee, to consider and report n as proposed standing orders.

"That the report of the Executive Committee on hese be considered on the first day of next session."

1. That it shall be competent to any member of Council to move that a report be or be not received, nd be or be not entered on the minutes.

2. That, in the event of its appearing to any nember of Council that a report is defective or redundant, it shall be competent for him to move that he report be recommitted, to be amended by the Committee by whom it was prepared.

3. That, in the event of a motion for recommitment being carried, the names of the mover and econder of such motion shall be added to the Committee, if they are not already members.

4. That it shall be competent for any member to nove that a report be approved of, either in whole or n part.

5. That, if a motion approving of the whole report e carried, the report shall become, and be considered, he Report of the Council.

6. That, where a report contains more than one ecommendation, each recommendation shall be eparately numbered, and it shall be competent for ny member of Council to move that these recommendations be considered *seriatim*.

7. That a motion for the approval of each recommendation shall be made and seconded, and without uch motion being carried, no recommendation shall e held to be adopted by the Council.

9. That in the case of only a part of a report, or ne or more recommendations contained in a report, eing adopted, the Council shall in no case be considered responsible for the report.

10. That the foregoing standing orders are not to e held as applying to the reports presented daily by he Business Committee.

A Memorial of the County and City of Cork Medical Protection Association was read, and ordered to be ntered in the minutes. (A copy of this memorial ppeared at p. 559 of the JOURNAL for May 26th.)

Executive Committee. Dr. FLEMING moved, Dr. PAGET seconded, and it was resolved—

"That the Executive Committee consist of six members exclusive of the President, instead of four, as at present. That, of the six members to be elected, four be chosen from the English, one from the Scottish, and one from the Irish Branch Council."

The Council then proceeded to ballot for the Executive Committee, when the following were found to be elected: Mr. Hawkins, Dr. Acland, Dr. Paget, Dr. Andrew Wood, Dr. A. Smith, and Dr. Sharpey.

Transaction of Business. Dr. Fleming moved, Dr. ALEXANDER WOOD seconded, and it was resolved—

"That it be remitted to the Executive Committee to consider the whole form of procedure which has hitherto been followed in conducting the business of the Council, and to report, on the first day of next session, any alterations, which, in their opinion, would tend to expedite the transaction of business."

The Medical Act Amendment Bill. Dr. ANDREW WOOD moved, Dr. ALEXANDER WOOD seconded, and it was agreed—

"That it be delegated to the Executive Committee to confer with the government regarding the proposed Bill for the Amendment of the Medical Acts; to press on the government the expediency of its being adopted as a government measure; and at the same time to state, that the Medical Council are of opinion, that unless the Bill be introduced by the Government, it would be unadvisable to proceed with it."

Powers of the Executive Committee. Dr. A. SMITH moved, Dr. STORRAR seconded, and it was resolved—

"That the powers and duties delegated to the Executive Committee, in accordance with Sect. IX. of the Medical Act, shall be vested in the Committee, until the next meeting of the General Medical Council."

Rejected Candidates at Examinations. It was moved by Dr. EMBLETON, and seconded by Mr. HARGRAVE,

"That the following be substituted for paragraph 7, Section v. of the recommendations of the General Medical Council on Education and Examination: 'That each of the bodies named in Schedule (A) to the Medical Acts communicate confidentially to the registrar of the General Medical Council, immediately after each professional examination, the names of candidates who have been rejected; that the registrar shall then communicate these names also confidentially to each of those bodies; and that no candidate who has been rejected shall be admitted to re-examination by any of those bodies till after the expiration of three months."

Sir D. CORRIGAN moved as an amendment, and Dr. STORRAR seconded—

"That paragraph 7, Section v. of the recommendations of the General Council be struck out.

The amendment was carried, and was also agreed to as a substantive motion.

The following is the paragraph alluded to—"That it be recommended to all the examining boards that they should require from every candidate for examination before them, a statement signed by himself, whether he has, or has not, been rejected within three months by any of the examining boards included in Schedule (A) to the Medical Act."

Recommendations of the General Council. Dr. EMBLETON moved, Mr. HARGRAVE seconded, and it was resolved—

"That the report of the Committee appointed to rearrange the recommendations of the General Medical Council on Education and Examination be adopted, and entered, as amended, on the minutes, and afterwards printed in a separate form, and circulated as before."

Standing Orders. On the motion of Dr. EMBLETON, seconded by Mr. COOPER, it was resolved—

"That the standing orders, as amended, be adopted, and entered on the minutes, and printed separately as before."

Publication of Minutes. It was moved by Dr. AQUILLA SMITH, seconded by Dr. SHARPEY, and agreed to—

"That a fourth volume of the minutes of the General Medical Council, the Executive Committee, and the Branch Councils, with a complete index, up to the end of the year 1866, be published without any unnecessary delay."

Appointment of Treasurer. Dr. STORRAR moved, Sir D. J. CORRIGAN seconded, and it was resolved—

"That Dr. Sharpey be reappointed Treasurer."

It was explained that Dr. Sharpey's reappointment as Treasurer was necessary in consequence of his re-nomination by the Crown as a member of the Council.

Votes of Thanks. Dr. A. SMITH moved, Dr. STORRAR seconded, and it was resolved—

"That the thanks of the Council are due, and are hereby tendered to the Treasurers, Dr. Sharpey and Dr. Quain, for their important services."

Dr. ANDREW WOOD moved, Dr. STORRAR seconded, and it was resolved—

"That the thanks of this Council are eminently due, and are hereby offered, to the Royal College of Physicians, London, for their obliging and courteous accommodation during the present session of the Medical Council."

Dr. A. SMITH moved, Dr. SHARPEY seconded, and it was resolved—

"That a gratuity of twenty guineas be given to the resident officials of the College of Physicians, for services rendered to the Council."

Dr. A. SMITH moved, Dr. STORRAR seconded, and it was resolved—

"That a gratuity of twenty guineas be given to Mr. Bell, and the same to Mr. Roope, the Clerks, in consideration of their extra services during the present lengthened session, and extra work consequent on the registration of medical students, a duty which was not contemplated at the time when Mr. Bell and Mr. Roope were appointed."

Dr. PAGET moved, Dr. EMBLETON seconded, and it was resolved—

"That the cordial thanks of this Council are due, and are hereby tendered to Dr. Andrew Wood for his unwearied exertions and invaluable services as Chairman of the Business Committee during the past and present sessions of the Council."

The business of the session concluded with the adoption of the following motion, moved by Dr. ANDREW WOOD, and seconded by Mr. HARGRAVE.

"That the thanks of the Council are cordially tendered to the President for his kind, courteous, and efficient services during the present session of the General Medical Council."

DR. GREVILLE, a distinguished naturalist and botanist, died at Edinburgh on Monday morning.

WORKHOUSE INFIRMARIES. Our readers will doubtless have read (not perhaps with any great astonishment) the workhouse hospital revelations which are appearing in the daily press. Nothing more than these were wanting to settle the question of workhouse hospital reform. It is still to the energy of Mr. Hart, and of the committee of the association which he has managed so admirably and effectively, that the public exposure of these telling truths are due.

We are requested to remind members of the Association that the Annual Subscriptions became due on the 1st of January. They can be paid either to the Secretaries of the Branches; or to the General Secretary, T. Watkin Williams, Esq., 13, Newhall Street, Birmingham.

British Medical Journal.

SATURDAY, JUNE 9TH, 1866.

HOW SHALL WE TREAT CHOLERA?

THE great practical question which we, as members of the healing art, have to decide in the matter of cholera, is, Ought we, or not, to attempt to restrain the purging and the vomiting which usually attend it? Undoubtedly, the general opinion of the profession is in favour of treatment which is directed to the arresting of the purging, if it be possible. Undoubtedly, also, this practice is founded on the supposition that the loss of the evacuated fluids is in the main the cause of death. If we could succeed in arresting the vomiting and the purging in cholera, general opinion argues, we should succeed in saving life.

Now we have ventured to ask the profession, at this particular juncture, to call in question the correctness of general opinion on this highly important point in practice. We have asked our brethren to consider whether general opinion may not, in this particular point of practice, be in error, as it has so often been on other points of practice; and the grounds upon which we have asked for the inquiry are the following:

1. Because the theory on which the astringing practice is based is opposed to the pathology and morbid anatomy of cholera.

2. Because experience has not fully decided the correctness of the practice.

3. Because analogy suggests that the rational treatment of cholera should be eliminative, rather than astringent.

That *experience* has not yet solved the question for us, we may safely assume. The author of *Medical Errors* tell us that we as yet possess no sufficient data upon which to form a reasonable method of treatment. Indeed, it is for such data that he now earnestly appeals to the profession. Moreover, it is certain that the opinions of experience are not agreed on the matter. The majority of authorities, no doubt, is in favour of astringing the flow of serum; but a considerable minority is opposed to the practice. And we need hardly say that points of medical practice are not settled, like municipal elections, by a vote of the majority.

Can pathology help us to a conclusion? We think it can, and very greatly too. Perhaps in no disease does it help us more to such a knowledge of the matter as may serve to guide us in the treatment. Unfortunately, the pathology of cholera has been too little studied, a fact of which we find abundant proofs in recent critical writings on the subject. Men, in attacking and defending preconceived views of cholera, too often use arguments and accept conclusions which are opposed to pathological facts.

We speak of pathological facts; and most assuredly such facts are ready to our hand. Let us see what those facts are; and see also whether they agree with, or are opposed to, the ordinary accepted opinions touching the nature and treatment of cholera. And, with this object, we will take as a guide, to whose indications no one will refuse to listen, Dr. Parkes's work on *Cholera*. The profession will endorse the opinion that, as a minute and faithful expositor of the pathological anatomy of cholera, there exists in no language a more masterly record of facts.

The idea, let it be remembered, upon which the astringent practice is based, is this: that the loss of blood-serum is the cause of death in cholera. Now we ask our readers to try this theory by the light of morbid anatomy and pathology.

"The distinctive symptoms of cholera-algida," says Dr. Parkes, "are produced by the state of the respiratory and circulating systems." He minutely describes what that state is. The right side of the heart and the large pulmonary vessels are filled with blood; the left side of the heart is empty. In the lungs, there is "deficient crepitation, from the more or less complete absence of air and blood. In the lungs, there was a remarkable want of air; in the most rapid cases, a want also of blood in the minute texture, causing the lung to collapse when the chest was opened, and its weight to be diminished to a very great degree." But the lungs themselves were mechanically sound. And hereupon he remarks:

"The condition of the heart and lungs seems to point out unequivocally that in cholera the blood does not pass through the lungs; and this agrees with the independent inference drawn from the symptoms, that the essential signs of loss of animal heat, embarrassment of the respiration, and gradual arrest of circulation, are produced by some aberration of, or impediment to, the proper respiratory changes."

Dr. Parkes then compares this state with asphyxia, and points out the essential difference. In asphyxia, there is absence of a respirable gas; but not so in cholera. In cholera, "the fault is in some condition which prevents the blood from submitting itself to the action of the air." "There is a failure, more or less complete, in the transmission of the blood through the lungs." Moreover, in asphyxia we have gorged and congested lungs; whilst in cholera, and "in some of the worst cases, there is a singular deficiency of blood in the pulmonary texture."

Dr. Parkes then asks what causes this failure of transmission of blood through the lungs. He finds no mechanical impediment to the play of the heart and lungs, and therefore concludes that "we are compelled to look for the cause of such arrest of the circulation in the blood itself."

Now here it is that Dr. Johnson steps in with his explanation. The arrestment of the circulation, he says, depends upon a spasmodic condition of the smaller branches of the pulmonary artery, produced by the irritating cholera-poison in the blood.

Hence, then, it appears that both Dr. Parkes and Dr. Johnson agree as to the all-important fact that there is an arrestment to the pulmonary circulation, and that this arrestment mainly produces cholera-collapse. Now it is in reference to this point of the pathology of cholera that error especially prevails; and it is the most essential point. The general opinion (which guides the general treatment) is, that cholera-collapse depends upon the purging and vomiting—*i. e.*, on the loss of blood-serum. Dr. Parkes and Dr. Johnson, and numerous other authorities, show in the clearest manner that the collapse has nothing essentially to do with the loss of blood-serum. We beg our readers' best attention to this point. "The algide symptoms of cholera," says Dr. Parkes, "are essential; the abdominal, dependent." "The vomiting and purging maintain an exact ratio to the amount of circulation." "In the worst cases of collapse, there is little or no passage of fluid; for there is little or no circulation." "The passage of fluid is the greatest in cases where the circulation continues comparatively unimpeded." "The prominent symptoms in the worst cases of cholera—viz., the changes in the respiratory and circulatory functions—cannot be measured by the amount of purging and vomiting. They are in many cases in an inverse ratio to the latter symptoms, and do not follow rapid separation of serum, but are present from the commencement of the attack." "In other cases, there is great purging; but the algide symptoms come on late, and the case is altogether slighter."

As an illustration, Dr. Parkes gives the following.

"In this case, the man did not die from vomiting and purging: he did not die from any paralysis of the heart, for this acted well during life, and contracted after death: he died because the blood did not pass through the lungs."

Then, again, in arguing against the idea of the loss of blood-serum producing collapse, he asks, How is it that the copious evacuations of dysentery—in some cases as great as in cholera—do not produce collapse?

Dr. Parkes, moreover, points out in his detail of cases how little relation there is between the loss of blood-serum and the algide symptoms. "Thus we see an immense passage of fluid attended by very

moderate, almost trifling algide symptoms, comparatively speaking, and followed by a complete and rapid recovery." And, conversely, he gives cases to show that, in the very worst cases, the purging was comparatively slight.

And Dr. Parkes, in all this, states nothing new. As he himself says, he but corroborates the authorities who have gone before him. The evidence, indeed, which shows the fallacy of the idea upon which the astringent practice is based—viz., that death in cholera results from loss of blood-serum*—is overwhelming.

It may be well, indeed, that we should give further illustrations of this very important point, which is so strangely overlooked by many recent writers. These illustrations we take from Dr. Johnson's work on *Cholera*, published in 1855.

Dr. Scot says:

"A frequent variety, the worst of all, is that in which there is no vomiting, hardly any purging .... a mortal coldness, with arrest of the circulation, comes on from the beginning, and the patient dies without a struggle."

And, again, he says:

"If the case present *apparently* violent symptoms, such as great irritation of the stomach and intestines .... the prognosis will be favourable," etc.

Bell says:

"The more violent the prominent symptoms, the more likely is the cure; when the disease is attended with rapid collapse, little or no vomiting and purging, the prognosis is very unfavourable."

Dr. Johnson also quotes Orton, Twining, Magendie, French, and others, to the same effect. The testimony of these authorities on the point is, in truth, as we have said, overwhelming; and proves that cholera-collapse does not depend upon loss of blood-serum, but upon arrestment of the pulmonary circulation; that patients do not die from loss of blood-serum, but from arrestment of the circulation and respiration.

We think, indeed, we have said enough to convince every candid mind that, whether the proper treatment of cholera be the astringent or the eliminative, the practice which takes for its basis of action the idea that cholera-collapse depends upon loss of blood-serum, upon the vomiting and purging, rests in so far upon a basis of error. It is shown that the evacuations, so far from being increased, are arrested during the collapse-stage; and, *pro tanto*, to the degree of arrestment of the circulation. If, therefore, the argument were good, that the loss of blood-serum kills the patient, the collapse-stage should be hailed as a means of putting a stop to the loss. Also, it is shown that the worst and most rapidly fatal cases of cholera are those in which the purging is least; and that many of the mildest cases are those in which it was most abundant.

Moreover, the authorities referred to accept without hesitation, as a legitimate conclusion proved by clinical observation and morbid anatomy, that the collapse of cholera depends upon an obstacle to the passage of the blood through the pulmonary arteries; the lungs themselves and the circulatory apparatus being sound, and mechanically equal to their proper work.

All this shows that the immediate indication for treatment in cholera collapse is to set free the impeded circulation; and it was from a consideration of facts like this, and also of the notorious effects produced by hot injections into the veins, which led us to recommend the trial of hot blood injections as a hopeful remedy. Hot injections, it is certain, set free the impeded circulation; and hot blood, duly oxygenated and defibrinated, might, therefore, perchance both free the circulation and also sustain life whilst the struggle is going on.

Mr. Charles Hawkins, in presenting himself as a candidate for the Council of the Royal College of Surgeons, comes forward in an unusual position—in a position of complete independence. *Mirabile dictu*, we have at last a candidate who disclaims all intention of seeking an Examinership. He will be, therefore, perfectly untrammeled, should he be elected, within the council-chamber. He will be able, without fear of injuring his future prospects, to pursue any course which he may think best conducive to the interests of the College. His views are, we believe, well known. It is enough for us to say that they are not in accordance with the views which have up to the present time prevailed in the Council, and which consist mainly in a resolve not to carry out the *spirit* of the College Charter. We firmly believe that, if any man could effect the required reform in that corporate body, it is Mr. Charles Hawkins; but we have no belief that even his powers can avail. We have again and again expressed our opinion, drawn from a full and long consideration of the case, that a new Charter is absolutely necessary. The College is at present carried on under laws which are worse than anomalous at this time of day. They were laws adapted to the corporation of Old Sarum fifty years ago. So long as the College is governed under its present Charter, it is hopeless to expect that it will ever be governed in accordance with modern ideas of what is just. We will venture to say that there is not another corporate body in this country which is carried on under such an obsolete system. We will venture, also, to prophesy that a new Charter cannot be much longer resisted. Common sense and common justice demand that Examiners should not be members of Council, much less rule the Council; and should not assist in their own election. Common sense de-

* We use the word blood-serum conventionally. The term, as here applied to cholera-evacuations, is, in fact, wrong, because the evacuations contain only a very minimum portion of albumen.

mands that Councillors should be elected to administer the affairs of the College, not for the purpose of being made Examiners. Common justice and the good of the College require that Examiners should be elected and hold office for five years only, and not for life. Common justice demands, also, that country Fellows should vote by papers at the Council elections. Reform under the present Charter is a thing impossible. If our leading surgeons were angels, we might expect them to sacrifice themselves for the good of the College; but, as they are substantial men with families, they wisely decline doing anything of the sort. It is wrong to blame individuals. It is the position which is utterly false, and which forces men who get into it into distorted attitudes. The remedy is a new Charter——a Charter suited to 1866. The present one was made and is fitted only for the times when men regarded Examinerships as the private property of a few leading London hospital surgeons.

It is worse than a delusion to pretend that the present Charter contains all that is necessary for reform—worse than a delusion, in the face of the fact that the Council have never in one single instance obeyed its reforming indications. That the Council never have done so, up to this moment, is pretty certain proof that they never will do so. What is the use of the Charter saying men shall be elected Examiners for five years, if, by a constant system of re-election, the Council virtually make them Examiners for life? What is the use of a Charter, which says that Examiners may be elected from outside the Council, if the Council never so elect them? What is the use of a Charter, whose spirit may be, and has been from the moment of its promulgation, set at nought because its words are permissive only? The interests of the Council as individuals stand in opposition to their duties as administrators of the Charter; and, as the Council can ignore the spirit and etand by the words of the Charter, it has naturally done so, because, as we have said, Councillors are only men. That such will be the case until the spirit of the present Charter is enforced in its words, we have full right to anticipate, from the manner in which it has been interpreted and constantly administered up to the very present moment.

The important French Government Committee, appointed in 1862, to inquire into the hygiene and medical service of hospitals, have already published five valuable reports. The first, on Hospital Dietary, published in 1864, was drawn up by M. Payen; the next, on the Mortality of Puerperal Women, etc., was written by Malgaigne; General Morin issued two Reports on the Ventilation and Warming of Hospitals; and M. Devergie drew up the one on the Hygienic Conditions to be fulfilled in the Erection of Hospitals.

Association Intelligence.

BRITISH MEDICAL ASSOCIATION: ANNUAL MEETING.

The Thirty-fourth Annual Meeting of the British Medical Association will be held at Chester, on Tuesday, Wednesday, Thursday, and Friday, the 7th, 8th, 9th, and 10th days of August next.

President—S. J. Jeaffreson, M.D.Cantab.
President-elect—Edward Waters, M.D.Edin.

The Address in Medicine will be delivered by J. Hughes Bennett, M.D., F.R.S.Edin., Professor of the Institutes of Medicine and Clinical Medicine in the University of Edinburgh.

The Address in Surgery will be delivered by William Bowman, Esq., F.R.S., etc.

The following special subjects will be introduced for discussion:—

Dr. Sibson, F.R.S., and Mr. Holmes: What is the influence of Hospitals on Health and Mortality,

Dr. Stewart: Is the Expectant Method to be relied upon in the Treatment of any form of Acute Disease?

Mr. Alfred Baker (Birmingham): Are there any trustworthy facts as to the Origin of Pyæmia?

Professor Christison, F.R.S. (Edinburgh): Observations on the Register of Deaths in Scotland.

T. Watkin Williams, *General Secretary.*

13, Newhall Street, Birmingham, June 5th, 1866.

BRANCH MEETINGS TO BE HELD.

NAME OF BRANCH.	PLACE OF MEETING.	DATE.
Lancash. & Cheshire. [Annual.]	Medical Institution, Liverpool.	Wednesday, June 13.
South-Eastern. [Annual.]	Sussex Hotel, Tunbridge Wells.	Thursday, June 14, 1.15 P.M.
Birmingham and Midland Counties. [Annual.]	Hen and Chickens Hotel, Birmingham.	Friday, June 15th, 3.30 P.M.
Midland. [Annual.]	Guildhall, Lincoln.	Thursday, June 21, 1.30 P.M.
Northern. [Annual.]	County Hospital, Durham.	Friday, June 22, 2.30 P.M.
Cambridge and Huntingdon. [Annual.]	Committee Room of the Corn Exchange, St. Neots.	Tuesday, June 26th, 2.30 P.M.
East Anglian. [Annual.]	Museum Room of Hospital, Norwich.	Friday, June 29th, 2 P.M.
North Wales. [Annual.]	George Hotel, near Bangor.	Tuesday, July 3, 12 noon.
Metropol. Counties. [Annual.]	Crystal Palace, Sydenham.	Wednesday, July 4, 3 P.M.

LANCASHIRE AND CHESHIRE BRANCH.

The annual meeting of the Lancashire and Cheshire Branch will be held in the Medical Institution, Mount Pleasant, Liverpool, on Wednesday, June 13th; A. T. H. Waters, M.D., President, in the chair. The meeting will commence at half-past Twelve. The members will dine together at the Adelphi at half-past Four. Tickets Eight Shillings each, including dessert, but not including wine.

Gentlemen intending to read papers or cases are requested to forward the titles of the same to the Honorary Secretary, without delay.

Henry Simpson, M.D., *Hon. Sec.*

10, Chatham Street, Piccadilly, Manchester.

SOUTH EASTERN BRANCH.

The annual meeting of the South Eastern Branch will be held at the Sussex Hotel, Tunbridge Wells, on Thursday, June 14th, at 1.15 P.M.; CHARLES TRUSTRAM, Esq., President, in the chair. The members will dine together at 5 P.M. Tickets, including dessert, coffee, and attendance, 7s. 6d. each.

Gentlemen intending to read papers or cases, are requested to forward the titles of the same to the Secretary, without delay.

C. HOLMAN, M.D., *Hon. Secretary.*

Reigate, June 5th, 1866.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.

The annual meeting of the Birmingham and Midland Counties Branch will be held at the Hen and Chickens Hotel, Birmingham, on Friday, June 15th, at 3.30 P.M.; Dr. CARTER, President, in the chair.

The members will afterwards dine together. Dinner on the table at 5 o'clock P.M. precisely.

T. H. BARTLEET, *Hon. Secretary.*

MIDLAND BRANCH.

The annual meeting of the Midland Branch will be held in the Guildhall, Lincoln, on Thursday, June 21st, at 1.30 P.M.; SEPTIMUS LOWE, Esq., President, in the chair. Dinner at the Saracen's Head at 3.30 P.M.

Gentlemen intending to read papers or cases, are requested to communicate, as soon as convenient, with Dr. MITCHINSON, *Hon. Secretary.*

Lincoln, June 5th, 1866.

NORTHERN BRANCH.

The annual meeting of the Northern Branch will be held in the County Hospital, Durham, on Friday, June 22nd, at 2.30 P.M.; SIR JOHN FIFE, F.R.C.S., President, in the chair.

Dinner at the County Hotel, at 5 P.M.

Gentlemen intending to read papers or cases, are requested to forward the titles of the same to the Honorary Secretary without delay.

G. H. PHILIPSON, M.D., *Hon. Sec.*

Newcastle-upon-Tyne, May 19th, 1866.

CAMBRIDGE AND HUNTINGDON BRANCH.

The annual meeting of the Cambridge and Huntingdon Branch will be held at St. Neots, in the Committee Room of the Corn Exchange, on Tuesday, June 26th, at 2.30 P.M.; J. J. EVANS, Esq., President, in the chair.

Gentlemen intending to read papers or cases are requested to forward the titles of the same to the Honorary Secretary, without delay.

P. W. LATHAM, M.D., *Hon. Secretary.*

15, Sidney Street, Cambridge.

EAST ANGLIAN BRANCH.

The annual meeting of the East Anglian Branch will be held at Norwich, in the Museum Room of the Norfolk and Norwich Hospital, on Friday, June 29th, at 2 P.M.; T. W. CROSSE, Esq., President, in the chair. The members will afterwards dine together at 5.30 P.M.

Gentlemen intending to read papers or cases are requested to forward the titles of the same to the Honorary Secretary, without delay.

J. B. PITT, *Hon. Secretary.*

St. Stephen's Street, Norwich.

NORTH WALES BRANCH.

The annual meeting of the North Wales Branch will be held at Westbury Mount, Menai Bridge, the residence of R. Thomas, Esq., on Tuesday, July 3rd, at 12 o'clock noon; J. C. DAVIES, M.D., of Holywell, President, in the chair. Luncheon will be provided by Mr. Thomas. After the meeting, the members and their friends will dine together at the George Hotel, near Bangor, at 3 P.M.

Gentlemen having papers or cases to read, are requested to make an early intimation of the same; and also to state whether they intend to stay for dinner, to the Secretary.

D. KENT JONES, *Hon. Secretary.*

Beaumaris, June 5th, 1866.

METROPOLITAN COUNTIES BRANCH.

The fourteenth annual meeting of the Metropolitan Counties Branch will be held at the Crystal Palace, Sydenham, on Wednesday, July 4th, at 3 P.M. *President* for 1865-66, EDWARD H. SIEVEKING, M.D.; *President-elect* for 1866-67, HENRY LEE, Esq., F.R.C.S.

At 5.30 P.M., the members will dine together; HENRY LEE, Esq., in the chair.

A. P. STEWART, M.D.
ALEXANDER HENRY, M.D. } *Hon. Secs.*

London, June 4th, 1866.

EAST YORK AND NORTH LINCOLN BRANCH: ANNUAL MEETING.

The tenth annual meeting of this Branch was held at the Hull Infirmary on Wednesday, May 23rd, 1866; W. J. LUNN, M.D., President. Fourteen members and three visitors were present.

Officers and Council. H. M. Leppington, Esq., of Grimsby, was chosen President-elect. The following gentlemen were elected on the committee for the ensuing year. Sir H. Cooper, H. Sandwith, M.D., O. Daly, M.D., R. L. Sleight, Esq., R. M. Craven, Esq., and H. Gibson, Esq.; J. F. Holden, Esq., *Secretary*; and J. A. Locking, Esq., *Treasurer.*

The late Robert Hardey, Esq. Dr. HUMPHREY SANDWITH proposed—

"That this Branch of the Association records its deep sense of the loss it has sustained in the death of Mr. Hardey, and also offers its sincere condolence to his bereaved family."

This was seconded by Sir H. COOPER, and carried unanimously.

Remarks by the President. Dr. LUNN made some highly interesting introductory remarks, in which he feelingly alluded to the death of Mr. Hardey, one of the oldest members of the Branch, who, by his urbanity of manner and high tone of professional conduct, had endeared himself to the profession at large.

Papers. The following papers were then read.

1. A posthumous paper on Pyæmia. By R. Hardey, Esq. It was determined to forward this paper to the JOURNAL for publication. [This paper has been received.]

2. On the Relation between Cholera and Diarrhœa. By Sir H. Cooper, M.D. [This paper has been received.]

3. On Lithotomy. By R. M. Craven, Esq.

4. Case of Aneurism of Carotid Artery, successfully treated by the Wire-Compress. By John Dix, Esq.

An interesting discussion took place on this case, in which Mr. T. P. Teale, jun., of Leeds, took part;

at gentleman having treated a case of popliteal neurism on the plan advocated by Mr. Dix.

5. Dr. O. Daly showed some rare specimens of Tertiary Syphilitic Tumours in the Brain, Heart, Lungs, &c.

Other papers were on the list; but time did not allow them to be read.

Dinner. At the close of the business, the members and their friends dined together at Bainton's Victoria Hotel.

METROPOLITAN COUNTIES BRANCH: ORDINARY MEETING.

An ordinary meeting of the Metropolitan Counties Branch was holden at 37, Soho Square, on Friday, May 25th, at 8 P.M.; EDWARD H. SIEVEKING, M.D., President, in the Chair. Twenty members and visitors were present.

The Action against Dr. Armstrong. Dr. HENRY proposed, and Mr. HUNT seconded, the following resolutions, which were carried unanimously.

"That this meeting desires to express its sympathy with Dr. Armstrong of Gravesend and his son, on account of the annoyance and expense to which they have been put by the vexatious and groundless action for malapraxis recently brought against them, of Rudman *versus* Armstrong and another.

"That this meeting considers that Dr. Armstrong, in allowing himself to be subjected to the inconvenience of public trial in a court of law rather than make a pecuniary compromise with the plaintiff, acted consistently with his own honour and with the honour of the medical profession; and that his conduct is worthy of approbation.

"That this meeting offers its sincere congratulations to Dr. Armstrong and his son on the result of the trial."

Public Vaccination. By B. W. RICHARDSON, M.D. Dr. Richardson commenced by pointing out that members of the medical profession, in considering the subject of vaccination, ought first to place themselves in the position of the public at large, and to respect many of what might be called the prejudices of the people. These prejudices, even though the result of ignorance, should not be severely criticised, but rather removed by reason and by judicious instruction. In many points bearing upon vaccination, medical men themselves required more light; and amongst them there was the widest difference of opinion as to the measures that were required to ensure a perfect and general system of vaccination.

In considering vaccination in its legal bearings, it was a primary question, Whether compulsory vaccination is really necessary? To ensure the success of compulsory vaccination, a purely despotic action must be sustained. In addition, there must be some test or standard by which the success may be proved. 1. Either a child must be forbidden communion with a church until vaccinated; 2. Or it must be forbidden registration; 3. Or it must be officially inspected at a given time after birth; 4. Or a public officer must be empowered to visit every child at some period, and, *vi et armis*, vaccinate it. Dr. Richardson contended that, in Great Britain and Ireland, not one of these methods could be carried out. This fact had been recognised by all our legislators; and, as a consequence, every legislative scheme became a half-and-half measure, sufficiently despotic to excite vehement opposition, and sufficiently inoperative to breed contempt.

Dr. Richardson next analysed Mr. Bruce's Bill, and maintained that it had all the faults of previous measures. The registration scheme would fail, because there was and could be no such thing as enforced registration. The machinery for carrying out the purposes of the Act was loose and feeble; the law was left entirely permissive; there was no attempt made to secure revaccination; and the means were not afforded for giving the registrar or other appointed officer the power to inspect.

On the medical side of the question, Dr. Richardson urged that vaccination could only be carried out efficiently by and through the moral suasion and influence of the medical body as a whole. He held that the plan proposed by Dr. Lilley, for making every medical man a public vaccinator, and for paying a small fee (say of 1*s.* 6*d.*) *for every certificate of successful vaccination* supplied to the registrar by the medical man, would be the most efficient plan that could be carried out. The payment of the certificate-fee would not interfere with the payment for the operation by the friends of the child; and it would be an inducement in every case to the practitioner to see every child under his care properly vaccinated. It was vain to say that every child, whose parents could not pay their own medical man, must perforce be vaccinated by another medical man. On this point of selection of the operator, the poor, not less than the rich, had deep feeling; and that feeling in both classes, in one as much as in the other, must be respected. It was a correct feeling, and an Englishman who ignored it would not be worth legislating for at all. The only argument worthy of notice against the principle of making every medical man a public vaccinator was, that under such a system the supply of fresh lymph could not be kept up. In reply to this, Dr. Richardson said that at present the supply from the vaccine-stations was ineffective, and could never be regulated by law, inasmuch as the Act did not and could not give any vaccinator the right to take matter from the arm of any child without the consent of the parent. On this topic, he read a letter from Mr. H. Terry, jun., of Northampton, in which the same fact was brought out. He then passed on to explain that, if every man were a public vaccinator, there would be more vaccination; and that it could not be of moment whether one man vaccinated one hundred children on a given day, or whether a hundred men did it.

Dr. Richardson summed up by suggesting the formation of a Central Vaccine Board, which should collate all the facts respecting vaccination and small-pox throughout the country; which should receive the certificates of vaccination, and be a Board of reference and general control. Such a Board, supervising the whole kingdom, and having every qualified medical man who wished to become so its officer, would be most efficient; it would secure by its moral influence a thorough vaccination of the whole kingdom; and the people would soon learn, without coercion, the great blessing bestowed on them, by the great practical good that would follow.

The PRESIDENT, after some remarks on the importance of the subject brought forward, observed that there had been a great reduction of liability to small-pox in this country since the introduction of vaccination; but still the rate of mortality from the disease was higher than in some parts of the continent. With regard to the objection against compulsion, the misfortune was that, by leaving vaccination in the hands of the public, and through its consequent neglect, the enlightened portion suffered as well as the unenlightened. It would not be right to introduce despotic means of enforcing vaccination; but still it would be a pity if some measures were not taken. He agreed with Dr. Richardson that it would not be practicable to enforce vaccination

through the church. Nor could its universal performance be guaranteed by means of the registration of births; for a very large number of births—which he believed might be estimated at 500,000—were never reported. He feared that it would not be possible to make such new enactments as would thoroughly meet the demands of the case; but that much must be left to the march of intellect.

Mr. HUNT said that, ten or twelve years ago, he was a member of a Vaccination Committee of the Epidemiological Society. At that time, Lord Lyttelton's Bill was under consideration; and the Committee waited on his lordship, and expressed their opinion that any plan for compulsory vaccination would never succeed. The result proved that this opinion was correct: the Act had been again and again altered, but an efficient system of public vaccination was as distant as ever. He agreed with Dr. Richardson that there was very little hope of success from compulsory vaccination; but at the same time it must be remembered that, in many continental countries, it had been successful. He (Mr. Hunt) had had occasion, as a member of the Committee which he had mentioned, to examine returns on small-pox and vaccination sent from Bengal and Bombay. In Bengal, vaccination could not be made general, on account of the religious prejudices of the natives; and hence there had been severe inroads of small-pox in Calcutta and other places. This evil state of matters extended over the whole of the Bengal presidency. In Bombay, on the other hand, compulsory vaccination was carried out most successfully; and small-pox was of extremely rare occurrence in the entire presidency, scarcely any cases occurring but such as were imported by strangers. These facts taught two lessons: first, that vaccination was capable of abolishing small-pox; and second, that compulsory vaccination could not be carried out where political or religious prejudices prevailed. The great thing to be done was to enlighten the public—to show them that the occurrence of small-pox could be prevented by vaccination. As an illustration of the efficacy of thorough vaccination, he mentioned that, from 1812 to 1820, he had been in practice in a district extending over sixty or seventy square miles, and during that time he heard of only two cases of small-pox. There was no reason why, in like manner, small-pox should not be abolished over the entire country. He felt strongly that, if the whole population could be vaccinated, the country would be free from small-pox; but the great difficulty was, how to effect this universal vaccination.

Dr. FITZPATRICK had been in charge of large districts in the Madras presidency, where attempts had been made to enforce vaccination, but had been defeated by religious prejudices, the native vaccinators being mostly men of low caste. Subsequently, vaccination had been more extensively carried out, and the amount of small-pox was much diminished; but still the disease was very frequent. The natives endeavoured to escape vaccination; and would often, when vaccinators were sent among them, retreat into the jungle. There was this difficulty attending the attempt to carry out vaccination in Madras, that it was an object with the vaccinators to report as many successful cases as possible for the sake of the pay, but there was no guarantee that the operations had been properly performed. It had been found on examination, indeed, that many of the vaccinators did not understand their duty; and that many thousands of those reported to be successfully vaccinated were not safe against small-pox. Within the last few years, inspectors had been appointed, to examine the cases reported to have been vaccinated. With regard to bad vaccination, he would observe that, even in this country, the operation was not always properly performed; the vaccine matter, as he had seen in cases which had come under his notice while attached to the Dispensary in Bath, was sometimes taken from diseased children. The main point in carrying out vaccination was to take care that the lymph was good; and he saw no reason why vaccination should not be made compulsory.

Dr. HILLIER differed greatly from the opinions expressed by Dr. Richardson. Much must, indeed, be done by educating the people—and this was a most important matter. But compulsory vaccination was not only possible, but advisable. He would not say that an absolute compulsory system could be carried out; but, in a modified form, it would be likely to prevent the omission of vaccination through pure negligence. It was for the children of parents who cared little about them, or who were constantly moving about, that an authoritative plan of vaccination was most required. In order that any plan of compulsory vaccination might be useful, it was indispensable that the vaccination should be efficiently performed, and that there should be a supply of good vaccine lymph: imperfect or careless vaccination, and the employment of bad and useless lymph, furnished a reason for opposition. In order to ensure a supply of good lymph, there should be a reduction of the number of vaccinators; they should be appointed by Government, and the vaccine-stations should be placed under careful inspection. So long as a multiplicity of vaccinators was kept up, they must be necessarily driven to employ all kinds of expedients for obtaining good lymph, unless they could keep up the supply of vaccinated children. If public vaccinators were appointed in the way he proposed, it might be that the English feeling would prevent many persons from employing them; but he believed that ultimately even those persons who could pay for the operation would bring their children to them. Mr. Bruce's Bill was not altogether satisfactory as a means of enforcing vaccination; but it was an improvement on previous measures, as the onus of non-compliance would rest with the parents or guardians of the child. He saw no reason why the registration of births should not be made compulsory. There was a way in which vaccination might be encouraged: every child, before entering a national school, or being entitled to government aid of any kind, should be required to present proof of vaccination; and the large employers of labour should be recommended to enforce a similar rule.

Dr. T. BALLARD expressed his want of belief in the occurrence of the disastrous consequences which were alleged to follow vaccination—except syphilis, the communication of which by vaccination was still *sub judice*, and was certainly very rare. So long as medical men recognised such consequences, the public would believe in their occurrence. The symptoms which were alleged to follow vaccination, he believed, were not due to this; but the subject required investigation.

Mr. LILLEY (who was present as a visitor) said that the inefficiency of the Vaccination Act now in force had been made apparent to him by the increase of small-pox among adults in his practice. He attended a number of mechanics and persons in similar circumstances, whose children were not vaccinated because the parents would not take them to the public vaccinator. He would make the law even more compulsory in one respect, by imprisoning those who neglected to have their children vaccinated. But he believed that the best way of overcoming objections was to recognise every medical man as a public vaccinator; so that, after attending a case of labour, he might vaccinate the child and

furnish the necessary certificate, the payment for which should not interfere with his private fee.

Mr. Henry Lee objected to the principle that Government should be expected to pay for vaccination in cases where the parents themselves were able to pay their medical advisers. He believed that the great impediment to vaccination lay in the prejudices which prevailed among the people, especially in the midland districts. There was, without doubt, a notion extensively prevailing that various diseases were produced by vaccination; and, he believed, this notion was supported by the circumstance that many had died after so-called syphilitic inoculation. In England there was, beyond question, a great deal of careless vaccination; and even on the continent the common use of the word "pustule" indicated a misconception, for the pustular stage was not that in which lymph should be taken from the arm. But that vaccination produced all the diseases attributed to it, he did not admit. It probably caused the development of latent diseases already existing; and it should be impressed on the public that the symptoms occasionally following vaccination arose in this way, and not from actual introduction; and that it was probably better that they should thus appear than become developed, perhaps under more unfavourable circumstances, at a later period. Syphilis, he believed, might be introduced by vaccination; but the accident was of very rare occurrence. Mr. Lee concluded by stating his conviction that it was most important that medical men should thoroughly understand the subject of vaccination, and that the public should be taught to feel confidence in the operation.

Mr. William Martin asked how far the Government encouraged vaccination among public *employés*, except in the army, navy, and police. It might with advantage be enforced in the Post Office and other public departments. He suggested that the best means of promoting vaccination would be the formation of an association for the purpose.

Dr. Cormack said that the great diversity of opinion which had been expressed in the course of the debate upon some of the most vital questions connected with vaccination, showed that medical men ought to criticise very leniently recent legislation on this subject. If the members of such a meeting as the present were at variance upon the fundamental scientific principles, whence was parliament to derive its guidance? But was the diversity of medical opinion, which had cropped out in the debate, justifiable? He thought that it was at least very difficult to explain. Innumerable facts, and a constantly cumulating medical experience, showed that when there was an universally enforced system of efficient vaccination in a district, a total or nearly total immunity from small-pox was secured to the inhabitants of that district. As this fact had been kept in view in all recent legislation upon vaccination—from Lord Lyttelton's Act to the Bill of Mr. Bruce now before the House of Commons—some praise at least was due to parliament; and the results of recent legislation proved, likewise, that it had not been altogether valueless. The appointment of public vaccinators had diminished the prevalence of small-pox, and had almost banished it from some districts in which, up to the passing of Lord Lyttelton's Act, it had existed as a chronic scourge. No doubt the Vaccination Acts were still very faulty; but this had not arisen from ignorance by those who prepared them of what was required, but from the prejudices to which they had to yield, and the obstructions which they had to try to smooth down but dared not remove. The debates in parliament proved the correctness of this statement. If the meeting proposed to take any action in this matter, by petition or otherwise, he (Dr. Cormack) would suggest that it gave chief prominence to the two points upon which Dr. Hillier had so well insisted—that provision must be made for *efficient* vaccination, and that the practice must be *compulsorily enforced* to the utmost possible extent consistent with public opinion. He (Dr. Cormack) thought that, if all medical men were recognised and paid as public vaccinators, according to Dr. Richardson's plan, it would be impossible to obtain security for efficiency: first, there would be an immense difficulty in keeping up over the kingdom an abundant supply and distribution of good vaccine matter; and, second, thorough inspection of the vaccinators would be impracticable. Now, unless the lymph were good and always forthcoming when required, there could be no such thing as an efficient system of national vaccination; and it would be equally in vain to look for such a system unless there were a very thorough inspection of the vaccination of the people independent of local authority. Vaccination was in itself a simple affair; but, nevertheless, it had been shown that all medical men were not trustworthy vaccinators. To prevent the natural jealousy of public vaccinators which many private practitioners entertained, it might be necessary to debar public vaccinators from private practice, and to make their posts adequately remunerative by diminishing their number in large towns. This would facilitate vigilant inspection, without which no system could be trustworthy. The principle of compulsion was difficult to carry out, but in itself it was not unconstitutional. The law did not allow a man to set fire to his house, as by so doing he endangered his neighbour's house. Why then should it allow a man to abstain from vaccinating his children? Was it less constitutional to restrain individual liberty, with a view to prevent a general conflagration, than for the purpose of preventing a general pestilence? Surely not. The principle of compulsion was in theory perfectly sound; the difficulty was how to carry it largely into practice, in such a way as not to make it offensive. More might be done by indirect methods of compulsion than had yet been tried. All children before admission to public or private schools ought to show proof of having been properly vaccinated; and the same rule might be applied to all workers in factories and to all such like assemblages, just as it was carried out in the military and police services. The objections to vaccination were applicable only under certain exceptional circumstances, and in a few cases. The scanty credit which vaccination received in some quarters was chiefly due to the want of a system to apply it efficiently to the whole community. That was a great social truth, which physicians ought to proclaim whenever there was an opportunity. To attract public attention to controversial questions, and to matters of mere medical curiosity connected with the subject, was a course to be avoided. It was calculated to obscure truth.

Dr. Duplex said that, in France, there was a law that no child should be admitted into a school before having been vaccinated; and that this regulation proved very effective.

Dr. Stewart said that the subject was one of increasing public importance. He differed to some extent from the views expressed by Dr. Richardson; and was strongly impressed with the importance of making vaccination in some sense compulsory. To hold out inducements might be an useful means of promoting vaccination; but that there was an effectual method, was evident from a fact with which he had been much struck—that over nearly the whole of Northern Europe small-pox might be said to be extinct. The English Government had already partially adopted

the continental system, by requiring that the men in the public services should be vaccinated; and he saw no reason why this experiment should not be carried out to a much greater extent. At present, instead of diminishing, the mortality from small-pox in this country was increasing. The prejudices which existed against vaccination in many parts of the country were greater than was commonly known. Mr. Lee had referred to the midland counties; and he (Dr. Stewart) had been repeatedly informed by his pupils of the prejudices which prevailed in the south-western counties — Devonshire and Cornwall. He had been informed that, in a town in the former county, there had been repeated epidemics of variola arising from inoculation, to which the inhabitants were accustomed to have recourse when there was any fear of small-pox. More recently, however, the prejudice against vaccination had been diminishing, principally in consequence of the action of the medical officers and public vaccinators. This fact shewed that, by dealing with the people in the right way, their prejudices would be overcome. He agreed with the observation already made, that there were a large number of cases of imperfect vaccination; and he had found repeated evidences of this on inspecting the arms of his patients. Much of this imperfect vaccination, he believed, arose from the difficulty which private practitioners experienced in keeping up a supply of lymph. With regard to the proposed plan of appointing public vaccinators, he thought that it would be attended with much difficulty in country districts, where either the children must, with difficulty and perhaps with danger to their lives, be brought to the vaccinator, or the vaccinator must be paid large fees in consideration of the distances over which he had to travel. In large and popular centres, on the other hand, this difficulty did not exist; and in these the appointment of public vaccinators would be advantageous.

Dr. Richardson had been much interested by the discussion, and hoped that the subject would not be dropped, but that the Branch would again meet and take some action in the matter. Even in the present meeting all phases of public opinion were represented; some of the members being in favour of compulsory vaccination, while others were opposed to it. Seeing that there was such difference of opinion among medical men, it was right that, as Dr. Cormack had suggested, that the public should be treated leniently. The discussion had only strengthened his conviction of the impossibility of enforcing vaccination. There was a way of endeavouring to gain an object by always catching at it without success. This was the way in which it had been attempted to carry out vaccination; and to it he attributed the retrograde movement which had taken place in this direction. It was impossible to make vaccination compulsory; and the attempt only brought discredit on the proceeding. How could compulsory regulations be effective in the face of prejudices? Again, compulsory vaccination was opposed to the common law. He repeated, that Mr. Bruce's Bill shewed the futility of attempts to enforce vaccination. The Bill was permissive in some most important parts; the twenty-ninth clause was of this character. The clause spoke of a "Registrar, or any officer appointed by the Guardians to enforce the provisions of this Act." Was it certain that the Guardians would appoint such an officer? Again, if such officer "had reason to believe that any child under the age of 13 years had not been vaccinated, etc." How was he to prove the grounds of his belief? He had no power to do so. What, too, was to be done in the case of non-vaccinated persons above the age of 13? The clause further provided that the justice receiving the information may summon before him the person having the custody of the child, and make an order for vaccination. Would this provision be carried out by the justices? The neglect of the order rendered the offender liable to a penalty not exceeding twenty shillings. Was this likely to be a sufficient penalty? Again, the Bill was defective, inasmuch as it made no provision for revaccination, nor for the vaccination of unregistered persons. Gipsies, for instance, did not have their children registered, and were constantly moving from place to place; and he (Dr. Richardson) had known an epidemic of small-pox to have been introduced by them. It would be better to have no Act at all than one of which the provisions could be so extensively evaded. With regard to the enforcement of vaccination on children before being admitted to schools, he did not see how it could be carried out; as a matter of feeling he did not think that the proceeding would be a right one. To imprison persons for not having their children vaccinated, would do more than anything else to establish prejudices against vaccination. The plan of having independent vaccinators, proposed by Dr. Cormack, would lead to great expense. Supposing that only one vaccinator were appointed for every four union medical officers, an outlay of £72,000, not including travelling expenses, would be required. The plan would, he believed, be impracticable. The effect of the plan proposed by Dr. Lilley would be, that every medical man would feel an interest in vaccination, as it would be productive of addition to his income. It was objected that under this plan it would be difficult to keep up a supply of lymph; but in answer to this he would observe, that the same difficulty was met with at present in obtaining lymph from the central stations, and that, if the vaccination were efficiently carried out, the supply must be the same, whether there be one vaccinator or twenty thousand.

Reports of Societies.

HARVEIAN SOCIETY OF LONDON.

April 19th, 1866.

Tyler Smith, M.D., President, in the Chair.

Local Anæsthesia by Ether-spray. Dr. C. Drysdale said that he had found the apparatus invented by Dr. Richardson for freezing the tissues perfectly successful in causing complete anæsthesia in several operations performed at the Farringdon Dispensary by Mr. Dunn. Among these cases were the incision of a carbuncle, opening of abscesses, excision of warts from the vulva and perinæum, and touching large secondary syphilitic ulcers with strong nitric acid, etc. In none of these cases was any pain felt. It appeared to him to be an immense addition to therapeutics.

Mr. I. B. Brown, jun., said that he had composed a mixture of chloroform and other ingredients, which was free from the objections urged against chloroform, as it took away pain but was not dangerous. This rendered Dr. Richardson's apparatus not of such prime importance. In the case of extraction of teeth, the extreme cold would, he urged, be frequently unbearable; and it would be dangerous to use it in any but the external incisions in ovariotomy. As to the operation of Cæsarean section lately performed, it could not be considered a success, since the child had died.

Dr. Camps thought that it was not clear that there was much pain after the external incision in ovario-

tomy; and he was also not sure that harm would result from using Dr. Richardson's apparatus in such cases. He thought that the case of Cæsarian section, as described in the journals, was eminently successful.

Further Remarks upon Embolia affecting the Great Vessels of the Heart. By HENRY C. STEWART, L.R.C.P.Ed. Dr. Stewart, after reading an abstract of his former paper read before the Society (Jan. 19, 1865), described the proofs of the different forms of fibrinous deposits found in the heart after death. He added, in the words of Dr. Richardson, that these proofs were as follows.

1. Of a *post mortem* clot or polypus. Its position upon the upper surface of a red coagulum, and its being easily washed away by a gentle stream of water.

2. Of an *ante mortem* clot or formation: *a.* Its filling a cavity; *b.* Its being grooved externally by a current of blood, or bored by a current through its centre; *c.* Its being firmly adherent to the walls of the heart or vessel by a mechanical or organic tie; *d.* Its structure being laminated, or containing in its centre broken up fibrine; *e.* Its being indented by the surrounding structures.

Dr. Stewart then described the theories advanced by Dr. Richardson, Mr. Lister, and M. Schmidt, as to the coagulation of the blood and hyperinosis. He alluded also to the discovery of fat or fatty matter in the blood by Vanquelin and others; adding some observations of his own upon the blood of a gentleman aged 36 (still living), suffering from polysarca and fatty degeneration of the heart, in which he found oil-globules floating with the blood-discs. He also stated that, in the blood of a prize ox and a prize sheep during the past winter, he found oil-globules in the blood, and some of the blood-dics apparently undergoing a state of fatty degeneration. This latter fact required confirmation; nevertheless, Dr. Stewart thought it not improbable, and remarked that time and trouble would be amply repaid by making further observation. Atheromatous deposits in the coats of the vessels, and in the heart and its valves, were discussed as a prolific cause of embolia; and Lister's views upon the subject were commented on. Meissner's report upon embolia, and the researches of Lancereaux, Panum, Virchow, Lebert, and Henry Lee, were alluded to; also the more recent treatise by Mr. Callender.

Dr. Stewart concluded by quoting cases of Drs. Gairdner, H. Davies, Richardson, and Mackinder, of Mr. E. H. Roe, as well as some of his own, among which was one still under treatment and observation.

Dr. DRYSDALE thought there was no doubt that embolia were to be found in the smaller arteries, such as the femorals, the middle cerebral arteries, or the branches of the pulmonary artery; but he could not help expressing a doubt as to the occurrence of such large plugs as those described by the author of the paper, which would occlude the aorta or pulmonary artery, and thus cause sudden death. He was still inclined to consider such large clots as those as *post mortem* appearances, and as never found before death.

Mr. TIMES related a case where sudden death had occurred, and in which, on making a *post mortem* examination, a large clot was found in the pulmonary artery, which, he thought, had caused death.

The PRESIDENT said that midwifery had furnished more facts towards the elucidation of this question than either medicine or surgery. After delivery, the circulation is often very languid, and phlegmasia dolens may coexist. In some cases, *débris* from the iliac veins and other veins might pass up through the right heart, and thus form nuclei for secondary embolia. Abscesses are often found in the lung from such causes. On the other side of the heart, the causes were well authenticated, and consisted in the fringed state of the aortic valves, on which fibrine coagulated. These might be propelled into the brain, and, when large, caused apoplexy, or, when smaller, inflammation in the brain. Arteritis sometimes occurred in the extremities in the puerperal state. A woman, with disease of the heart and loud murmur, had obliteration of the arteries in both limbs; both of the limbs sloughed and dropped off. There was violent pain in the limbs, pointing to arteritis.

Dr. CAMPS said that, wherever there was an irregular surface, fibrine would be deposited. He could not think that all the cases described by Dr. Stewart were due simply to *post mortem* changes. It was, indeed, difficult to conceive what practical result would be obtained, even were the diagnosis fully made out of embolia existing in the great vessels of the heart.

Dr. STEWART, in reply, said that Dr. Richardson had, he believed, fully described the marks by which we might recognise whether a plug was formed previous to or subsequent to death. No connective tissue could be formed after death.

HYDROPHOBIA. A correspondent of the *Times* writes as follows:—When we were at Ahmednuggur in 1834 we were acquainted with Dr. David Wyllie, civil surgeon there. He told us of a case the day it happened, coming to see us directly after the patient was relieved. That morning a boy was brought into the hospital suffering from hydrophobia. Dr. Wyllie immediately had a pan of live charcoal brought and placed on the ground under a cane-bottomed chair. The boy was entirely undressed, placed on the chair, and enveloped in blankets. Then several grains of mercury (I forget how many) were thrown on the charcoal, and the fumes so impregnated the boy's body that in a quarter of an hour the saliva was pouring out of his mouth; the rigidity caused by the spasms ceased, and the poison came out of the boy. What happened after, whether the malady recurred, I know not; but the boy lived, and so did all other cases treated by Dr. Wyllie when taken in time."

CHOLERA. The *Philadelphia Medical and Surgical Reporter*, speaking of the discussion on cholera in the medical societies, says: "One fact which has been developed by this discussion is worthy of note: while the older practitioners who have passed through previous epidemics are unanimous in advocating the use of measures to arrest vomiting and purging, there is manifest among some of the younger members a disposition to regard these evacuations as fraught with safety rather than danger to the patient, and as indications of an eliminative effort which should only be opposed after the restoration of the natural processes of excretion. The whole matter of difference seems to turn upon the question of the nature of the disease. If it consists merely in a derangement of the nervous functions, the anti-evacuant and neurotic method of treatment must be most efficacious; but if it results from the intrusion of a specific poison, which vitiates the watery portion of the blood to such a degree that the system can no longer tolerate its presence, that method which sustains the vitality of the patient, while it favours rather than opposes the efforts of nature, will be most serviceable. The terrible results of the stimulant and antievacuant treatment during previous epidemics, seem to indicate that any method which shall attempt to guide and to assist the natural processes of the disease, is worthy of trial."

Correspondence.

THE TREATMENT OF CHOLERA.

LETTER FROM A. WHYTE BARCLAY, M.D.

SIR,—Although I did venture to call in question your logical acumen in dealing with Dr. Johnson's arguments, you will, I dare say, appreciate my motives if I leave to the judgment of others the justice of the critique, which no doubt a sense of duty alone prompted you to write with such severity in your last number. My impression certainly was that, by becoming a partisan,* an editor was less competent for the impartial performance of his functions. Your experience teaches you that I am wrong in this opinion.

In the earlier part of this controversy, you will find an earnest disclaimer of any idea of superior logical skill on my part; and, if anything be needed to strengthen my previous statement, let me now add, that I am only too conscious of my own ignorance and short-comings, and that such pretensions as are assumed in your article are as foreign to my habits as to my nature.† We are all, I sincerely trust, humble workers together in the same field of research; and I am sorry if I employed "personality in place of argument", when I ventured, as one of your numerous readers, to express the opinion that Dr. Johnson's method of reasoning from analogy was unsound, and his language vague and ill defined. In giving utterance to this expression in somewhat stronger terms, I very possibly defeated my own end, which was to arouse my readers to a sense of the fallacy, on which they were asked to base their treatment of a disease, which might imperil the lives of thousands of our fellow subjects at no distant date.

The question is, indeed, one of the greatest importance, and involves the gravest responsibility. Dr. Johnson has denounced, in no very measured terms, the almost crime of using astringents in choleraic diarrhœa; and, feeling as I do on the subject, I can scarcely speak in milder language of a theory which I believe to be ten times more destructive. May I venture to ask your patient perusal of a volume recently published by Dr. Macpherson, *Cholera in its Home*, and see what he tells of the saving of life attendant on the use of astringents in the early stages? That book pretends to no theory; but gives a simple unvarnished statement of the results of wide experience in the home of cholera. Once more, then, let me ask the question proposed by Dr. Handfield Jones: is that also the teaching of experience in this country? Pardon me, Mr. Editor, for saying so, but you have never asked this question yourself; and if any useful result is obtained, I fear I shall not be able, as you tell me, "in the midst of so much darkness, to thank you and you alone" for the light.‡

You ask one or two questions, which perhaps you will allow me to attempt to answer. I am sorry that my style is so obscure that you have failed to discover my intention to draw a distinction between a theory and a fact. The fact of obstruction to the pulmonary circulation, is lucidly given in the quotation you have made from the writings of Dr. Parkes; the theory, as stated by Dr. Johnson, is a "poison in the blood" (cholera-cathartine, I suppose), producing "spasm of the pulmonary arteries." Dr. Bodington did not deny the fact; but he asked this question: "Of what advantage is a fine-spun theory respecting capillary spasm?" I do not see that it is not "consistent with logic or fair-play" to point out such a distinction; and I confess that I still think the editorial reprimand severe and uncalled for. This, however, belongs to the duty of an editor, which you tell me I do not understand.

Your second question has been already answered. Far be it from me to "blame you for helping" to get any useful information; but not being acquainted with an editor's duty, I should not have supposed, *à priori*, that a series of leading articles in favour of one particular theory was the very best way of encouraging those who held contrary opinions to state them in your pages. Dr. Bodington's case is to me an apt illustration of its natural consequences.

The third question springs out of a misunderstanding of terms, the fault, no doubt, of my own obscurity. The word "excess" is used by yourself in a sense different from that in which I employed it. Moreover, I did not say *all* secretions. To repress the eruption of scarlatina, or measles, or small-pox, by the application of cold, would be folly or worse; to stimulate it by heat and a close atmosphere, as was once the practice on the "eliminative theory", is alike reprobated in the present day. But, most unquestionably, I would employ any form of treatment that would convert a case of confluent small-pox into the discrete form. I believe that, as "all diseased processes are efforts of Nature", the great question ever present to the mind of the physician ought to be, Is the action excessive or deficient? Shall I attempt to restrain it or to stimulate it, or shall I leave it to follow its own course? I maintain that the assertion, that the process is an effort of Nature, is not of itself any sufficient reason why it should be encouraged.*

And now we come, at length, to the real point at issue. The whole practice is based on the theory, that there is a poison in the blood which can be eliminated by the bowels. May I venture most respectfully to submit, that this is exactly what I want to have proved.† You assert it simply as a fact.‡ Dr. Johnson, in his last paper, modifies his previous statements very considerably. He now calls it, as I have done, a ferment (also an improper name, but nearer the truth than poison); he states, as I have done, that the blood-constituents undergo a change; he reminds us that many persons believe the stools to be poisonous; we know already that the intestinal secretion comes from the blood. I must be excused if I decline to accept such an argument as sufficient proof of the eliminative theory of cholera. Again you must forgive me for contradicting you; but I never did "talk of checking or controlling the eliminative efforts of Nature in diseases,"§ and I

* Is an editor a *partisan* because he says of a theory that it gives a scientific explanation of the pathology of cholera; and because he calls upon the profession to test its value by their experience? ED.

† How does Dr. Barclay reconcile this modest profession with his previous letter? Therein he answered the arguments of men who were honestly and seriously discussing a deeply interesting question, by telling them that their statements were a "jest"; "a fine-spun theory"; that they "were incapable of appreciating the bearing of analogy on argument", or the value of language as a symbol of thought; that he had no "faith in their logical acumen", etc. Is this the language of "humble working"? ED.

‡ If this be not the question, what is it? If we did not bring it before the profession, who did? ED.

* The main question we have all along maintained, is not, whether the effort should be *encouraged*, but whether it ought or not to be *restrained*? ED.

† It seems to us a mere waste of words to argue whether or not there is a poison in the blood in cholera; and equally so, to argue whether there is or not an "eliminative" effort in cholera. ED.

‡ Assuredly, we have never asserted anything of the kind. We have argued of the proposition as being highly rational, as supported by analogy, and as not disproved by experience. ED.

§ Dr. Barclay's words were very like it, at all events—so like, that we do not see the difference. "In other disorders," he says, "we do not hesitate to check a secretion which seems to be excessive, and this we do, although we know it to be an effort of nature." ED.

herefore can give you no explanation of what such a proposition might imply. Will you kindly explain the meaning of the term, taking typhus as your example? It is to me quite unknown what is "the sense in which every practical mind understands" the word "eliminative" as applied to typhus; and yet this is perhaps the most typical of all the blood-poisons.*

I should only weary your readers were I to discuss each of your propositions. To some of them I can yield a cordial assent; in others a false relation of causation seems to me to be asserted; and in the remainder the theory is assumed to be proved which is still under discussion. I need scarcely refer to one or two misprints having occurred in my former letter, as they did not materially alter the sense. My object in that letter was, 1, to avow my own belief that in true choleraic diarrhœa with a clean tongue, to administer castor-oil would be quite unjustifiable; 2, to ask your readers whether they agree or disagree with me in this opinion; 3, to repeat objections, which have never been met, as to the vague sense in which the terms poison and elimination have been used; 4, to assert that the fact of a disease being accompanied by bowel-flux is no reason why a purgative should be administered.

I trust that some of your readers may yet respond to the appeal; and perhaps Dr. Johnson or yourself will favour me with some clear ideas of the sense in which the terms are to be taken, and with some evidence, other than theory, of the advantage of giving purgatives. It might be well to restrict the discussion to choleraic diarrhœa, because some persons believe that in the stage of collapse remedies do not act on the intestinal canal at all.† Dr. Macpherson states that large doses of croton-oil have been taken without increasing the alvine discharges; and cites instances in which poisonous doses of many other remedies have produced no effect.

In conclusion, I must apologise for having been obliged, in self-defence, to occupy so much of your valuable space. I am, etc.,

A. W. Barclay.

Bruton Street, May 28th, 1866.

P.S. Since writing the foregoing letter, I observe, with much regret, that I have *unintentionally* misrepresented Dr. Johnson's theory in using the word "larger." As he speaks of the remarkably bloodless condition of the lungs in cholera, I concluded that he could not mean that the pulmonary arteries were gorged up to their minutest branches. I introduced the word with this idea in my mind, not having at the moment referred to the exact terms he had employed in speaking of it. I am glad to have his own acknowledgment that "evacuation" would be a more proper term for the emptying of the bowels than "elimination." Perhaps, by and bye, the incorrectness of the term "poison" may also be admitted. Meantime, I would ask him to turn back to one of my early letters, and say whether he thinks his third paragraph quite fair.—A. W. B.

* It will be quite time enough for us to deal with "eliminative", as applied to typhus, when Dr. Barclay has told us what the eliminative effort of nature is in typhus. Our words, we beg to remind him, are: "Can he mention one single acute disease (*wherein we admit the presence of a natural eliminative effort*), in which he is able, or, if he were able, would attempt to limit this excess of action?" It is no answer to this question to ask us about the eliminative effort in typhus. He might as well ask us about the eliminative effort in a case of poisoning by prussic acid. Ed.

† Whatever *some persons* may believe, it is, nevertheless, certain that remedies (or perhaps it would be safer to say *materia medica*) will act on the canal during collapse. An army medical officer has lately published cases of cholera treated during collapse with quarter-grain doses of strychnia, which was given at intervals in each case until it produced spasmodic movements of the limbs. Ed.

Letter from A. B. Steele, Esq.

Sir,—Without entering into a critical discussion on cholera, I wish to point out what appear to me to be fallacies in the statements of some of your correspondents.

First, I would notice Dr. Skinner's allegation against the castor-oil treatment, on the ground of its being "homœopathic". Now, in the first place, the doses which Dr. Johnson gives are not in accordance with the "dynamic" theory of Hahnemann; nor can they be said to be an example of "*similia similibus*", inasmuch as castor-oil is not identical with "cholera-cathartine" (if such an agent exists). In order to constitute "*similia similibus*", it must be shown either that castor-oil will produce cholera, or that it is identical with the essential cause of that disease, whatever it may be. Assuming the Johnsonian theory of cholera to be correct, to attempt to get rid of the *materies morbi* by a mild aperient purgative cannot, I think, by any fair force of argument, be said to be anything but rational, and in strict accordance with the recognised principles of sound therapeutics. The same principle is constantly acted upon in the treatment of other diseases of which purging is a prominent symptom, such as dysentery and certain forms of diarrhœa. I feel strongly that, whether the views enunciated by Dr. Johnson are refuted or confirmed by future observation, it is unfair towards him, and in no respect calculated to forward the interests of medical science, to endeavour to throw discredit upon his doctrines by stigmatising them as empirical. In the present state of our knowledge of the essential nature of the disease in question, the only true answer to Dr. Johnson's views will be found in the results of a fair trial of his system, as compared with other modes of treatment.

Another fallacy is the constantly repeated assertion that "we are in gross darkness as to the real nature and modes of action of cholera," and similar statements, implying that the disease is not understood by physicians. Now I venture to assert that most of us are as familiar with the phenomena of cholera as with those of typhus, scarlatina, measles, small-pox, and many other diseases; and, further, we know just as well what remedies will (to use the hackneyed conventional misnomer) cure the one as the other. Will those who call cholera the opprobrium of the profession, because we have no knowledge of a specific remedy which can materially modify its essential character or control its course, tell us by what means the natural course of any of the other diseases alluded to can be diverted—safely diverted—from their regular course? What sound physician pretends he can cure either measles, scarlatina, or small-pox? The main difference between cholera and other diseases, *quoad* the results of treatment, seems to consist in the fact that cholera runs its course rapidly, and terminates fatally in a vastly preponderating number of instances, as compared, perhaps, with any known disease of these times. If we lose fifty per cent. of our cholera patients, and only fifteen or twenty per cent. of our typhus patients, it does not necessarily follow that we know more of the essential nature, or are really more successful in the application of remedies, in the one than in the other. The true explanation probably is, that the one disease is more fatal than another. When we have discovered the essential nature of cholera, we shall have attained an insight into that malady which at present is denied us in many others generally considered much simpler and less formidable. How can we explain the cause of the eruption of small-pox? Who can tell us how to prevent it; to hasten it; to prevent confluence, ma-

lignancy, and death? Why, then, is cholera an *opprobrium medici*, any more than phthisis, cancer, scrofula, or any other disease whose tendency is less frequently, but still often as surely, towards a rapidly fatal termination?

I wish not to be misunderstood. These views are not necessarily those of therapeutic scepticism, or a want of faith in the true mission of the physician. Although we can seldom, very seldom, or at least in only a very limited number of maladies, cure the disease, we may do much to allay suffering; and not unfrequently, by directing the avoidance of what is hurtful, or by collateral aid (so to speak) to Nature's operations, may turn the scale in critical cases. Further, in the case of cholera, we may, setting out with the impression that at present we have no specific, follow the very creditable example of Dr. Johnson, and, by careful observation and patient investigation, endeavour to lay down sound principles for the more suitable management of the disease that we are unable to cure. I am, etc.,

A. B. Steele.

Liverpool, June 2nd, 1866.

Letter from Geo. Johnson, M.D.

Sir,—If I had quoted Sydenham as an authority in favour of treating diarrhœa by cathartics, or against the use of opium in any circumstances or in any stage of the disease, Dr. Ransome might with some reason have complained of my inaccuracy in not giving the passages which he has supplied. I, however, did nothing of the kind. Let me remind Dr. Ransome that I introduced my quotation from Sydenham with the following question and answer, "What is the effect of opium when a quantity of morbid secretion has been poured into the intestinal canal? Obviously, it must retard the escape of these offensive matters, and so prolong the disease. What says Sydenham upon this point? 'By checking the disease at its onset, I should wear out the patient by an intestine war, etc.'" I then went on to say: "This statement (viz., Sydenham's) is quite in accordance with my own experience, that the effect of astringents, and especially of opiates, in the early stage of epidemic diarrhœa, is to prolong the disease, and in the same degree to increase the risk of disaster. The only period of the disease at which opium can be given with safety and advantage, is after the elimination of the intestinal excreta. It then allays pain and irritation, and often affords great relief and comfort to the patient.....Whether an opiate does harm or good, then, will depend upon the period of the disease at which the dose is given. The rule is not to close the door until 'the enemy' has been expelled."

The question under discussion in this part of my paper was not the effect of cathartics, but the use of astringents and opiates in the treatment of diarrhœa. It will be seen that, with reference to this question, Sydenham's doctrine is quite in accordance with my own; and I might have quoted the passage from paragraph 6, on the use of laudanum, in confirmation of my own statements.

I have always held that the question whether an epidemic diarrhœa should be treated, in its early stage, by mild evacuants, or simply by diluents, is of far less practical importance than the question of treating it from the first by opium and direct astringents. It is very remarkable that so many advocates of the latter mode of treatment should assume that cases of choleraic diarrhœa not so treated must inevitably, in a large proportion of cases, pass on into the stage of collapse.

Dr. Skinner appears to be very anxious to prove that the evacuant treatment of cholera is "purely homœopathic." I believe that I have already proved the contrary. The only true homœopathic treatment of cholera would consist in making the patient swallow the specific poison contained in the cholera stools. Is Dr. Skinner himself a homœopath? and is it his intention to do me honour by claiming me as an ally? If so, I decline the honour; but I have neither time nor inclination for controversy on so comparatively unimportant a question.

In reply to Dr. Skinner's request to be informed why I consider the large intestine to be more torpid and less sensitive than the jejunum and ileum, I have only to say that the abundant accumulations of fæculent matter which often occur in the large bowel, and the bowel's tolerance of those accumulations, appear to me to afford conclusive evidence upon that point. I am, etc.,

George Johnson.

Savile Row, June 5th, 1866.

CHOLERA AND DIARRHŒA.

Letter from Daniel Noble, M.D.

Sir,—As a practitioner who had largely to deal with cholera both in 1832 and in 1849, I beg for one to respond to your request for information, by stating the following facts, which, on each occasion, came under general observation as well as my own.

1. In an immense proportion of cases of choleraic collapse, there had preceded for several days a painless diarrhœa of a serous character.

2. Many such cases of serous and painless diarrhœa came under medical treatment, when, by moderate doses of opium, with rest and diluents, it was almost invariably arrested, and was rarely, if ever, followed by collapse.

3. The ordinary summer diarrhœa, or that brought on by aperient drugs or unsuitable diet, frequently took on the serous form, and was succeeded by the graver phenomena.

I will not take up space by reasoning on the foregoing statements, but will leave them to suggest to yourselves and your readers whatever conclusion they may. I am, etc.,

Daniel Noble.

Manchester, May 26th, 1866.

TREATMENT OF RANULA BY GALVANIC CAUTERY.

Letter from F. C. Skey, Esq.

Sir,—*Re ranula*, I see in your last number a report of two cases of this malady treated with galvanic cautery, by an Italian surgeon (Dr. Scarenzio). Of the above cases, one succeeded and one failed. The success of the treatment cannot be called brilliant. In both cases the cyst was small, and the disease trivial, which is more than can be said of the remedy. The galvanic current was applied for a quarter of an hour in the first case, and it produced an eschar four-tenths of an inch in diameter. In the second case, the eschar produced was in diameter more than an inch. It was detached after six days, leaving a wound which closed in about ten weeks, but the disease returned.

I take it for granted that these curious experiments on human suffering stand alone, or were they the precursors of a renewed series yet to be published for the benefit of the profession and the public? Are they now published as a guide, or as a warning?

I do not claim the credit for a larger knowledge of this disease than other men, who like myself have

ad thirty odd years of experience of their treatment, at I have seen a good many varying in size from iat of a pistol-bullet to that of a large orange, the sser ranula having a thin, almost translucent cyst, ith blue veins meandering over it, the larger arieties having a fibrous cyst of one-eighth of an ch in thickness, extending upwards, so as to press ie tongue upon the soft palate, a position fatal of ourse to speech, and almost to deglutition. These tter forms present the appearance of a large mour occupying the submaxillary region and exending down the side of the neck to the level of the yroid cartilage, the nature of the disease being adily detected by examination within the mouth.

Whether ranula is a dilated duct of the submaxilry or sublingual gland. I do not know, but I on ne occasion extracted a small stone from an orifice the cyst. These cysts are not confined to the blingual region, but are occasionally found over ie upper maxillary bone, and producing considerable rojection and deformity of the cheek.

Now if in place of applying galvanic cautery, or utting out a portion of the cyst and applying itrate of silver to the interior, the surgeon will arm curved needle, and draw a single thread through ne tumour leaving the knot within the mouth in the ase of small ranulæ, and bringing a longer needle ut on the side the neck armed as above with the hread brought out at the angle of the mouth, I hink the operator will be rather astonished at the apidity of the cure. I have known a case of ranula f ordinary size absolutely cured in forty-eight hours. But this is unusual. I prefer this treatment to that by he galvanic cautery!

I am, etc., F. C. Skey,
Consulting Surgeon to St. Bartholomew's Hospital.
24, Mount Street, Grosvenor Square, May 21st, 1866.

A PROPOSED CURE FOR CATTLE-PLAGUE.

Letter from Charles H. Moore, Esq.

Sir,—In questions relating to the origination of aluable scientific thought, it is well to clear up all oubts as to the independence of different men by hom similar suggestions may have been almost ontemporaneously made. I happen to be in a posiion to contribute to this object in respect to the ery interesting and important proposals for the reatment of the Cattle-plague, which have been oncurrently issued by Dr. Markham and Dr. Protheroe Smith; and I gladly acquaint you with what know on the subject.

On March 26th, in the present year, I met Dr. rotheroe Smith, by appointment, to hear from him he proposal which he has lately communicated to he *Times*, and to which he had referred in previous onversations. He stated that the inquiry for a reedy for the Cattle-plague had been somewhat reproachfully pressed upon him by a non-medical riend; he explained his views of the nature of the lisease, as based on Mr. Gamgee's description of the *post mortem* appearances; and he expressed an eager hope that a remedy was within our reach in the evauation of the diseased blood, and the substitution or it of the blood of healthy slaughtered animals, particularly those of a species not liable to the plague. We discussed the question of the suitableness of the blood of one species of animals for maintaining the life of another species, especially with regard to the comparative size of their blood-corpuscles and their capillary vessels; and we further agreed to conduct experiments, with a view to determine the capacity of an animal for healthy life after exchanging its blood for that of a different animal. Dr. Smith, moreover, stated his expectation that, if found suitable for the Cattle-plague, the principle of his treatment would be applicable also to some human diseases; of which, amongst others, he specified phthisis in his department of practice and cancer in mine.

I afterwards called on Mr. Wm. Fairlie Clarke, the author of the *Manual of Surgery*, whom Dr. Smith had previously interested in the investigation, and debated with him the reasonableness and feasibility of the plan.

On April 12th, in conversation on the subject of the British Medical Journal, Dr. Markham acquainted me with the nature of Dr. Panum's experiments; mentioned his high opinion of their value; expressed his surprise that no practical use had yet been made of them; and told me of his intention to publish an abstract of them in the Journal. As Dr. Smith's communication to me on this very subject had been confidential, I was precluded from introducing it to Dr. Markham; and I merely expressed a hope that he would make so important a publication without delay. I was the more desirous of his doing this immediately, as it might then become unnecessary to make the experiments to which I was pledged with Dr. Smith and Mr. Clarke.

The next occurrence, after the lapse of a month, and upon the completion of the Report of the Government on the Cattle-plague, was the independent publication of their respective proposals by Dr. Markham and Dr. Protheroe Smith, in each case without my knowledge or suggestion, Dr. Markham's publication, in the British Medical Journal of the 12th May, was issued in London on Friday, the 11th. Dr. Smith's, written, as he informed me, on the 11th, before the appearance of the Journal, was printed in the *Times* of Monday, the 14th.

I am, etc., Charles H. Moore.
102, Piccadilly, May 21st, 1866.

[Dr. Markham's proposal was printed on the 10th, and published in the Journal on the 11th. Dr. Protheroe Smith's letter, containing a like proposal, is dated the 11th, and appeared in the *Times* on the 14th. As far, therefore, as *priority of publication* goes—if it be worth anything—it lies with Dr. Markham. No doubt a similar idea had independently struck Dr. Smith, as it had Dr. Markham, long before publication. Editor.]

Geographical Society. At the recent annual meeting Sir Roderick Murchison presented the Royal medals. The Founder's Medal was presented to Dr. T. Thomson, F.R.S., for his exploration of the Western Himalayas and Thibet, and for his work thereon, in which he described for the first time the true physical geography of those regions, as well as their botany and geology, and the marks of glacial action in those lofty mountains. The Patrons' Medal was awarded to Mr. W. Chandless, M.A., for his recent unaided exploration of the river Purus from its mouth on the river Amazon nearly to its source, a distance of one thousand eight hundred and sixty-six miles, and for laying down the course of this previously undefined great stream by a continuous series of astronomical observations of latitude and longitude, and compass bearings. A purse containing a hundred guineas was next presented to M. Du Chaillu to reimburse him for the loss of his instruments in Western Africa, and also as a testimonial of the value of his services to the geography and chartography of the region he explored. A gold watch was also awarded to Moola-Abdul-Medjid, for services rendered to geographical sciences by his adventurous journey from Peshawur to Kokand, along the upper valley of the Oxus, and across the Pamir steppes.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND. The following members of the College, having undergone the necessary examinations, were admitted Licentiates in Midwifery at a meeting of the Board, on May 30th.

Anderson, David Hawley Burn, Edinburgh; diploma of membership dated April 24, 1866
Bolton, Reuben, M.D. & M.C. Queen's University, Ireland, 1865, Bangor, co. Down (not a member)
Byles, James Cotton, L.S.A., Albert Terrace, Victoria Park Road; June 24, 1859
Creed, John Mildred, Melbourne, Australia; April 24, 1866
Ferguson, Hugh, Haverstock Hill; April 24, 1866
Gibbes, John Murray, M.B. & M.C. Aberdeen, Sidmouth, Devon; November 15, 1865
Johnston, David, Magherafelt, co. Derry; May 22, 1866
Riley, Joseph, Barnes; April 27, 1866
Shannon, George, M.D. Queen's University, Ireland, Magherafelt, co. Derry; January 26, 1864
Smith, Joseph Wm., Weaverham, Cheshire; April 27, 1866
Stocks, Frederick, Wakefield; April 25, 1866
Thurston, W. French, South Bank, Notting Hill; April 27, 1866

It is stated that three out of the fifteen candidates failed to acquit themselves to the satisfaction of the Board.

APOTHECARIES' HALL. On May 31st, 1866, the following Licentiates were admitted:—

Bond, Thomas, Carey Street, Lincoln's Inn
Cullingworth, Charles James, Bawtry, Yorkshire
Greene, Jas. Shirwen, St. George's, near Wellington, Shropshire
Lloyd, Ridgway Robert S. C. C., Doncaster
Noel, Vincent Edmund, Westbury Terrace, Plymouth
Owen, Richard Walter, Withers, Shrewsbury
Smith, Frederick, Westminster
Smith, Joseph William, Weaverham, Cheshire
Upton, Herbert Chrippes, Petworth Park, Sussex

At the same Court, the following passed the first examination:—

Worts, Charles James, Guy's Hospital

As Assistant:—

Wilson, William F. G., Sympson, Fenny Stratford, Bucks

APPOINTMENTS.

ARMY.

ARDEN, Staff-Surgeon W., retiring on half-pay, to have the honorary rank of Deputy Inspector-General of Hospitals.
BINDON, Staff-Surgeon H. V., M.D., from half-pay, to be Staff-Surgeon, *vice* Staff-Surgeon-Major W. Arden.
CHURCHILL, Staff-Assistant-Surgeon A. F., M.D., to be Assistant-Surgeon 31st Foot, *vice* W. Grantt, M.B.
FASSON, Surgeon S. H., M.D., Royal Artillery, to be Surgeon-Major, having completed 20 years' full-pay service.
GRANTT, Assistant-Surgeon W., M.B., 31st Foot, to be Staff-Surgeon; and subsequently to be Surgeon 87th Foot, *vice* T. Carey.
HANBURY, Surgeon J. A., M.B., 63rd Foot, to be Surgeon Royal Artillery, *vice* T. L. Nash, M.D.
JOHNSON, Assistant-Surgeon F., M.B., 13th Hussars, to be Assistant-Surgeon 108th Foot, *vice* T. D. Milburn.
KINAHAN, Assistant-Surgeon J., Royal Artillery, to be Staff-Assistant-Surgeon, *vice* W. H. Price.
MILBURN, Assistant-Surgeon T. D., 108th Foot, to be Assistant-Surgeon 13th Hussars, *vice* F. Johnson, M.B.
NASH, Surgeon T. L., M.D., Royal Artillery, to be Surgeon 63rd Foot, *vice* J. A. Hanbury, M.B.
PRICE, Staff-Assistant-Surgeon W. H., to be Staff-Surgeon, *vice* Staff-Surgeon E. M. Macpherson.

ROYAL NAVY.

CLAPP, William F., Esq., Assistant-Surgeon, to the *Royal Adelaide*.
LLOYD, William H., M.D., Surgeon, to the *Jason*.
M'CURDY, Benjamin H., Esq., Assistant-Surgeon, to the *Excellent*.

VOLUNTEERS, (A.V. = Artillery Volunteers; R.V. = Rifle Volunteers):—

BLOXAM, J. A., Esq., to be Honorary Assistant-Surgeon 1st Middlesex A.V.
BLYTHMAN, C. S., Esq., to be Honorary Assistant-Surgeon 40th West Riding of Yorkshire R.V.
DOWNING, E., M.D., to be Assistant-Surgeon 1st Administrative Battalion Kent R.V.
GRIEVE, R., Esq., to be Assistant-Surgeon 1st Administrative Battalion East Riding of Yorkshire R.V.
JEFFERSON, T. J., Esq., to be Honorary Assistant-Surgeon 9th East Riding of Yorkshire R.V.
ROSE, H. C., Esq., to be Assistant-Surgeon 3rd Middlesex A.V.
ROWE, C. R., Esq., to be Surgeon 1st Administrative Battalion Dorsetshire R.V.

BIRTHS.

ALLINGHAM. On June 5th, at 36, Finsbury Square, the wife of W. Allingham, Esq., Surgeon, of a son.
ARNISON. On June 1st, at Allandale Town, Northumberland, the wife of George Arnison, Esq., Surgeon, of a daughter.
BOWER. On May 26th, at Windsor, the wife of E. Bower, M.D., of a daughter.
KINGSFORD. On June 1st, at Upper Clapton, the wife of Charles D. Kingsford, M.D., of a daughter.
LYSTER. On June 3rd, at Liverpool, the wife of C. E. Lyster, M.D., of a daughter.
STOKES. On May 28th, at Canonbury Square, the wife of Henry J. Stokes, M.D., of a daughter.
TANNER. On May 31st, at Henrietta Street, Cavendish Square, the wife of *Thomas H. Tanner, M.D., of a daughter.
TERRY. On May 28th, at Newport Pagnell, the wife of *Charles Terry, Esq., of a son.

MARRIAGES.

BELCHER, William Douglas, Esq., of Kennington, to Edith Anna, daughter of William M. BOASE, M.D., of Plymouth, at Kennington, on May 4.
CROWTHER, Edward, Esq., second son of Barker Crowther, Esq., Moor Allerton, Leeds, to Eliza Anne, eldest daughter of *John SKEVINGTON, Esq., of Ashbourn, on June 6.
DAVIS, Major Gronow, V.C., Royal Artillery, to Anna Wilhelmina Mary, fourth daughter of *H. Cooper READE, Esq., Surgeon-Major, at Clifton, on May 30.
EASTCOTT, James C., Esq., Surgeon R.N., to Emily Catharine, only surviving daughter of William ROBERTS, Esq., H.M. Inland Revenue, London, on June 2.
FORSHALL, Francis H., Esq., L.R.C.P., of Highgate, to Frances Maria, eldest daughter of W. W. SCRIMGEOUR, Esq., of Highgate, on May 31.
*PROBERT, James, Esq., Plymouth Ironworks, Merthyr Tydfil, to Anne, youngest daughter of the late Thomas MORGAN, Esq., of the Graig, Merthyr Tydfil, at Bedwas, on May 29.
TUCK, William H., Esq., eldest son of the Rev. W. G. Tuck, M.A., of Tostock House, Suffolk, to Jane St. John, only daughter of John Wreford BUDD, M.D., of Plymouth, on May 29.

DEATHS.

ANDERTON. On May 20th, at Wavertree, near Liverpool, aged 72, Mary Elizabeth, wife of *Henry Anderton, M.R.C.P.Ed.
COLLET. On May 27th, at Worthing, aged 18, William Edmond, second son of *Henry James Collet, M.D.
HAYNES, Raymond Levi, Esq., Surgeon, at Haringey Park, Crouch End, Hornsey, aged 57, on May 31.
MARTIN. On May 26th, at Ipswich, Hannah, wife of *Robert Martin, Esq., late of Holbrook.
RITCHIE, David, M.D., late Deputy Inspector-General of Hospitals, Bombay Medical Service, at Dalgairn, Cupar, Fife, on May 28.
SHUTE. On May 26th, at Greenwich, aged 22, Louisa, eldest daughter of Gay Shute, Esq., Surgeon.
SURRAGE. On June 3rd, at Downend, Henry J. L., only child of *James Surrage, M.D., of Wincanton.

ERRATUM.—The late Dr. Gilliland, of Hereford, died at the age of 55, not at 81, as erroneously stated last week.

UNIVERSITY OF CAMBRIDGE. At a Congregation holden on May 31, the honorary degree of Doctor of Law was conferred on Professor Adam Sedgwick, M. Alphonse L. P. de Candolle, the celebrated French botanist, and Dr. Joseph Dalton Hooker.

UNION MEDICAL OFFICERS IN IRELAND. On Monday last, Mr. M'Evoy moved a resolution to the effect that the time had now arrived for the Government to adopt the recommendations of the Select Committee of 1858, that "Her Majesty's Government should take into consideration the claims of Ireland to a grant of the half-cost of medical officers of unions, with the view of providing for the same in future, as is now the practice in England and Scotland," fortified, as such recommendation is, by the Report of the Select Committee on Taxation of Ire- in June 1865. The Chancellor of the Exchequer intimated his readiness to grant the concession required, and would make the necessary provision in next year's estimates.

ENEDEK. The first among the generals of tria is a Hungarian. He was born in 1804 at enburg (Hungary), and was the son of a medical essor.

A RUE LARREY, la Rue Dupuytren, and la Rue oine-Dubois—streets in the neighbourhood of the is School of Medicine are destined to be pulled n.

N OVERDOSE OF MORPHIA. On the 2nd inst. an uest was held by Mr. Bedford, on Mr. W. Gravatt. deceased had been ill about ten months, and was nded by Dr. Poole. On the preceding Tuesday Poole wrote a prescription, and said, "This is to given at night if necessary, but not otherwise, and a only the half of it." The whole of it was given leven o'clock by the nurse. About half-past six he morning Mr. Gravatt was making a curious e and gasping. Dr. Poole was sent for, but he g out, Mr. Langston was called in. The draught ained four grains of muriate of morphia, the of which was to be taken at once. The jury re- ed the verdict:—"We find that William Gravatt accidentally poisoned by an overdose of morphia, n inadvertently by his nurse, to whom, in the 's opinion, sufficient caution was not given by medical man in attendance on the deceased."

OCAL ANÆSTHESIA IN VETERINARY SURGERY. Dr. ardson's method of local anæsthesia has been lied by the Messrs. Mavor in operations on the e, with great success. In one operation, that of g a mare, the leg was first shaved; then the r spray was applied from the knee to the foot l insensibility was produced; after which the al cautery was carried sixteen times over the , apparently without producing pain. The oper- n of firing on the hock-joint was also in another performed with complete success. In another, ird operation, the metacarpal nerve was divided each side, immediately above the fetlock. The having first been made insensible, the nerve laid bare, raised by a curved needle with a blunt t, subjected to the ether-spray, and, when the e-structure was entirely frozen, was divided out pain. In a fourth case, after docking, the r-spray was directed over the bleeding surface, re applying the actual cautery to stop the hæ- rhage. The animal gave no sign of pain under iron; and the bleeding was effectually stopped. said that, in the horse, the skin assumes rather ue appearance, and the nerve-tissue undergoes eme contraction. The anæsthesia is produced in the minute, and more ether is not required for the human subject. All the wounds have ed well, without any appearance of slough.

RIZES OF THE COLLEGE OF SURGEONS. The ncil of the College of Surgeons has just announced the subject for the Triennial Anatomical Prize, fifty Guineas, is "The Anatomical Structure of e parts of the Eyeball which are contained within Sclerotic and Cornea; with illustrations drawn each of the five great divisions of the Verte- a." For the Jacksonian Prize, of Twenty neas, there are two subjects for 1866, viz., "Ovario- y; Pathology and Diagnosis of Cases suitable for Operation, with the best Method of performing nd the Results of recorded Cases;" and "Frac- s into Joints; their Modes of Union, with the tment and Result. The Dissertation to be trated by Cases, Preparations, and Drawings." re are also two subjects for prizes for 1867, viz., ne Injuries and Diseases of the Jaws, including e of the Antrum, with the treatment by opera- or otherwise; the dissertation to be illustrated preparations and drawings;" and "The various Deformities resulting from Severe Burns on the surface of the body, the Structural Changes occasioned by these Injuries, the best modes of preventing Deformities, and the Treatment, Operative or otherwise, adapted to correct them; the dissertation to be illustrated by Cases, Drawings, Photographs, and Casts."

PRESERVATION OF MEAT. At a recent meeting of the Pharmaceutical Society, at Edinburgh, Mr. J. Mackay brought before the meeting a new method of preserving beef, mutton, and other animal substances used for food, in a perfectly fresh condition, free from salt or any other ingredient likely to interfere with the flavour or condition of the material so preserved. Mr. Mackay stated that the discovery was due to Dr. Redwood. In the course of last summer Dr. Redwood commenced a series of experiments with paraffin. The following peculiarities of this substance were referred to, viz., its solidity, whiteness, tastelessness, and entire freedom from smell. At 130° it becomes fluid, and may be raised several hundred degrees above 212°, without altering its condition. It was found that animal substances, when immersed in a bath of paraffin heated to about 300°, rapidly lost their air and water, leaving the juice of the meat to be absorbed by the joint under operation. According to the thickness of the mass of meat, the time of its immersion is increased or diminished. By this process the germs of destruction are found to be quite destroyed, very much on the same principle that the various articles of food are prepared in hermetically sealed vessels, or the calf-foot jelly bottled and kept in a perfect state of preservation. When the meat has thus been allowed to remain a sufficient length of time in the highly-heated paraffin, it is removed, and immediately dipped into a bath containing the same material, at a lower temperature; and after two or three dippings the process is complete, and the substances thus preserved are ready either for home or foreign consumption. Already various samples have been prepared, and, after three months' keeping, have been cooked and found perfectly sweet, and free from any taint whatever.

POISONING BY CARBONIC OXIDE: SUCCESSFUL TRANSFUSION OF BLOOD. Dr. A. S. Meldon reports an interesting case as having lately occurred in Berlin. Early on April 12th, a young man was found apparently lifeless on the floor of his apartment. Dr. Badt was immediately in attendance, and declared it to be a case of poisoning by carbonic oxide gas. He had the body at once removed to a spacious room having free access of air. Artificial respiration was had recourse to, and every effort made, both by Dr. Badt, and Dr. Sachs, to resuscitate the man. At first there seemed but little hope; but the physicians had the satisfaction of perceiving a return of the natural respiration, accompanied by a feeble pulse. The patient gradually improved, and there now seemed every prospect of recovery. Towards two o'clock, however, the pulse became almost imperceptible; the respiration became slow and short, and in fact, all the symptoms of approaching death began to develop themselves. As the last resource, Dr. Badt proposed the operation of transfusion. Professor Martin consented to operate, and at three o'clock, assisted by his son, and by Drs. Badt and Sachs, he introduced a previously well-warmed tube into the median vein, and slowly injected blood. The result was extraordinary: the pulse increased in strength, the respiration became deeper, the eyes immediately opened; the cheeks, before of a ghastly paleness, reddened, and in a few minutes the patient was able to swallow a little water. Nevertheless, he lay in an

almost unconscious state until midnight. The next morning, however, he was so far recovered as to be pronounced out of danger. The blood was taken from his brother, as well as from a commissionaire. Cases of poisoning by carbonic oxide gas are of frequent occurrence in almost every part of Prussia, owing to carelessness in shutting the valve of the stove, by which the gas, generated by the burning wood or coal, is unable to escape. (*Medical Press and Circular.*)

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....Metropolitan Free, 2 P.M.—St. Mark's for Fistula and other Diseases of the Rectum, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TUESDAY. .... Guy's, 1½ P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.

WEDNESDAY... St. Mary's, 1 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.

THURSDAY.....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Great Northern, 2 P.M.—London Surgical Home, 2 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.

FRIDAY..... Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

SATURDAY..... St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1·30 P.M.—Charing Cross, 2 P.M.—Lock, Clinical Demonstration and Operations, 1 P.M.—Royal Free, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

TUESDAY. Royal Medical and Chirurgical Society. 8 P.M., Ballot. 8.30 P.M., Mr. Balmanno Squire, "On the Influence of Pregnancy, Lactation, etc., on Chronic Disease of the Skin"; Dr. T. C. Allbutt, "On Premature Menstruation; and on Myeloid Transformation of the Lung."

REGISTRATION OF DISEASE.

RETURN of new cases of disease coming under treatment in public practice. (A.) Manchester and Salford (Sanitary Association). (B.) Preston (R. C. Brown, Esq.). (C.) St. Marylebone, London (Dr. Whitmore). (D.) Birmingham (Dr. Alfred Hill).

In the 5 weeks ending March 31st, 1866.

Diseases.	A.	B.	C.	D.
Small-Pox	11	21	12	1
Chicken-Pox	—	3	3	—
Measles	15	22	72	124
Scarlatina	28	—	13	11
Diphtheria	—	—	1	5
Hooping-Cough	111	43	78	145
Croup	3	1	1	5
Diarrhœa	144	15	374	136
Dysentery	36	5	3	10
Cholera	—	—	—	—
Erysipelas	37	2	26	18
Insanity	47	4	20	1
Bronchitis and Catarrh	1337	197	1287	952
Pleurisy and Pneumonia	93	8	45	26
Carbuncle	—	—	—	5
All other diseases and accidents	5560	569	4531	3476
Totals	7422	890	6472	4915

COMMUNICATIONS have been received from:—Mr. RICHARD GRIFFIN; Dr. D. MACKINDER; Dr. BROADBENT; Dr. GEORGE CANNEY; Mr. T. M. STONE; THE HONORARY SECRETARY OF THE HARVEIAN SOCIETY OF LONDON; Mr. M'KEAND; Dr. LEARED; Dr. BARCLAY; Mr. BARWELL; Mr. J. B. CURGENVEN; Dr. R. J. SPITTA; Mr. A. B. STEELE; INQUIRER; Dr. MITCHINSON; THE HON. SECRETARIES OF THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY; Dr. T. H. GREENHOW; Dr. C. HOLMAN; Mr. D. KENT JONES; Dr. GEORGE JOHNSON; Dr. HOLT DUNN; Mr. T. WATKIN WILLIAMS; and Dr. J. SHEPHERD FLETCHER.

TO CORRESPONDENTS.

*** *All letters and communications for the* JOURNAL, *to be addressed to the* EDITOR, 37, *Great Queen St., Lincoln's Inn Fields, W.C.*

COMMUNICATIONS.—To prevent a not uncommon misconception, we beg to inform our correspondents that, as a rule, all communications which are not returned to their authors, are retained for publication.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

THE pressure on our space still obliges us to defer the publication of several communications.

TOSSING FOR AN UNION.—We do not think it would be useful or advisable to publish any further correspondence on this subject.

DR. HOLT DUNN thanks us for giving publicity to the Baker Brown Testimonial Committee. But he wishes to "explain one or two misconceptions." He has "no hesitation in stating that the proposer and seconder of the resolution were Dr. Routh and Dr. Peter Smith." But Dr. Dunn does not say who was present at the meeting. The above two gentlemen, with Mr. Propert, are at present the only three persons who have been named as having been present. Dr. Dunn, moreover, protests against our remarks that Mr. Brown's claim to a testimonial must mainly be founded on the services which he has rendered to science at the Surgical Home. Dr. Dunn says that his claims to "grateful recognition" from both profession and laity commenced twenty years ago, when he first set going the founding of St. Mary's Hospital. In reference to our remark about "eliciting an expression of opinion outside the somewhat narrow limits of the staff of the Surgical Home," Dr. Dunn says, "That it is in consequence of the frequent expressions of opinion elicited from medical visitors to the Surgical Home, Mr. Propert and myself, and those with whom I am associated, have been induced to give them substantial force in the manner we are now doing."

CLITORIDOTOMY.—SIR: The idea of removing or destroying the clitoris is not new, as already some of your correspondents have noticed; not only has it been proposed in previous ages, but has been executed in modern times. A case of Dieffenbach's is related in Graefe and Von Walther's *Journal* of, I think, 1821 or 1822. So the thing is not a novelty; but can now only amuse the profession.

I am, etc., A. B.

CONTAGION OF CHOLERA.—SIR: Allow me to call the attention of your readers to the two short paragraphs on cholera in the JOURNAL of May 26th. In the first of these, the disease is shown to be contagious, by a woman being attacked who had laid out the body of one who had died of it. In the second, Dr. Trench is said to have given "it as his opinion, that the disease, with ordinary precautions, is not contagious". It would be the safest course if medical men were to bear in mind the many and incontrovertible facts recorded as to the contagious character of cholera, and take all necessary precautions against it. Whoever is in doubt on the subject, let him look through the pages of the medical journals of the last twelve months only.

I am, etc., J. BRENDON CURGENVEN.

11, Craven Hill Gardens, June 4th, 1866.

CORONER'S FEES.—SIR: Can you inform me whether medical superintendents of asylums for the insane are entitled to coroner's fees? A patient was lately brought to me who died immediately after admission, and I received the usual order from the coroner to make a *post mortem* examination and analysis, and report thereon at the inquest, for which I did not receive any fee, nor am I entitled to one, according to the coroner's law.

I think I remember it being recorded in one of the numbers of the JOURNAL, that medical superintendents of asylums and other public institutions are legally entitled to coroner's fees. Is this the case? and can you refer me to the Act of Parliament on the subject, the Lunacy Acts being silent on this point?

I am, etc., INQUIRER.

[The law as regards hospitals is, that the medical witness is entitled to a fee if the patient die before admission, even if it be at the door of the hospital; but not if he die within the hospital walls. EDITOR.]

STATISTICS OF CANCER.—Mr. Moore has the pleasure to acknowledge the return of "Registers for Cases of Cancer", from R. Wilbraham Falconer, M.D., Bath; Henry Stear, Esq., Saffron Walden; J. Hughes Hemming, Esq., Kimbolton; John Ward, M.D., Glossop; Henry W. Freeman, Esq., United Hospital, Bath; Morell Mackenzie, M.D., Hospital for Diseases of the Throat, London; A. J. Newman, Esq., North Devon Infirmary, Barnstaple; H. R. Hayes, Esq., Basingstoke; Edward Mackey, Esq., the General Dispensary, Birmingham; John S. Bartrum, Esq., Bath; G. H. Philipson, M.A., M.D.Cantab., Newcastle-on-Tyne; Thomas Sympson, L.R.C.P., Lincoln.

Observations

ON

THE RESTORATIVE TREATMENT OF PNEUMONIA:

ING A REPLY TO THE CRITICISMS OF THE BRITISH MEDICAL JOURNAL.

BY

OHN HUGHES BENNETT, M.D., F.R.S.E.,

PROFESSOR OF THE INSTITUTES OF MEDICINE, AND SENIOR PROFESSOR OF CLINICAL MEDICINE IN THE UNIVERSITY OF EDINBURGH.

the leading article of the BRITISH MEDICAL URNAL for November 18th, 1865, a criticism was blished on my recent work, *The Restorative Treatnt of Pneumonia*, the object of which was to show at I was in error, at least in one particular; viz., the matter of bleeding as a remedy in pneumonia. ne reply to that article was refused admission into e JOURNAL, on the ground that I had spoken of e editor by name, instead of respecting the incogto which, for the purposes of this discussion, he d chosen to assume. I beg leave, therefore, to fer the readers of the BRITISH MEDICAL JOURNAL the *Lancet* of last December and January, in nich the controversy between Drs. Markham, Barby, and myself, as to the statistics of, and bleeding , pneumonia, was carried out to a conclusion openly s I think all such controversies should be), and in nich the objections of those gentlemen, in my inion, were fully and satisfactorily answered.

In the number of the BRITISH MEDICAL JOURAL for April 14th, 1866, another leading article is blished criticising the third edition of my work on neumonia, in which work considerable alterations d additions had been made. In this article, several the objections formerly stated and fully answered e repeated, and others are advanced, while it is ident that the writer labours under various misnceptions, which it will be my endeavour to reove. The importance of the subject is so obvious, volving as it does, directly or indirectly, the paology and treatment of all acute inflammations, at no excuse is needed for discussing, in all courtsy, with the editor, his opinions on this matter.

I shall not refer, at present, to the question of velty or priority, and the hints thrown out by the viewer concerning the inutility of investigating the storative treatment of pneumonia, because, as it is serted, every one nowadays follows "the same an as that favoured by Professor Bennett." I hold e fact to be that it is not so; and it seems to me at this discussion, as well as the eulogistic terms in nich Dr. Markham has spoken of blood-letting in rtain cases of pneumonia, prove the contrary. (See RITISH MEDICAL JOURNAL, vol. i, 1865, pp. 07-8.)

The writer repeats the charge previously made, d sufficiently answered, as to my having suppressed rtain cases. Why, he asks, among complicated ses should some be excluded and others not? I nswer, because in some the pneumonia was the leading or acute malady under treatment, whilst in others it was the consecutive or secondary disease, which was latent, or only appeared immediately before death. For example, in a woman labouring under rheumatism and heart-disease, acute pneumonia appears, and, under a restorative treatment, goes through its natural progress in fifteen days (Case 109). That I certainly place among successful cases of pneumonia. But if, in a sinking case of heart or hepatic disease, latent pneumonia comes on a day or so before death, and is afterwards found on dissection, it could not correctly be placed among cases of acute or primary pneumonia. It would be committing the error of mixing together essentially different cases, and rendering statistics faulty. Besides, the object of the statistics is to enable the profession to compare the results of a restorative, with that of an antiphlogistic, antimonial, mixed, or other treatment, in the *same class of cases*. The question, therefore, has nothing to do with latent and consecutive cases; but with those acute affections which in all times have especially commanded "the attention alike of the public and of the medical practitioner."

The writer of the review, however, says that thirteen consecutive cases are omitted, together with four in which the patient died, not of pneumonia, but of meningitis, Bright's disease, and ulcerated intestine—"these seventeen cases he consequently excludes from his tables, and so leaves 105 consecutive successfully treated cases of pneumonia." But when, says the reviewer, these cases are added to his consecutive successful ones, "we find that the 'restorative treatment' in Professor Bennett's hands has a result, not (as Professor Bennett would have it) of uniform and uninterrupted success, but very much the same as it has in other people's hands." Now the fact is, that the 105 cases here alluded to were all examples of simple and primary pneumonia, and were separated on the ground that they were *simple and not complicated*, so that they might be compared with similar simple cases. What possible argument, therefore, can be drawn from the mortality of complicated and consecutive cases of pneumonia, as to the influence of treatment in cases of simple and uncomplicated pneumonia? I cannot help thinking that the reviewer has confounded what is called a consecutive case of pneumonia—that is, a case where the disease supervenes upon, follows, and is necessarily complicated, with some other lesion—with the statement that I had treated successfully 105 cases of simple pneumonia consecutively—that is, following each other—during the last eighteen years in the Royal Infirmary. I can only account for so great a misconception of facts by supposing that the word "consecutive", having been used in a double sense, has misled the writer.

Having, however, confounded together my 105 simple cases, with complicated and consecutive cases, the writer says: "Will not the profession as a body exclaim that Professor Bennett has arrived, spite of his figures, at fallacious assumptions, when he says that he has successfully treated 105 consecutive cases of pneumonia? Will they not exclaim, *primâ facie*, on the *reductio ad absurdam* argument that figures which show such results must be somewhere wrong? Will the profession accept the facts to which he appeals, when he says, 'I appeal to the facts tabulated, as showing that both strong and weak individuals

recover easily under restorative treatment, and that the amount of dyspnœa or the disease attacking one or both lungs in no way affects the mortality?' Will the profession accept these things as sober facts well attested and tabulated?"

I admit that, when cases of startling novelty, or results altogether unusual, are published, the author should give every guarantee that his facts are what he describes them to be. Accordingly it is stated in my work, that all the cases tabulated were treated publicly by me in the clinical wards of the Royal Infirmary of Edinburgh, before classes of students; that they were all recorded by my clinical clerks in the ward-books, to the volume and page of which references are made opposite each case; that the whole were supervised by my former house-physicians; and that the table itself was constructed from these books, corrected and compared by four of my former house-physicians—viz., Drs. Glen, Smart, Duckworth, and Macdonald.

It is further stated (*Pneumonia*, p. 29): "I would remind those, however, who, being yet sceptical as to the value of a restorative treatment, may imagine that some of these cases might not have been pneumonia, that they were all diagnosed, and treated publicly in the Royal Infirmary; were examined, not only by myself, but by my intelligent clerks and assistants, and were all made the subject of clinical lectures and of commentaries at the bedside. In all of them, the physical signs and the functional symptoms were precisely and minutely recorded. There is, therefore, the positive certainty, not only that every one of these cases was a genuine example of pneumonia, but that no other cases of the disease but what are tabulated were treated by me during the period referred to."

These statements, I trust, will satisfy the profession of the truth of what is alleged; viz., that 105 consecutive cases of simple pneumonia, including fifteen cases involving the whole of one lung, and twenty-six cases attacking portions of both lungs, recovered under my treatment. I, therefore, also appeal to the profession, and ask which is the more absurd thing to believe, facts so guaranteed, or the unfounded assumptions and incredulity of an anonymous writer in the British Medical Journal?

With a view of throwing further distrust on the facts I have recorded, the critic confuses together other things that ought to be carefully separated. Thus, the statistics of a hospital generally and those of a clinical or other ward where cases are under treatment, should never be compared with one another. It is said that "every hospital physician must be aware that the records of the dead-room, or of the hospital generally, afford no index whatever to the number of acute pneumonias treated clinically, comprehending, as they do, not only consecutive, latent, and chronic pneumonias, but not unfrequently cases of pneumonia which have entered the house in a dying condition, and have not been treated at all. (See *Pneumonia*, p. 29.)

Again, it is observed, "In institutions which contain several physicians, who treat their cases in a different manner, little is to be learnt of that treatment by mixing them together. Hence, the various general hospital statistics of pneumonia ought only to be compared with one another; and never referred to as a means of comparison with the individual practice of physicians. (*Ibid.*, p. 42.)

Overlooking, however, these considerations, the critic not only does not compare one hospital statistic with another, but compares such hospital statistics with my separate and special list of *simple and uncomplicated cases*, all of which recovered. He says, "Professor Bennett tells us, that the general results of the last nine years' experience in the Royal Infirmary of Edinburgh exhibits a mortality of one death in seven and three-quarters. That is, as we read it, Professor Bennett's colleagues lose about twelve per cent. of their cases of pneumonia, whilst all his own cases recover. To know in what particulars, the treatment of pneumonia in the Edinburgh Hospital under other physicians differs from that of Professor Bennett, would be, it seems to us, to gain knowledge of the highest value." Thus, the general statistics of the Infirmary, including my own cases, are compared with my list of simple uncomplicated cases—an amount of misconception of the ordinary principles of statistical science, in a public writer, it is exceedingly difficult to comprehend.

It will also be observed, in the passage last quoted, that the critic unconsciously supports the very system he desires to overthrow; for he wishes that other physicians should record the results of their experience, so that they may be compared with mine. But such a suggestion comes with a very ill grace from one who repudiates medical statistics. Why, it may be asked, should hospital physicians take the trouble to observe, record, and tabulate their cases, if their labours are openly derided as being useless? Why take pains to ascertain the value of any treatment, if, when the result is made known, they are to be held up to the profession by the editor of the British Medical Journal as individuals altogether unworthy of belief? What, probably, the critic means in the passage quoted is, that statistics, however carefully drawn up, should they be opposed to his assumptions and preconceived views, are incredible; but that any which can be made to support them would then, and then only, be a "gain to knowledge of the highest value."

It is difficult to imagine greater misconception and perversion of my meaning than that given by the critic in his account of the effects of bleeding in pneumonia. He wishes it to be believed that I have opposed the practice of moderate or small bleedings in those cases of pneumonia where pain and dyspnœa are present, dependent on engorged lungs or heart. Now, so far from having done this, I have stated from the first, and repeated the statement over and over again, that such practice might be carried out without injury, so long as no weakness was occasioned. What I did and do oppose is the rule of practice laid down by Dr. Markham, that in these cases the patient should be bled *until he shows signs of relief or of fainting*. Such need not be a small bleeding of from four to eight ounces, but may be carried to any amount from fifteen to thirty ounces of blood, and even more. Neither have I ever opposed the idea that small bleedings would relieve symptoms—that is, would act as a palliative. On the contrary, I have repeatedly quoted passages from my paper in 1857, before Dr. Markham wrote upon the subject, to show that for this end they are warrantable, and that they act by relieving congestion, without influencing the inflammation. What I do oppose, however, is the notion of that physician, that bleeding practised as he recommends is "*a most*

vereign and life-saving remedy"; and it is with ference to his remarks on this subject* I say "that eeding to the extent implied by Dr. Markham may practised with impunity, not to talk of benefit, is sproved by all known facts." Of the nine cases ed by venesection, I give a statistic; but of the teen cases in which cupping or a few leeches (in e case, three leeches) were employed to relieve in, I say nothing, because "it did not occur to me at such cases would have been referred to as illus- ative of the effects of bleeding in pneumonia." otwithstanding, these trifling cases as regards bleed- g are ingeniously picked out; added to the nine ses of venesection, so as to make twenty-five; and en it is gravely represented to the readers of the RITISH MEDICAL JOURNAL that, of my cases said be cured by a restorative treatment, no less than per cent. had been bled!—the words "venesection, pping, or leeches," being put within brackets to ve appearances. It is scarcely possible to repress a ile at this desperate effort of the JOURNAL to sup- rt the modern upholders of bleeding in pneu- nia.

I am next severely taken to task because I have t answered satisfactorily certain questions put to . What proof can you give, says Dr. Markham, at the loss of a few ounces of blood is dangerous in eumonia? This question has been repeatedly an- ered by my saying that it is not dangerous at all. ut if by a few ounces is meant sixteen ounces, fol- wed by eight or ten leeches to the side, as in Dr. arkham's case, where such bleeding was followed a long convalescence, with pericarditis and pleur- c abscess, it is clear that everything depends upon at is meant by "a few ounces". But Dr. Mark- m wants me to explain "how it is we see so many tients in hospital, surgical and medical, the feeble well as the strong, losing without apparent injury, d often—and especially in lung and heart diseases to their very great relief, large quantities of od." In reply to such vague assertions, all that necessary to say is, Are your representations cor- t? Where are the facts which prove that large antities of blood are so lost with benefit to the tients? Such questions constitute no arguments your favour. On the contrary, such attempt to ow the *onus probandi* on your opponent only be- aks the weakness of your own cause.

I am then asked another question, altogether irre- ant to what I have written, concerning the rela- n of starvation to bleedings practised with a view jugulating and palliating a pneumonia, and told t, until it be answered, "we must be excused for ing that Professor Bennett has given no particle proof to show that bleeding, practised as here in- red, is injurious in pneumonia." In reply, it is ough to say that it is not for me to show the ger, but for you to show the benefit, of those edings of which you are an advocate. Hitherto, cases have been published to show the advan- es of Dr. Markham's practice. Both of them are erfectly reported; and in one, a healthy man, d 36, the bleeding was followed by a prolonged valescence, and, as *sequelæ*, pericarditis and uritic abscess! Yet, after alluding to these re- ts, and to others in my own practice where a ilar practice produced the greatest prostration and lengthy convalescence (Cases VI and LXXI), the reviewer writes: "To Professor Bennett's reply, that such bleeding endangers life or prolongs con- valescence, we answer, that of the *proof* of this statement he gives not a particle."

In the first article of the BRITISH MEDICAL JOURNAL, an error of mine was pointed out in re- gard to my quotation from Dr. Bell's paper. No sooner did this appear than I hastened to acknow- ledge the error, to thank the editor for showing it to me, and to withdraw all arguments based upon it. In the second article, this is triumphantly described as a position from which I have been driven; although the allusion to Dr. Bell was only made in reply to one of those useless questions previously referred to, the answering or not answering which in no way affected my position at all. As regards the question of bleeding, Dr. Bell's cases must now be admitted to prove nothing; his chief remedy, apparently, having been calomel.

On the whole, I am far from regretting that these criticisms have been made. I have endeavoured to reply to them honestly, satisfied that, the more attention is directed to the subject, and the more searchingly my statistics and conclusions are investi- gated, the more likely will the good effects of a re- storative treatment in pneumonia be made apparent. It is much to be regretted that the BRITISH MEDI- CAL JOURNAL should have used its influence against rather than in favour of a system of well constructed statistics, which, I firmly believe, constitutes the only method of settling such differences in opinion and such misconceptions as I have had occasion to refer to. It argues that it is preferable to free ourselves from the bondage of plausible statistics, than to get rid of false assumptions. Now hitherto, in medicine, we have been almost entirely guided by the latter, and statistics have not been sufficiently tried. Besides, their plausibilities and errors, being a question of figures, are far more easily exposed; whereas the constant erroneous assumptions and unsupported statements of writers on medicine are an inherent part of their system. As an instance of this, the critic in his second article says: "How comes it that under the restorative treatment here in London, for example, a certain percentage of pneumonia as- suredly die, whilst in Edinburgh, under Professor Bennett, none die?" In reply, I ask, how is it known that in London they die more than in Edin- burgh? The critic brings forward no facts. Any statement without facts in its support is an assump- tion, advanced simply for the purpose of argument, and can never serve to establish truth. To this end it is essential, first to treat cases clinically by restora- tives; secondly, to record those cases; and then from the written records to tabulate the results. This is what I have done. Has a similar investigation been carried out in London, so that the one series of cases can be compared with the other? If it have, I call for the results. If it have not, I repeat that "the whole of this discussion indicates how necessary it is that we should emancipate ourselves from con- fident plausibilities and fallacious assumptions."

From the JOURNAL and its editor, therefore, I appeal to the members of the British Medical Asso- ciation at large, and confidently ask them what other plan can be devised for arriving at a knowledge of the results of treatment, than the one proposed; viz., first trying the treatment recommended; secondly, care-

* See Lecture of Dr. Markham, BRITISH MEDICAL JOURNAL, , vol. i, pp. 107-8.

fully recording the facts presented; and thirdly, giving the results in a tabular or available form. There never has been, never can be, nor ever will be, another mode of arriving at trustworthy results, than this; yet such is opposed, because it is liable to error! Are opinions, then, never erroneous? Are mere assumptions, the dicta of anonymous writers, or the impressions even of the most eminent men among us, never erroneous? Is medicine for ever to be guided by uncertain data, and never to emancipate itself from such trammels by the conjoined observations of its cultivators? Is it enough, when an honest effort in the treatment of a disease has been made, and with all the care that can be taken—cases tabulated and published—for the editor of the BRITISH MEDICAL JOURNAL, simply because the conclusions are opposed to his own limited experience, to speak of them, on the *reductio ad absurdum* argument, as being necessarily wrong?

I once again, in the interests of practical medicine, beg for cooperation, and solicit a return of such cases of pneumonia as have occurred to the members of the Association during the past or former years, especially from those who are hospital physicians. It will give me great pleasure to forward to all such a schedule, in which the cases may easily and without trouble be tabulated; and I will undertake to add up the results, and, if sufficiently numerous, present them to the next meeting of the Association at Chester. By such a procedure, I still maintain that, in many diseases, an uncertain may be shown to be converted into a certain treatment; and that, with regard to pneumonia more especially, its management might be placed upon as secure a basis as is the prevention of small-pox by vaccination.

Illustrations OF HOSPITAL PRACTICE:

METROPOLITAN AND PROVINCIAL.

MANCHESTER EYE HOSPITAL.

REPORTS OF TWO CASES.

Under the care of R. H. MCKEAND, Esq., Surgeon to the Hospital.

CASE I. *Spontaneous Effusion of Blood into the Vitreous Humour of the Left Eye.* William F., aged 35, of Alderley Edge, entered the Hospital on October 9th, 1865. He said he went blind suddenly with the left eye, about four days previously, the sight having been always good in both eyes previously. He first noticed something black passing across the eye, and thought that some coal-dust had got into it. A few hours afterwards it went quite dark, and when admitted, he could only read No. 20 (Jæger's test type). On ophthalmoscopic examination large quantities of blood were seen floating about the vitreous humour. He was ordered three grains of hydrargyrum cum cretâ in a pill: two to be taken three times a day.

Oct. 16th. The mercurial was stopped, on account of its action on the gums. Nothing else was ordered. The eye was greatly improved.

Oct. 25th. The eye was quite well. He could read No. 1 at the normal distance (twelve inches.) Ophthalmoscopic examination shewed nothing abnormal. He was discharged cured.

REMARKS. When first seen, both eyes presented the same healthy appearance externally, both pupils acting simultaneously to light. No mischief could be detected until he was placed under the ophthalmoscope, when its character was at once revealed. He had received no blow, and could assign no cause for the sudden defect of vision.

CASE II. *Glaucoma cured by Iridectomy.* Maria C., aged 25, sempstress, applied at the Eye Hospital in March 1865, complaining of a defect of vision in her right eye. The patient stated that for the last two or three months she had occasionally perceived a veil or fog suddenly come over the right eye, lasting a few hours, sometimes the length of a day, and then disappearing. During those attacks, she had no pain whatever; but the vision was so bad that she could hardly make out ordinary print. The last month the eye had become worse; and, in addition to those attacks, she had occasionally seen rims of various colours round the gas or candle, and she had felt a little pain when she used the eye much.

When admitted, there was no injection of the eye. There was quite a muddy appearance in the pupil which was of normal size, and acted to light, and there was distinct tension of the eyeball as compared with the other eye. She could see the letters of No. 16, Jæger.

Ophthalmoscopic examination. Notwithstanding the advantage of having the pupil fully dilated, the retina could not be distinctly seen on account of the opacity in the media; with a high magnifying power, however, the disc was made out, and a large vessel distinctly seen to bend over the edge of it.

The case was seen every now and then for a month, and repeated submitted to ophthalmic examination. The optic nerve was more difficult to see at one time than another, and sometimes it could not be seen at all. At times she could hardly make out No. 20, at others she could read No. 12.

April 26th, 1865. Chloroform having been administered, an incision at the upper part of the eye was made with an iridectomy knife, just at the junction of the cornea with the sclerotic. A large portion of iris was then pulled out and excised, forming a pretty large pupil. The eye was then closed with adhesive plaister, and a light compress applied.

April 29th. There was no irritation whatever in the eye.

May 6th. She read No. 8 with ease. The disc could now be well seen with the ophthalmoscope, though the media were still somewhat hazy.

May 11th. She read No. 2 at four inches distance.

May 26th. She read No. 1. The media were perfectly clear, and the retina could be well seen.

Nov. 6th. During the last three months she had presented herself from time to time at the hospital, and at this period could see as well as ever she did. The upper lid almost conceals the vacancy formed by excision of the iris.

REMARKS. I think the history of these two cases will be read with interest by some members of our JOURNAL, on the one hand as showing the value of one of the greatest inventions of modern times, the ophthalmoscope, without the aid of which, in these two illustrations, the diagnosis must have been vague and indefinite; while with its aid the nature of each case was at once proclaimed.

Although in our eye hospital the admissions number nearly four thousand *per annum*, this case of spontaneous effusion of blood into the vitreous body is the first I have seen, occurring within so short a period of the attack. Opacity of the vitreous body from a variety of causes is frequent enough; but this case shows in a marked degree the importance of an early diagnosis, and the happy result of its de-

ection. I have not seen the patient since his discharge; and may fairly assume his vision to be as orrect as when he left the hospital.

By those who are sceptical of the successful treatment of some forms of opacity in the vitreous body by the removal of a portion of the iris, I think the history of the second case may be read with equal interest. This has been selected as occurring in a person so young and in the enjoyment of such excellent health, and without any assignable cause whatever, that I look upon it as a good representation to form a basis of calculation as to the remedial effect in these obscure diseases, the benefit derived from operative interference. The piece of iris removed was very large, but the upper lid almost concealed the deformity of pupil, the base of which occupied nearly the whole upper circle of the cornea. It will be seen that marked tension of the affected eye was quite perceptible before the operation; and the recovery of the power to read distinctly No. 1 Jæger in so short a period as one month afterwards, in my opinion, may fairly be considered to make this individual case one of the most perfect tests of the value of iridectomy.

Transactions of Branches.

EAST YORK AND NORTH LINCOLN BRANCH.

ON THE RELATION BETWEEN CHOLERA AND THE DIARRHŒA WHICH ACCOMPANIES IT, AND ON THE TREATMENT OF THE LATTER DISEASE.

By Sir Henry Cooper, M.D., Hull.

[*Read May 23rd*, 1866.]

Of all the questions forced upon us by the proximity of the cholera, none is more important, in a practical point of view, than its relation to the diarrhœa which accompanies it; because, if the latter be a part or early symptom of cholera, there can be no doubt as to the curability of cholera in its earliest stages, and the problem of the suppression of an attack is simply one of organisation and vigilance.

It may be assumed that diarrhœa is always more prevalent during cholera epidemics than at ordinary times; that there is a tendency to increased alvine secretions, and greater frequency of their evacuation. It is also a practical truth, which few who have had the opportunity of forming a judgment will dispute, that this diarrhœa is very tractable as a rule, and is easily kept in check, if carefully watched. The question is, Is this diarrhœa the first stage of cholera? or is it a separate disease—produced, indeed, it may be, by the same cause, but modified by the susceptibility of the recipient?

I give a short *resumé* of the opinions which have been advanced on each side of this important controversy.

The Commission appointed in 1849 by the Board of Health, at that time a department of the Government, reported in favour of the identity of ordinary and premonitory diarrhœa, on the following grounds, to which arguments have been added from other sources.

The unusual prevalence of diarrhœa before and during an outbreak of cholera is a matter of universal experience, and is demonstrated by the Registrar-General's returns, as well as by the observation of cholera-attacks in other countries; and this occurs at seasons and under circumstances very unusual for ordinary diarrhœa, as in mid-winter, and in localities where epidemic diarrhœa was previously unknown. Again, diarrhœa is admitted to be the most constant and uniform of the early symptoms of cholera; and there are no known pathological distinctions between this first stage of cholera and the prevailing diarrhœa just spoken of. This latter is further often remarked, even when it does not pass into cholera, to show an affinity for that disease in the nervous symptoms which accompany, and the consecutive fever which follows it. And, as Dr. Sutherland especially pointed out, the mortality from cholera and diarrhœa advanced and receded *pari passu*, showing at least a common cause, if not identity.

The opposite view was taken by a Committee of inquiry formed by this Association, whose Report, drawn up by Dr. Williams of Worcester, will be found at page 507 of the Journal for 1850. The opinion of the reporters was founded on an alleged mode of distinguishing one kind of diarrhœa from the other (by the existence of albumen), which has, however, not been maintained; on the statement that the diarrhœa of cholera times is more prevalent in the *districts surrounding* the attack than in the districts themselves affected—a statement to the accuracy of which I demur, and which would be of little force, if established; on the intractability of the true choleraic diarrhœa, as contrasted with ordinary diarrhœa; and on the great disproportion in numbers of cholera and diarrhœa attacks, which would render it exceedingly improbable that the one should be the first stage of the other; which, I think, has great weight.

Without adopting either of these views to their full extent, I hold that one general epidemic influence governs both these affections; that its effects are essentially the same in both; and that the difference between the diarrhœa which passes into cholera and that which does not is more in degree than in kind, allowance being always made for varying circumstances attaching to the locality or to the individual.

If we agree in this conclusion, and have the conviction that, in treating the prevailing diarrhœa, we are in fact dealing with cholera in its early and only manageable stage, we acquire great confidence in our means of repressing an outbreak, and of "stamping out" the earliest sparks of the conflagration. For this purpose, it is all-important that we should work on a complete and exhaustive method. We must not be content to confront the enemy where he makes his attack, but we must search him out in his covert and insidious approaches; for it is impossible to impress on the public, and especially on the uneducated, the importance of attention to the state of the bowels, and the duty, as well on their own account as for the safety of the public, of promptly applying for relief. On the contrary, all experience shows that, even while dreading the cholera, people will neglect diarrhœa in their own persons. But if the profession be thoroughly convinced that such persons are actually giving proof that they are already under the influence of the epidemic, and that they are in imminent danger of passing into fatal disease, and, as a direct inference from this belief, urge on the authorities the necessity of detective organisation to search out and treat individual cases of diarrhœa, a more hopeful view may be taken of our power of controlling, if not extinguishing, the effects of epidemic influence.

I can scarcely close the subject without some allusion to the treatment of choleraic diarrhœa, especially at the present moment, when diametrically opposing views are taken on first principles. I presume that I may take it for granted that the profession has at least learnt thus much, that no specific

exists for the cure of cholera in a confirmed form; that, when a case has passed into collapse, mitigation of suffering and relief of special symptoms are all that we have any reasonable prospect of achieving. We shall do well, then, to concentrate our efforts on the stage of the disease which we have been considering, and try to come to some decision on the two antagonistic principles of elimination or suppression. We are not in a position to argue the question in an abstract form, simply because we are not agreed on the pathological principles involved. We are told of poisoned blood affecting the pulmonary capillaries, and of the necessity of aiding Nature in eliminating the poison, and of the danger of arresting discharges. On the other hand, we have the more satisfactory and rational view, as it appears to me, that the ganglionic system is the part obnoxious to the disease-creating agent, be it what it may; that the organs, the exercise of whose functions depends upon the action of this system, are paralysed by its paralysis; and that the draining of the fluid into the intestines is the direct effect of such paralysis of the capillaries. Hence the inference that we must stimulate and give energy to the nervous system, and constringe the capillaries to stop the drain which is exhausting the vital powers. I say, until we can reconcile or arbitrate between these two opposing views, it is idle to attempt to *reason* on the principle of treatment. Inductive reasoning is impossible; and we must employ the deductive method, and begin by looking to the results of experience. Admitting, then, what I presume we shall none of us dispute, that opium and astringents have the power of checking intestinal diarrhœa, while ol. ricini has equally the property of increasing it, the question comes into a narrow compass: Shall we *restrain* or *encourage* diarrhœa? *Have we seen that patients whose diarrhœa has been stayed, or those who have been allowed to go on purging, have been most prone to go into cholera?* I think there can be but one answer, when the issue is thus put on the only ground on which we are in a position to try it; viz., experience.

The following propositions will be a recapitulation of the preceding remarks, and put my views into a convenient form.

1. In epidemics of cholera, an unusual amount of diarrhœa prevails; it precedes cholera, and extends laterally beyond it.

2. In the ordinary course of an attack of cholera, diarrhœa is the first symptom, and is undoubtedly the first stage of the disease.

3. This premonitory diarrhœa is not distinguishable by its history or symptoms from the sporadic or ordinary diarrhœa.

4. Cases in which diarrhœa has been stayed do not pass into cholera, while those in which it has been neglected may and often do.

5. The astringent mode of treatment is generally as efficacious in arresting diarrhœa during cholera visitations as at ordinary times.

6. And, as a corollary from the above, it is the duty of those in authority in cholera epidemic seasons to search out and arrest *all* cases of diarrhœa, by the organisation of a sanitary police for the detection of the disease, and its treatment in its earliest stages.

Cattle-Plague. Dr. Dewar of Kirkcaldy has published his views "On the Application of Sulphurous Acid Gas to the Prevention, Limitation, and Cure, of Contagious Diseases." Dr. Dewar's experiments have been made mainly in connexion with Cattle-Plague. He speaks in very high terms of the efficacy and simplicity in use of this disinfecting agent.

Progress of Medical Science.

SURGERY.

Scalds of the Glottis: Treatment. At a recent meeting of the Surgical Society of Ireland, Mr. Croly read a paper on Scalds of the Glottis, and their Treatment by Mercury. His object was to show the advantages of a mercurial treatment. He gave a table of fourteen cases of scalds of glottis, in which tracheotomy was performed (in England), and of which eleven died. He also gave a table of six other cases (in Ireland) treated with mercury without operation, all of which recovered. In conclusion, he offered the following aphorisms, the result of his inquiries. 1. The water is not swallowed, but the steam produces œdema of the glottis. 2. The affection is divided into three stages (Dr. Bevan). 3. The symptoms are not urgent at first, and are apt to mislead those not experienced in such cases. 4. Active mercurial treatment (not antiphlogistic) is important from the moment when the child is first seen, by applying strong mercurial ointment to the axillæ, chest, and inside of the thighs, and administering calomel in grain or two-grain doses every half hour or hour. 5. The apartment must be kept warm (a thermometer being used for guidance) to prevent chest complications. 6. Depletion by leeches or antimony must (if adopted) be used early, and with caution. 7. The collapse should be treated by stimulants if the child can swallow, if not, stimulating and nutritive injections should be administered, the extremities being kept warm. 8. The lungs are almost invariably congested at some period of the illness, bronchitis or pneumonia being a common cause of death. 9. He suggests dry-cupping over the back of the lungs, followed by turpentine fomentations, to relieve pulmonary congestion. 10. When the green stools appear early (or salivation occurs) the child gets suddenly well. This is very remarkable, and occurs most unexpectedly. 11. Tracheotomy ought not, in his opinion, to be performed in these cases.

Entire Dislocation of the Clavicle. On January 26th, 1863, Dr. N. L. North, of Brooklyn, New York, was called to see a boy of about fourteen years of age, who had been thrown backwards from a stool or slight eminence, upon which he had been placed, and came down striking with his whole weight upon the back of his left shoulder. Upon examination, Dr. North found the shoulder depressed and thrown forwards; the centre of the clavicle fallen in as if fractured, with an abrupt rounded prominence at the sterno-clavicular articulation, and a sharp prominent ridge on the top of the shoulder, standing three-fourths of an inch above the superior point of the acromion process, and running from that process towards the neck, for about an inch, then gradually tapering down to the usual form of the neck. The boy complained of a great amount of pain and considerable difficulty of breathing. Dr. North concluded from his examination of the case, that there was an entire dislocation of the clavicle without fracture, both ends, with of course the entire bone, having been forced out by the force of the blow or fall upon the shoulder, and then drawn half way over forwards and downwards by the large pectoral and deltoid muscles. The round prominence in front was caused by the turning out of the sternal end of the bone, and the sharp ridge on the top of the shoulder was caused by the turning up of the trapezoid portion, while the depression in the centre

was the effect of the turning down of the convexity at the middle portion of the clavicle. The shoulders having been forcibly thrown backwards, and retained in position with long strips of adhesive plaster applied in the form of the figure-of-8 bandage, compression with the right thumb and finger, backwards and downwards upon the trapezoid portion of the clavicle, and, at the same time, with the thumb and finger of the left hand upon the sternal end of the bone, firm pressure was made upwards and backwards. Dr. North felt the ends of the bone return to their normal positions, the proper shape and symmetry of the parts being completely restored. He applied compresses successively to each end of the bone, retaining them by means of adhesive straps; and applied Day's "neck-yoke" apparatus for fractured clavicle. In the course of two weeks he commenced loosening the dressings, and at the end of three weeks he removed them altogether, and discharged the patient well. (*New York Medical Record*, April 16th, 1866.)

Nitrous Oxide as an Anæsthetic. Dr. Carnochan, of the State Emigrant's Hospital, New York, describes three surgical operations, in which nitrous oxide gas was used as the anæsthetic. The first was the removal of the entire breast and glands of the axilla for cancer. The patient, a lady, was in feeble health. In thirty-five seconds, she was in a profound anæsthetic sleep. She remained insensible for sixteen consecutive minutes, until the operation was completed; and, in forty seconds from the time the bag was removed, awoke to consciousness, without nausea, sickness, or vomiting. The second and third capital operations consisted of two amputations of the leg. The time required to produce an anæsthetic sleep in the first patient, a male adult, extremely debilitated and worn out by disease, was forty-five seconds. The whole duration of the operation and influence was two minutes and a quarter. No nausea or unpleasant symptoms occurred. The third operation was on a boy of about 13 years of age. The time consumed in the inhalation, operation, and recovery from the anæsthetic sleep, was two minutes; the gas working equally as in the other cases, and the patient, after complete anæsthesia, awaking entirely free from unpleasant symptoms. For minor operations, or for capital operations, such as amputations which require but a few minutes, Dr. Carnochan has no hesitation in stating that the nitrous oxide gas, as an anæsthetic, is far superior to either chloroform or ether. Insensibility is suddenly produced, and the patient recovers consciousness quickly, the operation being attended by no nausea or sickness, and without the dangerous effects often incident to chloroform and ether. Whether it can be used in operations which from their nature require from half an hour to an hour's time, remains still to be proved. (*Philadelphia Med. and Surg. Reporter.*)

Strangulated Congenital Inguinal Hernia in the Female. The patient was a child, three years old. Immediately after her birth, it was discovered that she had inguinal hernial on the right side, and by the advice of the attending physician her parents procured a truss, which was applied, and appeared to answer the required purpose. On January 3rd, Dr. J. H. Armsby was called upon to visit the child. On examination, the hernia was found presenting directly over the pubic extremity of Poupart's ligament. Attempts had been made to reduce it, but without success, and anodynes and warm fomentations had been ordered. It was now seventy-two hours since the first symptoms of strangulation had appeared, and the child was greatly debilitated by the pain and constant vomiting, was perspiring profusely, her expression was pale and cadaverous, and her pulse was 160. The operation was immediately performed in the way ordinarily practised for strangulated hernia in the adult. The parts were greatly swollen and congested, and about three inches of the ileum, not far from the *caput coli*, were found protruding, completely strangulated and gangrenous. The portion of intestine involved adhered firmly to the sac and surrounding soft parts, and was soft and partially disorganised. Dr. Armsby left the gangrenous portion of intestine as he found it, and applied a linseed-meal poultice. Before the next morning it separated, and fæcal matter escaped freely at the opening. The patient improved rapidly under the use of anodynes and tonics; the wound gradually contracted until the twelfth day after the operation, when she had a natural evacuation from the bowels, and no more fæcal discharge from the opening. The wound healed kindly, and one month after the operation cicatrisation was perfect, and the patient restored to her usual health. (*New York Med. Record*, April 16th.)

Muscular Atrophy. Dr. Fleming lately brought under the notice of the Surgical Society of Ireland, a man affected with paralysis. This was a case showing in a marked manner that peculiar class of muscular atrophy, which was comparatively rare, as the result of injury. The man had been a sailor from the age of twelve years. In 1864, when engaged on board ship, and employed aloft, he fell sixteen or eighteen feet on the deck, and was seriously injured. He was stunned and remained insensible for some hours after the accident, and was attacked with a peculiar distressing sensation in the neck, extending along the spine, and each upper extremity. Notwithstanding, after two or three days, he recovered sufficiently to go through some of his duty, and continued to perform his work, but under much suffering, the pain being referred to the localities mentioned. Two or three months afterwards, he found from day to day that he was losing the power of his upper extremities, and it was remarkable that the deficiency in that power commenced in the upper arm, and ultimately seized the lower and forearm, so that although he had to a certain extent lost the power of the upper arm, he was yet able to hold objects with his hand. The disease progressed, and the muscles became atrophied to such an extent that some were reduced to perfect bands; some were hardly traceable, even under the electro-magnetic current. The man was able to walk about, and able to support to a certain extent his head, but occasionally the head fell down on the thorax. Sensation was peculiarly acute in some situations. In all it existed, but in some there was hyperæsthesia. This man was in the hospital at Carlisle, and was for a length of time under the care of Sir J. Simpson at Edinburgh, and in London under the care of Sir William Fergusson. Dr. Fleming observed upon the well-marked effect of this disease which the man exhibited. There was little more than a capsule of skin thrown over the bones, without any development of muscle. The respiration was probably diaphragmatic. He particularly directed attention to the back part of the spinal column. It was rather improved since his admission to hospital. Then he could not bear the slightest touch, but now he was much less sensitive. The man was particularly accurate as to the history of his case; his intellect was perfect in every respect. He swallowed well. He could not bend or raise his arm, and when asked to shake hands did so by swaying his body round. When he came into hospital, he could not bear to be touched in the right

scapular region, but now he was much improved, and his head was held better up. The treatment in Edinburgh was electricity, which he liked, and which he thought did him good, and he used strychnine also. His principal annoyance was a difficulty in respiration which he experienced in the morning. Occasionally there was some little interruption to the free function of the bladder, and some slight attempt at incontinence of urine. He had examined the urine, and found it normal in quantity and in quality. (*Medical Press.*)

Reviews and Notices.

FERNS, BRITISH AND FOREIGN: their History, Organography, Classification, and Enumeration; with a Treatise on their Cultivation, etc. By JOHN SMITH, A.L.S., Acad. Cæs. Nat. Cur. Soc.; and ex-Curator of the Royal Botanic Gardens, Kew. London: 1866.

"ALTHOUGH" (says our author) "ferns are now in high favour with cultivators, it is only comparatively in recent times that they have been brought into notice." Nevertheless, their estimation has risen so rapidly, and their cultivation, either in Wardian cases or in larger enclosures, affords so pleasant a relaxation to the hard worked town members of our profession, that we are sure the above work will meet with a good reception from many.

Mr. SMITH has been since 1822 engaged in the study and cultivation of ferns, under the most favourable auspices; since probably there does not exist in the world so fine a field for such investigation as the Kew Gardens afford. Moreover, it is since his connection with those gardens that the present vast collection has been formed. The entire Kew collection of exotic ferns at that period (1822) cannot be estimated at more than forty species; while the enumeration in the book before us shows that about nine hundred exotic species are now cultivated within its walls—a number "which may be regarded as about one-third of all the species known to botanists by means of dried specimens."

Thus few or none could come before the public with larger experience of this subject; and yet we approach with some slight feeling of doubt the divisions which our author has for years, as is well known, endeavoured to found on the mode of growth of the fronds (vernation, as he terms it), and on certain peculiarities of the stem. Guided by these differences, Mr. Smith divides all ferns into two divisions, the *Eremobrya* and the *Desmobrya*, which he affirms to be natural orders, having each its own characters, beyond the mere fact on which the distinction is founded.

Our readers will not, however, thank us to detain them with details of classification. Although this work is invaluable to the botanist or scientific voyager, yet we would rather consider it as the guide to the amateur fern-grower, who so frequently loses money and patience in futile attempts to grow plants in situations where they cannot possibly flourish, by means which are certain to kill them.

The work contains about 400 pages, 200 of which are occupied by an Enumeration of Cultivated Ferns, profusely illustrated; and more than thirty by a very full index, with the aid of which any amateur can readily discover the country and climate of any fern which he may wish to cultivate, while the excellent treatise on culture will teach him the best manner of doing so.

We are requested to remind members of the Association that the Annual Subscriptions became due on the 1st of January. They can be paid either to the Secretaries of the Branches; or to the General Secretary, T. Watkin Williams, Esq., 13, Newhall Street, Birmingham.

British Medical Journal.

SATURDAY, JUNE 16TH, 1866.

THE PATHOLOGY OF CHOLERA.

WE last week showed that the astringent treatment of cholera, in so far as it is based upon the supposition that the purging and vomiting, the so-called loss of blood, are the cause of the collapse, and the cause of death, is based upon error. All pathologists of authority in this case have laid it down in the distinctest terms—1. That the purging and vomiting are not essentials of cholera;* 2. That the severity of the collapse, as a rule, stands in an inverse ratio to the evacuations, the disease being most severe in those cases where the purging and vomiting are least, and *vice versâ*; 4. That cholera-collapse results from an interruption to the pulmonary circulation, and not from the purging and vomiting;† 5. That, during collapse, the purging and vomiting are diminished or arrested, and more or less in accordance with the degree of impeded pulmonary circulation; 6. That the special phenomena of cholera-collapse are plainly explicable by the fact of interrupted pulmonary circulation.

We also showed that these pathological facts of cholera were fully corroborated and explained by its morbid anatomy. Morbid anatomy shows to demonstration that the mechanical state of the respiratory and circulatory apparatus is not at fault; that the lungs and heart are organically sound; but that there is an impediment to the free passage of the blood through the lungs; and that the impediment is just of that nature which would occasion the peculiar phenomena represented in cholera-collapse.

This impeded circulation, then, is *a fact*, and remains so, whether we accept Dr. Parkes's suggestion

* The words of Dr. Aitken, who has well studied the matter, are—"The vomiting, purging, and cramps, are now considered as non-essential phenomena, for authentic cases of cholera are on record by several of the most eminent writers on the subject, entirely divested of these symptoms."

† The "peculiar action of the choleraic poison," says Dr. Parkes, "is the arresting the circulation."

f its cause, viz., an altered condition of the blood elf; or Dr. Johnson's explanation—a spasm of the naller pulmonary arteries, resulting from poison in he blood.

From all this, it appears that cholera patients do ot die from purging and vomiting—from loss of lood-materials—but from arrested pulmonary circu- ation. How this pathological fact is to be recon- iled with the idea upon which the astringent treat- nent is based, we must leave those to answer who upport that idea.

But it may be argued, and doubtless with the pprobation of great authority, that there is a pre- nonitory diarrhœa, which, if arrested, will prevent, f allowed to run on, will lead to, cholera. General pinion has certainly adopted this view of the matter. t becomes, therefore, a matter of importance to now what are the arguments which may be ad- uced in favour of and against the practice of arrest- ng what is called the premonitory diarrhœa by stringents. Now we apprehend that the only proof which can be adduced in favour of the assertion, hat the arrestment of previous diarrhœa will pre- ent cholera, must be the proof of "experience"; nd we readily admit that the *opinion* of a very arge experience is in favour of the arrestment of he premonitory diarrhœa. The practice is, we onclude, founded on the argument that, by the remonitory diarrhœa, the subject is so weakened, r the constitution of his blood is so altered, that he alls an easy prey to the scourge. Mortality from holera is diminished, it is said, when this premoni- ory diarrhœa is arrested by astringents. A candid xamination of the facts appears, however, to show hat these records of experience do not give a de- ided and unequivocal answer.

In the first place, the very term premonitory or holeraic diarrhœa involves an unproven assumption. t may be quite true that cholera is preceded by rdinary diarrhœa, but we really have no proof of he fact. Certain it is that by far the majority of hose who suffer from diarrhœa during an epidemic o not fall into cholera; and of those who, having iarrhœa, fall into cholera, we cannot affirm that hey were not cholera-victims from the very beginning f the attack. The alvine evacuations of cholera, it is easonable to believe, may at the very onset re- emble the evacuations of ordinary diarrhœa. Al- hough the diseases be perfectly distinct in kind, hey may *at their origin* resemble each other in the ne symptom of alvine evacuation. We may rea- onably believe this, and yet at the same time admit hat the case of cholera was cholera from the be- inning, and the case of diarrhœa simply diarrhœa rom the beginning. We have no proof that the imple diarrhœa ever merges into cholera. To ac- ept, therefore, as proven, the existence of a pre- nonitory choleraic diarrhœa, is to accept as a fact that which may be true, but which is certainly at present hypothetical.*

At all events, it must be admitted, as the matter at present stands, that cholera and diarrhœa are distinct diseases; their history and pathology being totally distinct. Cholera is a specific disease, produced by a specific cause, is marked by a well defined group of symptoms, and runs a definite course. The only resemblance which it bears to diarrhœa is in the fact that it is attended with alvine evacuations; but alvine evacuations, as we have shown, are accidents, not essentials, of cholera. Diarrhœa, on the other hand, has nothing in it of specific signs; it consists simply in alvine evacuations. Cholera destroys life by arresting the pulmonary circulation, not by exhaustion from loss of fluids. Diarrhœa, if fatal, destroys life by exhaustion, not by arresting the pulmonary circulation. There is a specific element in cholera; there is none in diarrhœa.

But it may be said that cholera may be grafted on diarrhœa—may find in the subject weakened by diarrhœa a suitable pabulum whereon to fix its grasp. Also it may be said that, when a cholera epidemic falls upon a people, it may fall with different effect on different individuals; that in some the poison may rapidly pass out of the system; that in others it may spread and multiply in the body, and so produce the dire result—collapse. All this may be true, but, in the present state of our knowledge, cannot be regarded otherwise than as hypothetical.

Assuredly, we have no positive proof that diarrhœa passes into cholera; no proof that cholera is preceded by ordinary diarrhœa; or, in other words, that cholera is ever any other disease than cholera. No one can assert of an arrested diarrhœa that, if not arrested, it would have eventuated in cholera.† It is surely of importance to keep in mind that mere accident of alvine evacuation does not prove a relationship between cholera and common diarrhœa.

But, even admitting the existence of a premonitory choleraic diarrhœa, does experience really give a positively satisfactory proof that its arrestment by astringents is beneficial? The affirmative answer to this question is based on a widely spread general belief—an opinion—but is not founded on any positive data. And, in opposition to this general belief, we have also recorded opinions; and to these we now

* It is not unworthy of note, that Dr. Parkes could not satisfy himself that the earliest symptoms of cholera were purging and vomiting. His words are—"Whether any modification of the circulation and respiration existed at the very commencement, could not be known. That such was the case, however, is rendered probable by the fact, that in some cases which I witnessed at an earlier period, I was always enabled to detect the presence of such modification when true cholera had commenced."

† Much stress has been laid upon the frequency and fatality of diarrhœa during cholera years. We find, however, in the bills of mortality, that in some ordinary years diarrhœa has been more fatal than in cholera years. Thus, in 1854 (a cholera year), the deaths from diarrhœa were 20,052; whilst in 1857 (a non-cholera year), they were 21,186 in England.

ask attention. If they show nothing more, they certainly show this much, that the question cannot be considered as definitively settled.

The late Dr. Ayre of Hull reported to the College of Physicians that, out of 2906 cases of choleraic diarrhœa, as he said, "in that threatening condition which almost constantly precedes and leads into the full disease," there were but six deaths. These cases were all treated by repeated small doses of calomel with cold water. (*Report on the Morbid Anatomy, Pathology, and Treatment of Cholera.* By W. W. Gull, M.D. P. 176.)

In the year 1837, Dr. Stilon treated choleraic diarrhœa in Malta by twenty-grain doses of calomel. He says:

"This mode of treatment succeeded in overcoming, in 223 individuals, the symptoms which usually precede cholera, though, without such a system, these persons would probably have passed into a state of collapse. In these 223 cases, I found it necessary to repeat the calomel to one individual five times; to some others three times; but in the generality of cases a single dose was sufficient." (*The Cholera in Malta in* 1837. From the Italian of G. Stilon, M.D. By Seth B. Watson, M.D. P. 124.)

The late Mr. Wakefield stated, in a letter to the *Times* (August 18th, 1854), that in 1851 he had treated more than 400 cases of diarrhœa in the House of Correction, and in 1854 more than 150 cases, with thirty grains of sesquicarbonate of soda in mint tea. No fatal case occurred. The dose was repeated every half hour; and recovery was so rapid that it was rarely necessary to give more than three doses.

The opiate treatment is often unsuccessful. MM. Briquet and Mignot treated 200 cases of choleraic diarrhœa by repeated doses of laudanum, and 26 of these cases passed into the stage of collapse. (*Traité Pratique et Analytique du Cholera Morbus*, p. 514.)

Dr. Whittle of Liverpool declares it the result of his experience that

"All stimulants, astringents, and opium, are alike injurious; not by stopping the discharges, but by increasing them, particularly the vomiting. On the contrary, the action of calomel is the very reverse; it stops the vomiting immediately, and after a few doses the purging." (*Medical Times and Gazette,* May 19th, 1866.)

It is a well known fact that many practitioners, dissatisfied with the results of the opiate treatment of choleraic diarrhœa, now give large doses of mineral acids. Some perhaps may consider this an astringent treatment, it is at any rate very different from the treatment of opium.

Dr. Maclean, who had personal, besides large, experience of cholera, thus recently speaks of astringents:

"No class of remedies has been more used in cholera. The great anxiety is to restrain the evacuations; but mere purging rarely kills. In the worst forms of cholera, there is no purging, or but very little.....If it be the case, as I believe, that the *materies morbi* is in part eliminated in the intestinal canal, how far do we benefit our patient by restraining it with astringent drugs? Will they stand the test of argument? But, then, experience has sanctioned them. Alas! I have had much experience, and I am sure that I was more successful when I withheld them." (*Lancet.*)

Dr. Maclean thinks there is plenty of purging without giving purgatives; but he adds, "If again smitten by cholera, let me rather fall into the hands of a purging than an astringing physician—one who thinks he does you service by retaining what Nature is so solicitous to expel from the system."

Dr. Bowerbank, who has seen very extensive epidemics of cholera in Jamaica, in the *Medical Times and Gazette* of April 14th, 1866, says:

"I fear that, from the common practice of prescribing for oneself and others, many fall victims to poisonous doses of opium, lead, etc..... As regards prophylactic treatment of cholera, I have no faith in it..... I believe many of the worst forms of cholera take place without any premonitory symptoms or diarrhœa; in the most violent cases there are no alvine dejections at all..... As regards the diarrhœa prevalent during visitations of cholera, I have seen mercurials, opiates, ipecacuanha, mineral acids, laxatives, antacids, and astringents, all succeed, and all fail in checking the disease..... My experience is that, at the commencement of an epidemic, cholera appears to be unamenable to treatment.... I am quite sure that, in the epidemic of 1850, I saw much mischief done by spirituous stimulants and opium; so that in 1854, I almost banished these remedies from my practice. I think I have seen more good from Stevens's powders than from any other mode of treatment. In 1854, from difficulty in getting saline powders, Dr. Campbell and myself used sea-water, which, well iced, was drunk eagerly. Of seventeen cases who took it, strange to say all recovered. Unfortunately, it was not tried till towards the decline of the epidemic. In almost every case, after the fourth or fifth dose, the alvine evacuations became tinged with bile."

Again, we may refer shortly to Mr. Ross's analysis of the treatment of 6296 cases of cholera. (*Medical Times and Gazette*, vol. xix.)

Treatment.	Cases.	Deaths.	P. cent.
Stimulants	3055	1792	58
Stimulants, with calomel and opium	356	214	60
Calomel and opium	196	112	57
Calomel	376	147	36
Blood-letting, with calomel and opium, etc.	285	168	59
Ipecacuanha, with blood-letting	222	104	47
Ipecacuanha, with moderate warmth	281	98	34
Salt, with cold water	607	112	20
Ice, with stimulants	58	29	50
Ice alone	142	43	30

We know not what value may be attached to these extracts from Mr. Ross's table; but, as the table is founded on a large number of cases, it will probably be accepted as of service by the author of *Medical Errors.* It certainly cannot be said to tell in favour of the opium and stimulant treatment; but seems strongly to corroborate the let alone and cold water treatment of Dr. Maclean.

RATING OF HOSPITALS.

This question has become one of vital importance to every hospital in the kingdom. Hitherto, acting under decisions of Lord Mansfield and Lord Kenyon, parishes have not rated hospitals; but a decision of the House of Lords last year upset the previous decisions. The result is, that all the London parishes have set to work to assess the different hospitals in the metropolis; and, in doing so, have acted in a most absurd and contradictory manner. They have, in fact, been guided by a mere rule of thumb.

For instance, Paddington has, we understand, rated St. Mary's Hospital at £100 *per annum*; whilst St. Marylebone has rated Queen Charlotte's Lying-in Hospital, a very much smaller establishment in the same neighbourhood, at a like sum. The Westminster Hospital, again, has been assessed at much less than either of the above. But, perhaps, the most extraordinary instance of perverted ingenuity has been shewn in the case of St. George's Hospital. St. George's, Hanover Square—the richest parish—at least, it must contain a larger number of rich people than any parish in the world—has rated the hospital at upwards of £4000 a year. On this rating, the governors will have to pay just about £600 a-year. £600 to be paid to the parish for doing day by day parish work. Suppose no hospitals existed in London, it is not too much to say that at least half, if not more, of the patients who attend them would become chargeable to their parishes. This parish has certainly avenged itself on the public for discussing parish affairs. We trust that the legislature will lose no time in remedying such a deformity in the laws, and pass an Act of Parliament exempting hospitals established for the treatment of the sick poor from parish rates.

The profession will learn with much pleasure that the efforts made to raise a sum of money for the purpose of reimbursing to Dr. Armstrong of Gravesend and his son the expenses to which they were put by the recent malicious action against them, have been so far successful, that a sufficient amount has already been collected. The Committee have, therefore, decided on closing the subscription-list, and on inviting Dr. Armstrong and his son to a public dinner at the Rosherville Hotel, Gravesend, on Tuesday next, the 19th instant, at half-past five P.M. Dr. Richardson, who has acted most zealously and ably as Chairman of the Committee of the Armstrong Fund, is to take the Chair. The dinner will be provided at one guinea a head; and gentlemen proposing to be present are requested to make known their wishes to Dr. Gramshaw of Gravesend. We trust that there will be a large attendance.

The June number of the *Journal of Social Science* contains an instructive paper by Mr. Rawlinson on the Pollution of Rivers. In the same number, the editor, Dr. Lankester, boldly states that "the prediction of Dr. Farr with regard to Cattle-plague has been all but literally fulfilled." He even calls it "a remarkable exemplification of a natural law." In other words, Dr. Lankester affirms that the Cattle-plague is dying out naturally, and that the orders of Privy Council have had nothing to do with arresting its stay. In deference to common sense, the editor should surely have explained his grounds for this strange statement—should have shown that the Orders of Council have been useless and utterly ineffective; that the careful isolation of animals suffering from a virulently contagious disease has had nothing to do with arresting its progress—because this is the manifest corollary of his position.

Mr. H. G. Moore describes a case of clitoridectomy (*Lancet*). It is that of a lady, 26 years old, who had been epileptic twenty-two years. At the Surgical Home she lately "underwent the operation as before, suffered intense pain afterwards, and, thirteen weeks after admission, was discharged, if not cured, benefited. But a month had not passed before her fits returned with a severity never before equalled, and she is now as bad as ever."

Mr. Kesteven records in the *Lancet* (June 9th) a case of a girl in whom typhoid fever and measles were coincident.

In a case of croup under Dr. Wilks at Guy's Hospital, where tracheotomy was performed, the child died five days after the operation, from ulceration into the innominate artery.

Dr. Hassall gives an analysis of the bran-biscuits used in diabetes; and affirms therein that they are "totally unfit for the use of patients labouring under diabetes." The bran-biscuits, it appears, contain twenty-eight per cent. of starch.

Professor Sigmund says that, considered from a medical point of view, the chief causes of the spread of syphilis are, the ignorance of the patient as to the first signs of the disease, as well as of the duration of the disease; the too late application of the patient for medical aid, and his too early giving of it up. Both in hospital and in private practice, we constantly see patients who have no idea of the nature of their disease, or of its signification; and, moreover, patients who believe themselves cured when they are not so. In both cases, these patients are constant sources of the spread of the disease.

In Germany, to 46,000,000 of population, there are 141 lunatic asylums, 92 public and 49 private. These asylums contain 19,550 lunatics; the private 1727, and the public 17,833. There are 83 directors, 54 head physicians, and 124 assistants, to superintend them.

GANGRENE OF THE SOFT PARTS IN EARLY INFANCY.

Dr. Maximilian Herz, of the Foundling Hospital in Vienna, writes as follows on Gangrene in Infants, in the *Wiener Medizinische Wochenschrift* (Nos. 26, 27, 28, 29, 30, of the present year).

The diseases of infancy present, especially as regards their course, much similarity to those of advanced age. This is especially true as regards gangrene. Infancy and old age present many analogies as regards the occurrence and progress of gangrene; it is, however, beyond question that, in regard to the suddenness of the attack of the disease, the rapidity of its spread, and the degree to which the organism is affected, infancy leaves the other periods of life far behind. Among the causes which lead injurious influences to operate with intensity in the new-born child, which in older children and in adults would produce almost no effect, we think that sufficient importance has not been attached to the chemical and physical differences which mark the tissues of the infant. The muscular tissue, for instance, contains far less fibrine and much more albumen, and the cutaneous tissue contains a much greater amount of albumen in proportion to the epidermic and gelatinous compounds, in infants than in adults.

In the following observations we shall only speak of the death of soft parts (gangrene in its more limited sense); and first arises the question, whether the existence and characters of this gangrene undergo any visible modifications through the influence of the peculiarities which have been mentioned as belonging to the first period of life? As far as scientific researches extend, this question cannot at once be answered in the affirmative; but, as Heschl says in his *Compendium of Pathological Anatomy*, it is certain that "the ready occurrence of gangrene depends on the liability to decomposition of those chemical combinations which chiefly constitute the corresponding parts of the body, and that those parts succumb most readily which present the greatest amount of tissue-change, and therefore of vital activity."

Barthez and Rilliet divide gangrene occurring in childhood into two classes: local and general. Local gangrene they describe as the consequence of: 1, burns and scalds; 2, long continued compression; 3, obliteration of the vessels. General gangrene, on the other hand, according to these and other authors, depends on a modification of the entire organism, and may be developed under two influences; viz., 1, a cachectic or a kind of scorbutic condition, sometimes the result of the insalubrious conditions in which the children live, sometimes the effect of long continued disease or of a succession of attacks of disease; and 2, a peculiar condition induced by certain diseases, especially measles.

On comparing our experience with the important remarks of the authors just named, we must follow them in dividing gangrene into local and general; but we include in the first class both those cases which arise from direct mechanical influence, and also those which are met with as the result of previous inflammation of the soft parts (as in erysipelas). The statement of Barthez and Rilliet, that gangrene is very rarely the result of intense inflammation, is contradicted by our experience.

In the cases of general gangrene met with in the Vienna Foundling Institution, the subjects have mostly been newly born children, only a few being from two to five days old; and the mothers have suffered from various acute diseases, more rarely from chronic; among which the most frequent were puerperal diseases and syphilis. The bodies of these children were remarkable for the rapid progress of putrefaction, which, with the symptoms observed during life, must have depended on a peculiar alteration of the blood, without doubt congenital. Whether this alteration be of scorbutic character, or dependent on the diminution of fibrine and increase of albumen, is difficult to determine; but, while on the one hand such changes in the blood do occur and precede the occurrence of gangrene, on the other hand either of these conditions as a rule produces not gangrene, but hæmorrhage. Hence, in the chain of occurrences ending in gangrene, there appears to be an important link, the nature of which we are not able to explain.

Why does gangrene mostly occur only among the children of the poorer classes, and especially among those inhabiting confined institutions in large numbers? The answer is plain enough; that the insufficient and bad food, the impure air, the want of strict cleanliness, etc., must exercise an essential modifying influence on the formation of blood, on nutrition, and on the capability to resist disease. Although, of the cases observed in the Vienna institution, a number were classed under the head of purely local gangrene, and others as constitutional gangrene, there still remained a relatively large number in which this distinction could not be drawn, and in which an essential impairment of the vital powers and of the formation of the blood preceded the development of purely local gangrene. It seems nearly certain that tuberculosis performs an important part in the last named category. The connection between tuberculosis and gangrene has not been made out with positive certainty by the dissections made in our institution; but the idea of some authors, that tuberculosis and gangrene antagonise each other, has been proved erroneous, inasmuch as gangrene has been found to occur in tuberculous and non-tuberculous subjects in nearly equal proportions. It further results, from the observation that, in most of the children affected with local gangrene, nutrition has been impaired either from deprivation or from various diseases, that not only the blood but the tissues in general have hence suffered an important organic disturbance, which has led to the rapid invasion and spread of gangrene both in the parts originally affected and in the neighbouring regions, sometimes to a considerable extent.

The destruction of tissues by chemically corrosive agents, being only of occasional occurrence and comparatively rare, may be dismissed from consideration. On the other hand, other causes, by their continuous operation in early childhood, must be reckoned as the *fons et origo mali*. Such are the often abnormally altered fæces and urine of small children, which produce erythema, erosion, and ulceration, on the posterior and inner surfaces of the thighs, on the genital regions, on the buttocks, and even on the heels and ankles, and which may by their continued action (favoured by want of cleanliness and a previous cachectic state of the child) gradually cause death of the soft parts affected. The exudation which oozes from the skin in intertrigo acts in a similar way; cases, in which gangrene has succeeded apparently unimportant erosions, are not unfrequent, and occur not only in reduced organisms, but in strong well nourished children. That also the fluid contained in the bullæ of pemphigus may produce the death of the tissue in immediate contact with it, has been shewn in a remarkable instance in which the scalp of an infant born of a syphilitic mother was affected.

Mechanical destruction of tissues is produced by

the use of blunt or of sharp instruments, and has been frequently seen to follow the application of forceps to the head or the opening of abscesses. Regarding the latter, it is of some importance to observe, that in young children gangrene is very liable to occur in the lips of the wound when a crucial incision is made. In the death of the lips of such wounds, on the one hand the chemical irritation of the fluid contained in the abscess, and on the other the mechanical pressure to which the involved portions of skin are subjected before the opening of the abscess, must in our opinion be considered as favouring the occurrence of gangrene; and from this point of view it appears an urgent indication to open abscesses in young children at the earliest possible period. Another influence, also mechanical, operates chiefly in the production of bed-sores and the gangrenous destruction of parts in the immediate neighbourhood; this occurrence is by no means exceptional or unfrequent in small children who have been subjected to weakening diseases, and demands the most careful examination and watching.

In opposition to Barthez and Rilliet, we must, according to our observations, place high degrees of inflammation in the first place among the influences favouring the production of gangrene. Gangrene may arise in consequence of the most varied forms of inflammation, such as erysipelas, otitis, parotitis, mastitis, stomatitis, vaginitis, arteritis, inflammation of the umbilical vein, etc. In all these and in similar diseases the inflammation may, in the prevalence of certain conditions, end in the death of the part originally attacked and also of the next adjacent tissues.

To the exceptional cases of gangrene, whose cause is not to be sought in a local affection, but rather in general disturbance affecting the whole organism, belong especially the vesications which usually appear on the parts most distant from the centres of circulation and respiration in feeble or decrepid infants. We have had opportunity of observing this form of gangrene in children, whose organisation has been from birth exceedingly weak, and their respiration and circulation very defective; in children, in whom there have been either anomalies of the vessels or long continued arrest of the heart's action in the fœtal state; in children, finally, in whom, through the most varied diseased conditions, the processes of sanguification and circulation have undergone considerable disturbance, extending even to the capillaries of the most distant parts of the body. Without any doubt, this form of gangrene is to be referred to an impediment of the capillary circulation dependent partly on internal and partly on external causes; and in this respect it is analogous to senile gangrene. This form also appears to form the transition between local and so-called general gangrene; the same physical influences, to which we have referred, must necessarily produce essential changes in the vital and dynamic conditions, while it is equally evident that essential modifications in the circulation are from the first connected with the alterations in the state of the blood, or at least may result therefrom.

After these preliminary remarks, we will consider in greater detail the forms of gangrene which most frequently occur in the first period of infant life. An anatomical order will be followed.

1. *Gangrene of the Soft Parts of the Head.* In this situation, we have seen gangrene arise from most varied causes. In the cases observed, the following were the causes: mechanical pressure (which cannot always be avoided, *e.g.*, in forceps-deliveries); inflammation of the integument of the external auditory meatus; intertrigo in the fold behind the external ear; and inflammation of the scalp and of its cellular tissue.

The patients, in whom we observed gangrene as the result of mechanical force, were (perhaps only accidentally) generally strong and well nourished. This circumstance we especially notice, because it manifestly must have exerted the greatest influence in the limitation of the gangrene to the parts originally affected, which was observed in these cases, as well as in the relatively short time required for recovery. The removal of the limited slough, as well as the gradual repair of loss of substance, presented as a rule no deviations worthy of mention.

More unfavourable was the result in those cases in which the gangrene originated either in the auditory meatus or in the fold of the ear. It was only in extremely rare cases, occurring exceptionally in strong children, that the gangrene was limited and that the patients escaped with a comparatively small loss of substance. In most of the patients, who were almost without exception cachectic, the gangrenous destruction spread with extreme rapidity both inwards and outwards, over the whole external ear, the adjacent parts of the face, the nape, and the scalp, sometimes to the extent of an inch or an inch and a half beyond the ear. Besides the more or less profuse external hæmorrhage from the vessels destroyed by the sloughing, there was one case in which hæmorrhage took place internally. In this case the tissues of the internal ear and also the adjacent dura mater were partly destroyed, leaving an opening more than three lines in length, through which blood, from a vessel external to the skull which became eroded a short time before death, passed into the cranial cavity, and was found, to the amount of more than three ounces, lying between the dura mater and the brain.

In some of the cases, there was destruction of the peripheric branches of the facial nerve, with consequent paralysis of the corresponding side of the face; and in a number of instances death, which occurred from the second to the ninth day, was preceded by sopor and convulsions. In other cases, these symptoms were absent; and, on *post mortem* examination, nothing abnormal was found in the brain or its membranes beyond an anæmic condition, sometimes of a high degree, corresponding with the general state of the strength. The autopsy in many cases shewed affections of the periosteum, of the membrana tympani, and of the ossicles of the ear.

Among the numerous cases of erysipelas observed by us, the inflammation was relatively but very seldom limited to the scalp. But cases did occur—not sporadically, but several together or in immediate succession—in which erysipelas remained stationary in the scalp, especially in the occipital region. The results of this inflammation are well known: one of them consists in the rapid effusion of abundant exudation and the sloughing of the integuments. The more or less sudden occurrence of this result, and the extension of the diseased process, depend on special circumstances, such as the violence of the inflammation, the condition of the patient, etc. Notwithstanding that it is stated in surgical works, that gangrene of the external integuments of the skull is followed by mischievous results of importance only when there has been considerable destruction of tissue and the bones have been laid bare, we have not met with one case in infants of recovery after gangrene of a portion of the scalp. Dr. Prinz, the Director of the Foundling Institution, who has had the opportunity of observing more than one hundred thousand children, is acquainted with only one case of recovery in such circumstances. This unfortunate result is indisputably due, on the one hand, to the

communication between the veins of the scalp and those of the cranial bones and the cerebral sinuses, and on the other hand to the very frequent complications with lesions of other organs, as of the covering of the chest and abdomen, the lungs, the intestinal canal, etc.

The form of gangrene known as noma, which more frequently occurs in older children, we have not had an opportunity of observing: it is certainly very rare in young children. On the other hand, there were numerous cases in which gangrene of the mucous membrane of the mouth—sometimes limited, sometimes extending over a large surface—was observed as the result of the so-called aphthous stomatitis which so frequently occurs in lying-in and foundling hospitals. The patients thus affected were without exception cachectic, or reduced by various diseases. The mucous membrane of the parts affected became of a blackish brown or bluish red colour, and was covered with a deep red or a whitish grey exudation; the mucous membrane and subcutaneous cellular tissue were rapidly destroyed, and the bones were laid bare and necrosed. The destruction of the mucous membrane frequently extended beyond the parts originally affected; especially often was there necrosis of the alveolar processes, in consequence of their being laid bare through the destruction of the mucous membrane covering them. The reason why death was almost always the result in these cases, is plain; the occurrence of the disease was principally induced by cachexia, and the organism was very materially affected through the absorption of deleterious matters into the blood.

Especially remarkable, both in this form of the disease and in that form in which the affection of mucous membrane is a result of the extension of diseases of the tissues of the face, such as erysipelas, is the extraordinary rapidity with which gangrenous destruction of the involved portion of mucous membrane takes place. Only a few hours usually elapse before the mucous membrane, greatly swollen, but apparently unchanged in its histological characters, assumes a bluish red or blackish brown colour, and becomes as friable as tinder.

2. *Local Gangrene of the Soft Parts of the Trunk.* Of this, those instances only which have most frequently occurred will be noticed; such as gangrene of the axilla and umbilicus, and the gangrenous destruction sometimes affecting the external genital organs.

Gangrene of the Axillæ showed, in relation to its invasion, course, and result, an essential analogy with gangrene of the ear and adjacent parts. Most of the little patients in whom we have had the opportunity of observing this lesion, were already suffering from the disease before being brought into the institution; and the histories of the cases revealed the neglect of previously existing excoriations of the part, while the entire outward appearance of the children usually gave indubitable evidence of extreme neglect of the most elementary rules of hygiene. Notwithstanding, besides a remarkable number of cachectic children, some were brought into the institution suffering from gangrene in the axilla, whose constitution was apparently in a more favourable condition, although the local lesion had attained a rather considerable extent. This difference in the nutrition and development of the children exerted an essential influence on the course of the disease; and it is to this circumstance before all others that are to be attributed the very fortunate results of treatment in a number of cases where the destruction of tissue was extensive. Of complications and sequelæ connected with the gangrene, we have to mention hæmorrhage from eroded vessels, and pleurisy from the extension of the gangrene over the corresponding half of the chest.

Of *Gangrene of the Umbilicus*, a considerable number of cases have annually come under observation. It is divided by Professor Widerhofer into three forms, according to its origin; viz.: *a*, that which arises from omphalitis; *b*, that which is produced by inflammation of the umbilical vessels; and *c*, the so-called secondary umbilical gangrene, which usually occurs as the result of extremely exhausting diseases, is characterised by an entire absence of all redness denoting reaction, and is always fatal. Less unfavourable is the prognosis in the gangrene arising from omphalitis; while that which proceeds from inflammation of the umbilical vessels leaves little or no ground for hope from treatment. Yet, besides the cause, the constitution of the child exerts an extremely important influence on the course of the disease and on the prognosis; inasmuch as the inflammatory reaction necessary for the throwing off of the slough and the repair of the destroyed tissue depends essentially for its intensity and extent, to a certain necessary degree, on the vital powers of the child. The complications of umbilical gangrene are numerous, and manifest themselves mostly in the implication of the tissues lying in the immediate vicinity of the umbilicus; especially the peritoneum, which, in a very large number of cases, was found hyperæmic or inflamed to an extent corresponding with the superficial destruction. Perforation of the peritoneum and of the intestine was observed sometimes. In such cases, it is of vital importance whether union of the intestine with the abdominal wall by means of peritoneal inflammation have or have not been effected: in the former case, an artificial anus is formed; in the latter, general peritonitis usually puts an end to the child's life. The average duration of the disease in the fatal cases has been observed to be 5.64 days; and in those which recovered, 22.11 days.

Gangrene of the External Genital Organs has been observed in two forms; one being the result of erysipelas, and the other connected with inflammation of the vulva and vagina.

It is known that erysipelas has a special predilection for certain parts of the body; among these are the genital organs, and especially the scrotum, which we have seen swollen to five or six times its normal size. In such cases, the external skin becomes distended to the utmost, shining, and tense; and, in the course of a few hours, there are observed on it isolated spots, at the same level with the remaining skin, at first remarkably white, afterwards of either a dark red or violet colour; these gradually extend in circumference, become united, and soon assume a blackish or black colour. In the cases of this category observed by us, the gangrene appeared with extreme rapidity, and attained a considerable extent in a very short time; but did not in any case reach the deeper parts, as in all the patients death occurred at a very early period.

In the three cases of gangrene of the vulva which came under notice, the destruction of the soft parts extended more deeply and widely. In one case, erysipelas was the cause. In a second case, that of a wet-nursed child twenty-eight days old, weakened by chronic intestinal catarrh, the cause of the hyperæmia of the labia, which was accompanied by a thin discharge from the vagina, could not be ascertained. In spite of vigorous antiphlogistic treatment, gangrene appeared on a small spot on the inner surface of the right labium majus, and spread with extraordinary rapidity to the whole of the adjacent soft parts. The gangrene became limited for the first time on the fourth day; and in two days more the

slough was cast off, shewing the depth to which destruction had taken place. Although the strength of the child, otherwise weakened, was reduced to the utmost by this process, healthy and abundant granulations appeared on the denuded spots; but an attack of pneumonia, running a very rapid course, put an end to the patient's life on the eighth day. The third patient was brought into the institution moribund, with gangrene; no information could be obtained regarding the cause, beginning, and duration of the disease.

Among the great number of children which annually enter the Foundling Institution, gangrene in this part is very rare; and so far we agree with Bouchut, that it very seldom occurs in infants. But with regard to the opinion of Bouchut, that this destructive process is to be looked on as the result of a constitutional condition of the children, our experience leads us to differ from this, on the ground that, although very many of the children in the Foundling Institution are of impaired constitution, gangrene of the female genital organs is not met with nearly so frequently as in other localities, especially the umbilicus.

In conclusion, we may observe that not only the different parts of the head and body which have been already mentioned, but also the limbs, are frequently affected by extensive gangrenous destruction, the result of a high degree of erysipelas. In most of the cases, the little patients have died before the gangrene has destroyed the tissues to any remarkable depth.

PUBLIC VACCINATION.

The following petition has been presented from the Manchester Medico-Ethical Association.

To the Honourable the Commons of the United Kingdom of Great Britain and Ireland, in Parliament assembled.

The petition of the undersigned, on behalf of the Manchester Medico-Ethical Association,

Humbly Sheweth—

That it is of great national importance that universal and compulsory vaccination shall be established by law.

That a Bill is now before your Honourable House which has for its object the attainment of this end.

That this Bill, while highly commendable in its ultimate aim, is defective or erroneous on the following points.

1. That no *public prosecutor* of persons evading its enactments is provided for; without whom it is likely to become almost a dead letter.

2. That the *rate of remuneration* awarded to the public vaccinator is insufficient; more especially as it affects the country medical practitioners.

3. That the *compulsory demand* (enforced by penalties) from all medical practitioners, of professional service to the state *without remuneration*, is an oppression of one class of the community for the benefit of the rest, and contrary to the whole spirit of British legislation.

4. That no adequate provision is made for a sufficient and periodical supply of vaccine lymph from the cow.

Your petitioners, therefore, humbly pray that your Honourable House will pass such a measure as will secure the country from the ravages of so dreadful a malady as small-pox; and that the four points above named may, at the same time, obtain your earnest consideration.

And your petitioners will ever pray, etc.

Association Intelligence.

BRITISH MEDICAL ASSOCIATION: ANNUAL MEETING.

The Thirty-fourth Annual Meeting of the British Medical Association will be held at Chester, on Tuesday, Wednesday, Thursday, and Friday, the 7th, 8th, 9th, and 10th days of August next.

President—S. J. Jeaffreson, M.D.Cantab.

President-elect—Edward Waters, M.D.Edin.

The Address in Medicine will be delivered by J. Hughes Bennett, M.D., F.R.S.Edin., Professor of the Institutes of Medicine and Clinical Medicine in the University of Edinburgh.

The Address in Surgery will be delivered by William Bowman, Esq., F.R.S., etc.

The following special subjects will be introduced for discussion:—

Dr. Sibson, F.R.S., and Mr. Holmes: What is the influence of Hospitals on Health and Mortality,

Dr. Stewart: Is the Expectant Method to be relied upon in the Treatment of any form of Acute Disease?

Mr. Alfred Baker (Birmingham): Are there any trustworthy facts as to the Origin of Pyæmia?

Professor Christison, F.R.S. (Edinburgh): Observations on the Register of Deaths in Scotland.

T. Watkin Williams, *General Secretary.*

13, Newhall Street, Birmingham, June 5th, 1866.

BRANCH MEETINGS TO BE HELD.

NAME OF BRANCH.	PLACE OF MEETING.	DATE.
Midland. [Annual.]	Guildhall, Lincoln.	Thursday, June 21, 1.30 P.M.
Northern. [Annual.]	County Hospital, Durham.	Friday, June 22, 2.30 P.M.
Cambridge and Huntingdon. [Annual.]	Committee Room of the Corn Exchange, St. Neots.	Tuesday, June 26th, 2.30 P.M.
East Anglian. [Annual.]	Museum Room of Hospital, Norwich.	Friday, June 29th, 2 P.M.
North Wales. [Annual.]	George Hotel, near Bangor.	Tuesday, July 3, 12 noon.
Metropol. Counties. [Annual.]	Crystal Palace, Sydenham.	Wednesday, July 4, 3 P.M.
West Somerset. [Annual.]	George Hotel, Ilminster.	Wed., July 11, 2.30 P.M.
Bath and Bristol. [Annual.]	Mineral Water Hospital, Bath.	Thurs., July 19th, 4.30 P.M.

EAST ANGLIAN BRANCH.

The annual meeting of the East Anglian Branch will be held at Norwich, in the Museum Room of the Norfolk and Norwich Hospital, on Friday, June 29th, at 2 P.M.; T. W. Crosse, Esq., President, in the chair. The members will afterwards dine together at 5.30 P.M.

Gentlemen intending to read papers or cases are requested to forward the titles of the same to the Honorary Secretary, without delay.

The members are invited to attend, in order to take into consideration the proposed amalgamation with the Cambridge and Huntingdon Branch.

J. B. Pitt, *Hon. Secretary.*

St. Stephen's Street, Norwich.

MIDLAND BRANCH.

The annual meeting of the Midland Branch will be held in the Guildhall, Lincoln, on Thursday, June 21st, at 1.30 P.M.; Septimus Lowe, Esq., President, in the chair. Dinner at the Saracen's Head at 3.30 P.M.

Gentlemen intending to read papers or cases, are requested to communicate, as soon as convenient, with Dr. Mitchinson, *Hon. Secretary*.

Lincoln, June 5th, 1866.

NORTHERN BRANCH.

The annual meeting of the Northern Branch will be held in the County Hospital, Durham, on Friday, June 22nd, at 2.30 P.M.; Sir John Fife, F.R.C.S., President, in the chair.

Dinner at the County Hotel, at 5 P.M.

Gentlemen intending to read papers or cases, are requested to forward the titles of the same to the Honorary Secretary without delay.

G. H. Philipson, M.D., *Hon. Sec.*

Newcastle-upon-Tyne, May 19th, 1866.

CAMBRIDGE AND HUNTINGDON BRANCH.

The annual meeting of the Cambridge and Huntingdon Branch will be held at St. Neots, in the Committee Room of the Corn Exchange, on Tuesday, June 26th, at 2.30 P.M.; J. J. Evans, Esq., President, in the chair.

Gentlemen intending to read papers or cases are requested to forward the titles of the same to the Honorary Secretary, without delay.

P. W. Latham, M.D., *Hon. Secretary*.

15, Sidney Street, Cambridge.

NORTH WALES BRANCH.

The annual meeting of the North Wales Branch will be held at Westbury Mount, Menai Bridge, the residence of R. Thomas, Esq., on Tuesday, July 3rd, at 12 o'clock noon; J. C. Davies, M.D., of Holywell, President, in the chair. Luncheon will be provided by Mr. Thomas. After the meeting, the members and their friends will dine together at the George Hotel, near Bangor, at 3 P.M.

Gentlemen having papers or cases to read, are requested to make an early intimation of the same to the Secretary; and also to state whether they intend to stay for dinner.

D. Kent Jones, *Hon. Secretary*.

Beaumaris, June 5th, 1866.

METROPOLITAN COUNTIES BRANCH.

The fourteenth annual meeting of the Metropolitan Counties Branch will be held at the Crystal Palace, Sydenham, on Wednesday, July 4th, at 3 P.M. *President* for 1865-66, Edward H. Sieveking, M.D.; *President-elect* for 1866-67, Henry Lee, Esq., F.R.C.S.

At 5.30 P.M., the members will dine together; Henry Lee, Esq., in the chair.

A. P. Stewart, M.D.
Alexander Henry, M.D. } *Hon. Secs.*

London, June 4th, 1866.

BATH AND BRISTOL BRANCH.

The annual meeting of the Bath and Bristol Branch will be held at the Mineral Water Hospital, Bath, on Thursday, July 19th, at 4.30 P.M. Dinner at the York House, at 6.30 P.M.

R. S. Fowler, *Hon. Secretary*.

WEST SOMERSET BRANCH.

The annual meeting of the West Somerset Branch will be held at the George Hotel, Ilminster, on Wednesday, July 11th, at 2.30 P.M.; G. R. Burtt, Esq., will take the chair. Dinner at 5 P.M.

Gentlemen intending to read papers or cases are requested to forward the titles of the same to the Honorary Secretary, without delay.

W. M. Kelly, M.D., *Hon. Sec.*

Taunton, June 11th, 1866.

SOUTH MIDLAND BRANCH: ANNUAL MEETING.

The tenth annual meeting was held at the Swan Hotel, Bedford, on Thursday, June 7th, 1866, at 2 P.M.; Edward Lawford, M.D., President, in the chair. There were also present: C. C. Balding, Esq.; F. C. Beechey, Esq.; J. M. Bryan, M.D.; Jabez Carter, Esq.; Robert Ceely, Esq.; Robert Death, Esq.; Edward Dudley, Esq.; G. H. Grindon, Esq.; G. P. Goldsmith, Esq.; Graily Hewitt, M.D.; W. P. Knott, Esq.; Wm. Moxon, Esq.; C. E. Prior, M.D.; H. W. Sharpin, Esq.; Henry Terry, jun., Esq.; H. Veasey, Esq.; R. W. Watkins, Esq.; Edward Woakes, M.D.; J. F. Williams, Esq.; John Williamson, Esq.

Mr. Ashdown, President, being unavoidably absent, Dr. Bryan explained the same; and made a few remarks on the continued prosperity of the Branch, which numbers about ninety members, and has funds in hand to the amount of £7 : 5. He then introduced Dr. Lawford to the chair.

Officers and Committee. The following were proposed and unanimously elected. *President-elect*, R. W. Watkins, Esq., Towcester. *Executive Committee*—Jabez Carter, Esq., Bedford; G. H. Haslop, Esq., Birmingham; C. C. Hicks, M.D., Dunstable; C. Hooper, Esq., Aylesbury; William Moxon, Esq., Eustace Olive, Esq., and H. Terry, jun., Esq., of Northampton; and C. Whitton, M.D., Stony Stratford. *Representatives in the General Council.* R. Ceely, Esq.; H. Hailey, Esq.; J. G. Leete, Esq.; H. Veasey, Esq. *Directors of the Medical Provident Society.* H. Veasey, Esq.; E. Lawford, M.D. *Honorary Secretaries*—J. M. Bryan, M.D., and G. P. Goldsmith, Esq.; *Treasurer*—J. M. Bryan, M.D.

New Members. The following were unanimously elected. C. E. Prior, M.D., and W. Thurnall, Esq., Bedford, proposed by Mr. H. Terry; W. P. Knott, Esq., Bugbrooke, proposed by Mr. Moxon; and F. C. Beechey, Esq., Kempston, proposed by Mr. Carter.

An Address was then read by the President, which will be published.

Papers and Cases. The following papers and cases were then read.

1. Remarks on the Appearance of an Uterus during Menstruation of a Female aged 17, who died from the effects of a Burn. A plate of the same was shewn. By Graily Hewitt, M.D.

2. Remarks on *Post Partum* Disorders (puerperal) with which we are likely to meet, *e.g.*, on Retroflection of the Uterus; with Plates. By Graily Hewitt, M.D. A pessary was shewn adapted to the peculiar cases, made of wire covered with gutta percha, and called Hodge's Pessary.

3. Remarks on Pelvic Inflammation, or Pelvic Cellulitis. Illustrations were shown. By Graily Hewitt, M.D.

4. On the Mutual Relations of Health, Disease, and Cure. By Edward Woakes, M.D.

5. A Case of Sudden Death from Congestion of the Kidneys. By C. E. Prior, M.D.

6. Case of a Fœtus retained in the Abdomen forty-three Years (the person dying at the age of 73). By R. W. Watkins, Esq. The fœtus was exhibited.

7. A paper, by the late Dr. Barker, on Sleep as a Therapeutic Agent. Read by G. P. Goldsmith, Esq.

Discussions followed the reading of several of the papers.

Votes of Condolence. Mr. J. F. Williams proposed, Mr. Carter seconded, and it was carried unanimously—

"That a vote of condolence be offered to the widow and family of the late Dr. Barker."

Mr. Veasey made some remarks, eulogising Dr. Barker's attainments.

Mr. Veasey proposed, Mr. Williams seconded, and it was resolved—

"That a vote of condolence be offered to the friends of the late Mr. Edward Daniell."

Vote of Thanks. Dr. Lawford moved a vote of thanks to the authors of papers, with a request that they allow them to be published in the Journal.

A vote of thanks was then given to the President; and the meeting adjourned to a handsome dinner at the hotel, sixteen in number sitting down. The usual loyal and other toasts were drunk; and the party separated much pleased with the meeting and entertainment.

Luncheon on a most liberal scale was provided previously to the meeting by Dr. Lawford.

The Autumnal Meeting is to be held at Leighton Buzzard in October.

Reports of Societies.

HARVEIAN SOCIETY OF LONDON.

May 3rd, 1866.

Tyler Smith, M.D., President, in the Chair.

Detachment of the Retina; its Causes and Treatment. By Haynes Walton, Esq. Detachment of the retina from the choroid might be the result of an accident, such as a blow on the eye-ball or about the orbit; but for the most part, it could not be traced to an injury. It was the physical effect of fluid effusions of various natures, chiefly, however, serous, or of firm solid deposits, or of malignant disease. It was the class of cases produced only by the pouring out of serum, "dropsy under the retina," that he should consider. This separation of the ocular tunics was of common occurrence, and was one of the greatest mechanical changes that occurred in the eye, and yet was one without any external or objective symptoms. It was only by an ophthalmoscopic examination that the true nature of the case could be made out. There were undulating folds of the retina, or bulging of the retina in a tense form, the colour of the membrane varying from a light blueish or greyish tint, to a dead white, which was characteristic of old detachment. The recognition of the retinal vessels removed doubt of the diagnosis. The detachment might be partial, destroying sight to a limited degree, or general, totally annihilating vision. The tendency in the affection was always to become worse, so that a worse class of cases could not occur. There was no opportunity for the natural reparative power. It was Mr. Walton's conviction, however, that there was scope for treatment and opportunity for success; and that this consisted in general and local measures; but the treatment should be commenced early, or little benefit could be expected. He deprecated the idea that a mere operative proceeding could be curative, dwelt on the pathology of the affection, and showed that it was the result of morbid actions taking place within the eye, of an inflammatory nature, and mostly of an asthenic form. The retina and the choroid being but slightly connected, there was little or no resistance to extravasation, which quickly gravitated from one part to another. The separation of the retina after an accident he explained in the same way, there being first, the inflammation and then the exudations between the retina and choroid. It was characteristic of the affection to proceed painlessly, and without any other symptom but that of impaired vision, the peculiarities of which were carefully pointed out. A remarkable case was given in illustration. A patient was brought to Mr. Walton with detached retina in one eye of old standing, and inflammation of the interior of the other eye-ball producing among its effects haziness of the vitreous humour, so that the fundus of the eye could not be seen. After general treatment the vitreous humour cleared, the shreds and floating particles in it gradually disappearing, and there was discovered partial detachment of the retina. With all this morbid action in the interior of the eye, there was not the slightest trace of disease in any of the external tissues. This was just the kind of case, Mr. Walton said, that he had been looking for. In the one eye certain conditions had been developed, that left, as one at least of its effects, a separated retina; in the other, was to be seen that intensity of internal action, which, in all probability, was a parallel of what had taken place in the first, and which in the end separated the retina. He operated on both eyes, and evacuated the subretinal fluid. He found it necessary to operate a second time on the eye recently affected, at the interval of a month, having up to that period still continued the general treatment, which consisted of small doses of mercury with hyoscyamus, and a mixture of iodide of potassium with cinchona. The result was, in the eye with the acute disease, the restoration of useful vision. In that which had been attacked two years before, no benefit ensued. Mr. Walton gave a detailed account of his method of operating, which was by puncturing the sclerotic and leaving the retina untouched, the fluid escaping between the sclerotic and conjunctiva. He assigned several reasons for preferring this to puncturing the retina with an endeavour to cause the effused fluid to escape in the vitreous humour, as practised by the Germans. He gave the general result of many cases in which he had adopted this simple treatment. In the mass of them no benefit resulted, and indeed he expected little, because they were chronic cases. In some recent cases, however, he had not the slightest doubt of having an amount of useful vision.

Dr. C. Drysdale said it appeared that the affection mentioned by Mr. Walton was inflammatory in its nature, and, in consequence of this, mercury was recommended. Now this was a question in therapeutics which belonged to the whole of medical science, and not alone to ophthalmology, for, if mercury would cure inflammation in the eye, of course it would do the same in other organs. But some of the most eminent physicians of the day, for example Dr. Hughes Bennett, and Dr. Walshe, said that mercury was certainly never of the slightest service in internal inflammation. Carmichael of Dublin, Williams of Boston, Zachariah Laurence, Boeck, Hughes Bennett, and others, had published many cases of syphilitic and other forms of iritis, which had completely recovered without a grain of mercury. He had treated several cases of syphilitic iritis quite successfully without mercury. Mr. Acton had said that it seemed as if iritis were sometimes caused in syphilitic

persons by giving mercury. Boeck was much averse to mercury in iritis, which affection he treated by dropping atropine solution occasionally into the eye.

Mr. Berkeley Hill asked whether the cases of separation of the retina from the choroid referred to, were often found in syphilitic persons. He was glad to hear that Mr. Walton recommended mercury in such cases, as it tallied with his experience in the treatment of inflammation of the eye.

Dr. Stewart said that the affections treated as by Mr. Walton were especially important in a medico-legal point of view.

Dr. Cock said that the question of the giving mercury in inflammation depended a great deal upon diagnosis and experience. As a general rule he considered it no remedy in inflammation of the internal organs, yet he believed that there were but few physicians who would not administer mercury in pleurisy. Why did we administer any remedy? Because we wished for results, and our experience told us to expect good results from a peculiar remedy.

Mr. Haynes Walton said that he was convinced of the necessity for the administration of mercury in inflammation of the eye. The cases cited by the various authors, quoted by Dr. Drysdale, were, he must think, cases in which the diagnosis had not been correctly made. Iritis was an inflammation of the whole eye. Atropine did not act on the retina when the inflammation was at its height, only when it began to subside. Mr. Bowman, Mr. Critchett, Mr. Dixon, and other gentlemen with whom he was accustomed to consult, were all in favour of administering mercury in iritis and inflammation of the eye. He could not answer Mr. Hill's question, as to the occurrence of the disease of which he had spoken in syphilitic persons.

Case of Chronic Empyema with Fistulous Openings, treated by repeated Tappings: Drainage and Regular Evacuation of the Pus. By M. Berkeley Hill, Esq. A sailor, aged 29, of good natural constitution, was admitted into the University College Hospital, in August 1864, with pleurisy on the left side, and effusion so great as to cause great dyspnœa. He was tapped, and some pints of pus were discharged, and the hole was at first closed. This relieved him much; the chest collapsed a good deal, but in a few weeks the pus reaccumulated. The pus oozed from the puncture. He was tapped at intervals varying from four weeks to three months; and on the last occasion, an India-rubber drainage-tube was passed through the chest-wall and maintained a constant evacuation. He was, while wearing the tube, sent to the sea-side for a month, and returned so far convalescent as to be discharged. He worked as bargeman for two months; but the dyspnœa returned, and he entered the hospital again July 28th, 1865. A drainage-tube was again inserted; but the fluid could only be partly cleared out by this method. Attempts were made to clean out the cavity, which now contained very offensive pus, and in September the tube was withdrawn, as it produced great irritation. Dr. Jenner requested Mr. Hill to endeavour to devise some method by which the pleural cavity could be discharged as rapidly as the pus was secreted. At this time a stream of foul, stinking pus trickled from these sinuses in the fifth and sixth interspaces, gushing out when the patient coughed. He expectorated several ounces of pus daily. It was suggested that an attempt should be made to compress the chest wall externally, and Mr. Coxeter fitted an apparatus with a spring which pushed inwards the inner ribs; but the patient could not support this. On 30th December, a gum elastic catheter was passed, and a few ounces of pus drawn off, and next day a straight pewter catheter, which penetrated three inches and a half, and through which thirty-four ounces of putrid matter escaped. The catheter was left in four hours. This relieved the patient greatly. For the next three days thirty-one, twenty-one, and twenty-one ounces were withdrawn. On January 6th, sixteen ounces of pus were drawn off, quite without odour. His appetite was excellent, and the temperature fell from 100° to the natural level. The tube, passed daily, drew off from twelve to sixteen ounces of pus. He was then able to get up; his chest measuring sixteen inches and a quarter on the diseased side, eighteen inches and a half on the sound side, having measured nineteen inches and a half on the diseased side before evacuating the pus. The percussion note on the diseased side was only slightly resonant in the infraclavicular region, amphoric at the nipple. It being found impossible to prevent air from entering while the instrument was drawing off the fluid, a valve was constructed, which, when submerged in water, completely prevented the return either of air or pus into the thorax. On January 15th, the usual daily evacuation was six or seven ounces. On the 17th, he had gained seven pounds in weight. On February 4th, after evacuating some pus, the left side measured seventeen inches. The heart's apex was now an inch and a half left of the sternum, and respiration was heard distinctly over the whole of the left lung. On February 18th, the patient declared himself as well as he ever was in his life, and asked to be discharged. He went to Eastbourne for three weeks, and then returned stout and well, still drawing off an ounce or so of fluid every morning. He was discharged with instructions to draw off the fluid every day. On April 29th, he called at the hospital to say that he was in excellent health, at work on board a yacht, he still drew off an ounce of fluid daily. In purulent collections in the pleura, then, the main conditions of cure, consisted in complete and regular evacuation of the matter formed. Several authors, also, had shown that little permanent benefit could be expected, unless the opening were made permanent. The case of Dr. Wendelstatt, was referred to, who, after an attack of empyema, for thirteen years withdrew daily, by means of a catheter, a small quantity of pus, and remained in excellent health. Iodine injections had been counselled to be used in some cases, but in this case the advice had been, to "let well alone." It was impossible to prevent air from entering the chest; but it only did harm (when in small quantities) if the fluid were allowed to collect. The readiness with which expansion began in the lung, showed that the permanent collapse and consolidation was very slow, as the man was nearly two years with more or less fluid in his chest, and his left lung compressed against his spine, yet it soon began to expand, and had regained some of its natural volume, when the man left hospital. The deduction was that, when paracentesis was performed in empyema, means must be taken to drain the cavity continuously, and the fluid should be drawn off as it is formed. Caustic injections may then be employed.

Mr. Haynes Walton said that, in some cases where he had performed the operation of paracentesis thoracis, he had done it with an apparatus like a reversed stomach-pump. This completely prevented the ingress of air into the pleural cavity. He had also made trial of this instrument in evacuating a lumbar abscess; but, for some reason, it had not succeeded.

Dr. Drysdale said that it was clear, from the happy termination of Mr. Hill's case, that, when a case of empyema was treated by thoracentesis, it was

necessary to keep continually evacuating the pus from the pleural cavity. As to the question whether such an operation should ever be performed, there was much to be said for and against. On the one hand, the great majority of all cases of empyema proved fatal, if thoracentesis were performed; but, if it were not performed, the frequent result was decline and death. Since the publication of M. Trousseau's work on *Clinical Medicine*, a revival of the operation of thoracentesis, both in empyema and pleurisy, had taken place; and he believed that, in cases of serous effusion, life might sometimes be prolonged or saved by puncturing the chest, if possible, without allowing any air to enter. He had, not long ago, recommended the operation in the case of a gentleman with large effusion into the right pleura, which threatened immediate death. The suggestion was not adopted. The patient recovered; but the lung was so much affected, that he gradually became weaker, and died of phthisis. Most cases of pleurisy recovered; but some, like the case cited, only recovered to lead to a lingering death. As a general rule, however, thoracentesis should never be adopted in empyema, he thought, and very rarely in pleuritic effusions, except when double and threatening death imminently. The fluid was often absorbed by natural means. He did not think that there was any apparatus which completely prevented the entrance of air in this operation.

Dr. Cock said that effusion might take place so rapidly as to threaten death by suffocation, in which case thoracentesis was indicated. Effusions in the latter stages of phthisis should not, however, be meddled with, in his opinion. In cases of chronic effusion, too, in the chest, it would be as well to avoid operation. The chief indication, he conceived, for operation, was the presence of effusion in both lungs, and the danger of impending dissolution.

Dr. Morton said that an American physician had practised the operation of thoracentesis to a great extent with a syringe constructed so as not let in air into the chest. Dr. Fuller had published some cases unfavourable to the practice. Beyond a certain point, there was difficulty in making the pus flow. He thought the operation of thoracentesis should never be performed, unless we were afraid that death would take place without the operation being performed.

Mr. Berkeley Hill was glad to hear that Mr. Walton had succeeded so well with the apparatus he had mentioned. The operation was a very trifling one in itself, and exempt from any immediate danger. It was the entrance of air that had always been considered of most consequence. With regard to patients suffering from large effusions, they did not always die of suffocation, but of syncope. The great rule in tapping was that, if it were performed, the liquid must be removed.

Dr. Macleod has been appointed to the charge of the lunatic asylum at Yarmouth by the Duke of Somerset.

The New York Medical College has, with other buildings, been destroyed by fire. This college had educated hundreds of the leading physicians and surgeons of America; and its museum and collection of scientific works were the best in the country. To this college the celebrated Dr. Mott, who was for many years at its head, contributed his valuable library; and the treasures of the institution were enriched by the contributions of many distinguished doctors of medicine. The students who made the college their *Alma Mater* were principally Southerners.

Correspondence.

THE PATHOLOGY OF COLLAPSE.

Letter from Geo. Johnson, M.D.

Sir,—Dr. Barclay has expressed his regret that he should have *unintentionally* misrepresented my theory in using the word "larger". The misrepresentation of which I complained involves much more than a mere verbal inaccuracy; and the subject is of such vital importance, that I beg permission to add a few words to what I have already written.

Many writers, from the date of the earliest appearance of epidemic cholera in India up to the present time, have remarked that, during the stage of collapse, the circulation through the lungs and the aëration of the blood are both in a greater or less degree impeded. Various explanations of the phenomena have been attempted. I have suggested that the arrest of the circulation may be due to the contraction of the muscular walls of the minute pulmonary arteries upon the poisoned and irritating blood; and I have referred to many facts in the history of the disease, the effect of remedies, and the results of experiments on animals which tend to confirm the theory. Every physiologist with whom I have discussed this subject admits that the explanation is a reasonable and a probable one, entirely consistent with facts and with analogy. A recent writer, the weight of whose authority, if only his name were published, would be very great, says of it: "Surely this seems a reasonable theory. It is founded on a true analogy; it is consistent with the symptoms noticed during life, and with the conditions discovered after death. We may, therefore, legitimately regard it, until fairly refuted, as a sound as well as a most ingenious and important theory. In truth, it derives strong confirmation from the fact that it unlocks, like the true key, the whole of the pathological intricacies of the disease."

Dr. Barclay, assuming the office of critic, tells you that to his mind "the argument wholly breaks down"; and, in the true spirit of unscientific intolerance, condemns you for having said aught in favour of a theory of which he so strongly disapproves. He then proceeds to expound my theory with a great show of precision. "If words mean anything," says Dr. Barclay, "Dr. Johnson's view is, that there is a 'poison' in the blood in cholera, which causes such spasm of the larger branches of the pulmonary artery that the blood cannot pass on to the smaller subdivisions; it consequently accumulates in the right side of the heart and the venous system." Now, every pathologist will see at once that, if I had put forth such a theory as this, I should have betrayed a most discreditable ignorance of the morbid anatomy of cholera, of the structure and functions of the arteries, and of the forces concerned in regulating the stream of blood.* It is for Dr. Barclay to explain how it happened that, believing as he did that he had correctly stated my theory, he did not immediately exercise his great critical and "logical acumen" in pointing out its manifest absurdity, and thus dispose of it for ever. Such a theory as this, evidently involving a physiological impossibility, might have been very easily refuted and sent to perdition.

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* The *larger branches* of the pulmonary artery are found after death to be *distended* with blood, in consequence of the obstruction in front. It is only the *minute branches* whose muscular walls enable them so to contract upon their contents as to "bar these slender channels against the advancing blood."

The proposition which I desire now to bring plainly and prominently before your readers is this. When Dr. Barclay wrote the letter (published on the 26th May) in which he criticised my "fine-spun theory", he evidently, by his own showing, had not given himself the trouble to ascertain what the theory actually is. He condemned the theory, and published his judgment, before he had examined the facts and weighed the evidence upon which the theory is based. He thus endeavoured to impose his mere *prejudice* upon the readers of the BRITISH MEDICAL JOURNAL; and this, too, with reference to a question of surpassing scientific interest and practical importance.

This, unfortunately, is not the first occasion on which I have had to remind Dr. Barclay that, whether in conducting a scientific inquiry or in criticising the doctrines of others, an accurate statement of facts is at least as important as a logical argument.

I am, etc, GEORGE JOHNSON.

Savile Row, June 11th, 1866.

"HOW SHALL WE TREAT CHOLERA?"

LETTER FROM THOMAS SKINNER, M.D.

SIR,—Although my letter of the 12th ult. was addressed to you, it was specially intended for Dr. Johnson; consequently, I did not expect to see any remarks in reply to my letter which were not direct from his own pen. As Dr. Johnson is perfectly competent to defend his own theory, for the future I shall expect to meet him alone, or, if it must be otherwise, "I will stand the hazard of the die," though "there be six Richmonds in the field," I have courage enough to meet them, and, as I intend, like Richard, to slay them all, I trust that Dr. Johnson will continue in the field until disposed of, even though he should remain protected by the lance of "so zealous and able an advocate" as yourself.

You ask me if it is "homœopathic to wrap up a sweating rheumatic fever in blankets, and give diaphoretics?" I am afraid I am not sufficiently learned in homœopathy to be able to solve such a question; but if the disease, acute rheumatic fever I presume you mean, consists in a blood-poison more or less analogous to Dr. Johnson's *cholera-cathartine et emetine*, in short, a *rheumato-diaphoresine*, which may be the case for anything that I know to the contrary, then I have no difficulty in concluding that if the patient is cured or relieved by *diaphoresis* induced by artificial means, to all intents and purposes the patient is cured or relieved on the principle of homœopathy, or by the therapeutic law of "like is cured by like," deny it who may. At the same time, I think it right to state that such is not the treatment which, *par excellence*, I should adopt in a case of acute rheumatic fever.

I beg it to be distinctly understood that, however much I may allude to homœopathy in my remarks, I am no admirer of Hahnemann or any of his disciples, although with Hippocrates I firmly believe that "like is sometimes cured by like," and if Dr. Johnson's views are sound and true, which I very much doubt, then is it also true that the "homœopathic dogma" is the most suitable and proper law to treat it by.

You doubt my being open to conviction because of the practice smacking of homœopathy. I only wish I could say that you were equally open to receive fresh light. I am pledged to no theory, nor will I be; I am bound to no practice, nor will I be, consequently, I am free to follow out the views of Dr. Johnson, or any one; but their views must be able to stand a most thorough and searching investigation. Homœopathy or no homœopathy, it would make no difference to me if I could bring my mind to believe in the doctrine and the practice.

With all deference, I decidedly object to having my sentences chopped in order to suit the argument of another, and I quite agree with Dr. Ransome that, "in this most important controversy, strict accuracy should be studied." Dr. Ransome caught Dr. Johnson mincing Sydenham to suit himself, and now I find you mincing my words to suit a similar purpose. For instance, "Did he (Dr. S.) ever hear of the 'totality of the symptoms' of cholera being produced by purging?" Certainly not! nor by vomiting and purging combined; but there might be "*the nearest approach to the* totality of the symptoms" of cholera induced by such agents.

The reason why I feel satisfied that the profession will know how to deal with cholera when it comes, is because their conduct in the past justifies me in believing so. You ask me, how can this be so when I say that we have learned nothing to lighten our ignorance. I have nowhere said so. We are increasing in knowledge, if we are only learning that the eliminative treatment of cholera is not only nothing new, but most probably that it is untrue.

You say, "Does he (Dr. S.) not see that the eliminative is, in fact, an approach to the *let alone* treatment." No; I do not see anything of the kind; because it has still to be proved that the emeto-catharsis of cholera is Nature's method of cure, and that the evacuations really contain the effete or active essentials of the disease, the self-multiplying self-eliminative *cholera-cathartine* of Dr. Johnson. I can see no approach to the *let alone* treatment in the eliminative. On the contrary, they seem, from my own point of view, to be widely opposed. In the one case, we leave all to Nature, and we know for certain that she will carry at least fifty per cent. safely through; and it is probable that a still greater percentage would recover by judicious interference. By simply looking on, Nature does all the harm, whether by under- or over-purging. In the other case, the eliminative, there seems to be very little chance of under-purging! We have the mucous membrane of the stomach and bowels in an intense state of irritability, and the glands of the membrane in such a state of superactivity, that it is a question if any known hydragogue cathartic could induce the like or increase the hypercatharsis. With such a condition of the alimentary canal to deal with, we are informed, in solemn earnest, that there is only one mode of successful treatment—viz., the eliminative—by the stomach and bowels in the form of repeated doses of emetics and castor oil—fuel to fire—"an approach to the *let alone* treatment." With all deference, I know of no treatment so far removed from the do-nothing system. This is *something more* than the "totality of the symptoms." Really, if the eliminators of cholera-cathartine by the bowels are not joking, I have only to say that the sooner they add infinitesimal doses to their system the better; if they do not, there is a strong probability they will leave to Nature and their patients "a precious cauld stane to blaw at." Truly has it been said that doctoring may be likened to a strong man, blindfolded and armed with a club, smashing furiously about him. If he be fortunate enough to hit the disease, good and well; but if he hit Nature on the head, he kills the patient. The author of this clever squib must have had the theory of the eliminators in his mind's eye when he composed it. Approach or no approach to the *let alone* treatment, I have nowhere advocated an expectant or do-nothing treatment; nor will I now compromise myself by stating what my views of treatment are.

With all deference to Dr. Johnson, the large bowel's tolerance of abundant accumulations of fæculent matter does not afford conclusive evidence that it is in general, *cæteris paribus*, more torpid and less sensitive than the small intestine. These accumulations depend upon a *morbid* condition, which might not have existed in Dr. Handfield Jones's patient. For my own part, I have so frequently observed the same thing, that I have no hesitation in adopting the explanation of Dr. Jones. If Dr. Johnson could prove that this morbid condition of bowel existed in Dr. Jones's patient, then, and then only, might there be a show of truth in his view of the case.

Dr. Johnson informs us that, in order to treat cholera homœopathically, we should have to administer his cholera-cathartine to them. Such would not be *homœo*pathic, but *iso*pathic, treatment, as in vaccinating for the relief or prevention of small-pox. Ὅμοιος (like) and Ἴσος (equal) are no more the same thing, than that a part is equal to the whole. Dr. Johnson wishes to know whether or not I am a homœopath. My professional brethren here know full well my sentiments on the subject; and I feel confident that neither my actions nor my writings have ever belied them. As for Dr. Johnson himself, I have too great an estimation of his talents, acquirements, and honour, ever to suspect him of knowingly leaning to such *an exclusive system*.

Dr. Johnson having neither time nor inclination to defend his theory and practice from the imputation of being thought "purely homœopathic", I shall not again trouble him on so sore a subject; but go direct to the point at once.

In my next, I shall endeavour to show that the phenomena of collapse and elimination are not so causally related to one another as is generally thought and believed by most parties—a fact which will be found to account for much of the discrepancy of opinion which exists as regards the necessity for this or that particular kind of treatment of cholera.

In conclusion, I never thought that so astute a reasoner as yourself could have any difficulty in reconciling the opposite practices of blood-letting and transfusion in the collapse stage of cholera; indeed, I distinctly stated that neither would have any such difficulty; but as I do not at present believe in Dr. Johnson's theory of collapse, however beautifully and elaborately spun, any more than I believe in the treatment of vomiting and purging by emeto-cathartics, so ably advocated by you both, I must postpone replying to your closing remark.

I am, etc., THO. SKINNER.

1, St. James Road, Liverpool, June 12th, 1866.

LETTER FROM ROBERT J. SPITTA, M.D.

SIR,—In your impression of May 5th, you ask the question, How shall we treat cholera? and in that, as well as in subsequent numbers, you invite replies. Perhaps, therefore, the following suggestions may be acceptable.

The question seems to resolve itself into another, How shall we treat the diarrhœa? or it may be expressed in another form still, Shall our practice be eliminative or restrictive?

Now, it appears to me that the treatment of cholera does not hinge on either of these points exclusively; but, as this statement involves a theory different from that which is generally received, I shall be obliged to introduce a few words of explanation.

First, as to the *entrance* of the poison into the system. I hold that it is *swallowed*, not *inhaled*; that it is transferred into the alimentary canal by the ingesta, liquid quite as much as solid; and being thence absorbed, that it is carried by the blood to the muscular and other contractile tissues of the body.

Next, as regards the action of the poison, I hold that its first effect is gastro-intestinal irritation; its second being on the contractile structures to which it has been conveyed.

Starting with these views, there are obviously two stages of the disorder: a stage of irritation and a stage of absorption; and I shall arrange my remarks under these heads.

But, before doing this, I must make two observations to rescue medicine from discredit. First, any medicine to be successful must be accompanied with a strict regimen of recumbency, warmth, and aqueous drinks; recumbency to prevent syncope, warmth to sustain heat, and water to supply the fluid that is passing away.

The second remark is, that the cure of a case does not acurately represent the success of a remedy: for the poison may be so overwhelming as to defy opposition, or Nature may unobtrusively achieve a cure, in spite, rather than by the aid, of any remedy.

I now proceed to offer a short plan of medicinal treatment.

In the first stage, the object is solely to allay the irritated state of the alimentary canal, and, if possible, to avert inflammation. The remedy is opium. I administer one-sixth of a grain, in the smallest possible pill, every hour; until a soothing effect has been produced; until pain and uneasiness of the bowels have been subdued, and the diarrhœa moderated. And I expect the results of this remedy in a few hours. No internal congestions follow the doses here recommended; but, by allaying irritation, the products of effusion are diminished, the propagation of the poison is arrested, and the case, as it seems to me, is far less likely to pass into the second stage of absorption and collapse.

Of the stage of absorption, there are four leading symptoms: collapse, peculiarity of the voice, cramp, and retention of the bile and urine; all attributable, as I believe, to the action of the poison on the musculo-contractile structures of the body; the collapse, to its action on the heart and blood-vessels, tending to an arrest of the blood in the capillaries; the peculiarity of the voice, to the laryngeal muscles having been attacked; the cramps, to the operation of the poison on the voluntary muscles; and the retention of the excretions, to a constricted condition of the biliary and renal ducts.

Of these, the collapse is the only symptom to be treated; the rest subside spontaneously. The remedy is calomel, carefully administered, so as not to salivate. It may be exhibited as the smallest possible pill of one grain every quarter or half-hour; until sickness has abated (if excessive sickness attend the collapse); until the pulse has risen in power; or until the slightest tinge of bile has appeared in the evacuations. Immediately the medicine has produced these effects, or any of these effects, it should, for fear of salivation, be abandoned. And about ten or twelve grains will probably be all that are required. If, after three or four hours, no alteration in the collapse be observable, the calomel should be discarded as inefficient; but, if this drug should happily display its good effects, and be on that account discontinued, then no other remedy need afterwards be exhibited. The case may be left to the simple regimen above recommended; and it will generally go on steadily to a cure without any complication.

Probably, it may be expected that the operation of calomel should be explained. This, therefore, I shall attempt; taking care to define beforehand the exact limits to which that operation is confined. I restrict

the operation of calomel to the hepatic organs only; and the theory is, that it operates by relaxing the biliary ducts which have been attacked by the absorbed poison, and by exciting a flow of bile as when ordinarily exhibited; but that in so doing it relieves the hepatic circulation, and becomes curative. For the portal current having been restored, the general circulation is so far aided, and prevented from being brought to such complete stagnation as to cause death. Thus much for calomel. It is not, in my dose, an aperient; nor do I consider it serviceable in any other way, or for aught other purpose, than that above described.

In conclusion, there are six agencies employed in the treatment of cholera:

1. *Recumbency*, to prevent syncope;
2. *Opium*, to avert inflammation and diminish the pabulum of the poison within the bowels;
3. *Warmth*, to impart artificial heat;
4. *Water*, to supply the loss of fluid;
5. *Calomel*, to unload the liver and relieve collapse;

And lastly, *Nature*, who, in the first stage, removes the poison from the bowels so as to prevent absorption; and, in the second, imparts sufficient strength to enable the heart and blood-vessels to circulate the vital fluid, until the virulence of the poison has become exhausted. I am, etc.,

ROBERT J. SPITTA.

Clapham Common, June 2nd, 1866.

LETTER FROM DANIEL NOBLE, M.D.

SIR,—Is it quite correct to say that it is the general opinion of those who are opposed to the evacuant treatment of cholera, that collapse depends exclusively upon the purging and vomiting? Is it not rather their opinion that the evacuations in question constitute a cause supervening upon that supplied by the sedative influence in which the disease originates?

May there not be some analogy between the syncope (sometimes fatal) produced immediately by diarrhœa in certain cases of heart-disease, and the collapse following choleraic diarrhœa?

Is it not possible that this diarrhœa, regarded simply as a cause of exhaustion, may have more affinity with albuminuria or diabetes, than with rheumatic perspiration or the pustular elimination occurring in small-pox? And may not there thus be analogy in favour of an astringent procedure in choleraic diarrhœa, as well as, on another hypothesis, there may be some suggestive of an evacuant treatment? I am, etc., DANIEL NOBLE.

Manchester, June 9th, 1866.

LETTER FROM T. M. GREENHOW, M.D.

SIR,—Without being desirous of denying that there is some truth in Dr. Johnson's doctrine of elimination in cholera, I would nevertheless inquire if he does not at once carry it too far and not far enough. If the poison of cholera pervades the blood so as to induce our good old friend, the *vis medicatrix naturæ*, to attempt its elimination by the serous discharges from the stomach and bowels, does she not frequently exhaust the system without effecting a cure? The poison is not confined to the serum, but pervades the whole mass of the circulating fluid; it is, therefore, only partially removed by the eliminating process which is the basis of Dr. Johnson's theory of treatment, and which, if carried out to its logical issue, would require the entire elimination of the contents of the vascular system. Instead, then, of permitting or encouraging Nature to carry off by her voluntary efforts the poison supposed to reside in the blood, which is the cause of the disease, is it not more consistent with reason and experience, since these efforts so frequently end in exhaustion and death, to attempt to check and regulate them, and to counteract their violence?

Let us for a moment advert to other diseases in which Nature is supposed with much probability to attempt the elimination of morbid poisons. In eruptive diseases, especially in small-pox, where the eliminating process is carried to the utmost limit, as when the eruption is most copious and confluent, the danger is generally greater in proportion to the extent of elimination. No doubt, this arises in a great degree from the intensity of the poison and the constitutional condition of the patients, and possibly from other concomitant circumstances.

But let us briefly turn our attention to another instance in which the eliminating efforts of Nature do not lead to a cure, but to the certain aggravation of disease, if not counteracted by judicious and prompt treatment. In syphilitic disease, if, as I suppose to be accordant with the doctrine of elimination, chancres are our effort of Nature to cure by that process, how unsuccessful is this attempt! And, if buboes are to be included in the same category, surely they do not afford any argument in support of the doctrine; nor do I suppose that any one familiar with the subsequent stages of syphilis will maintain that Nature is equal to its cure by any process of elimination; yet, by strict analogy, the primary, secondary, and tertiary symptoms ought frequently, if not constantly, to lead to that happy result.

But, without denying that the poison of cholera may and does pervade the blood, it may reasonably be asked if the solids are not equally imbued with its deadly influence. Nay, more, is not its first impression made on the nervous system? This assuredly happens with some of the most deadly poisons. Put a few drops of prussic acid on to the tongue, and instant death ensues; and a like effect follows the administration of a sufficient dose of strychnine. In both instances, is not the impression made on the nervous system before the poison has had time to enter into the general circulation? And the same is probably the case in cholera. I need not here transcribe the propositions so recently laid down in your article on this subject, contained in the number of your JOURNAL for May 26th; your readers can easily refer to them. Probably they contain much truth, but not quite unmixed with some theoretical error. I know that I shall incur the hazard of equally unfavourable criticism; but you will, nevertheless, perhaps permit me to quote a few passages from an essay on cholera published by myself soon after its first appearance in this country in 1831, in which a different explanation is given to the symptoms and progress of the disease, and a different principle of treatment proposed, from which I have on subsequent occasions, in 1849 and 1853, obtained as large a share of success as has fallen to the share of most practitioners.

"It is in the second stage, then, that the disease can be certainly recognised; and an analysis of the symptoms of that stage will enable us to discover:

"1. Great irritation of the nervous expansion of the stomach and bowels, whereby they are impelled to a frequent discharge of their contents.

"2. A peculiar condition of the mucous membrane of these organs, whereby the proper absorbent and secretory functions are entirely suspended, and they permit the profuse serous discharges to drain through them without resistance.

"3. When the serous or watery discharges from the stomach and bowels have become once fairly established, a complete suspension of the biliary and urinary secretions takes place.

"4. A failure of the action of the heart and arteries, often so complete as to amount to a total stagnation of the circulatory mass, not only in the capillaries, but in the larger vessels; where the blood is changed in quality by the failure of the process of oxygenation and the removal of its thinner parts, and diminished in quantity by the profuse serous and watery discharges from the stomach and bowels.

"5. Consequent and dependent on the arrested circulation, a complete failure of animal heat, as evinced by the cold extremities and the extraordinary coldness of the tongue and breath.

"6. Spasmodic actions, more or less severe, of the muscular apparatus, probably dependent on sympathy with the irritable condition of the alimentary canal.

"A little attention to this analytic arrangement of symptoms will prepare us for inquiring in the first place into the physiology of cholera, and subsequently will enable us to pursue distinct and rational indications of cure.

"In the treatment of cholera, then, we must hold in view—

"1. The necessity of allaying irritation in the nervous expansion of the stomach and bowels.

"2. To excite the vascular system, and to restore animal heat.

"3. To restore the suppressed secretions.

"4. To obtain healthy secretions from the bowels and kidneys.

"5. To moderate reaction, and obviate congestions, local determinations, or organic inflammations."

I shall not at present go into details of the means by which these indications were endeavoured to be accomplished; but I may notice one measure employed, not quite unsuccessfully, to rouse patients from the state of collapse so dangerously characteristic of the disease; and I do this the more readily, because it appears to prove that the *poison* of cholera not only pervades the blood, but has an immediate deleterious power over the nervous system. The following passage is from my Report of the irruption of cholera which occurred in the Borough Gaol of Newcastle-on-Tyne in 1853.

"In about six cases of collapse, the brandy-blister was employed. The effect of this powerful external stimulus in rousing the patient to a certain degree of reaction was marked and immediate; but in three cases only was it entirely successful. In one of these cases, a single application sufficed; in another case, it was applied twice before a complete restoration of the circulation and animal heat commenced; and in the third case, three applications were required, the last one being to the lumbar spine; all the others were applied to some region of the abdomen.

"The method of employing the brandy-blister is by placing next the skin a piece of rag dipped in brandy, which, being ignited, is allowed to burn away. This is generally effected in less than a minute. The pain is considerable, and renders it necessary to have the hands of the patient firmly held. Some vesication follows, which is best treated by being dusted with flour till it dries up and falls off, leaving the skin entire. I am disposed to think that this remedy will be found most effectual when applied to the spine."

I remember that cases were recorded in which patients were roused from collapse by saline injections into the veins, as well as by the transfusion of blood from a healthy person; but, I believe, in none of the reported cases was a favourable termination obtained.

I am, etc.,

T. M. Greenhow.

Cledhow Mount, Leeds, June 4th, 1866.

THE VACCINATION BILL.

Letter from Richard Griffin, Esq.

Sir,—I shall feel obliged by your allowing me, through the medium of your Journal, to inform the Poor-Law Medical Officers, and I may say, the profession generally, for it concerns all, that the Vaccination Bill has passed through the Select Committee, and is again before the House of Commons.

In my communications to the Select Committee I suggested alterations in the title and preamble, and in nineteen clauses, or proposed to substitute nine new clauses. On examining the Bill, I find that the title and preamble still stand without Wales being mentioned; but twenty-three clauses have been altered verbally and otherwise, and one clause (5) added; the four forms in the schedule have also verbal alterations. Allow me here to state that all my suggestions have not been adopted.

With due appreciation of the value of the efforts made by the meeting held at the Freemasons' Tavern, on April 10th, and by private individuals, still it appears to me that the efforts made by the Poor-Law Medical Reform Association have had considerable influence (first in actually stopping the Bill when about to go into Committee of the House of Commons, by means of a pamphlet forwarded to each member, and by private communications, and secondly, by suggestions made to the Select Committee itself); but that influence could never have been made to bear, had not money been subscribed to pay the expenses of printing, etc.

I have no hesitation in saying that the amendment now proposed in the Vaccination Bill will amply repay the members of the Poor-Law Medical Reform Association in a pecuniary point of view, for all the money they have subscribed during the last ten years, and I hope will stimulate the entire body of Poor-Law Medical Officers to subscribe to the funds of the Association, in order to enable it to prosecute with vigour the changes sought in the general administration of the medical relief of the poor. The seed has been sown, the eyes of the public have been opened, a large body of the House of Commons now listen to us, and the time cannot be far distant when very considerable changes must be made in the medical relief of the poor.

Clauses 5 and 6 in the amended Vaccination Bill (quoted on next page) will show the pecuniary changes proposed. On and after January 1st, 1867, the Public Vaccinators are to receive not less than one shilling and sixpence for each successful primary vaccination performed in a workhouse; this is a gain, as at present no fee is legally payable. The one shilling and sixpence fee, now paid for vaccinations performed at a station within one mile of the residence of the medical officer, is not increased, but sixpence is added to each fee for all vaccinations performed at a station over one mile, and under two miles, distant, thus making the fee two shillings beyond two miles. The fee which is now two shillings and sixpence is to be not less than three shillings. In addition to these payments it is proposed by Clause 5, to pay one shilling extra for each child whom the vaccinator has successfully vaccinated; but that will depend on the "number and quality" of the vaccinations, on the "reports" made to the Lords of Her Majesty's Council, and the time to which the "award" relates. This clause is ambiguous, but, on inquiry, I find that the payment is intended to depend upon the manner in which the vaccination is carried out, that is, if done in accordance with the approval of the inspectors. My correspondent says, "If you glance at any of the inspector's reports, you will see on what system they

go, in judging the vaccination of a place, and by their reports the medical officer of the Privy Council would be guided, to recommend the payments in question. They would be additional payments made on the principle of payment for results. I hope it will be of general benefit to the public vaccinator, whose interests will be identical with those of the public." The revaccination of those previously *successfully* vaccinated will be under special arrangements, and only paid for at two-thirds of the fee of successful primary vaccination.

I regret we have not obtained more; but if we do our duty well, and Clause 5 be fully carried out, the Bill will be a gain of some thousands *per annum*, and I feel sure place the public vaccination of this country on a more satisfactory footing. That the Bill might have been more efficiently amended, cannot admit of a doubt, but official influence was too strong for us, and a satirical print (Standidge & Co.), worth looking at, forwarded to me by a member of the Select Committee, representing Poor-Law vaccinators receiving £200,000 a year, the registrars £20,000 a year, Simon, Bruce and Co. £10,000 a year, etc., had its weight in preventing our receiving that redress which we desired.

I have again addressed the Poor-Law Board, asking that a deputation of Poor-Law Medical Officers may be permitted to wait upon them, on July 5th, which I trust may be granted.

I am, etc., RICHARD GRIFFIN.

12, Royal Terrace, Weymouth, June 9th, 1866.

Clause 5. On reports made to the Lords of Her Majesty's Council, with regard to the number and quality of the vaccinations performed in the several vaccination districts of England, or any of them, the said Lords may, from time to time, out of monies provided by Parliament, and under regulations to be approved by the Lords Commissioners of Her Majesty's Treasury authorise to be paid to any public vaccinators, in addition to the payments received by them from guardians or overseers, gratuities not exceeding in any case the rate of one shilling for each child whom the vaccinator has successfully vaccinated, during the time to which the award of the said Lords of the Council relates.

Clause 6. Every such contract for vaccination shall provide for payment in respect only of the successful vaccination of persons, and so that the rate of payment for primary vaccinations shall be not less than the following; that is to say, for every such vaccination done at an appointed station, situated at or within one mile from the residence of the vaccinator, or in the workhouse of the union or parish, not less than one shilling and sixpence, and for every such vaccination, done at any station over one mile, and under two miles, distant from his residence, not less than two shillings, and for every such vaccination, done at any station over two miles distant from his residence, not less than three shillings, such distance being measured according to the nearest public carriage road.

A CLAIM OF PRIORITY.

LETTER FROM GEORGE CANNEY, M.D.

SIR,—I shall be glad if you will give place in the columns of your JOURNAL to the enclosed correspondence between Drs. Sims, Tyler Smith, and myself.

The following is the statement read before the Royal Medical and Chirurgical Society, in 1858, by the Lecturer on Midwifery at St. Mary's Hospital, in which he misled his friend, Dr. J. Marion Sims, into "believing" that "he" (Dr. Smith) "was the first in this country to demonstrate the practicability of reducing chronic inversion of the uterus."

"He (Dr. Smith) brought forward the present case as illustrating a new principle of treatment. Hitherto the cases in which reinversion has been accomplished have been chiefly limited to cases of recent origin. It has been held that unless the inversion could be reduced soon after the accident, there was little hope of accomplishing it, death generally occurring at a period varying from a few months to five or six years."

"The operation of extirpating the uterus was a very serious one," etc.

It is greatly to be regretted that Dr. Smith "has no time" to explain to the profession what he really means when he uses the phrase, "illustrating a new principle of treatment."

For my own part, I confess that I am unable to see the novelty. It certainly is not in the reduction itself; for the safe, easy, and speedy practicability of that operation had been already demonstrated by surgeons, both in this country and on the continent of Europe.

It could not be in the squeezing and moulding of the uterus with the hand; for this method was recommended by Professor Kilian of Bonn in 1836, and successfully practised by Mr. C. White of Manchester in (about) 1796.

Professor Kilian also suggested, in 1836, the use of a pessary in chronic cases of inversion of the uterus.

There is, however, one point of view from which Dr. Smith's case may be said to "illustrate a new principle"; inasmuch as he has shewn us that it is possible for the physician of a London Hospital to perform, *in eight days*, an operation which, during the preceding ten or a dozen years, had been clearly demonstrated, by provincial European surgeons, to be easily and safely practicable in *as many minutes*.

I cannot conclude my letter without offering to the editors of Ranking's *Half-yearly Abstract*, through the pages of your JOURNAL, my best thanks for the easy and complete way in which a reference to their valuable work enabled me to expose this clever—but, alas! unsuccessful—attempt to appropriate the credit for originality due to others.

I am, etc.,
GEORGE CANNEY.

Bishop Auckland, Darlington, May 19th, 1866.

1. *Dr. Canney to Dr. J. Marion Sims.*

Bishop Auckland, Darlington, April 7th, 1866.

DEAR SIR,—In your excellent notes on *Uterine Surgery*, I meet with the following passage under the head of Reduction of Chronic Inversion of the Uterus, folio 128.

"This great revolution in practice in the treatment of chronic inversion of the uterus is due to Dr. Tyler Smith, who was the first, I believe, in this country to demonstrate its practicability."

I am utterly at a loss to know by what means you can have been led into the error of believing Dr. Tyler Smith entitled to the credit of having effected any such revolution; inasmuch as he was ten years behind Valentin, five years behind myself, and four years and a half behind Barrier, in the performance of this operation.

I append notes of cases, and trust to your high character to correct this error in the next edition of your work, and to your courtesy to answer this letter.

Believe me to be
Your obedient and faithful servant,
GEORGE CANNEY.

J. Marion Sims, M.D., Grand Hotel, Paris.

M. Valentin's case, operated on Aug. 26th, 1846; reported November 1847—Ranking's *Half-yearly Abstract*, vol. vii, and *Revue Med.-Chir.*

Mr. Canney's case, operated on January 1852; reported September 18th, 1852—Ranking's *Half-yearly Abstract*, vol. xvi.

M. Barrier's case, operated on April 1852; reported September 4th, 1852—Ranking's *Half-yearly Abstract*, vol. xvi.

Dr. Tyler Smith's case, operated on September 1856; reported April 24th, 1858—Ranking's *Half-yearly Abstract*, vol. xxvii.

Dr. White's case, operated on March 1858; reported July 1858—*Amer. Jour. of Med.* and Ranking's *Half-yearly Abstract*, vol. xxxiii.

Dr. West's case, operated on September 1859; reported October 1859—Ranking's *Half-yearly Abstract*, vol. xxxv.

2. *From the same to the same.*

Bishop Auckland, Darlington, April 9th, 1866.

Dear Sir,—In my letter to you on Saturday last, I inadvertently gave the date of M. Valentin's case as Aug. 26th, 1846; it should be Aug. 26th, 1847. 1846 was the year in which the accident occurred. Believe me to be

Your faithful and obedient servant,

George Canney.

J. Marion Sims, M.D., Grand Hotel, Paris.

3. *From Dr. J. Marion Sims to Dr. Canney.*

47, Rue du Faubourg St. Honoré, Paris, April 10th, 1866.

My dear Sir,—I am very much obliged to you for your kind letter, calling my attention to the glaring oversight I have made. If another edition of my *Notes* should ever be needed, I shall only be too happy to correct the error into which I have been led. It is not too late to make the correction in the French edition (now about to appear); but for the American and German editions it is too late. I cannot thank you too much for setting me right. I shall see in a day or two if I can find Ranking's *Abstracts* in Paris; and, if not, I shall beg you for the loan of the seventh, twelfth, and sixteenth volumes, and will let you know how to send them through my publishers. Of course, if I should need them, I shall return them to you at an early day. I made the oversight simply by accepting what Tyler Smith and White wrote as representing the status of the question. They studiously avoided giving credit to any one preceding them; and you must attribute my mistake to ignorance, and not design.

Again thanking you, believe me most faithfully and truly yours, J. Marion Sims.

P.S. I have just received your second note. Dates are important.

George Canney, Esq., M.D., Bishop Auckland, Darlington, Angleterre.

4. *From Dr. Canney to Dr. Tyler Smith.*

Bishop Auckland, March 28th, 1866.

Dear Sir,—In Dr. Marion Sims' *Clinical Notes on Uterine Surgery*, I meet with the following passage, under the head of Reduction of Chronic Inversion of the Uterus, folio 128.

"This great revolution in practice in the treatment of chronic inversion of the uterus, is due to Dr. Tyler Smith, who was the first, I believe, in this country to demonstrate its practicability."

May I ask if you endorse this claim to originality put forth on your behalf by Dr. Marion Sims? Believe me to be Your very faithful servant,

George Canney.

Dr. Tyler Smith.

1. M. Valentin's case, operated Aug. 26th, 1846; reported November 1847, *Revue Med.-Chir.*

2. Mr. Canney's case, operated January 1852; reported September 18th, 1852.

3. M. Berrier's case, operated April 1852; reported September 4th, 1852.

4. Dr. Tyler Smith's case, operated September 1856; reported April 24th, 1858.

5. *From the same to the same.*

Bishop Auckland, Darlington, April 13th, 1866.

Dear Sir,—Not having received any reply to the letter which I addressed to you on March 28th, I beg to enclose you a copy of it, and request an answer. To ensure this letter reaching you, I have had it registered; as I am not at liberty to assume that you have received and neglected to answer my letter of the 28th ult. Your faithful servant,

George Canney.

W. Tyler Smith, M.D., 21, Upper Grosvenor Street, London.

6. *From Dr. Tyler Smith to Dr. Canney.*

21, Upper Grosvenor Street, W., April 14th, 1866.

Dear Sir,—I have no time, nor do I think I can fairly be called upon to enter into controversy respecting the quotation you send me from the excellent work of my friend Dr. Marion Sims.

It is enough for me to hold myself responsible for my own paper on a Case of Inversion of the Uterus, as published in vol. xli of the *Medico-Chirurgical Transactions*. Believe me Yours faithfully,

W. Tyler Smith.

George Canney, Esq., M.D.

Medical News.

University of Oxford. Degree of M.D. conferred in a Congregation holden June 7th.

Southey, Reginald, M.D., Christchurch

University of Cambridge. First Examination for M.B. Degree: Easter Term, 1866. Examined and approved.

Atherton, R. A., M.A., John's
Cooper, C. W., B.A., Caius
Foster, O. H., B.A., Caius
Hensley, P., M.A., Christ's
Hollis, W., M.A., Trinity

Apothecaries' Hall. On June 7th, 1866, the following Licentiates were admitted:—

Branson, Henry John, Scarborough
Brownridge, Dixon, Snaith, Yorkshire
Colquhoun, Frederic Steuart, Tiverton, Devon
Haswell, Narcis Richard, Helston, Cornwall
James, John Rees, Llanelly, Carmarthenshire
Leverton, Edward James, Truro, Cornwall

At the same Court, the following passed the first examination:—

Giles, John, St. Bartholomew's Hospital
Lewis, William Bevan, Guy's Hospital
Moore, George, General Hospital, Birmingham
Nutt, Charles, Guy's Hospital
Stokell, George, Guy's Hospital

APPOINTMENTS.

Darling, Wm., Esq., appointed Professor of General and Descriptive Anatomy in the University of New York.

Young, Edward Parker, Esq., appointed Surgeon to the Westbourne Dispensary.

Army.

Evatt, Staff-Assistant-Surgeon G. J. H., M.D., to be Assistant-Surgeon 25th Foot, *vice* W. Armstrong.

Huish, Surgeon H., M.D., 3rd Hussars, to be Surgeon-Major, having completed 20 years' full-pay service.

M'Cully, Assistant-Surgeon J., M.D., 105th Foot, to be Staff-Assistant-Surgeon, *vice* G. J. H. Evatt, M.D.

Venour, Assistant-Surgeon W., 46th Foot, to be Staff-Assistant-Surgeon, *vice* A. F. Churchill, M.B.

White, Staff-Assistant-Surgeon G., to be Assistant-Surgeon 105th Foot, *vice* J. M'Cully, M.D.

ROYAL NAVY.

ARNOTT, James W., Esq., Assistant-Surgeon, to the *Wizard*.
COLQUHOUN, A. G., Esq., Assistant-Surgeon, to the *Lord Clyde*.
CONNOLLY, N. T., Esq., Assistant-Surgeon, to the *Supply*.
FISHER, William, Esq., Assistant-Surgeon, to the *Fisgard*, for the Marine Infirmary at Woolwich.
GIMLETT, Hart, M.D., Surgeon, to the *Lord Clyde*.
M'BEAN, Samuel, Esq., Assistant-Surgeon (addit.), to the *Ganges*.
M'MAHON, William, M.D., Assistant-Surgeon, to the *St. George*.
O'MALLEY, James N. J., Esq., Surgeon, to the *Peterel*.
STRICKLAND, Charles, Esq., Assistant-Surgeon (additional), to the *Bristol*.

VOLUNTEERS, (A.V.=Artillery Volunteers; R.V.=Rifle Volunteers):—

BELL, A., Esq., to be Surgeon 1st Northumberland R.V.
BRECKNELL, W., Esq., to be Assistant-Surgeon 1st Northumberland R.V.
HUSSEY, E. L., Esq., to be Assistant-Surgeon 2nd Administrative Battalion Oxfordshire R.V.
I'ANSON, T., Esq., to be Assistant-Surg. 1st Northumberland R.V.
WEBB, William, M.D., to be Assistant-Surgeon 2nd Adminstrative Battalion Derbyshire R.V.

BIRTHS.

ACKLAND. On May 24th, at Bideford, North Devon, the wife of *W. H. Ackland, M.D., J.P., of a son.
BIRD. On May 2nd, at Seebpore, Howrah, the wife of Rober Bird, M.D., of a daughter.
DEBENHAM. On June 7th, at Heath House, Stepney, the wife of Robert Debenham, Esq., Surgeon, of a son.
DIVERS. On June 6th, the wife of Edward Divers, M.D., of Queen's College, Birmingham, of a son.
MEERES. On June 4th, at Freshwater, Isle of Wight, the wife of Edward E. Meeres, M.D., of a daughter.
NORTON. On June 6th, at Westbourne Grove, Bayswater, the wife of Algernon C. W. Norton, M.D., of a daughter.
ROOKE. On June 11th, at Cheltenham, the wife of *T. Morley Rooke, M.D., of a son.
SMITH. On June 2nd, at Burbage, Wilts, the wife of *C. Swaby Smith, Esq., of a daughter.

MARRIAGES.

BARTLETT, William Penny, Esq., eldest son of *William Bartlett, Esq., of Ladbroke Lodge, Notting Hill, to Mary Eliza, eldest daughter of the late J. R. WATHEN, Esq., on June 6.
COLQUHOUN, Sir Robert Gilmour, K.C.B., of Camstradden, to Ann, only daughter of William CATHROW, Esq., of 42, Weymouth Street, at St. Marylebone Church, on June 5.
COXWELL, J. E. Grinfield, Esq., to Mary Gertrude, eldest daughter of *George Lewis COOPER, Esq., of Woburn Place, at St. George's, Bloomsbury, on June 7.
DON, William Gerard, M.D., 28th Regiment, to Louisa Jane, second daughter of Captain Edward G. ELLIOTT, R.N., at Plymouth, on May 5.
EVANS, Harry K., Esq., son of Herbert N. Evans, M.D., of Ty mawr, Brecknock, to Amelia Eleanor, only daughter of the late George H. MELVILLE, Esq., of St. Helier's, Jersey, on May 31.
FAULKNER, William, Esq., of Rothersthorp, to Frances Anne, second daughter of F. T. WEBSTER, Esq., Surgeon, St. Alban's, on June 7.
*FOWLER, R. S., Esq., of Bath, to Elizabeth Burgess, eldest daughter of Lieut.-Col. COTGRAVE, R.A., on June 12.
GARDNER, John, Esq., second son of John Gardner, M.D., of Montague Street, to Amy Vernon, second daughter of the Rev. Samuel GARRETT, of Queen Square, at St. George's, Bloomsbury, on June 7.
GARSIDE, John, Esq., Brownswolds, Congleton, to Sarah Emily, younger daughter of *Lawrence SPENCER, Esq., of Preston, on June 6.
HALLOWES, George B., Esq., third son of Price Blackwood Hallowes, Esq., Surgeon, of Canterbury, to Lucy Mary, youngest daughter of Joseph LEACHMAN, Esq., Adelaide Road, Haverstock Hill, on June 5.
KNOTT, Middleton O'Malley, M.D., of Castlebar, Ireland, to Sophia, eldest daughter of James MILWARD, Esq., Bidford, Warwickshire, on June 7.

DEATHS.

CHALDECOTT, William, Esq., Surgeon, at Holmwood, Dorking, aged 67, on June 1.
PARKINSON. On June 2nd, at Kingstown, Ireland, aged 59, Sarah, widow of William H. Parkinson, M.D., of Brussels.
STANLEY. On June 6th, at 16, Westbourne Terrace, Catharine, widow of Edward Stanley, Esq., F.R.S.
TUNALEY, Charles, M.D., at Millbrook Place, Harrington Square, aged 58, on June 5.

THE GIBRALTAR BOARD OF HEALTH has imposed five days' quarantine on vessels from all English ports.

Dr. R. CROSS has been made a justice of the peace for Scarborough.

MARRIAGE OF THE PRINCESS MARY. The Representative of Medicine at the marriage of Princess Mary was Dr. Quin.

DEATH FROM CHLOROFORM. A few days since, says the *Boston Medical Journal*, "another victim to this murderous anæsthetic died in a dentist's chair in the city of Philadelphia."

SUICIDES IN VIENNA. During April, in Vienna, there were 65 attempts at, and 36 fatal cases of, suicide—47 by men, 15 by women, and 3 by children of 9 to 14 years of age.

JAMAICA HOSPITAL. The appointment of a medical man from Montserrat to the chief surgeoncy of the hospital in Jamaica, has caused great annoyance in the medical profession. A remonstrance has been addressed to the Colonial Secretary on the subject.

CHOLERA MIXTURE. "A *cholera mixture*," says a writer in the *Canada Medical Journal*, "is to me what would be a *typhus mixture*, a *small-pox mixture*, a *phthisis mixture*; just as good outwardly as inwardly as Perry Davis's Pain-killer, Bristol's Sugar-coated Pills, Mrs. Winslow's Soothing Syrup, and a thousand of the like. I regard all formula as dangerous, and that the medical adviser of a family is the only one to prescribe compound drugs or medicines."

THE ROYAL SOCIETY held their annual meeting on Thursday, when the following were elected Fellows:—J. C. Bucknill, M.D.; Rev. F. W. Farrar; W. A. Guy, M.B.; J. Hector, M.D.; J. W. Kaye, Esq.; Hugo Müller, Ph.D.; C. Murchison, M.D.; W. H. Perkin, Esq.; the Ven. J. H. Pratt, M.A.; Captain G. H. Richards, R.N.; T. Richardson, Esq., M.A.; W. H. L. Russell, Esq.; Rev. W. Selwyn, D.D.; Rev. R. Townsend, M.A.; H. Watts, B.A.

UNIVERSITY OF OXFORD. In Convocation, on the 13th instant, the honorary degree of D.C.L. was conferred on Sir J. Y. Simpson, M.D., F.R.S.E., of Edinburgh; Alphonse de Condolle, corresponding member of the French Academy of Sciences; Joseph Dalton Hooker, M.D., F.R.S., Director of the Royal Gardens at Kew; William Thomson, M.A., F.R.S., Professor of Natural Philosophy, Glasgow; James Prescott Joule, F.R.S.; John Phillips, F.R.S., M.A., President of the British Association for the Advancement of Science.

THE PRUSSIAN ARMY. The cholera has made its appearance at Altenburg, and this town is not far from the right flank of the Prussian army. All precautions are being taken against it, and the medical officers will not be found sleeping at their posts. Austrian deserters declare that typhus has already laid a heavy hand upon the Kaiser's troops. From the Prussian lines, 1,000 sick soldiers have already been sent to Berlin. Another signal of the anticipation of battles has also been shown; hospitals have been established in about twenty of the principal towns of the kingdom, even in towns so far north as some of those in the province of Pomerania.

CHOLERA NEWS. In consequence of a case of cholera having occurred on board the Peninsular and Oriental Steam Navigation Company's Steamer *Poonah* on the 9th instant, which terminated fatally in nine hours, Dr. Wiblin, the medical superintendent of quarantine at Southamptom, instituted inquiries. After eliciting, on oath, from the surgeon of the ship, Dr. Chapman, that the case was one of English cholera, and that the passengers and crew were all in good health, Dr. Wiblin recommended, and the local authorities directed, that the ship should be admitted at once to free pratique.

The Odontological Society held its monthly meeting, at its rooms in Soho Square, on the 4th inst. Dr. Richardson gave further explanations of his plan for producing local anæsthesia, and also described his new styptic, which could be applied by the spray apparatus. Mr. Bulkwill read a paper on arranging artificial teeth for the purpose of mastication.

The Sick Poor. On Monday last, in the House of Commons, Sir J. Simeon asked the President of the Poor-law Board whether the inquiry into the treatment of the sick poor in the Strand Union Workhouse was completed; and whether he would lay a copy of the evidence, and the report founded thereupon, upon the table of the House.—Lord Enfield was understood to give an affirmative reply.

Surgeons for the Navy. On Monday last, Sir J. Hay asked the Secretary to the Admiralty whether there was still any difficulty in obtaining the services of good medical officers for Her Majesty's Navy; how many assistant-surgeons had entered the service since the 1st day of January; and what steps, if any, had been taken to carry out the recommendations of the committee presided over by Admiral Sir A. Milne.—Mr. T. G. Baring said there was still very great difficulty in obtaining assistant-surgeons for the Navy—only three having entered the service since the first of January last. He hoped soon to be able to state the nature of the measures which would be taken, and which were based upon the recommendations of the committee over which Sir Alex. Milne presided. The Admiralty were in communication with the Treasury upon the subject.

Royal College of Surgeons. The Fellows of the Royal College of Surgeons have been summoned to attend a meeting on Thursday, July 5th, to elect two members into the Council. Messrs. Luke and Hilton, who go out in rotation, offer themselves for re-election, but are opposed by the following gentlemen: Mr. W. J. Erasmus Wilson, nominated by Sir J. R. Martin, and Messrs. J. E. Erichsen, H. Thompson, G. Critchett, W. Adams, and T. W. Nunn; Mr. Charles Hawkins, nominated by Messrs. T. Tatum, P. Hewett, G. Pollock, H. Lee, T. Holmes, and B. E. Brodhurst; and Mr. H. Spencer Smith, nominated by Messrs. Birkett, H. Coote, H. Thompson, G. Pollock, C. H. Moore, and J. R. Lane. It is generally expected that the choice of the Fellows will fall on Messrs. Hilton and Hawkins. In the evening of the same day, the Fellows will dine together at the Albion Tavern, under the presidency of Mr. Wormald.

Certifying Surgeon at Batley. In the House of Commons, on Monday, Mr. F. Beaumont asked why the appointment of certifying surgeon under the Factory Acts for the Batley district, vacant on the 16th day of April, was delayed by the inspector for a period of three weeks, and then filled by the nomination of a non-resident stranger, without regard to the wishes of the millowners and manufacturers of the district.—Sir G. Grey said the appointment of certifying surgeon under the Factory Acts was placed by law in the hands of the inspector, and not of the Secretary of State. Upon inquiry, he had ascertained that the delay was occasioned by a doubt entertained in the first instance whether any fresh appointment was necessary, or whether there might not be a redistribution of offices. The gentleman elected from among nine or ten candidates had been a certifying surgeon in another district, and might therefore be considered experienced in the discharge of his duty. If any dissatisfaction were felt with his decisions, power existed to call in another opinion; but in no case had this been done.

The Cholera Conference. On Monday, Sir J. C. Jervoise asked what progress towards a settlement of the question had been made since the objection was taken by the English, Russian, Turkish, and Persian representatives at the Cholera Conference, Constantinople, to the proposal of the French representative for the stoppage of all sea communication between Arabia and Egypt, and for the presence of several vessels of war in the Red Sea in case of another epidemic.—Mr. Layard said that the resolutions of the Cholera Conference, which had not yet been finally agreed to by the delegates, would probably be reduced to a convention, and when they were submitted in that form to Her Majesty's Government, due consideration would be given to the measures proposed for adoption, as well as to the steps to be taken for enforcing them. Her Majesty's Government adhered to their opinion that great evils were likely to arise from the absolute prohibition of all departures by sea from Jeddah so long as cholera might be known to prevail among the pilgrims in Arabia. Her Majesty's Government had raised no objection to any measures of quarantine which the Turkish Government might consider it expedient to adopt; but they strongly deprecated the application to Indian pilgrims of measures of special and exceptional severity.

OPERATION DAYS AT THE HOSPITALS.

Monday.....Metropolitan Free, 2 P.M.—St. Mark's for Fistula and other Diseases of the Rectum, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

Tuesday. .... Guy's, 1½ P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.

Wednesday... St. Mary's, 1 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.

Thursday.....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Great Northern, 2 P.M.—London Surgical Home, 2 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.

Friday..... Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

Saturday..... St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1·30 P.M.—Charing Cross, 2 P.M.—Lock, Clinical Demonstration and Operations, 1 P.M.—Royal Free, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TO CORRESPONDENTS.

*** *All letters and communications for the* Journal, *to be addressed to the* Editor, 37, *Great Queen St., Lincoln's Inn Fields, W.C.*

Communications.—To prevent a not uncommon misconception, we beg to inform our correspondents that, as a rule, all communications which are not returned to their authors, are retained for publication.

Correspondents, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

F. P.—The plain directions and intentions of the Charter are, that Examiners should be elected for five years; and not necessarily out of members of the Council. But the Council have virtually made the Examinerships life-appointments. They have never elected as Examiner a Fellow who was not a member of Council, except in one single instance—viz., Mr. Cæsar Hawkins. The Council, determined to keep up the old tradition of have and hold, kept Mr. Cæsar Hawkins in the Court of Examiners, although he was not re-elected to the Council. It would, they no doubt thought, be a bad precedent not to re-elect him. It might have been the commencement of a new *régime*, from which others would suffer. If Mr. Luke be not re-elected to the Council, he will still remain an Examiner, and may be re-elected by the Council. The Examiners, being members of Council, of course assist in their own election.

THE ELECTION AT THE COLLEGE OF SURGEONS.—SIR: As a member of the British Medical Association, I feel it my duty to protest against the course taken by the Association in the instance of the election to the Council of the Royal College of Surgeons. One of the chief objects of the British Medical Association, as it appears to me, is, or ought to be, the endeavour to promote unity and harmony amongst its members; but this object is necessarily frustrated when the Association proceeds to the selection of one of its members in preference to another, as its favoured candidate for a vacant office. In the present instance, and also on the occasion of the election of 1865, I feel that I have just reason to complain of this preference, and the more so, as the rights of seniority are, in my case, ignored by the Association. It cannot be doubted that I am the senior candidate in the field; and, unless in my professional career I have acted in a manner dishonourable to the profession of which I am a member, or am of proved incompetency, I can see no reason why I should be discourteously pushed aside to make way for a junior, however superior to my own and brilliant his qualifications may be. Such a proceeding amounts practically to the verdict, that I am unfit for the office for which I have the honour to be a candidate.

I beg the insertion of this note in the JOURNAL of the British Medical Association; and am, etc.,

ERASMUS WILSON, F.R.S.

17, Henrietta Street, Cavendish Square, June 12th, 1866.

VOLUNTEER UNIFORMS.—SIR: In reply to the inquiry of F.R.C.S., in your issue of May 26th, the following may prove useful to all volunteer surgeons. Their appointments ought to be similar to those in the regular service; the volunteer using silver where gold is used in the regulars, and *vice versâ*. Thus—

Surgeons. The tunic and trousers of their corps; cocked hat with green plume, silver loop and button, and silver tassels; *black* pouch belt, with medical staff star in front, silver ends, buckle, and slide. The pouch is not a cartridge-box, but a case of instruments, similar to a pocket-case, which folds up, to resemble a pouch. *Black* sword-belt, except in the artillery, which is *white*. In corps where dress-belts are worn, such as the artillery, the surgeons and assistant-surgeons wear the silver sword-belt on state occasions; but all the medical service are restricted to the black pouch-belt. The lace on the tunic of the surgeon is the same as the major's, with the major's gold star on the collar.

The surgeon wears spurs, being a field officer, and of major's rank; and here I may give a hint to all surgeons. When they make their annual return of taxable articles, they should, if they keep a horse or horses, accompany their return with a certificate from their commanding officer, to the effect that, "being a field officer of volunteers, they have used a horse in Her Majesty's service within the year", and claim exemption from the tax for one horse.

The assistant-surgeon differs from the surgeon only in the absence of spurs, and wearing the lieutenant's lace and collar badges; unless he be of five years' standing, when he ranks as captain, and wears the lace and badge of such. The assistant-surgeon of a company is the same as assistant-surgeon.

Trusting this information may be of service to the medical officers of volunteers generally, I am, etc.,

May 29th, 1866. VOLUNTEER SURGEON.

CLITORIDOTOMY.—SIR: I have no intention of entering upon the discussion of the propriety or the value of the removal of the clitoris as a curative measure, which is engaging the attention of some of your correspondents, and prefer to clothe myself "under the mantle of an anonymous contribution." But I would suggest that the first point to determine should be, whether or not the clitoris is of any importance to the female. The old opinion—"as the clitoris is the seat of pleasure during the act of coitus, nymphomania might possibly be cured by extirpating the organ"—appears to be too hastily assumed as correct. I venture to call this opinion in question, and even to go so far as to say that it is of little importance whether it be present or is absent. No doubt, it is largely supplied with spinal nerves; which are, apparently, for no one has ever traced them, distributed to the glans, and is endowed with much sensibility. But the lower portion of the vagina, and the organs in the vulva, receive an equal amount of spinal nerves from the same source, and are equally sensitive organs; whilst the erectile tissue at the lower and anterior part of the vagina, immediately behind the symphysis pubis, is furnished with even a larger supply of spinal nerves than the preceding organs. There can be no difficulty in determining what organ or organs are the seat of pleasure during coitus, if this has not been already decided by the cases recorded. But I venture to say, it is in these last named organs, and especially in the vaginal erectile tissue, that the chief seat of pleasure is placed. The vagina is not a mere sheath which receives the male intromittent organ, but a part largely supplied with sentient nerves and largely endowed with sensation. It is these parts which are chiefly engaged in the act of coition; and, so long as their sensibility remains, it is of little import whether the clitoris be present, or have been removed.

The operation for the removal of the clitoris is easily performed, and is devoid of danger—its removal of little consequence, except in very exceptional cases. Why then should such importance be attached to a harmless operative procedure upon so rudimentary an organ? I am, etc., F.R.S.

June 4th, 1866.

STATISTICS OF CANCER.—Mr. Moore has the pleasure to acknowledge the return of "Registers for Cases of Cancer", from T. W. Benfield, F.R.C.S., Leicester; John Barclay, M.D., Banff; Arthur Ransome, M.D., and Rawson Senior, Esq., Bowdon, Manchester; T. W. Nunn, F.R.C.S., 8, Stratford Place, London.

THE GRIFFIN TESTIMONIAL.—SIR: In consequence of the paucity of my answers in favour thereof, the Committee of the above Fund has given up the idea of a banquet to Mr. Griffin.

As doubtless the College election will bring some medical men to London, it is intended to make the presentation on July 5th proximo, unless the Poor-Law Board should fix some other day to receive Mr. Griffin's deputation. In this latter case, the Testimonial will be given him immediately after the interview with the President.

The time and place will be duly notified by printed circular.

The Testimonial is now on view at the manufacturers, Messrs. Mappin and Webb, 71 and 72, Cornhill.

Intending subscribers, who have not forwarded me either their subscriptions or their *cartes de visite*, will obligingly do so without delay. I am, etc., ROBERT FOWLER, M.D.,

Treasurer and Hon. Sec.

145, Bishopsgate Street Without, June 13th, 1866.

COMMUNICATIONS have been received from:—Mr. RICHARD GRIFFIN; Mr. MCKEAND; Mr. A. C. MACLAREN; SIR HENRY COOPER; Dr. J. B. PITT; Mr. R. S. FOWLER; Dr. D. NOBLE; AN OLD HAND; Dr. THOMAS SKINNER; Dr. HEYGATE; Dr. JAMES RUSSELL; Dr. T. SHAPTER; Dr. G. JOHNSON; Dr. C. HANDFIELD JONES; Dr. BROADBENT; Dr. THORBURN; Mr. REYNOLDS; Mr. PARKER; Dr. T. M. ROOKE; Dr. H. MACKINTOSH; Mr. J. BAXTER LANGLEY; OBSERVER; Dr. R. FOWLER; Dr. W. M. KELLY; Dr. S. H. STEEL; Dr. SMALLMAN; Mr. T. M. STONE; Mr. ERASMUS WILSON; THE HON. SECRETARIES OF THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY; Mr. BREMRIDGE; Dr. E. CRISP; Dr. C. R. DRYSDALE; and Dr. A. GAMGEE.

ADVERTISEMENTS.

ESTABLISHED 1848.

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Original Communications.

HOW SHALL WE TREAT INCIPIENT CHOLERA.

By C. Handfield Jones, M.B., F.R.S., Physician to St. Mary's Hospital, etc.

I have somewhat hesitated to reply to Dr. G. Johnson's strictures on the remarks contained in my letter of May 5th, 1866, because I really do not wish to appear as a partisan, but as a candid inquirer after truth. I do hope that a good many of those who saw much of former epidemics will give us their experience as pithily as Mr. Davis has his in the *Medical Times and Gazette*, May 5th. To get this information is my chief object. Meanwhile, however, the difficulties which I feel in accepting completely Dr. Johnson's views may be felt by others, and I trust that no harm, and possibly some advantage, may accrue from a temperate exposition of them. Above all things, let us have calm, friendly discussion, and avoid all approach to that unseemly thing,—a doctor's squabble. I notice the several points *seriatim*.

Admitting the cholera stools to be poisonous, though *contra*, I may refer to Dr. Goodeve's hospital experience (Reynolds's *System of Medicine*, vol. i, p. 145), they generally are carried off too rapidly to make it necessary to purge them away; and if otherwise, absorption is for the most part so much in abeyance during the early stages, that the need for removal is much lessened. On the authority of Dr. Johnson's own statements, "that so long as the poison remains in the system, there is going on a rapid manufacture of cholera cathartine, which must and will purge itself away," I do not see how, in the premonitory purging of cholera, there can possibly be any need for castor oil. How active the intestinal clearing out is in such conditions, we may learn from a history given in Annesley's work, in which it is mentioned that a man having swallowed from ten to fifteen minims of peppermint oil on a betel-leaf, passed the leaf *per anum*, with the *next* evacuation. No need for any clearing out here. I once had copious rice-water diarrhœa myself after a small dose of Epsom salts, taken as an aperient, and I do think that any further flushing of my canal would have been superfluous, to say the least. Again, I think it most improbable that any amount of evacuation from the blood or bowel frees the system effectually from the poison. Dr. Bence Jones's recent experiments have shown us how intimately absorbed matters penetrate into the tissues, even the non-vascular; and it is surely quite unproved that after any amount of purging the remaining constituents of the body are not just as much tainted (relatively to their size) as they were before, so that reproduction of the poison would always be going on. The intestinal profluvium has not the character of a critical excretion, but of a mere symptomatic. It is much more a mere draining off of liquid from the blood under some peculiar alteration of the capillary walls than a true excretion, and it seems extremely doubtful whether the influence of cell-growth is at all concerned in its production. Admitting, as I am much inclined to do, that the state of collapse is not essentially dependent on the drain of fluid from the blood; yet surely no one can regard the loss as insignificant, or as not likely to be injurious to a weakened system. The analogy of other zymotic diseases,—if I may refer to it,—makes it also unlikely that the intestinal elimination is curative. How long a scarlatina patient continues to be a source of infection after convalescence has commenced is well known, and in other fevers of the same class the same holds true, though probably for a shorter period. I am very much of Dr. Gull's opinion (vide *Medical Times and Gazette*, April 5, 1862), that recovery from these disorders takes place not by the system being freed from the poison, but from its becoming indifferent to it,—acclimatised, as it were. Dr. Gull's remarks are well worth reading.

To the question, what evidence I have that the cholera poison resembles the malarious? I answer, that my own observation fully coincides with that of various authorities as to the close resemblance of their effects. Annesley says, p. 132, "Here I may at once state, that there seems to be sufficient proof that the situations remarkable for the prevalence of intermittent and remittent fevers are favourable to the action of the efficient cause of the disease upon the system, if not to the development of the cause itself. At Sindwa and Candeish, the disappearance of cholera was succeeded by severe cases of remittent and intermittent fever." Mr. Hutchinson writes, "to me, as to many others, there appears to exist a striking analogy between it (cholera) and fever, both in its intermittent and congestive types. When the cold fit in fever, or collapse in cholera, prove fatal, the similarity is still more striking," p. 66. Dr. Goodeve says, "I have seen people under the influence of malarious poison in Calcutta lie for hours as cold, as pulseless, and as embarrassed in the breathing as in cholera." Trousseau, writing of pernicious fevers, says, "when it is the intestine which suffers, there may ensue a watery diarrhœal flux, analogous in its abundance to that which is poured forth in cholera, and attended with great prostration. In sudoral fever, the sweat, which is cold, comes on sooner than usual, and inundates the surface of the body. The pulse is rapid, small, and weak, the respiration quick and difficult. The fingers look as if macerated; the face becomes livid; and the loss of temperature is so great that it is needful to apply artificial warmth to the patient, who may sink in the first paroxysm" (vol. iii, pp. 431, 429). Surely, such conditions are very like choleraic. Dr. James Bird writes, "so forcibly, indeed, was the resemblance impressed on my mind by many of the cholera cases seen in India, that I could not help regarding the disease as but the cold stage of an intermittent, in which the superadded diarrhœa prevented all febrile reaction. . . . The immediate causes producing the fatal malady seem connected with epidemic and endemic influences, such as produce intermittent fever, and with those atmospheric changes which at particular periods of the year render it more or less prevalent. Attacks of cholera, when endemic, most commonly happen at the changes of the moon. Remittent and intermittent fevers, with gastro-enteritic affections and diarrhœa, are the most common forms of disease where cholera is prevalent, and partake of the same atonic and congestive character which distinguishes it. These facts justify the inference that malaria is the cause of both diseases, but I will not venture further than to point out their connexion." (*London Journal of Medicine*, Jan. 1849.) Again, he proceeds, "so forcibly had facts brought this conviction to my mind, that in my cholera reports in 1819, I pointed out the apparently intimate connexion of the two, stating that several cases had come under my observation where cholera and intermittent fever alternated with each other" (*Tract on Cholera*). Dr. Charles Bell says that he became acquainted with

cholera under very favourable circumstances in Edinburgh and London in 1832, 1833, and 1834, and was then stationed in Persia for several years. He had there the opportunity of observing closely the first approaches of the cholera. The disease was ushered in by a regular succession of epidemics, commencing in a fever apparently continued, but by and by assuming more and more the character of a remittent, and this very gradually changed to an intermittent of a quotidian type; of this, the cold stage gradually became prolonged, and assumed all the appearance of an attack of cholera, and then came the cholera as it has everywhere been known, without any obvious stages or intermission. This again in its turn disappeared, and the epidemic resumed the character of remittent and continued fever for a time. These various changes occupied a period of eighteen months" (*Monthly Retrospect of Medical Science*, 1849, p. 26). Dr. Cormack, from experience gained in the vicinity of London, near Putney, comes to the following conclusions:—1. Cholera is a fever intimately related to those fevers which depend on malaria. 2. The intermittent or remittent type can be generally recognised in the milder, and also not unfrequently (though less distinctly) in the severer cases. 3. The stage of collapse ought to be considered as an aggravated cold stage of the paroxysm of a pernicious fever, which may spontaneously terminate in death or reaction. Dr. Billing holds much the same view. Dr. Prout's observation evidently led him to think that the cause of cholera had an affinity to ordinary malaria, *vide* p. 23.

I do not wish to make too much of these quotations, but I think it is quite impossible to disregard them. They point to what I may subsequently advert to, viz., the influence of some other element than mere contagion or infection in the production of cholera. My own observation amounts to this: that there existed, during the prevalence of cholera in 1854, in and about Paddington at least, some peculiar general, I will not say atmospheric influence, which manifested itself especially in the way of disordering nervous power. Of this I have no sort of doubt. At Hampstead this did not exist; and the peculiar depression which one felt in the town, was speedily shaken off on the higher elevation. I saw numerous cases of anomalous nerve disorder about and after this period; and I experienced in my own person (Aug. 1854) a remarkable attack, which was certainly much more like ague than cholera. It was preceded by a most forcible presentiment of impending death. The symptoms were severe rigors, chills, great depression, and an intense sensation in the abdomen, as if the bowels were about to act copiously, but no evacuation ensued. I took immediately liquor opii sedativus and chloric ether, and after two doses reaction came on, I lost much of the depression and perspired profusely. The next morning (the attack occurred at night) I felt fairly well, but looked very pale and ashy, and was quite unfit for my usual avocations. During the next six weeks I had several recurrences, but much less severe, and there was an almost constant tendency in the bowels to be over-active. My brain-power was much enfeebled. Going out of town was more beneficial than anything else. As the epidemic ceased, I regained my usual health. Now, I do not say that this disorder was ague any more than it was cholera; but I do think that it resembled malarious poisoning more than anything else. No one of any experience can be unaware how manifold are the forms in which malarious disorder manifests itself, and that the one feature which is common to them all is the remarkable impairment of nervous power. The assaults of malarious fever are sometimes as sudden and deadly as those of the most intense cholera. Intermittency—it is, I think, tolerably certain,—is much more dependent on the nervous system than on the poison. It has been most marked in cases of disease of the membranes of the brain without any malarial intoxication.

It is precisely "from observing their effects upon the functions and structure of the body" that I am led to think with others, that the causes of cholera and ague are not essentially different. All intermittents and remittents probably do not acknowledge precisely the same kind of cause. Dr. Livingstone tells us, that the remittent fevers of the Zambesi are not cured by any amount of quinine. Let anyone read the account of the fevers of Jerusalem given by Dr. Chaplin (*Lancet*, Aug., Sept., 1864), and say whether he does not think that there must be specific differences in the exciting causes as well as in the excipients. I believe the experience of most of those who have witnessed intertropical disease would go to establish the same point. Fevers are often named after different places on account of some peculiar effects produced. The malaria at Bussorah and in the Punjaub has been observed at times to affect all exposed to its influence with vomiting after meals. (*Trans. of the Bombay Med. and Phys. Soc.*, 1853 and 1854, pp. 213, 216.) The cholera fever briefly described by Sir R. Martin was evidently a peculiar form of disease, and the cause giving rise to it must have been a modification of the ordinary choleraic influence. The following paragraph from his well-known work (*vide* p. 557) has a strong bearing on the point in question. "Not only was the peculiar fever here noticed prone to merge into true cholera, but I had to remark on three several occasions, in Calcutta, that when the cholera poison was present in a concentrated form, we were for the time precluded from treating the cases of ordinary remittent fever of Europeans in our usual manner. Moderate bloodlettings were more liable to be followed by extraordinary collapse, and purgatives could not be administered over night lest the fever should be changed by morning into a deadly cholera. The state of the system here indicated showed that the fevers, and also the diarrhœas of the country, did, under epidemic or other peculiar influences, merge into the true cholera, the cholera poison being at the moment the more powerful influence. In times like these, we found it difficult to persuade ourselves that the endemic and the epidemic diseases were absolutely caused by different poisons." Dr. Goodeve says, "it has frequently been noticed that at certain periods of the cholera epidemic, towards its decline, the choleraic diarrhœas pass into a sort of low fever." In speaking of the Kurrachee epidemic, Mr. Thom says, "as cholera closed its career, it gradually changed its type to that of fever; while one out of four or five cases ran into spasmodic cholera, the others would terminate in fever, and were registered as such, showing all the characters of a low remittent." It is well known that the cause of influenza occasionally gives rise to intermittent fever, which certainly proves that there must be an affinity between the two. Yet surely the history and symptoms of influenza are very different from those of ague. To me there seems to be quite as much affinity between the causes of cholera and ague as between those of ague and influenza. The much greater prevalence of malarious affections some years than in others has often been noticed; and it is affirmed by Dr. Metcalfe, in the *Essay on Miasmatic Fever*, published by the United States Sanitary Commission, p. 212, "that it is not possible to predict the amount of malarious fever that will ensue from any given conditions of heat, moisture, atmospheric or telluric phenomena." The existence of *some* peculiar general influence, inde-

pendent of contagion during cholera periods, must, I think, absolutely be admitted, and this influence seems to me to have much affinity to malarious.

Dr. Johnson attempts a *reductio ad absurdum* of my argument against purging being effectual in removing choleraic poison, because it does not remove malarious in the following,—quinine will not cure cholera; probably, therefore, it is not a cure for ague. I demur to both positions. Quinine may be, I believe, very useful in some choleraic affections, strengthening and enabling the system to resist the poison, or to prevent a recurrence of a dangerous paroxysm. Annesly recommends the use of bark, with other means tending to conserve vital energy, as a preservative. Quinine will not cure a choleraic paroxysm any more than it will cure an agueish. In both conditions, it is used to fortify the system and enable it to withstand the subsequent assaults, not directly to cure. Its action is analogous in both cases.

With regard to the argument from analogy between cholera and other toxic diseases, I cannot think that Dr. G. Johnson has appreciated it adequately. Analogy is not, I admit, a safe guide, unless we are satisfied of the real likeness of the things which we compare. But he reckons cholera as a zymotic disease; and therefore it may surely be fairly compared with typhoid, typhus, variola, measles, scarlatina, and probably erysipelas. Let us consider whether in these we have any reason to think that a plan of treatment, based on the idea of eliminating the poison from the system by any of the excretory channels (saving, perhaps, the lungs), is such as, with existing experience, we should be warranted in adopting. Small-pox, as a type of toxic zymotic diseases, we may take first. Here are presented various phenomena which have much show of being eliminating actions, and have been pretty freely interpreted as such. The skin eruption, the salivation, the diarrhœa in children, the swelling of the face, hands, and feet, have been regarded by Sydenham and others to be processes of this kind. Of two of those mentioned, viz., the diarrhœa and ptyalism, Sydenham says, "these two evacuations being the methods that nature adopts respectively in eliminating the morbific matter." The swelling of the hands and face he calls "the pre-eminent evacuation which nature uses in this disease." The eruption is pretty generally looked upon as "necessary for the expulsion of the morbific matter." Now, there is no doubt that in small-pox the blood and tissues are leavened throughout with some toxic matter, which disorders gravely the nutrition of the various parts for which it has most affinity. Active hyperæmia and inflammation ensue in different localities, and the cell-growth in many places is variously perverted from its normal mode of life. The pulmonary and cutaneous exhalations, in fact, all that is given off from the diseased body, are toxic. It could scarcely be otherwise. After a time, this throwing off of poisonous matter ceases, and the patient is no longer a source of infection. Clearly, he has got rid of his poison, but the question is, *how*? According to the language above quoted, it has been thrown off in the pustules of the skin, the sputa, the diarrhœa, and the subcutaneous effusions in face, hands, and feet. Little is said about the pulmonary exhalation, though of course it is not questioned. The more striking phenomena seem, however, to have arrested attention most. Now, it does appear to me—it long has—that there is much reason to doubt how far anything like a true elimination is accomplished by salivation, diarrhœa, cutaneous suppuration, or subcutaneous effusion. A distinction ought to be made between elimination and overflow. A cistern may run over still remaining full; and so the human system may discharge toxic matter with which it is surcharged at various parts, and yet not be thereby freed. Recovery, not merely relief, should proceed, *pari passu*, with true elimination. The first of the above processes coincides with more or less inflammatory irritation and swelling of the buccal mucous membrane, just as it does in mercurial ptyalism. The gland is either directly stimulated by the abnormal matter in the blood in both cases (by variolous poison or mercury), or more probably, is excited to action, as Bernard has recently shown, by the impressions derived from the sensory nerves of the buccal membrane, which act in an inhibitory manner on its vaso-motor nerves. This is little more than stating the mere facts of the case. It is surely going a good deal farther to affirm that this process is essentially eliminative,—an effort of nature, set up as it would seem by a presiding organic agent, such as Prout imagined, to counteract the maleficent agency of disease. There is, in all probability toxic matter thrown out of the system in variolous salivation, just as some mercury may be carried out by the same channel when the drug produces severe irritation of the mouth. But it does not appear at all clearly that the flux is a benefit in either case. There is no doubt that it is very distressing to the small-pox sufferer, "ce qui l'incommode au plus haut degré et l'empêche de dormir," says Trousseau. Anyone who has suffered with a like state of mouth, though in a very minor degree, must be persuaded that the continuance of severe irritation, in so sensitive a part, for eight or nine days, must severely tax the enfeebled powers of the system. Sydenham, who looked on ptyalism as necessary, found that it was beneficial to give narcotics, though "from their power of thickening the fluids" they appeared to be contraindicated. We can well understand how much good an occasional opiate might do in the case of a patient exhausted by the torture of his sore and slavering mouth. We have no knowledge as to what amount of poisonous matter may be eliminated by the salivary channel in variola, but the analogy of mercurial salivation would not incline us to rate it highly. In the latter, mercury does not seem by any means to be invariably present; and when it is, the urine, according to Pereira, probably evacuates more, although its quantity is not of course increased at all proportionately to that of the saliva. Again, it may be remarked, that salivation does not occur in the discrete form of small-pox, a circumstance which seems not readily explicable if it is a salutary evacuation; the more so as Sydenham expressly stamps diarrhœa, which might replace it as it does in infants, as "dangerous in the distinct small-pox" (*vide* vol. i, p. 45, N.S.S.). There really seems to be much resemblance between the cases of variolous and mercurial salivation; and I cannot but entertain very great doubt whether either have the least claim to be regarded as beneficial efforts of nature. The only fact I find, which seems at all to favour this view, is that the abrupt cessation of ptyalism in variola is an ominous sign. Now, such cessation, especially when associated with sudden and premature subsidence of the swelling of the face, is, no doubt, the *result* of giving way of the vital powers, of commencing asthenia, but not its cause. Sydenham expressly states that the swelling of the face, instead of subsiding prematurely and so endangering life, is frequently, by the action of narcotics, sustained properly, and kept up until the due time that nature requires (*vide* p. 144, vol. i). This must surely be regarded as an instance of the toxic and supporting action of opium. Dr. Gregory, in the same way, recommends warm brandy and water, with thirty drops of laudanum, to be repeated at intervals, "when the eruptive nisus is accompanied

with depression, and nature appears obviously unequal to the effort." It may be remarked, that salivation ceases about the fifteenth day of the disease, if not before, certainly long before all toxic matter is eliminated. The same is true of the next evacuation we have to notice.

Diarrhœa, according to Trousseau, if it persist beyond the fifth day of the disease, and become violent towards the eighth, ninth, or tenth, is of bad omen. Almost all those who are thus affected die. If, however, it occurs in a patient in whom the swelling of the hands and feet does not take place towards the tenth day, it is as beneficial as in the former case it was injurious. This looks certainly very like elimination. If, however, we consider that in the swelling of the hands and feet most of the fluid effused must be reabsorbed, it still seems to me doubtful whether, even in this instance, the intestinal flux does good by elimination. Sydenham speaks very strongly of the bad effects of arresting diarrhœa in infants, many thousands, he affirms, have died in consequence. He also asserts that there is a difference in this respect between the discrete and confluent small-pox. In the former, "the evacuation is through pustules;" in the latter, "the bowels are the natural outlet by which nature seeks relief." Trousseau, who professes to take Sydenham for his guide, thinks differently. He says, p. 25, "in confluent variola diarrhœa, when it persists about the eighth, ninth, or tenth day, is a terrible phenomenon, and is to be combated by small doses of opium." Mr. Marson also directs that any undue looseness of the bowels should be arrested by chalk and opium, sulphuric acid, or other astringents. I do not think the foregoing evidence is decisive either way. It certainly does not seem to me sufficient to establish the eliminative and salutary nature of the flux.

Swelling of the face, hands, and feet, seems to be a necessary occurrence in confluent variola; the absence of the swelling in the hands and feet is declared by Trousseau to be almost always mortal. The tumefaction is connected with the maturation of the pustules; but it seems impossible that its subsidence should depend, in more than a slight degree, on the discharge from the latter. Most of the effused fluid must surely be taken up again into the blood. This phenomenon, then, which seems to be one of much more importance and necessity than the diarrhœa, can have very little eliminative effect.

The *variolous eruption* Dr. G. Johnson considers as "unquestionably curative," though he admits it may prove fatal by its very abundance "through its destructive influence on the skin." The chief ground for this view is, I suppose, the marked relief which is afforded to the initiatory symptoms by the appearance of the eruption, at least in the discrete form. In the confluent, Trousseau says the fever "ne se modère en rien," and there is no doubt that the amelioration which takes place when the skin becomes engaged in very much less than in the milder form. This seems opposed to the notion of the eruption being curative; for if it were, surely a more abundant outbreak should be attended, at any rate at first, with greater and not with less relief. Another point of difference is mentioned by the French observer, viz., that in discrete variola a copious perspiration sets in along with the primary fever, and continues until the period of maturation. This is usually absent when the disease is confluent. Trousseau says that it seems to constitute a favourable crisis *viâ* the skin, coming in aid, as a sort of emunction, to the great cutaneous manifestation of eruption. This may be true, although one is inclined to think that at so early a period of the disease the morbid matter can scarcely be in a fit state for expulsion. Sydenham recognises a period of separation as prior to a period of expulsion. I think, however, that a real elimination is much more likely to be effected through the channel of a normal secretion, than through one which is extemporised, so to speak, by a pathological process. It seems reasonable to believe that natural organs should be more efficacious instruments than unnatural. The main reason for doubting the correctness of the view that the eruption is curative, is afforded, however, by the fact which Dr. Watson, in accordance with others, thus notices. "The object (of treatment) is to prevent, if possible, a copious eruption upon which, as we have seen, the severity and peril of the disorder entirely depend." Sydenham had arrived at the same conclusion, as the following extracts show. "The whole matter turns upon the amount of the exanthemata, and the patient lives or dies just as it is much or little." Again, "No one will wonder at the ratio between the extent of the eruption and the danger of the disease, who considers the case of a common boil on the arm or shoulder. The more the pus, the more the fever; since the absorption of the pus into the blood through the veins supplies the fuel of the disease. Just in proportion as the physician finds the face of the patient, during the first days of the disease, thick set with pustules like pinheads, he may safely prognosticate that one or other of the aforesaid days death will come down upon him; the reason being the violence of the secondary fever. This must needs be proportionate to the quantity of pus thrown upon the blood by the innumerable apostemes," p. 58. If the views here set forth are correct, as I believe is generally admitted, it seems to me quite impossible to regard the cutaneous eruption as in anywise curative. No doubt it is better that the poison should be determined to the skin, and should work its mischief there, than that it should vex the brain, the cord, and the sympathetic centres, or palsy the heart. But after all, it is only a transfer of evil from one place to another, from a more vital to a less vital part, and not a salutary effort of nature to remove the *causa mali*.

The conclusions which the above review of the subject seems to me to lead to, are that the morbid processes in variola are on the whole but partially and doubtfully eliminative; that they are not to be regarded as efforts of nature for a purpose or end, but simply as various phenomena of irritation set up by the excess of toxic matter in one place or other, and that they afford us no indications of rational treatment; *i. e.*, we do not find it desirable to imitate these processes by artificial means.

In contrast with the above-mentioned, which, as being essentially morbid actions, are, I think, less capable of acting therapeutically, I would place the pulmonic exhalation. The lungs in the healthy state present a vast surface covered with the closest possible network of capillary blood-vessels, whose delicate membrane alone separates their fluid contents with the volatile matters it holds in solution from the atmosphere. All the circulating blood courses continually as it goes its round over this aërating surface; and, according to a physical law, must constantly exchange its volatile matters for the atmospheric gases. What better apparatus could be contrived for purifying the blood from a volatile miasm; and what more hopeful indication of treatment can a study of all the phenomena suggest, than to maintain the pulmonary interchange between the blood and the air in the greatest activity? The providing for this is one of the great advantages of the cooling treatment.

Another very important one seems to have been clearly apprehended by the genius of Sydenham,

hough it has not perhaps been kept distinctly in iew by subsequent observers. This is, that the ubjection of the frame to any undue amount of heat o enfeebles its powers of resistance, that the same lose of poison produces a much more deleterious ffect than it otherwise would. This occurs in two vays: first, by the tone of the capillaries and small essels becoming so enfeebled that they no longer re able to retain the blood within their channels, so hat extravasations occur, giving rise to purple lotches on the skin, bloody urine, and various internal ongestions. I have already argued, in my Lumleian ectures and work on *Functional Nervous Disorders*, hat such may be the effect of heat and of all influences hat impair nervous power. Secondly, the same influnces probably allow a much larger quantity of morbific matter to be generated than would be in circumstances more conducive to vigour. This is well expressed in paragraph 12 of Sydenham's *Epistolary Dissertation*, vol. ii, p. 61, which I must ask leave to quote: "If this view be true, a blind man may see hat the treatment of the first days is all important s regards the event. Inflame the spirits by cordials nd bed-clothes, and their power of assimilation, already too great, becomes greater still. Add to this, hat the blood and the other humours heated by such rocesses yield all the easier to the violent impression of the morbific particles. Hence arise more ustules than were wanted, and danger to the patient's life. Contrariwise, the opposite regimen and he free fresh air, soften down the violence of the evered and acrid particles, and confirm and condense he humours, by strengthening them against the norbific spirits, so as to withstand their attack; vhence no more variolous matter is secreted than is roportionate to the genius of the disease."

It is really remarkable to notice how Sydenham's good sense and observation guided him, in the treatnent of variola, to practise contrary to what theory ndicated. I must quote another passage for the ake of the bearing it has on our original subject; vhich my readers, I fear, will think I have forgotten.

"Those who disapprove of this method, will object hat by a narcotic so largely and so frequently given he peccant matter will become fixed and salivation e checked. To this I reply, that it is true that the alivation may be diminished; still it will never vholly cease. Nay more, some time after the anolyne has been given, it will break out afresh. From his accrues a double advantage. The patient, aving been restored by the anodyne, is all the tronger for the expectoration. The excreted saliva, lthough scantier, is all the better excocted. In the ext place, the decrease of the ptyalism is well made p for by the increased swelling of the hands and ace. This is all the surer and all the freer for the epetition of the narcotics, especially on those days vhen the swelling most regularly takes place..... In espect to these, I confidently assert that no competent judge can deny that the absence of these swellngs, on the days on which they are due, is a worse men than the interruption of the ptyalism. For my wn practice, I would rather risk a check to the tyalism than a check to the swelling; and I think hat this is so thoroughly required by the disease, hat the practitioner who debars his patient of such n auxiliary has but little observed the complaint." (*Epistolary Dissertation*, vol. ii, p. 74, par. 40.)

From this passage, it is clear that Sydenham was ot afraid of arresting elimination by a pretty free se of opium; and that he set more value on the due welling of the hands and feet than on the salivary xcretion, though the latter is surely more eliminant han the former. Paregorics he gave, as he tells us, nce or oftener in the day, from the sixth to the seventeenth day of the disease. Another means which Sydenham used to check "the inordinate assimilation of variolous matter", was the free addition of some spirits of vitriol (sulphuric acid) to some thin drink. This "goes far to help the patient out of danger." Sulphuric acid certainly acts as an astringent to the skin, and, as most of us believe, to the bowels. My own experience convinces me that it is not eliminant.

[*To be continued.*]

ON PROGNOSIS IN HEART-DISEASE.

By W. H. Broadbent, M.D., Assistant-Physician to St. Mary's and the Fever Hospitals; Lecturer on Physiology at St. Mary's Hospital Medical School.

[*Continued from page* 598.]

Hypertrophy and dilatation, then, are looked upon as caused by the valvular lesion, and as indicating its extent. The greater the degree of these structural changes, as ascertained by increased area of deep cardiac dulness, by the situation and character of the impulse and apex-beat, and by the modification of the heart-sounds, the greater the mechanical difficulty resulting from the altered valves, and the more grave the prognosis.

I must guard myself from being understood to assert without qualification the converse of this—that the less hypertrophy and dilatation, the smaller the valvular injury. Both propositions, indeed, would be rendered more exact, if preceded by the words, "in the absence of symptoms".

The prognostic meaning of hypertrophy and dilatation is recognised by all writers alike; but there is considerable diversity of opinion as to the relations between these changes and the valvular disease on the one hand, and subsequent effects on the circulation on the other. The idea which naturally presents itself, that the mechanical obstacle arising from the state of the valves is the cause at once of the hypertrophy and dilatation and of the derangement of the circulation, is, it seems, too simple. According to most authors, the symptoms and the ultimate fatal termination are due, not to the valvular disease itself, but to the hypertrophy and dilatation with which it is associated. Again: these structural alterations are considered by many writers as not altogether or even mainly the result of the valvular alterations, but of various accidental conditions, such as carditis, innutrition, etc., which are present in some cases and absent in others; the changes in the walls and cavities of the heart occurring or not accordingly.

It can never be altogether useless to ascertain the real relation between pathological sequences, or the connexion between pathological conditions and symptoms; and I propose to examine the two points referred to, taking first that which requires something in addition to the mechanical difficulty occasioned by the valvular lesion, as needed to give rise to changes in the muscular walls of the heart. It is stated thus by Dr. Walshe: "No direct ratio holds between the amount of hypertrophy and the amount of valvular obstruction, showing that there is something beyond the mechanical difficulty." Dr. Stokes, again, asking why in one case the cavities are unchanged, in another dilated, suggests as the cause carditis, imperfect arterialisation of the blood, obstruction of the coronary arteries, etc. It is not

denied, of course, that carditis, degeneration, and the other affections named, may give rise to dilatation and hypertrophy; they may do this when the valvular apparatus is perfect, and, *à fortiori*, when this is deranged; but it is certain that they are not essential, and that the changes in the valves alone are sufficient. The muscular structure is often found perfectly free from any evidence of innutrition, or degeneration, or inflammation, when the heart is considerably dilated and hypertrophied, and no assignable cause can be found but the valvular lesion. My own conviction is, not only that they are sufficient, but that they are the predominating cause; the other assigned causes being only occasionally and accidentally operative. How otherwise does it happen that hypertrophy and dilatation are so common in valvular disease, so exceptional independently of this, unless, indeed, a mechanical difficulty of another kind, such as pulmonary or renal or arterial disease, exists? As to the want of correspondence between the amount of valvular alteration and of muscular change, it must be remembered that before death we have absolutely no means of directly estimating the former; and that, in a large proportion of the cases referred to by Dr. Stokes, the occurrence of dilatation, or its absence, would be explained by the existence of extensive or slight mechanical difficulty. Even the fact, unquestionably true, stated by Dr. Walshe, "that no direct ratio holds between the amount of hypertrophy and the amount of valvular change," as ascertained by *post mortem* examination, is capable of explanation—first, by the circumstance that different affections of the valves have inherently and mechanically different degrees of tendency to the production of this result. Again, comparing only similar affections, *time* is an important element in the development of hypertrophy; and it is often very difficult to assign a date to a given morbid condition. Thus, in two cases of apparently equal obstruction, one will be accompanied by great hypertrophy, because the patient did not at once succumb to it; the other with comparatively little, because the difficulty increased more rapidly than the heart's power, and death occurred quickly. Again: the time of life at which the lesion of the valves takes place forms an important consideration. The cases of enormous hypertrophy and dilatation we meet with arise almost exclusively in early life; later, the heart no longer undergoes these great changes, but loses, as I should put it, its adaptive capability; and thus an obstruction, which at fifteen or twenty would be survived with enormous hypertrophy, would at forty or fifty prove fatal with much less change. Again: the variable amount of work the heart has been called upon to perform by the different habits of patients, and especially the period after the occurrence of the valvular change at which active exertion was undertaken allowing or not the heart to adapt itself gradually to this change, will have great influence on the condition of its walls and cavities. It will be seen from these considerations, that an unvarying direct ratio between the valvular and structural changes is not to be looked for, and that its absence furnishes no valid objection to their standing in the relation of cause and effect.

This question will again be referred to when the second of the two points, which is closely associated with it, is considered. This is, that the symptoms and ultimate fatal termination of heart-disease are due rather to the hypertrophy and dilatation than to the valvular affection; or that, at any rate, these structural alterations add a new source of danger. As to the exact share of each, opinions differ. Dr. Chambers, in his "Clinical Lecture on Heart-disease," says: "The importance of valvular lesions consists in their liability to cause enlargement of the heart;" and again: "If the muscular structure remains healthy, injured valves do not appear capable of causing death." Dr. Walshe considers that "dilatation renders any valvular condition more dangerous," and that "hypertrophy has the same kind of effect to a less degree;" and, if I have rightly gathered his meaning, it is to the effect that hypertrophy and dilatation are capable of giving rise to certain results; when these conditions are found associated with valvular disease, any such results are still to be considered as due to them, the residual phenomena only to the valvular lesion. Dr. Stokes, without making any such definite statements as these quoted from Dr. Chambers and Dr. Walshe, holds similar views. He says: "It is in the vital and anatomical condition of the muscular fibres that we find the key to cardiac pathology; for, no matter what the affection may be, its *symptoms mainly depend* on the strength or weakness, the irribility or paralysis, the anatomical health or disease, of the cardiac muscles. It was long ago observed by Laennec, that valvular diseases had but little influence on the health when the muscular condition of the heart remained sound; and every day's experience confirms this observation." Dr. Latham, speaking of hypertrophy as existing with valvular disease in a case untroubled by cardiac symptoms, says: "Hypertrophy is here the safety of the patient. Take away the hypertrophy and leave the injured valve, and the patient would be in a far worse state." "Hypertrophy" he elsewhere pronounces to be a "tremendous evil"; but it tends to counteract another tremendous evil, valvular disease. Dilatation supervening on disease of the valves is a "virtual obstruction" added to a "positive obstruction". Dr. Fuller, in speaking of the prognosis of endocarditis, seems, on the whole, to regard the valvular lesion as causing the structural changes, and also the symptoms; but he does not consistently hold to this view. Thus, at page 108, he says: "The more serious the mischief, the greater the obstruction to the blood's current, the quicker will hypertrophy and dilatation result, and," he continues, "the sooner will the effects of these lesions be perceived." Curiously enough, he later inverts the conditions, and, in the prognosis of valvular disease, speaks of it as "more rapidly fatal when it occurs in a heart which is already dilated and hypertrophied, than when it is set up in a healthy heart;" which is true, no doubt; but such a case must be of rare occurrence, and the peculiar sequence excessively difficult to make out.

Dr. Markham says: "Hypertrophy and dilatation of the heart, and diseases of its valves and orifices, are pathological states of the heart so closely blended together, that in practice it is scarcely possible to describe the consequences which ensue to the system from the one apart from the other."

There are here at least three perfectly distinct ways of regarding the connexion between hypertrophy and dilatation and subsequent symptoms—as the main cause of these symptoms, as aiding in their production by aggravating the ill consequences of valvular derangement, and as tending to neutralise these ill consequences. The point in which all agree is, that valvular disease accompanied by these structural changes is more serious than when it is not thus accompanied; but this fact is capable of the double interpretation, either that the valvular affection is rendered more serious by their presence, or that they are present because it is more serious. Which of the two interpretations is the more correct, will be best determined by considering what

would be the consequence of the valvular without the structural changes and the modifications these will produce. That in practice, as Dr. Markham says, it is scarcely possible to distinguish between the effects of the one and the other, is sufficiently evident from the diversity of opinion shown to exist.

The statement of Dr. Chambers, however, that "injured valves do not appear to be capable of causing death, if the muscular structure remain healthy", admits of direct refutation. It is disproved by the single fact, that accidental rupture of a valve may at once give rise to fatal syncope. If this do not occur, it may be followed by a rapid development of cardiac symptoms, dyspnœa, pulmonary obstruction, dropsy; and the more rapidly death ensues, the less of structural change will be found. Sometimes, also, endocarditis produces such extensive mischief in the valves, that it proves speedily fatal without the production of any considerable degree of hypertrophy or dilatation.

I may here remark that the observation of Laennec quoted by Dr. Stokes, to the effect "that valvular disease has but little influence on the health when the muscular condition of the heart remains sound", which, at first sight, might seem almost identical with what is said by Dr. Chambers, is perfectly distinct, and is indeed a mere statement of fact; but the explanation of this is that, when the muscular condition remains sound (understanding by this free from hypertrophy or dilatation), the valvular affection is slight. If Dr. Stokes had said, in the passage given above, that the prognosis turned upon the condition of the cardiac muscles, instead of that the symptoms depended upon this, no exception could have been taken to the statement; and I cannot withhold an expression of my admiration of the lucid and forcible way in which he sets forth the signs of danger in heart-disease, or of the clearness and precision with which Dr. Chambers gives the elements of prognosis and the indications for treatment.

As was said a moment ago, it will best be seen whether hypertrophy and dilatation are to be considered as the cause of the symptoms, and whether, as Dr. Walshe has it, they add to the danger of valvular disease, when we examine the effects the valvular lesions would necessarily produce, independently of the changes in the walls and cavities, and the modifications of these effects to which the structural changes would give rise. This will also furnish an opportunity for tracing the mode of their causation.

First, then, as to aortic constriction. If this exist to a degree sufficient to give rise to mechanical obstruction, since the same force will not propel the same amount of blood in the same time through a narrower orifice, there must be either increase in the propulsive power of the heart or diminished rate of circulation. The increased power is gained by hypertrophy; and, unless this go beyond the degree necessary to overcome the obstruction, which is extremely improbable, it cannot be considered as the cause of subsequent symptoms or as adding to the danger of the valvular disease.

A direct aortic murmur, accompanied by hypertrophy, is attended with greater danger than one not thus accompanied; not because a new element of danger is superadded by the hypertrophy, but because the valvular lesion in the one case has occasioned a mechanical difficulty sufficiently great to call for hypertrophy and not in the other.

Again, in aortic regurgitation, since a certain proportion of the blood sent into the aorta at each systole returns into the ventricle, there must be, in order to maintain the same rate of circulation, either an increase in the number of heart-beats per minute or an increase in the quantity of blood expelled by each. The increased capacity of the dilated left ventricle brings about the latter result, and thus compensates for the regurgitation. The greater the amount of regurgitation, therefore, the greater the necessity for dilatation.

The dilatation of the left ventricle known to accompany aortic regurgitation, is accounted for by the fact that during diastole the ventricle is exposed to a double distending force—the entry of blood from the auricle and pulmonary veins and the backward rush of blood from the aorta. When this is the case in any considerable degree, dilatation is inevitable; and no structural change in the muscular fibres is needed for its production. Unless constriction co-exist, there is no direct provocation to hypertrophy in increased resistance to the exit of blood; but there will be a call for increased exercise of force in the additional quantity of blood to be lifted at each systole, and a degree of hypertrophy results from this.

The dilatation of aortic regurgitation is a totally distinct thing from the dilatation which is sometimes met with as the result of structural weakness or degeneracy of the muscular walls of the heart. The two have only one condition in common—increased capacity of the ventricle. In the one the walls yield because they are inherently weak, and the effect on the circulation is not materially different from the effect this weakness would have if the dilatation did not follow—a tendency to stagnation from want of *vis a tergo*. In the other, the walls yield, not because they are weak, not even because they are weak relatively to increased demand for force, but because they are exposed to special abnormal causes of dilatation. If the valvular lesion could be removed, leaving the hypertrophied and dilated ventricle, the effect on the circulation would be not stagnation but acceleration.

Dilatation with hypertrophy cannot, then, in aortic regurgitation, be considered as aggravating the evils of the valvular lesion. On the contrary, it tends to compensate and neutralise them, and is distinctly conservative. Nor can it be said to give rise to the symptoms; and, indeed, in my opinion, the symptoms ascribed to dilatation are in all cases due rather to the cause of this condition, whether this is in the valves or in the muscular walls. The fact that dilatation is sometimes excessive and out of proportion to the hypertrophy, does not invalidate what has been said as to the primarily conservative character of this change. The increase of capacity is a necessity in order to make up for the regurgitation. When this goes beyond the required point, or hypertrophy fails to keep pace with it, there is a default in the compensatory arrangement from want of strength in the heart's walls; and the predominance of dilatation marks the degree of this failure.

Dilatation itself directly contributes an element of danger only when it gives rise to regurgitation (a valvular derangement, it may be remarked); indirectly it does so as necessitating increase of force on account of the increase of surface in the ventricle.

When, as is often the case, aortic regurgitant disease is set up late in life from degenerative change in the valves, the muscular structure is frequently also weakened, and dilatation from this cause may be superadded to the dilatation produced mechanically; but it is the weakness, the want of power, which is the source of danger, rather than the change of form.

[*To be continued.*]

We are requested to remind members of the Association that the Annual Subscriptions became due on the 1st of January. They can be paid either to the Secretaries of the Branches; or to the General Secretary, T. Watkin Williams, Esq., 13, Newhall Street, Birmingham.

British Medical Journal.

SATURDAY, JUNE 23RD, 1866.

THE MEDICAL COUNCIL.

THE annual session of the Medical Council for the present year having been completed, a summary of the proceedings, shewing what has been done and what is likely to be done, will probably be acceptable to our readers.

Among the several important subjects which occupied the attention of the Council during its recent session, we will first take that of the Amendment of the Medical Acts. It will be remembered that, in 1865, the Council agreed on the outlines of a Bill, and gave instructions to the Executive Committee to enter into communication with Government with a view to the introduction of the Bill into Parliament. Public events prevented any progress from being made until the commencement of the present year; from which time, up to the meeting of the Council, the President (Dr. Burrows) had been in correspondence with the Home Secretary, and had been put in possession of a Draft Bill drawn up by the legal advisers of the Government. This Bill, which formed the material of discussion in the Council during three days, contained the principal clauses of that proposed last year by the Medical Council, with some additions and alterations of more or less importance.

The Draft Bill agreed on by the Council last year contained provision for ensuring the correctness of the *Register*, and for facilitating the removal of the names of registered practitioners with their consent. The Home Office Bill contains several clauses having the same object, by which it is proposed, very judiciously, to leave to the Registrar, acting under the direction of the Council, to act on such evidence as may seem to him sufficient to warrant the removal of a name. These provisions excited no discussion; but, on the clause providing for the removal of the names of those who had ceased to practise, there had been an evident misunderstanding on the part of the Home Office authorities, which required correction. The Home Office Bill apparently gave to the Registrar the absolute power of removing the name of any one who had ceased to practise—a proceeding which many would not desire, and which might possibly even have the effect of displacing some of the most valuable members from the Council. The Council have remodeled this clause in a form which expresses their meaning—that power should be given for the removal of the names of those who have ceased to practise, if they desire such removal. The final sentence of the clause gave rise to some objection; namely, that no person whose name has been erased from the *Register* with his consent should be subject to penalty for treating disease gratuitously. Sir Dominic Corrigan proposed the omission of the words referred to; his proposal, however, was defeated by the casting vote of the President. We hope that no mischief may result from the provision being retained.

The Home Office Bill contained a very important provision, the insertion of which had not been contemplated by the Council—the recognition of foreign degrees and diplomas, so as to enable the holders of them to be registered. As the Medical Act now stands, those foreign and colonial degrees only which were obtained before the passing of the Act can be registered; but now it is proposed to extend the ordinary privilege of registration, under certain specified conditions, to foreigners and colonists who may desire to practise in this country, with degrees obtained at any time. Regarding the propriety of admitting the holders of colonial degrees to registration, there was little or no difference of opinion in the Council; inasmuch as information as to the status of the institutions granting such degrees can always be readily obtained. With regard to foreign degrees, however, it was urged that it was more difficult to learn their merits; and the Council came correctly to the conclusion that a very careful supervision was necessary. The Home Office Bill contained a blank schedule, to be filled up by the Council with the names of those foreign and colonial universities of which the degrees might be considered worthy of registration. The Council, however, wisely decided that to agree to this proposal would be injudicious; inasmuch as, among other reasons, an institution once admitted to the schedule could not be removed. They therefore, in amending the Bill, introduced instead a provision for the formation each year, by the Medical Council, of a list of foreign and colonial universities, to be approved by the Privy Council, and published in the *London Gazette*.

Provision is also made for the recognition, on the recommendation of the General Council, of qualifications granted by licensing or graduating bodies in the United Kingdom, other than those described in Schedule (A) to the Medical Act of 1858; and a special clause is inserted for the recognition of the degree of Bachelor of Surgery. This insertion was made, we believe, at the instance of the University of London, and was originally worded with reference

to that institution: the Council, however, have rightly proposed that its operation shall be general.

The Home Office Bill retained the clause which the Council last year proposed to substitute for Section XL of the Act; making, however, one alteration which would have a decided tendency to weaken it—the addition of the words "of medicine" after "doctor." The Council have endeavoured to amend the error; and have given the following explanation.

"It is to be observed that the taking of the title of 'Doctor of Medicine' is prohibited by the earlier part of the clause, inasmuch as it is one of the designations enumerated in Schedule (A) to the Medical Act, 1858. Its subsequent introduction, therefore, is wholly unnecessary; whereas the introduction of the title 'Doctor' simply is all important to the efficiency of the operation of the clause. The title 'Doctor' is the one most commonly assumed by unqualified persons practising medicine; and if such practice be allowed to continue, it is obvious that any unqualified person, by assuming that designation, might evade the penalty of the law. If it be said that, by using the word 'Doctor' only in the clause, all Doctors, whether of Philosophy, Law, etc., are included, the answer is, that the clause applies only to those who, not being registered, are practising medicine under the title of 'Doctor'."

Whether the new clause will, if it become law, be more effectual than Section XL of the Medical Act, remains to be proved. The difference between the present penal section of the Medical Act and its proposed substitute is this: that in the former the penalty is attached to the pretence of being registered, and hence has been easily evaded—sometimes, as Dr. Andrew Wood observed, by the impudent assertion that the person practising is "not registered"; whereas in the new clause it is made penal for a non-registered person in practice to assume titles ordinarily used to designate qualified practitioners, without special reference to the question whether such titles imply registration or legal recognition. A partial exception, as we have already observed, is made in favour of persons who, having once been registered, have had their names removed by their own desire from the *Register*.

When, after three days' discussion, the proposal was made for the adoption of the Report on the Bill as finally amended, an attempt was made by Sir Dominic Corrigan to obtain the issuing of a Royal Commission to inquire generally into the working of the Medical Acts, with the object of "framing a report that might lay the ground for a Medical Bill that would ensure the better education of candidates for the practice of the medical profession, and better protection for the rights of qualified practitioners, than the present Medical Acts afford." Without expressing any opinion on the question whether the appointment of a Royal Commission may or may not be at some time desirable, we must say that, in existing circumstances, the proposal was altogether out of place. The Council had been during three days endeavouring to put the Bill laid before them into such a shape as they considered most conducive to the good of the profession; and, as Dr. Acland rightly hinted in his straightforward and energetic reply, it would have been a more courteous and fair proceeding towards his colleagues, on the part of Sir Dominic Corrigan, if he had given them notice of his intention, instead of reserving to the last his attempt to render their labour nugatory. Sir Dominic Corrigan's counsel, fortunately, did not prevail; and the Council determined, by a very large majority, on adopting the Report presented to them. They further decided that a statement of the reasons for the alterations which they had made in the Bill should be sent to the Home Office; and also directed that a letter on the subject should be addressed by the President to Sir George Grey, and that the Executive Committee should be entrusted with the further progress of the Bill.

Whether the Bill will be taken up as a government measure, remains to be seen; but, at all events, it is very questionable whether any progress will be made with it in the present session of Parliament. The letter which was addressed by the Home Secretary to Dr. Burrows contained a plainly expressed hint that the Government would not have an opportunity of introducing the Bill, and that it would better be placed in the hands of some private member of either House; but the Council were strongly of opinion that the Bill should be taken up as a government measure, and gave instructions to the Executive Committee to press on the authorities the expediency of dealing with it in this way.

The minimum amount of General Education to be required from those intending to enter the medical profession has at length been fixed by the Council. At the close of the session of 1865, a report on the subject of preliminary examination was presented, but its discussion was deferred for want of time. It was again brought up this year, but was referred back to the Committee, in order to give an opportunity of framing more definite instructions than those which have hitherto been in force. The result of the amended report, and of its discussion in the Council, is that, after the year 1868, the minimum amount of preliminary education that will be accepted is to consist of—1. The English Language, including Grammar and Composition; 2. Arithmetic, including Vulgar and Decimal Fractions; Algebra, including Simple Equations; 3. Geometry (the first two books of Euclid); 4. Latin, including Translation and Grammar; with one of the following subjects, at the option of the candidate:—Greek; French; German; or Natural Philosophy, including Mechanics, Hydrostatics, and Pneumatics. Considerable discussion took place on the question, whether a knowledge of Greek should be rendered compulsory; and it was ultimately decided that all students should be compelled to pass an examination

in that language after the year 1869. The curriculum framed by the Council is altogether a very moderate one, and includes nothing more than ought to form part of the stock of general knowledge of every member of a liberal profession.

In connexion with the subject of preliminary education, we must not omit to notice that the Registrar, Dr. Hawkins, had with much care prepared a tabular view of the curricula in this department of the medical licensing boards, and also of the general educational bodies recognised by the Council. The document was, we believe, of much use to the Council in their deliberations.

A very important series of reports was this year for the first time presented—those of the several Branch Councils on the Visitation of Examinations. It was last year determined that the Branch Councils, or members deputed by them, should visit the examinations conducted by the qualifying bodies in their respective divisions of the kingdom, and report thereon to the General Council. No instruction was given as to the points to which the attention of the visitors was to be specially directed; and hence the reports presented varied much in character, some of the visitors having considered it their duty merely to record facts as they observed them, while others ventured to point out defects. The Council determined that the Branch Councils should be requested to report the visitations for another year, and gave instructions that the reports should "include a statement of the facts observed, and of the opinion of the visitors as to the efficiency of the examinations, and also such remarks and suggestions on defects in them as circumstances may seem to indicate." The continuance of the visitations in their present form was opposed by Sir Dominic Corrigan; his reasons being, that they were faulty in principle, being carried on by the representatives of the licensing bodies; and that any system of visitation which did not include every examination—a difficult if not impossible task—must be worthless. His amendment, however, had only two votes in its favour—those of the proposer and seconder. It was pointed out by Dr. Alexander Wood, that the proposer of the amendment was rather inconsistent with himself in his attacks on the conduct of his colleagues, inasmuch as at one time he spoke of them as being engaged in what he called a "battle of shops", and at another expressed distrust in their inspection of each other's examinations. We believe that the members of the Council, now that they have commenced visitations, are determined to do what they can to make them effective. Even the imperfect visitations made last year, as was shewn in the discussion, had already produced some good, and were the means of bringing under the notice of the Council an infringement of regulations on the part of one at least of the licensing bodies. Dr. Andrew Wood, one of the visitors of the University of Glasgow, reported that, at his first visit, he found that frequently one examiner only was present when a candidate was being examined; but, on his second visit, he had the satisfaction of finding that, apparently in consequence of the remonstrances of the visitors, this defect had been remedied. Another error on the part of the same University, which was alluded to in the report, was that of the recognition of proficiency in the class-examinations as a substitute for the final examination. On this point, the general feeling of the Council was evidently that the conduct of the professors of the Glasgow University was contrary to the recommendations of the Council, and also to the letter, if not to the spirit, of the ordinances of the Scottish Universities. The worthy representative of the University, Dr. Allen Thomson, will no doubt make known to his colleagues the opinion of the Council; and we trust to hear that the mistake has been amended. We may here remark, while the Scottish Universities are under notice, that the University of Edinburgh some time ago decided that the recognition of class-examinations in place of the final examinations was illegal; and that it has recently taken measures for obtaining a new ordinance, in order to compel all students entering the profession to pass a preliminary examination. The Council appear determined, for the present at least, to continue a trial of moral suasion in their dealings with the examining boards, rather than have recourse to more energetic measures. Will they, by the exercise of this gentle influence, succeed in a few years in inducing all the boards to comply cheerfully and thoroughly with the recommendations which they—the Council—may issue for the improvement of professional education? We hope that they may succeed; but we cannot be sanguine of the result of the experiment.

The reports presented from the Army and Navy Medical Departments shewed even a more wretched dearth of candidates for these services than did the reports of last year. In 1865, the Army Medical Department reported that there had been 151 candidates, of whom 121 passed, and 30 were rejected; while, in 1866, the report was that, of 89 candidates, 56 were successful, and 33 were rejected. The returns from the Navy Medical Department shewed a total of 21 candidates, of whom 12 were accepted; the proportion reported last year having been 28 successful candidates out of 49. Hence, while the proportion of rejections in the Navy Medical Department was the same as last year, that in the Army Medical Service was nearly doubled. The Naval Board of Examiners, in their remarks, commented on the gross ignorance, in matters of general as well as of professional education, shewn by the rejected candidates. The Director-General of the Army Medical Department declined to furnish the Council

with detailed information as to the reasons in each case for the rejection of the unsuccessful candidates, on the ground that such information would subject them to exposure. The Council, however, decided to apply for information on the reasons of rejection in a more general form; and there is ground for believing that the request will be complied with, as the returns will not necessitate the giving of such information as will put a mark on any individual candidate.

The Returns from the Licensing Bodies shewed a decrease in the number of persons admitted to the profession. For the last three years, the following have been the figures.

Year of Return.	Passed. 1st Exam.	2nd Exam.	Rejected. 1st Exam.	2nd Exam.
1864	1708	1687	375	224
1865	1493	1738	309	227
1866	1343	1578	313	233

The percentage of rejection in both examinations has been manifestly greater than in former years.

The report on the Registration of Medical Students disclosed the existence of some irregularities which have prevented the students' register from becoming a trustworthy document. It appeared to the Committee appointed to report on the subject, that much of the irregularity arose from a difficulty on the part of students in understanding the regulations previously issued; and they, therefore, recommend to the Council the adoption of a more simple code, which was approved of. Provision has been made for preventing students who have already entered at the medical schools from being injuriously affected by any retrospective action of the regulations. The new regulations for the registration of students will be found at page 606 of the JOURNAL for June 9th.

The Pharmacopœia Committee reported that the new edition of the *British Pharmacopœia* was in type, with the exception of the appendix; and it was determined that its completion should be entrusted to the Executive Committee, proofs having been first submitted to the several members of the Council, in order to give them an opportunity of making suggestions. It was also determined that the *Pharmacopœia* should contain a comparative table of the English and continental weights and measures, with directions for their mutual conversion; and that the chemical composition of the various substances, when known, should be expressed by two formulæ of symbols, one representing the ordinary, and the other the new or "unitary" system of notation.

A matter of some interest, in reference to the *Pharmacopœia*, was brought before the Council by Dr. Acland. At the last meeting of the British Association for the Advancement of Science, a memorial was drawn up by the Physiological Subsection, pressing the Council to undertake the duty of instituting scientific inquiries into the action of medicines. Dr. Acland laid the memorial before the Council, and proposed compliance with the request therein contained, and also that the Council should devote the sum of £250 to the purpose specified. The proposal was, however, rejected; first, because, as was alleged, it lay beyond the proper province of the Council, as defined by the Medical Acts; and secondly, because the Council had no power to apply its funds in the manner desired. Subsequently, Dr. Acland endeavoured to obtain the passing of a resolution instructing the Pharmacopœia Committee to ascertain to what extent limitation was imposed by the Act in reference to the investigation of medicinal agents. This proposal, however, fell to the ground, in consequence of an equality of votes.

The attention of the Council was several times directed during the recent session to the manner in which the business is conducted; and there is certainly good reason why the members should endeavour to agree on some means of diminishing the waste of time and expenditure of money which now prevail. One step in this direction has been taken, by the enlargement of the Executive Committee, which now for the first time contains a representative from Scotland and one from Ireland; for it may now be possible for the Committee to undertake and dispose of a greater amount of the routine work which has hitherto occupied the time of the Council. A resolution, also, which was proposed by Dr. Alexander Wood and agreed to by the Council—that all reports from committees shall first appear in the programme of business before being entered on the minutes—has also for its object the shortening of the sessions; but the plan apparently requires to be perfected by certain other recommendations, on which the Executive Committee are to report on the first day of next session. Without at all desiring to curtail the amount of free discussion which every subject of importance ought to receive, we hope that some effectual means of shortening the business may be discovered. As matters at present stand, notwithstanding the endeavours of the Business Committee, and especially of its able chairman, Dr. Andrew Wood, there is a great and unnecessary amount of time spent in the discussion of crude reports, in the reading of lengthy documents in the minutes, and in various other ways, readily perceptible by those who are conversant with the course of business of the Council.

THE THIRD REPORT OF THE CATTLE-PLAGUE COMMISSIONERS.

THE Cattle-Plague Commissioners have just issued their third Report. It treats of the Symptoms, Nature, Origin, Mode of Propagation, and Treatment of the disease. Appended to it, are the separate Reports of the different scientific gentlemen who were appointed to investigate the disease specially

from different points of view. The gentlemen who undertook these inquiries are—Dr. Sanderson, Dr. Murchison, Dr. Marcet, Dr. Bristowe, Dr. Beale, Messrs. Varnell and Pritchard, Dr. Angus Smith, and Mr. Crookes.

The first *symptom* of the Cattle-Plague observable is a rise of temperature of the animal. Within from thirty-six to forty-eight hours after an animal has taken the Cattle-Plague by inoculation, the temperature rises from 102° to 104° or 105½° Fahr.; the animal appearing to be in no way ill. Hence, two important facts appear: the period of incubation is less than was supposed; and the disease can be detected two days sooner than has been hitherto supposed. The diseased animals may therefore be separated at an earlier period from the healthy; treatment be sooner resorted to; and the time of quarantine shortened. Two days after the rise of temperature, a characteristic eruption appears in the mouth; and almost simultaneously a distinctive appearance is seen in the vagina. These two signs, with increased heat, give certainty to the diagnosis. The day after the eruption appears, or about seventy-two hours after the rise of heat, the animal begins to ail. On the fourth day—perhaps 110 hours from the rise of its temperature—the animal first shows marked signs of illness; and this period is usually considered by superficial observers as the beginning of the disease; which is a very serious error in many ways, and especially as regards treatment. After the fourth day, come the well-known urgent symptoms. On the sixth day, the pulse grows weak; the contractile force of the heart and voluntary muscles is much diminished; the pulse fails; the respiration is affected; the limbs grow feeble; and the temperature falls rapidly. Death usually occurs on the sixth or seventh day from the first marked rise of temperature.

Dr. Sanderson has made the important discovery, that the earliest fact which can be made out after infection occurs is, that the blood contains the poison of the disease. Its serum *will produce the disease by inoculation*. This highly important fact, which has been long suspected in the case of some diseases of man, has never yet been previously proved. A minute portion of the Cattle-Plague poison introduced into the blood of a healthy animal in less than forty-eight hours infects the whole mass of the blood.

It is supposed that the fever—rise of temperature—begins when the poison has infected the whole mass of the blood—*i.e.*, within from about forty to sixty hours after its first entrance into the body. At the same time, chemical changes are increased; and the urea, says Dr. Marcet, largely so.

On the third or fourth day, local congestions occur, especially of the skin and mucous membranes. The digestive mucus is particularly affected; so that food accumulates in the stomach. Sometimes the lungs are attacked. The fever does not constitute the danger; but the affections of the digestive and respiratory mucous membrane and failure of muscular contractility.

Dr. Beale has examined with the highest magnifying powers the tissues of diseased animals, but has not discovered any definitely formed matter which may be regarded as *materies morbi*. Neither has chemistry given us any help in this way. All we yet know of the disease is from its effects on the animal. The poison will multiply rapidly in the bovine animal—in the sheep, goat, deer, or gazelle—but it is not communicable to non-ruminants. There must, therefore, be in man, the horse, the dog, etc., some special condition wanting for its growth in them. Some animals, also, sheep and goats, take the disease less readily than the ox; showing that in them the internal conditions are dissimilar from what they are in the bovine species.

The virus, in passing through an animal, usually renders it insusceptible of another attack.

There is no evidence of the spontaneous origin of the disease in this country, or of its spread by means of some wave of poisonous air. There can be no doubt of its importation from the continent.

Varieties of soil and meteorological conditions seem to have no influence over its spread. In valleys and low-lying lands, it naturally spreads faster than in uplands and on hills. All facts tend to show, that the "true mode of preventing the spread, is to treat it as an entirely contagious disease."

The most powerful disinfectants are carbolic and sulphurous acids. Mr. Crookes, in his Report, describes the mode of using them.

The inoculation of cattle with vaccine virus, human small-pox virus, and sheep small-pox virus, has no effect in arresting or modifying the Cattle-Plague. "All attempts either to weaken the power of the Cattle-Plague poison, or to find another agent which might make the system of the ox insusceptible to it, have entirely failed."

Of *treatment*, the Commissioners have nothing satisfactory to tell. Sometimes the disease assumes a mild, and at other times a virulent form, killing ninety-five per cent. of the animals attacked. The reason of this is unexplained. A comparison of the results of treatment is for this reason rendered very difficult. Of about ten thousand cases treated, the reported recoveries are about twenty-six per cent., whatever the kind of treatment employed. The "inference is, that the various drugs employed have produced little or no effect."

But the Edinburgh Cattle-Plague Committee reports show that, "by judicious feeding with soft mashes of digestible food, the proportion of recoveries has been considerably increased"—in fact, out of 503, nearly 38 per cent.

When the animals relapse after recovery, the cause is almost always improper feeding.

Drugs appear to be useless. "Powerful drugs even greatly heighten the mortality." Injections of carbolic acid and of sulphites have produced no satisfactory results. The Report sums up on this head: "No drug has been found which can be recommended as either an antidote or a palliative."

The *precautionary measures* recommended are: slaughter of diseased animals, stoppage of cattle traffic, and complete measures of isolation and disinfection. The Commissioners take no account of Dr. Farr's theoretical scheme of an epidemic-like rise and fall of the disease. They add a fear that even the present measures are not stringent enough. On disinfection of yards, etc., they lay the greatest stress. It is not yet known how long the poison may lurk in sheds, manure, etc.

The future re-introduction of the disease from abroad must be carefully guarded against; and measures adopted similar to those in force in some foreign countries.

THE CANADIAN MEDICAL COUNCIL.

At Toronto, on May 2nd, the Canadian Medical Council held its first sitting. Dr. Campbell claimed admission, as representative of the Homœopathic Medical Board. After discussion, by a vote of nine to seven, he was not admitted. The composition of this Medical Council differs from that of our own in one important particular. It is composed not only of representatives from colleges, etc., but of members who represent the profession in districts. In this respect, the Canadian Medical Council is a much better exponent of the opinions of the profession than our own. This defect in the constitution of the British Medical Council was well pointed out at the last meeting of the Lancashire and Cheshire Branch of our Association by Mr. Southam. In fact, the following resolution was proposed by Mr. Southam, and unanimously carried.

"That the Medical Act of 1858 having failed to satisfy the just requirements of the profession, and by its faulty representative constitution to promote the interests of the general body of practitioners, Resolved—That the Committee of Council of this Association be requested to obtain an interview with the Secretary of State for the Home Department, and to urge upon him the desirability of introducing into an amended Act additional securities for the more efficient representation of all registered practitioners on the Medical Council."

Mr. Southam remarked that

"The general feeling was that the Medical Act of 1858 was a very inefficient Act, so far as the profession was concerned; and, as the Medical Council had proposed that an amendment of the Act should be proposed to Parliament, it appeared that they also should take some steps in the matter. The Medical Act originated with the Association; and in the earlier period, when the Act was brought before the profession, it was intended that several of the Medical Council should be appointed by the profession generally; but, in the negociations which took place, somehow or other, the medical corporations had managed to get the whole affair into their own hands; and, instead of giving the profession a voice in the nomination of the members, they managed, through their influence with the Government and with Parliament, to get the right of nomination of eighteen out of twenty-four members of the Council. This, in his opinion, was one reason why the Act had not worked well. These gentlemen had been too much engaged in looking after the interests of colleges and corporations, instead of looking after the interests of the profession generally. Now, when it was proposed to have an amendment of the Act, he thought that Association might very well step in, seeing that the Act had not fulfilled the expectations which were formed of it, and go to the Government, and ask them to reconstitute the Medical Council by giving to the profession generally the right to the nomination of members of the Council. It was generally admitted, so far as the profession was concerned, that the Medical Act had done nothing for them. Between £4000 and £5000 a-year was raised from the profession; and for this sum they received no equivalent whatever. It, therefore, appeared to him that the time had arrived when they should obtain an Act of Parliament which would meet all the requirements of the profession generally."

However honestly the present Council may carry on its work, it is certain that its different members must necessarily be somewhat biassed in favour of the particular corporation or college which they represent. It would, also, surely be an act of policy on the part of the Council to admit the voice of the general profession; thereby they would remove all the many outside groans of dissatisfaction which assail them.

The Privy Council have requested the Royal College of Physicians to inform them what general medical instructions they should issue to merchant-captains, in case of the cholera appearing in their vessels. The College has thereupon appointed a Committee, consisting of Dr. Jenner, Dr. Gull, Dr. George Johnson, Dr. Parkes, Dr. Milroy, and Dr. Sanderson, to consider and report upon the question, and answer it—if they can.

The Austrian Embassy in London have, they say, been overwhelmed with British applicants for medical service in the Austrian army. They have, therefore, issued a note to say they do not want any doctors at present; but should the number of German medical men prove insufficient, they will accept the services of foreign surgeons.

Dr. Dyster of Tenby, a friend and warm admirer of the late Dr. Baly, is desirous of perpetuating Dr. Baly's name in connexion with medical science. He has, therefore, most liberally offered to place at the disposition of the College of Physicians of London £400; the proceeds of which shall be given, bien-

nially or triennially, in the shape of a medal, as a prize for an essay on Physiology. The College has accepted his generous proposal.

The profession will read with entire satisfaction the following announcement in the *Gazette*.

"Whitehall, June 18th. The Queen has been pleased to direct letters patent to be passed under the Great Seal granting the dignity of a Baronet of the United Kingdom of Great Britain and Ireland unto Thomas Watson, of Henrietta Street, Cavendish Square, in the parish of St. Marylebone, and county of Middlesex, Doctor of Medicine, President of the Royal College of Physicians, and one of Her Majesty's Physicians Extraordinary, and the heirs male of his body lawfully begotten."

The honour, it must be confessed, has come tardily, but it has come at all events. We believe we cannot more truly express the general sentiments of the profession on the occasion, than by repeating the words we used in January last, when referring to the last created medical baronets.

"If the Government had wished to respond to the sentiments of English medical men in making a physician a baronet, it would have undoubtedly conferred the honour upon Dr. Watson. We believe that every medical man in the country would have received the appointment as a personal compliment, feeling that it had been conferred on one who represents at once the honour, the science, and the learning of our profession."

Sincerely do we hope that the worthy President of the Royal College of Physicians may long live to enjoy an honour which sits so worthily and gracefully upon him. Whilst on this topic of honours, it is impossible not to call to mind the fact, that the profession in Scotland still, in justice, requires a similar reparation in honour-bestowals should be done to it. The profession in Scotland may justly consider itself unfairly treated, if its chief surgical illustration do not receive the fitting reward of his world-wide celebrity. We trust we may soon have to announce, that the reparation which has been made in the case of Dr. Watson has also been made in the case of Mr. Syme.

There will be two vacancies in the Council of the College of Surgeons, Mr. Luke and Mr. Hilton being the retiring members. Both present themselves for re-election, but meet with opposition—the following applicants being also in the field: Mr. Erasmus Wilson, Mr. Charles Hawkins, and Mr. Henry Spencer Smith. Mr. Luke's re-election would be a declaration on the part of the Fellows that they consider the office to be a life-appointment. Mr. Charles Hawkins comes forward declaring that he has no intention of seeking an Examinership; he therefore comes forward a free and untrammeled reformer. It is a fair sign of the times that many members of Council would, as we hear on good authority, gladly hail him as one among them. They know well that no secondary considerations will prevent his telling the plain unvarnished tale. He has nailed his colours to the mast, and will most assuredly, in the council-chamber, do all that an individual can do to carry out the Charter in its spirit and full intent. Mr. Spencer Smith does not oppose Mr. Charles Hawkins.

An action was last week brought against Mr. Holmes and Mr. Freeman, of St. George's Hospital, by one Mr. Perionowski, a Pole and a tailor. He had been a gratuitous medical patient in St. George's Hospital, and was ordered to sit over hot water previously to an operation—we conclude, for hæmorrhoids. The nurses, he asserted, spite of his cries and sufferings, cruelly pressed him down and held him over the vessel containing the hot water, so that, in truth, he got to some extent slightly scalded. The Pole even accused the surgeons of being implicated in cruelty. It was proved that he had misstated and greatly exaggerated all that happened.

"The Lord Chief Justice, in summing up the case to the jury, observed that it was indispensable that such matters should be left to nurses, who were necessarily familiar with them; and it had been satisfactorily proved by the testimony of some of the most eminent medical attendants of our hospitals, that such was the ordinary and usual course of hospital practice. That being so, the question was, whether the defendants had been present when the man was put into the bath, or were near enough to observe what had occurred, which, it was probable, had been greatly exaggerated. It was well known that medical men were always anxious that no unnecessary pain should be inflicted upon their patients; and it was incredible that they should have allowed the man to be treated in their presence as had been described by him. This would be to impute to them a gross and senseless inhumanity which passed all the bounds and limits of probability. The defendants would not be liable for the negligence of the nurses, unless near enough to be aware of it and to prevent it. It was not because the plaintiff might have sustained some amount of injury, that therefore a verdict was to be given against gentlemen who were not really responsible for it. And the statements of the plaintiff must be regarded with some degree of distrust, seeing that, although he professed to be unable to understand English, he had spoken to conversations in that language. No doubt persons who went as patients into hospitals were not to be treated with negligence; but, on the other hand, medical gentlemen who gave their services gratuitously were not to be made liable for negligence for which they were not responsible.—The jury agreed to a verdict for the defendants, adding that they thought the plaintiff had been illused."

Of course, Mr. Holmes and Mr. Freeman had in reality nothing whatever to do with the matter. The real defendants in the case are (and in fact were) the governors of the hospital, who are responsible for their nurses. The *Pall Mall Gazette*, *à propos* of this neglect of the nurses, asks if the accident would have happened, had the proposal of the new system of nursing been carried at the late meeting of the governors.

Helen Forester, a midwife, was tried on Saturday in the Central Criminal Court, charged with the wilful murder of Helen Venables by making use of an instrument to procure abortion. The deceased, who was a married woman and the mother of several children, went to the prisoner in April last, and gave her £3 to procure a miscarriage of the child of which she was then five months pregnant. The miscarriage was caused; but the operation performed upon her by the prisoner was alleged to have produced her death in about a fortnight afterwards. Dr. A. Brown said that, about ten o'clock on the night of the 26th of April, he was called to attend the deceased. She died on the 6th of May. He made a *post mortem* examination, and found that the uterus had been lacerated and punctured through, by which inflammation was caused, and eventually death. From the evidence given, it did not appear that the deceased knew she was dying when she made the statement implicating the prisoner. Mr. Justice Byles, therefore, told the jury that, assuming upon the evidence that the unfortunate deceased died from the criminal attempt made upon her to procure abortion, there was no testimony to prove who made that attempt, and the prisoner must be acquitted.

Deaths from hydrophobia have been sadly numerous of late. The present week's bills of mortality in London tell of no less than three deaths from this frightful disorder. A letter from a medical man, Mr. Avent of Fulham, in the *Times*, well explains how the disease may be widely spread.

"The patient (a child) was bitten about five weeks ago; the disease showed itself on Tuesday, and death took place on Thursday. The dog is stated to be still at large, and is reported to have bitten another child on Friday. It is impossible to calculate the amount of mischief he may have caused during the past five weeks. A suggestion made by one of your correspondents—that all stray dogs should be dealt with as though they were wolves—seems to be worthy of consideration."

On Tuesday last, the Committee and several of the subscribers and others interested in the cause of "Rudman *versus* Armstrong and another", dined together at the Rosherville Hotel, Gravesend—Dr. Richardson in the chair—to commemorate the success of the fund, and to offer to the Messrs. Armstrong, who were invited to the dinner, some further demonstration of the sympathy of their friends and neighbours. Nearly forty gentlemen were present, among whom were the Mayor of Gravesend, the Rev. Mr. Scarth, Mr. Southgate (Dr. Armstrong's solicitor), Dr. Adam Martin of Rochester, and several other medical practitioners from the town and neighbourhood of Gravesend; together with ten or twelve from London, among whom were Dr. Braxton Hicks, Dr. Camps, Mr. Dunn, Mr. Gay, Mr. Harvey, Mr. Hunt (treasurer to the fund), and others. The eloquent speech of the President in proposing the health of Dr. and Mr. Armstrong, and their warm and affecting response, together with several speeches of great interest and warmth, all tended to show the conviction of every one present that the great protection of the profession from these vexatious actions, to which every member is exposed, is to be found in unity and fidelity towards each other. We are pleased to hear that there is a small surplus of the fund (after paying the legal expenses and those of the Committee), which it was unanimously agreed to present to the Gravesend Infirmary.

Association Intelligence.

BRITISH MEDICAL ASSOCIATION: ANNUAL MEETING.

The Thirty-fourth Annual Meeting of the British Medical Association will be held at Chester, on Tuesday, Wednesday, Thursday, and Friday, the 7th, 8th, 9th, and 10th days of August next.

President—S. J. Jeaffreson, M.D.Cantab.

President-elect—Edward Waters, M.D.Edin.

The Address in Medicine will be delivered by J. Hughes Bennett, M.D., F.R.S.Edin., Professor of the Institutes of Medicine and Clinical Medicine in the University of Edinburgh.

The Address in Surgery will be delivered by William Bowman, Esq., F.R.S., etc.

The following special subjects will be introduced for discussion:—

Dr. Sibson, F.R.S., and Mr. Holmes: What is the influence of Hospitals on Health and Mortality,

Dr. Stewart: Is the Expectant Method to be relied upon in the Treatment of any form of Acute Disease?

Mr. Alfred Baker (Birmingham): Are there any trustworthy facts as to the Origin of Pyæmia?

Professor Christison, F.R.S. (Edinburgh): Observations on the Register of Deaths in Scotland.

Gentlemen intending to read papers, cases, or any other communications, are requested to give notice of the same to the General Secretary at their earliest convenience.

T. Watkin Williams, *General Secretary.*

13, Newhall Street, Birmingham, June 5th, 1866.

BRANCH MEETINGS TO BE HELD.

NAME OF BRANCH.	PLACE OF MEETING.	DATE.
Cambridge and Huntingdon. [Annual.]	Committee Room of the Corn Exchange, St. Neots.	Tuesday, June 26th, 2.30 P.M.
East Anglian. [Annual.]	Museum Room of Hospital, Norwich.	Friday, June 29th, 2 P.M.
North Wales. [Annual.]	George Hotel, near Bangor.	Tuesday, July 3, 12 noon.
West Somerset. [Annual.]	George Hotel, Ilminster.	Wed., July 11, 2.30 P.M.
Metropol. Counties. [Annual.]	Crystal Palace, Sydenham.	Wednesday, July 18, 3.15 P.M.
Bath and Bristol. [Annual.]	Mineral Water Hospital, Bath.	Thurs., July 19th, 4.30 P.M.

CAMBRIDGE AND HUNTINGDON BRANCH.

The annual meeting of the Cambridge and Huntingdon Branch will be held at St. Neots, in the Committee Room of the Corn Exchange, on Tuesday, June 26th, at 2.30 P.M.; J. J. Evans, Esq., President, in the chair.

Gentlemen intending to read papers or cases are requested to forward the titles of the same to the Honorary Secretary, without delay.

P. W. Latham, M.D., *Hon. Secretary.*

15, Sidney Street, Cambridge.

EAST ANGLIAN BRANCH.

The annual meeting of the East Anglian Branch will be held at Norwich, in the Museum Room of the Norfolk and Norwich Hospital, on Friday, June 29th, at 2 P.M.; T. W. Crosse, Esq., President, in the chair. The members will afterwards dine together at 5.30 P.M.

Gentlemen intending to read papers or cases are requested to forward the titles of the same to the Honorary Secretary, without delay.

The members are invited to attend, in order to take into consideration the proposed amalgamation with the Cambridge and Huntingdon Branch.

J. B. Pitt, *Hon. Secretary.*

St. Stephen's Street, Norwich.

NORTH WALES BRANCH.

The annual meeting of the North Wales Branch will be held at Westbury Mount, Menai Bridge, the residence of R. Thomas, Esq., on Tuesday, July 3rd, at 12 o'clock noon; J. C. Davies, M.D., of Holywell, President, in the chair. Luncheon will be provided by Mr. Thomas. After the meeting, the members and their friends will dine together at the George Hotel, near Bangor, at 3 P.M.

Gentlemen having papers or cases to read, are requested to make an early intimation of the same to the Secretary; and also to state whether they intend to stay for dinner.

D. Kent Jones, *Hon. Secretary.*

Beaumaris, June 5th, 1866.

WEST SOMERSET BRANCH.

The annual meeting of the West Somerset Branch will be held at the George Hotel, Ilminster, on Wednesday, July 11th, at 2.30 P.M.; G. R. Burtt, Esq., will take the chair. Dinner at 5 P.M.

Gentlemen intending to read papers or cases are requested to forward the titles of the same to the Honorary Secretary, without delay.

W. M. Kelly, M.D., *Hon. Sec.*

Taunton, June 11th, 1866.

METROPOLITAN COUNTIES BRANCH.

The fourteenth annual meeting of the Metropolitan Counties Branch will be held at the Crystal Palace, Sydenham, on Wednesday, July 18th, at 3.15 P.M. *President* for 1865-66, Edward H. Sieveking, M.D.; *President-elect* for 1866-67, Henry Lee, Esq., F.R.C.S.

At 5.30 P.M., the members will dine together; Henry Lee, Esq., in the chair.

*** It has been found necessary to alter the day of meeting from that originally fixed.

A. P. Stewart, M.D.
Alexander Henry, M.D. } *Hon. Secs.*

London, June 4th, 1866.

BATH AND BRISTOL BRANCH.

The annual meeting of the Bath and Bristol Branch will be held at the Mineral Water Hospital, Bath, on Thursday, July 19th, at 4.30 P.M. Dinner at the York House, at 6.30 P.M.

R. S. Fowler, *Hon. Secretary.*

LANCASHIRE AND CHESHIRE BRANCH: ANNUAL MEETING.

The Thirtieth Annual Meeting of this Branch was held in the Medical Institution, Mount Pleasant, Liverpool, on Wednesday, June 13th, A. T. H. Waters, M.D., of Liverpool, in the Chair. About fifty members were present.

In the unavoidable absence of Mr. Turner of Manchester, the retiring president, Mr. Mellor, one of the retiring vice-presidents, took the chair, and called on Dr. A. T. H. Waters to preside over the meeting.

Dr. A. T. H. Waters then delivered the President's Address, which at the request of the meeting has been forwarded to the Journal for publication.

Report of Council.—Dr. Henry Simpson, the Honorary Secretary, read the following Report.

"In presenting their Annual Report, the Council congratulate the members of the Lancashire and Cheshire Branch on once more meeting together in the town of Liverpool.

"Your Council have viewed with pleasure the appointment of a committee by the Lords of the Admiralty, the Secretary of State for War, and His Royal Highness the Duke of Cambridge, to inquire into the alleged abuses connected with the medical services of the army and navy. Much credit is due to the Colleges of Physicians and Surgeons for the appointment of this committee. Your Council consider that they may safely congratulate the members of the Association on the fact of the Editor of the Journal having been chosen to represent the College of Physicians on the government committee; not only on account of the eminent qualifications he would bring to bear on the question, but also as a graceful recognition of the labours of the Association in the cause of our oppressed brethren of the two services. The Council trust that the recommendations of this report may lead to the redress of the grievances under which military and naval medical officers have so long laboured.

"Your Council have to regret that the efforts made to induce the College of Surgeons to allow voting on the part of their Fellows by means of voting papers, instead of requiring personal attendance, have been hitherto unsuccessful.

"But, on the other hand, they are glad to record the satisfaction they feel, in consequence of the invidious distinctions between the metropolitan and provincial schools, as regards the Fellowship, having been done away by the new regulations.

"Another source of congratulation arises from the inquiry into the conditions of metropolitan workhouse management recently set on foot by Mr. Ernest Hart, a member of the parent Association. It is to be hoped that benefit to the sick poor, and an improved position to the poor-law medical officers throughout the country, will ultimately result from public attention having been aroused by these inquiries. And your Council augur well from the appointment of Dr. Edward Smith as one of Her Majesty's Poor-Law Commissioners, thus supplying the medical element so much wanted to ensure efficient treatment for the sick poor and consideration for the poor-law medical officers.

"The General Medical Council having announced their intention of applying to Parliament for an amend-

ment of the Medical Act of 1858, your Council recommend that some steps be taken for obtaining a more efficient and independent representation of the profession on the General Council, all the members but four being now appointed by the medical corporations.

"In November last your Council received the resignation of your Honorary Secretary, Dr. William Roberts, who was compelled by other engagements to relinquish the office; and, at a special meeting, appointed Dr. Henry Simpson of Manchester as Honorary Secretary *ad interim*. Your Council beg to record their high appreciation of the services of Dr. Roberts, and their regret at losing him as Secretary.

"As is customary, the five gentlemen who have served longest on your Council retire in rotation. All are eligible for re-election with the exception of our lamented associate Dr. Dickinson, whose death we have to deplore. The names are as follows:—Dr. Desmond, Dr. Dickinson, Mr. Ellis Jones, Mr. Mallett, and Mr. Sharp of Warrington. We have also the painful task of announcing another vacancy in the Council, caused by the death of our valued friend Dr. McIntyre, whose loss renders it necessary to elect *six* members of Council instead of *five*.

"*Financial Statement.*—From this statement it appears that at the date of the last annual meeting the balance in hand was £17:4:6; subscriptions received since, £22:2; making a total of £39:6:6. The ordinary expenses of the Branch during the past year have been £14:0:4; leaving in the hands of the Secretary a balance of £25:6:2."

Resolutions.—The following resolutions were passed:

1. Moved by Mr. BICKERTON (Liverpool), and seconded by Mr. HIGGINSON (Liverpool)—

"That the report of the Council now read, be adopted and printed, together with the proceedings of this meeting."

2. Moved by Mr. R. HARRISON (Liverpool), and seconded by Dr. TURNBULL (Liverpool)—

"That the best thanks of this meeting be given to Mr. Turner, the retiring President; to Mr. Mellor and Dr. Stookes, the retiring Vice-Presidents; to the Honorary Secretaries; and to the other members of the Council, for their services during the past year."

3. Moved by Dr. VOSE (Liverpool), and seconded by Dr. EASON WILKINSON (Manchester)—

"That the next meeting of the Branch be held in the city of Chester; that John Harrison, Esq., be appointed President-elect; and that T. Brittain, Esq. and Wm. Roberts, M.D., be appointed Vice-Presidents-elect."

4. Moved by Mr. A. B. STEELE (Liverpool), and seconded by Dr. BIRKBECK NEVINS (Liverpool)—

"That Henry Simpson, M.D., of Manchester, be appointed Honorary Secretary in the place of Dr. W. Roberts, resigned."

5. Moved by Dr. E. WATERS (Chester), and seconded by Mr. LANGSHAW (Lancaster)—

"That the following gentlemen be appointed Honorary Local Secretaries for the ensuing year:—W. H. Manifold, Esq. (Liverpool), C. Johnson, jun., Esq. (Lancaster), and J. Sharp, Esq. (Warrington)."

Six gentlemen, whose names are distinguished in the following list by asterisks, were then elected by ballot to fill up the vacancies in the Council, which is now composed of the following twenty members:—W. T. Callon, M.D., Liverpool; S. Crompton, M.D., Manchester; T. Davies-Colley, M.D., Chester; *L. E. Desmond, M.D., Liverpool; E. D. de Vitré, M.D., Lancaster; R. Flint, Esq., Stockport; John Harrison, Esq., Chester; *Ellis Jones, Esq., Liverpool; C. Johnson, jun., Esq., Lancaster; J. P. Langshaw, Esq., Lancaster; *G. Mallet, Esq., Bolton; W. McCheane, Esq., Liverpool; J. McNaught, M.D., Liverpool; D. H. McNicoll, M.D., Southport; *J. E. Morgan, M.D., Manchester; *J. Birkbeck Nevins, M.D., Liverpool; A. Ransome, M.B., Bowdon; *J. Sharp, Esq., Warrington; L. Spencer, M.D., Preston; A. B. Steele, Esq., Liverpool.

6. Moved by Mr. LOWNDES (Liverpool), and seconded by Mr. McCHEANE (Liverpool)—

"That the following gentlemen be appointed representatives of the Branch in the General Council: L. E. Desmond, M.D. (Liverpool); T. Mellor, Esq. (Manchester); W. Roberts, M.D. (Manchester); G. Southam, Esq. (Manchester); A. B. Steele, Esq. (Liverpool); Thomas Turner, Esq. (Manchester); J. Vose, M.D. (Liverpool); A. T. H. Waters, M.D. (Liverpool); Edward Waters, M.D. (Chester); M. A. E. Wilkinson, M.D. (Manchester); and H. Simpson, M.D. (Manchester) *ex-officio*."

7. Moved by Mr. SOUTHAM (Manchester), and seconded by Mr. STEELE (Liverpool)—

"That the Medical Act of 1858 having failed to satisfy the just requirements of the profession, and its faulty representative institution to promote the interests of the general body of the practitioners, Resolved, that the Committee of Council of this Association be requested to obtain an interview with the Secretary of State for the Home Department, and urge on him the desirability of introducing into the amended Act additional securities for a more efficient representation of all registered practitioners on the medical council."

Communications.—1. Mr. W. H. MANIFOLD brought under the notice of the meeting a negro, who had been severely frost-bitten, and had in consequence been obliged to undergo Amputation of both Legs and both Hands.

2. Mr. A. B. STEELE related a case of Tubal Gestation.

3. Dr. BIRKBECK NEVINS described the treatment of Hooping Cough by the Application of a Solution of Nitrate of Silver to the Larynx.

4. Dr. J. F. ROBERTS related A Case of Cirrhosis of the Liver cured by repeated Tappings.

5. Mr. R. HARRISON showed a specimen of Rupture of the Liver from a railway accident, in which there was also Rupture of the Right Kidney without any marks of external violence.

Votes of Thanks were unanimously given to the readers of papers, and to the Council of the Medical Institution for the use of their rooms.

The Dinner.—The members, to the number of fifty, dined at half-past four at the Adelphi Hotel. The president, Dr. A. T. H. Waters, occupied the chair, and Mr. W. H. Manifold the vice-chair. After the usual loyal and patriotic toasts had been eloquently given by the President, Mr. Watkin Williams, of Birmingham, proposed, "Success to the Lancashire and Cheshire Branch of the British Medical Association." Dr. Waters, of Chester, responded. Dr. Vose proposed "The health of the President, Dr. Waters of Liverpool," which was received with enthusiasm. The Chairman having responded, other toasts followed, and the proceedings terminated at an early hour; leaving the impression that, agreeable and successful as so many of the annual meetings of this Branch have been, this, the thirtieth anniversary, was at least inferior to none of them.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH: ANNUAL MEETING.

THE twelfth annual meeting of this Branch was holden at the Hen and Chickens Hotel, Birmingham, on the 15th instant; THOMAS CARTER, M.D., President, in the chair. There were also present: A. Baker, Esq.; T. H. Bartleet, M.B.; S. Berry, Esq.; J. Bassett, Esq.; F. W. Brown, Esq. (Uppingham); C. J. Bracey, Esq.; T. W. Bullock, Esq. (Warwick); E. H. Coleman, Esq. (Wolverhampton); W. Downes, Esq.; G. P. Dunn, Esq.; T. Ebbage, Esq. (Leamington); A. Fleming, M.D.; B.

W. Foster, M.D.; J. Garner, Esq.; J. S. Gaunt, Esq. (Alvechurch); J. J. Hadley, Esq.; A. J. Harrison, M.B. (Walsall); J. Hickenbotham, Esq.; G. E. Hyde, Esq. (Worcester); C. Jeaffreson, Esq.; S. J. Jeaffreson, M.D. (Leamington); F. Jordan, Esq.; W. J. Kite, Esq.; E. S. Machin, Esq.; J. Manley, Esq.; H. C. P. Masser, Esq. (Longford); J. Russell, M.D.; J. D. Scurrah, M.D.; H. E. F. Shaw, Esq. (Sutton Coldfield); J. V. Solomon, Esq.; F. Steell, M.D.; T. Swain, Esq.; T. Thomson, M.D. (Leamington); W. F. Wade, M.B.; J. Williams, M.D. (Malvern); T. Watkin Williams, Esq.; G. Yates, Esq.; etc.

Officers and Council. The following gentlemen were elected Officers and Council for the ensuing year: *President-elect*—S. Berry, Esq. *Treasurer*—T. Watkin Williams, Esq. *Secretary*—T. H. Bartleet, M.B. *Country Members of Council*—E. H. Coleman, Esq. (Wolverhampton); T. Ebbage, Esq. (Leamington); D. Everett, Esq. (Worcester); T. S. Fletcher, Esq. (Bromsgrove); A. J. Harrison, M.B. (Walsall); J. H. Houghton, Esq. Dudley); W. J. Kite, Esq. (West Bromwich); H. E. F. Shaw, Esq. (Sutton Coldfield). *Town Members of Council*—A. Baker, Esq.; M. H. Clayton, Esq.; J. J. Hadley, Esq.; A. Hill, M.D.; Bell Fletcher, M.D.; F. Jordan, Esq.; J. Russell, M.D.; W. F. Wade, M.D. *Representatives in the General Council*—A. Baker, Esq. (Birmingham); E. Bartleet, Esq. (Campden); H. D. Carden, Esq. (Worcester); M. H. Clayton, Esq. (Birmingham); D. Everett, Esq. (Worcester); G. Fayrer, M.D., (Henley-in-Arden; O. Pemberton, Esq. (Birmingham); J. Russell, M.D. (Birmingham); and T. H. Bartleet, M.B. (Secretary *ex-officio*). *Directors of the Medical Provident Society*—G. Fayrer, M.D.; S. J. Jeaffreson, M.D.; C. Warden, M.D.

Report of Council. The Honorary Secretary read the following report.

"The Council of the Birmingham and Midland Counties Branch of the British Medical Association has much pleasure in again congratulating its members on the continued success of their Branch. The meetings have been well attended; and the interest of the papers read, and of the discussions which have followed them, has been at least equal to that of former years.

"The number of members has slightly increased. The Council regrets to record the death of Mr. Nesbitt, of Wolverhampton, who, though not very long residing in our neighbourhood, had gained for himself no ordinary reputation.

"The following is the list of papers read at the meetings of the Branch, and of cases, specimens, instruments, etc., brought before it.

"1. On Trichiniasis. By W. F. Wade, M.B.

"2. Exhibition of a new Pulveriser for Inhalation of Medicated Fluids. By W. F. Wade, M.B.

"3. A Case of Retroversion of the Bladder; and on some Physiological Experiments upon the Urine in that case. By T. Carter, M.D.

"4. Excision of the Ankle. By J. F. West, Esq.

"5. On Paraplegia. By James Russell, M.D.

"6. On a new Modification of the Russian Vapour Bath; with Cases successfully treated thereby. By J. Williams, M.D., Malvern.

"7. Observations, with Cases, upon the following Operations: Operation for Prolapse of Uterus; a Simplified Extraperitoneal Operation in Strangulated Hernia; Holt's Operation for Stricture of the Urethra. By Furneaux Jordan, Esq.

"8. Specimen of Fibrous Tumour of the Uterus. By T. W. Swain, Esq.

"9. Dissection of a Recent Dislocation of the Shoulder-Joint. By F. Steell, M.D.

"10. Specimen of a Heart presenting the Results of very recent Endocarditis. By F. Steell, M.D.

"11. Traction-operations for Cataract. By G. E. Hyde, Esq., Worcester.

"12. The Treatment of Secondary Syphilis without mercury. By J. St. S. Wilders, Esq.

"13. Exhibition of Dr. Richardson's Instrument for causing Local Anæsthesia; with Cases. By J. St. S. Wilders, Esq.

"14. Specimen of Extensive Disease of the Supra-renal Capsules, unaccompanied by Bronzing of the Skin. By J. Russell, M.D.

"15. Syphilitic Disease of the Nervous Centres. By James Russell, M.D.

"Your Council would wish to notice the introduction of a pathological element at the meeting of the Branch, which has brought before the members many interesting cases and specimens, which active professional engagements might have prevented the gentlemen describing them elaborating into papers.

"Your Council regrets that the increased demand upon his time has necessitated Dr. Wade's resignation of the office of honorary secretary to the Branch. He has been succeeded in that office by Mr. T. H. Bartleet.

"The difficulties of the medical officers in the army and navy still continue, notwithstanding the efforts made by this Association, and by the profession in general, for their removal. Your committee trusts that the report of the Royal Commission, in which our Association was most ably represented by Dr. Markham, may improve their position.

"The College of Surgeons continues to refuse the privilege of voting by voting-papers in the election of its council, and thus virtually deprives the provincial fellows of their share in the election of this body. The inherent justice of the claims brought forward, both in this instance and that of the army medical officers, must eventually ensure their success.

"The Council of the Association has called the attention of its various Branches to the necessity of impressing upon the legislature the importance of the improvement of the sanitary laws. The prevalence of the disease amongst cattle, which has been so elaborately investigated by members of our profession, and especially by our distinguished associates, Dr. Budd of Bristol, Dr. Murchison, and Dr. Sanderson, cannot fail to ensure your attention to zymotic disease, more especially since cattle-murrains have, in former instances, so frequently been closely followed by pestilence among the human race. The prevalence of cholera upon the continent, and its recent outbreak upon our own shores, lend additional importance to this subject. The Council of the Association suggests the formation of a committee for the investigation of sanitary matters; and has arranged for a discussion upon Hygiene at its annual meeting at Chester.

"The Council notice with pleasure the recognition of our profession by the Government, in the conferring by the Queen of the dignity of a baronetcy on a leading member of it in each metropolis. Two of the three gentlemen thus honoured are members of our Association.*

"In conclusion, your Council has great pleasure in anticipating a most successful ensuing session, since already promises of active support have been received from many of the most able members of our Branch."

The Treasurer's Report was then read. It shewed receipts amounting to £53 : 16 : 4, and an expenditure of £21 : 14; leaving a balance in hand of £32 : 2 : 4.

President's Address. The President (Dr. Carter) delivered an eloquent address, which he was requested to allow to be published.

Dinner. The members of the Branch dined together, at the Hen and Chickens Hotel; Dr. Carter presiding, and Mr. Berry occupying the vice-chair.

* Since this Report was read, Dr. Watson, who is also a member of the Association, has been made a Baronet.

Special Correspondence.

LIVERPOOL.

[FROM OUR OWN CORRESPONDENT.]

THE Lancashire and Cheshire Branch held a most successful annual meeting at the Medical Institution, on Wednesday, the 13th instant, under the able presidency of Dr. A. T. H. Waters, who opened the proceedings with an excellent address, possessing a high degree of merit. The readers of the JOURNAL will doubtless have an opportunity of forming their own opinion of its merits. About fifty members and visitors were present; and the meeting was brought to a close, as usual, by a dinner at the Adelphi Hotel. The scientific element on this occasion was not, perhaps so prominent as usual. Nothing that can strictly be called a paper was read, but some interesting practical subjects were brought forward.

A Negro lad was exhibited by Mr. Manifold, who had undergone Amputation of both Arms and both Feet, the operation having been necessitated by Frost-bite. The point of interest in the case, beyond the very unusual amount of mutilation, consisted in the fact that the poor fellow, in spite of all his sufferings, sustained little or no general disturbance of the system throughout.

A case of Tubal Gestation was shown by Mr. Steele. The patient, aged 28, the mother of three children, in previous good health, was suddenly seized, six weeks subsequently to menstruation, with severe pain in the abdomen, vomiting, and collapse. There was no purging. She died in four hours and a half. On *post mortem* examination, three or four pints of coagulated blood were found in the abdominal cavity, caused by the rupture of the left Fallopian tube, and the escape of an ovum, which had been arrested in its passage from the ovary to the uterus. The preparation, consisting of the uterus and appendages, was shown to the meeting, and was a well-marked example of tubal gestation. The uterus was somewhat larger than the ordinary condition of the unimpregnated multiparous organ; and a section through the anterior wall disclosed the hypertrophied and metamorphosed mucous membrane constituting the decidua. The Fallopian tube had burst about midway between the ovary and the uterus; and, in the rent, the villous structure of the chorion was seen protruding. The embryo itself had escaped into the abdomen, and was lost. The left ovary contained a corpus luteum. The Fallopian tube was impervious at its uterine extremity.

Dr. Nevins made some remarks upon the application of a solution of Nitrate of Silver to the Larynx in Hooping-cough, and gave instances of its great utility which had occurred in his own practice.

Dr. Roberts of Liverpool related an interesting case of Ascites, thought to be hopeless, which had been successfully treated by him in the Northern Hospital by repeated tapping.

Mr. Reginald Harrison exhibited an example of Internal Injury caused by the wheel of a heavy waggon passing over the abdomen. One kidney, which was quite healthy and rather small, was completely cut in two; and there was also rupture of the liver, but no other injury either to the ribs, nor the slightest external contusion.

At the dinner, in proposing "The Army and Navy", the President alluded, in terms of strong but just disapprobation, to the very unsatisfactory position of the medical departments of the public service; and, in responding to the toast on behalf of the army, Mr. Manifold endorsed the remarks of the President, and expressed a hope that those who were engaged in lecturing to the rising generation of medical men would point out to them that there could be no inducement to any man of ability and independence, with a desire to get on in his profession, to join the army and navy under existing regulations.

On the 14th of this month, the Cæsarean section was performed at the Lying-in Hospital by Dr. Grimsdale. The patient was the subject of high distortion of the pelvis from disease of the spine and ankylosis of the right hip. The conjugate diameter of the pelvis did not exceed one inch and a half. The operation was quickly and dexterously performed, the patient being under the full influence of chloroform, administered by Dr. Skinner, one of the physicians of the hospital. The operator was assisted by his other colleagues, Drs. Imlach, Denton, C. B. Wilson, and Finnegan. There were also present, Mr. Stubbs, senior surgeon to the Royal Infirmary; Mr. Steele, lecturer on midwifery at the School of Medicine; and Mr. Rawdon. The first incision through the integuments was commenced in the median line a little below the umbilicus, and carried vertically downwards to within about three inches of the pubis; it was afterwards extended in each direction by a curved bistoury, an inch or two each way. The uterus was then incised, and the child and placenta and membranes speedily extracted; the former, a female, was vigorous, cried lustily, and was well formed. No vessels were tied, and the hæmorrhage was inconsiderable. After the removal of its contents, the uterus was firmly grasped by the hand of the operator, and thus held for a considerable period (nearly an hour). Contraction of the organ occurred satisfactorily; but for some time there was pretty free oozing from the open mouth of an uterine sinus situated towards the upper part of the incised wall. Each contraction of the uterus caused a very decided eversion of the lips of the wound, clearly showing how useless it would have been to attempt to close the incision in the uterine parietes by suture, as they would inevitably have been torn out. In this case, the plan which has been suggested, of dividing the Fallopian tubes to prevent future conception, was not adopted; and it may, we think, be conceded that the operator exercised a wise discretion in this respect. With a laudable anxiety, no doubt, to give his patient every available chance of a favourable recovery from so

critical and dangerous an operation, he probably wished to avoid the possibility of complicating the case by the contingency of increased hæmorrhage which this proceeding might have involved. The woman has been doing well up to the time of our writing—about forty-eight hours after the operation.

Reports of Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, MAY 8TH, 1866.

JAMES ALDERSON, M.D., F.R.S., President, in the Chair.

PATHOLOGICAL AND SURGICAL OBSERVATIONS ON THE DISEASES OF THE EAR. (EIGHTH SERIES.) ON DISCONNEXION OF THE INCUS AND STAPES; ITS EFFECT UPON THE FUNCTION OF HEARING, AND ITS TREATMENT. BY JOSEPH TOYNBEE, F.R.S.

THE author began by some observations on the anatomy and physiology of the chain of bones. He gave an account of the tensor tympani ligament, whereby the membrana tympani and the chain of bones are kept in a naturally resilient state. And he then showed that the function of the chain of bones is twofold: (1) to transmit sonorous vibrations from the drum to the expansions of the auditory nerve; (2) to act as the analogue of the iris in the eye, by adapting the labyrinth for the reception of sonorous vibrations having varying degrees of intensity. In proof of the first-named function, the experiments of MM. Sissajous and Dessains were cited, by which faint undulating lines were produced by a slender style, attached to the base of the stapes during the vibration of the drum by sonorous undulations. In proof of the second function of the drum, the fact was cited that, during the act of listening, the stapedius muscle relaxes the membrana tympani, and the membrane of the fenestra rotunda; on the contrary, when a loud sound is expected, the tensor tympani muscle draws tense the membrana tympani, and the membrane of the fenestra rotunda.

The pathological conditions alluded to in the paper were: (1) simple disconnexion of the incus and stapes; (2) disconnexion of the incus and stapes, the long process of the incus being absent.

1. The author showed that simple disconnexion of the stapes and incus, if attended with no other lesion, is not productive of any appreciable deafness, inasmuch as the tensor tympani ligament is able to keep the two bones in contact, and the action of the tympanic muscles is not interfered with. But if the membrana tympani, or its ligament, be relaxed, in addition to the disconnexion of the stapes and incus, then the function of hearing is interfered with, and often only to this extent, that the patient can hear only when the voluntary act of listening is performed, that is to say, when by voluntary muscular effort the incus is held in contact with the stapes. In this class of cases, gentle pressure on the outer surface of the drum, by any resilient body, restores the natural power of hearing, and the distress produced by the necessity of constant listening is quite overcome.

2. But if the membrana tympani or its ligament be much relaxed, then no voluntary effort can bring the stapes and incus into contact, and great deafness is the result. This deafness is also remedied by the application of an artificial membrana tympani, which, gently pressing upon the outer part of the chain of bones, keeps the incus and stapes in contact.

3. This disconnexion of the incus and stapes also occurs in conjunction with partial or complete loss of the long process of the incus, the membrana tympani being entire. The treatment in this class of cases consists in pressing inwards the membrana tympani, so as to place its inner surface in contact with the head of the stapes, and to retain the two structures in contact.

The lesions above referred to also take place when the membrana tympani is perforated. When there is disconnexion of the incus and stapes, together with a thickening of the mucous membrane or the ligaments of the articulation, the treatment consists in keeping up gentle pressure upon the outer surface of the long process of the incus; when the long process of the incus is absent, the pressure must be upon the head of the stapes. In order to exercise gentle pressure upon the ossicles, and still to allow the muscles to move the ossicles, the author had recently suggested a new kind of artificial drum, in the shape of a small globe of India-rubber containing air.

A CASE IN WHICH A NEW OPERATION FOR THE RADICAL CURE OF HERNIA WAS SUCCESSFULLY PERFORMED. BY ARTHUR E. DURHAM, F.R.C.S.

Stephen H., a sailor, 26 years of age, sought admission to Guy's Hospital for the purpose of being radically cured of an easily reducible, but very troublesome, inguino-scrotal hernia on the right side. The hernia had been first noticed six years previously. It had gradually increased in size, and extended into the scrotum. Latterly it had given rise to such constant inconvenience, and so much occasional pain, that the patient had been quite unable to follow his occupation. He could not wear a truss, although he repeatedly attempted to do so. At the period of admission to the hospital, the scrotal portion of the hernia was about as large as a hen's egg, or rather larger. The bowel, of which it was evident the hernia mainly consisted, was easily returned into the abdomen, but a slight fulness of the inguinal canal persistently remained.

On Jan. 19th, chloroform having been fully administered, and the hernia reduced as completely as possible, Mr. DURHAM proceeded to operate in the following manner. An incision about two inches and a half in length was made through the skin and superficial fascia, in a direction at right angles to Poupart's ligament, and just over the inner border of the internal or deep abdominal ring. The tendon of the external abdominal oblique muscle was next divided in a similar direction, but to a somewhat less extent, and in a situation slightly further from the median line of the body. The lower fibres of the internal abdominal oblique, or cremaster, were then separated longitudinally, and the internal spermatic fascia, or fascia propria of the hernia, was exposed. A slight incision having been made in the lower and deeper part of this fascia, an aneurism needle was carefully insinuated through the areolar tissue, and by its means a ligature was placed between the sac of the hernia and the important structures of the spermatic cord, and carried through the upper and deeper part of the fascia. The fascia and sac were then drawn gently downwards, and towards the median line of the body, and the ligature was tied tightly as high up, and as far outwards as possible; in fact, as nearly as could be judged, exactly at the internal or deep ring. The ligature thus included the greater part of the circumference of the fascia propria or internal spermatic fascia, just where it becomes continuous with the fascia transversalis, the whole circumference of the sac just at its junction with the general peritoneal lining of the abdominal parietes,

and within the sac, a small plug-like portion of omentum. In passing the aneurism needle, a slight puncture was unintentionally made into the sac. This puncture, however, when subsequently dilated, afforded the opportunity of ascertaining that the sac did not communicate with the tunica vaginalis testis, but that it contained a small piece of irreducible omentum; this was drawn out and cut off below the ligature. Finally the wound was closed above and below by sutures, which were passed through the sac. The ends of the ligature were left coming out through the middle of the wound.

The after progress of the case was most satisfactory. The patient was kept absolutely in the recumbent position for more than six weeks. From first to last he never had a single bad symptom worth mentioning. There was never any abdominal tenderness, constitutional disturbance, or other indication of general peritonitis; nor was there ever much pain about the site of the operation. The upper and lower parts of the wound healed by first intention. The ligature came away on the eighteenth day, and complete closure of the wound speedily followed. On March 29th, the patient, having to a certain extent recovered his strength, went into the country. Before leaving the hospital he was examined by all the members of the surgical staff, as well as by many visitors. There could not be discovered the slightest hernial protrusion, nor any abnormal impulse on coughing. The inguinal canal from the internal ring seemed perfectly blocked by the obliterated sac and new material.

This case, although a solitary one, might be considered to prove, first, that the method of operation described, was practicable; and, secondly, that it was not necessarily attended by danger. The author believed it to be more scientific in principle than any other method yet adopted, and he hoped, therefore, it might prove more successful in practice.

HARVEIAN SOCIETY OF LONDON.

MAY 17TH, 1866.

W. TYLER SMITH, M.D., President, in the Chair.

Local Anæsthesia. Dr. RICHARDSON, at the request of the president and members, explained that the action of cold in producing insensibility was due, he thought, to the fact that the force of sensation in different parts was brought down to the part by the blood, and that, when a part was frozen, the blood could not supply sufficient heat to keep up the warmth necessary for sensation. Local anæsthesia could be much more rapidly produced if, whilst cold was applied, the vessel leading to the part were compressed, *e. g.*, by compressing the anterior tibial artery when the toe-nail is removed. When about to freeze a part, it should previously be perfectly dried; otherwise, the surgeon might sometimes fail to accomplish anæsthesia. This was the reason why dentists often failed. In some cases, hoar-frost was deposited on the part, and this was sometimes quite sufficient to cause anæsthesia; *e.g.*, an incision of five inches had recently been made, without pain when this appearance occurred. If alcohol or chloroform were added to the ether, hoar-frost would be seen. One caution he would give was this. Chloroform had brought on a carelessness with regard to operations; the operator would talk whilst operating, and observations were made which the patient ought not to hear. Now that anæsthesia was local, perfect silence and solemnity should be resumed. Syncope had been caused by an observation made in the hearing of the patient. Dr. Richardson give illustrations of the applicability of local anæsthesia in operating.

Mr. ADAMS had found that large operations might be performed most successfully by means of the apparatus, provided plenty of time were taken, and rapidity of operation were not aimed at. He had removed a large fatty tumour, requiring an incision of seven inches, without any pain being felt. In tenotomy the apparatus was all that was required to take away pain. Wounds healed as well after this process as in any other way. In only one case was there slight sloughing, namely, in an ulcer treated by Mr. Gay's plan.

Dr. DRYSDALE had found the plan most valuable. He understood that dentists had not been so successful as could be wished, and would be glad to hear how it could be made available in that branch of surgery.

Mr. BENSON BAKER asked whether the application of the process to the uterus itself in cases of *post partum* hæmorrhage might not prove advantageous.

Mr. I. B. BROWN, jun., said that it had been claimed by Dr. Richardson that in Cæsarean section bleeding was prevented, and contraction of the uterus afterwards obtained; but was not the vitality of the fœtus thereby prevented? As to the cases of ovariotomy, he would like to hear if the cases recovered, and if not, what the cause of death was; it was possible that ether might produce injurious effects on the parts in the abdomen.

Dr. HART VINEN said that he was present during the operation of Cæsarean section. He had seen the patient lately: she was now quite well.

Dr. RICHARDSON said the application of ether spray would probably be an useful method of treating *post-partum* hæmorrhage. Messrs. Krohne had constructed an apparatus for the purpose. The danger of ether being absorbed was imaginary; it was so easily vaporised, that it could not even be swallowed if one wished. The pains of labour might probably be relieved by allowing the spray to play over the sacrum. As regards tooth-drawing there was no difficulty as to the upper teeth; but in the back lower teeth the difficulty was great, from the fluids in the mouth. In one case he had directed the ether spray upon the external parts of the lower jaw. In Cæsarean section chloroform was dangerous, from the tendency to vomit produced by it. As to the death of the child, that had not been caused by the cold, as two and a half minutes was the time that the operation required. As to the cases of ovariotomy, a case in Manchester recovered favourably. The ether could not do any damage, since it was immediately vaporised, and could not be absorbed.

The PRESIDENT said it would not, in his opinion, be just to the spray method to use it internally in *post partum* hæmorrhage. There would be great danger, by so doing, of admitting air into the large venous sinuses, and thus causing sudden death. The application of cold water to the abdomen was the great remedy, and the ether should be applied externally.

Infanticide. Mr. CURGENVEN, in opening a debate on infanticide, desired to direct attention to the consideration of this crime in its social aspect, rather than to the pathological evidence to be found in the various modes of death. The former was a subject worthy of most serious attention, as it was surrounded by many difficulties, and had many debateable points. He called attention to the reported increase of infanticide in the metropolis. In one district alone, the numbers were reported to have increased from 84 in 1863, to 114 in 1865. He hoped and believed that some of these cases where infanticide was presumed, were merely cases of still-born

children, or of those that had lived but a very short period, placed where they were found by persons to save the expenses of burial. He believed that many bodies of infants were disposed of by being thrown into the river, the canal, or other places, by paupers, who were unable to pay for burial. The crime, from the reported cases, seemed chiefly to be confined to domestic servants. His opinion was that, if through an alteration in the bastardy laws the mother were led to feel that she could rely on the father being compelled to support his offspring, she would, in many instances, be spared the temptation of destroying the child, which prevented her from earning her livelihood. No power could prevent the occurrence of a number of illegitimate births among domestic servants; but it was the duty of the legislature to entail on the man some of the consequences of his acts, whilst it provided for the safety of the woman and her child. Did she know that the father would be called upon to support her and her child, and that she would meet with some sympathy from those around her, she probably would not be tempted to commit the greater crime. He would now direct attention to a class of cases that were ten times more numerous than was infanticide; but which he considered to be but one degree removed from child-murder; he alluded to the numerous deaths of illegitimate children through neglect, he would say wilful neglect, on the part of those having the care of them. Medical men were usually called in a few hours before the child was expected to die, that they might certify that the child died of convulsions, bronchitis, diarrhœa, or marasmus, the most common forms of death of these ill-fed, neglected, infants. It was very rare that the mother nursed or reared her illegitimate child. She must seek a situation, and work for maintenance. The child was placed in the care of a woman, who perhaps has several others. She received a weekly sum, and undertook to rear the child. Should the remittances cease, which not uncommonly occurred, the child was neglected, and did not long survive. Some remedy must be sought for this state of things; and he saw no remedy but a more perfect and compulsory registration of births and deaths. The residence of the mother or nurse of the illegitimate child should be registered, that she might be under the surveillance of the parish authorities, or the public for at least twelve months, and no child, mature or otherwise, still-born or not, should be buried, without a medical certificate of the cause of death. The two classes of cases which he had brought forward, he considered to deserve earnest attention; and he hoped some suggestions of alterations in the laws would be offered, that would be worthy of the attention of the legislature.

Dr. Ballard said that he feared it was difficult to suggest any remedy for infanticide as long as society was constituted as at present; but, with regard to the excessive mortality of infants under the age of twelve months, he entertained very strong opinions as to the causation of a great deal of it. He had often found that mothers from a misguided desire to suckle, when they were unfit for the duty, caused the deaths of the children.

Dr. Drysdale said that, in the case of poor persons, who early in life begot families, many of the children died from the privations they had to undergo, from the poverty of the parents. If it was difficult for poor persons to maintain their legitimate children, it was enormously more difficult for single women, whose motherhood procured them only disgrace, to do so. Thus, it could readily be understood why domestic servants formed so large a per centage of the number who committed infanticide, since with them character was essential. Although he believed that Dr. Lankester had a little exaggerated the number of cases of infanticide in London, he could quite understand why this phenomenon was on the increase. In the first place, the number of marriages had of recent years been much on the decrease. The Registrar-General's reports showed this in England, and continental statistics showed similar facts. The causes of these remarkable effects were no longer a mystery; ever since the publication of Malthus's *Essay on Population*, it had been well known to the thoughtful few that there was no hope of successfully attacking such evils as those alluded to, unless parents in society were convinced of the great evils they inflicted, both on themselves, and on their children, by the production of large families. Mr. Stuart Mill had pointed out very frequently in his work on political economy, that the great hopes for the future of the labouring classes of both sexes lay in the question how soon they should be led to consider the production of a large family as a grave social offence, not, as at present, something to be proud of. Comparatively few children were actually wilfully killed by their parents; but there could be no doubt that the great distress caused by large families caused many mothers to neglect their children. Bringing up by hand was a most fruitful cause of death among children, especially in London, where it was so common. Three-fourths of all children brought up by hand, it was well known, died shortly. With regard to practical measures to lessen the amount of infanticide, all such must depend, if they were to be of any effect, upon the knowledge of such facts as he had stated. As to foundling hospitals, as hitherto conducted, they were only places for a legalised state infanticide. A proposal had been made by Dr. Farr, in a recent essay on the *Mortality of Children in Different States of Europe*, that, as some families were without children, adoptions of the children of those who were prolific and poor, should be encouraged. But such a plan was not practicable, since no one, except the few, would think of such a thing, and it would, moreover, encourage persons to beget offspring, and then thrust them upon those who were more self-denying and prudent. He thought that, perhaps, the best mode of diminishing infanticide would be, first, to encourage marriage by making divorce easy; thus many persons would marry, who now hung back. Secondly, by far the most important point of the question was the stigma attached to the unmarried mother. If wives with large families were considered to be far more injurious to society, and to their children, than women with one child, infanticide would not be so common. No woman who was able and willing to work ought to be deprived of means of livelihood, merely because she had begotten an illegitimate child. If this continued, infanticide would certainly increase. Lastly, infanticide should not be punished by death, since this only brought the law into contempt, as juries would not convict. Lying-in hospitals should be open to all poor pregnant women, and not only to married women.

Dr. John Thompson had had much to do with infanticide in his capacity of local magistrate in a country district. He could not agree with Dr. Drysdale that infanticide was in any great degree attributable to poverty, since he had not found this to be the case in his residence of twenty-three years in North Devon. He did not know more than one case where poverty could have caused it. His opinion was, that the present laws regarding the maintenance of children by their fathers required much alteration. He did not, however, think that much more money payment should be extracted from the father. As the law now stood, 2*s.* 6*d.* was the sum

required to be weekly paid. It was no use putting on a large sum in most cases, because the fathers were, in country districts, totally unable to pay more than a small weekly sum out of their wages. He had often wondered that no person had called attention to the fact that, in case of a man marrying a woman with an illegitimate child, the whole expense of the child after this devolved on the step-father. He thought some alteration was wanted in the law with regard to this point.

Dr. HARDWICKE would not like the opportunity to pass without saying a few words, although he could add nothing to the remarks made by the coroner for Central Middlesex in his third Report of Inquests for 1865; to this he would refer for full details of circumstances that related to infanticide. If Dr. Lankester had apparently exaggerated the extent of the crime of infanticide in this country, it was not that evidence of it could be found in the verdicts of coroners' courts; for they certainly did not take cognisance of half the cases, while many escaped observation by being buried as still-born children, there being no registration needed for the burial of this class of infants. An amendment of the bastardy laws offered one chance of meeting the cases of those unfortunate females who were badly protected by the law towards the maintenance of their illegitimate children. That change also in the laws recommended by the Commissioners on Capital Punishment, making it an offence punishable by imprisonment or penal servitude for a woman who maliciously or wilfully injures her child at or after birth, would bring many cases to justice, which now easily escaped conviction. Unfortunate and needy women, with a prospect of illegitimate offspring, required more protection than our institutions afforded them; and he (Dr. Hardwicke) was not inclined to endorse the opinion of Dr. Drysdale, that foundling hospitals were sources of evil, rather than of good. Certainly, industrial institutions or homes, if maintained at the expense of the state or parish, would tend to avert much misery and disgrace to young females, and would save rather than increase the expense of crimes that spring from our present way of dealing with mothers and their illegitimate offspring in the union workhouses.

Mr. BENSON BAKER had had large experience of infanticide and infantile mortality. He resided in a part of the town where large nurseries existed. It was by no means uncommon to see in one room three, five, or even seven children nursed by one woman. The mortality among such infants was very great, and in no one instance in which inquests had been made, had the father ever appeared. Public opinion was required to put women in their proper position. Industrial homes, might, he thought, be established, where women might enter, after their confinement was over. As matters now stood, ten days after confinement they left, and entered service.

The PRESIDENT said that the late coroner, Mr. Wakley, held it the best policy to stifle the matter and say as little as could be helped about it, and he consequently avoided inquests in cases of suspected infanticide. He (the President) believed that it was much better to do as Dr. Lankester was doing, to bring the whole question before the public, and into the light of open discussion. He was sure that a great deal of infanticide escaped unnoticed. Thus, he had been told that women were frequently delivered into wash-tubs, the room where they were delivered being made to assume the appearance as if it were washing day. There was, he regretted to say, no efficient foundling hospital in London. He did not agree with Dr. Drysdale that, because so many children died in the French hospitals for foundlings, the same tragedy would be enacted in London, if there were similar institutions here.

Dr. CLEVELAND deplored the facility with which certificates of death were granted in many cases. For instance, a young girl was confined of twins, one of which died, and she obtained a certificate of death; but, on her again coming to ask for a certificate for the second, it was refused, until an examination could be made. She immediately said it was of no consequence, as she knew a doctor who would give her a certificate without any trouble. He thought that the Harveian Society would do well as a body to bring such questions before the notice of government.

Mr. SEDGWICK, in reply to an observation of the President, that nothing had been done during the last hundred years to increase the provision made for foundlings, remarked, that, within the last two years, an institution, called St. Saviour's Hospital, and Refuge for Destitute Women and Children, had been established, by private charity; with this he had the honour of being professionally associated. Its object was to check the increasing sin of infanticide, by affording a shelter to outcast and friendless women and children. It contained a nursery, in which children were received from the earliest age; a boys' and girls' school, in which the children received a plain education, and were trained for service, suitable situations being obtained for them before they left; and lastly, a refuge, distinct from the rest of the house, and filled up for the reception of outcast females, to which was attached a lying-in ward.

Mr. CURGENVEN was glad that some practical suggestions had been offered for checking the crime of infanticide, and the excessive mortality that prevailed amongst illegitimate children. The medical profession had always led the van in social and sanitary reforms; and he considered that the Harveian Society, from the labours it had devoted to the social evils, could not perform a higher duty than to act on the debate of to-night and bring some suggestions, supported by evidence and facts, before the Legislature and Poor-law Board, that might lead to alterations in the laws, whereby these evils might in some degree be checked. He proposed—

"That a committee be formed, consisting of the following members: Dr. Tyler Smith, (the President), Mr. Curgenven and Dr. C. Drysdale, (the Honorary Secretaries), Dr. Hardwicke, (Deputy Coroner), Mr. Ernest Hart, Dr. Sanderson, (Medical Officer of Health for Paddington), Mr. Benson Baker, Mr. Sedgwick, with whom would be associated Dr. Lankester, (the Coroner for Central Middlesex); to draw up a report on infanticide, with the object of suggesting the best means of checking the crime, and to report on the causes of death of young children, the best means for preventing excessive infant mortality, and to suggest some plan for the care and rearing of illegitimate children, other than the present workhouse system."

Dr. HARE seconded the resolution. He considered that the labours of such a committee as was proposed would be attended with some good results.

The proposition was unanimously adopted.

Communications on the subject were invited to be sent to Mr. Curgenven, 11, Craven Hill Gardens, W.

DEATH FROM EATING MUSSELS. A man gathered mussels near Black Rock, which he brought home and had cooked. He ate a quart or more, and in a few minutes became seriously ill, and died before medical assistance could reach him. At the inquest, the jury returned a verdict, "Died from apoplexy, brought on by retching after having eaten mussels gathered by himself." (*Brighton Guardian.*)

Correspondence.

THE TREATMENT OF CHOLERA.

LETTER FROM T. M. ROOKE, M.D.

SIR,—May one, who can neither boast any original investigations into the morbid anatomy of cholera, nor much personal experience in its treatment, yet attempt to harmonise, in some humble measure, the inconsistency which appears to exist between the latest revelations as regards the pathology of this disease, and well accredited testimonies as to its successful treatment.

Dr. Johnson and others have shown, as I think convincingly, that the degree of collapse bears no proportion to the amount of intestinal evacuations; and further, that the condition of the lung and heart discovered after death is quite sufficient to account for the fatal algide symptoms. So far good; but when Dr. Johnson proceeds to argue that the cause of the *copiousness* of the watery evacuations is not the cause of the collapse; and because many of the worst cases are those in which this copiousness is least manifest, that therefore the evacuations are not in *any way* morbid, but rather the result of a healthy eliminative action,—he is certainly taking for granted what remains to be proved. On the other hand, I hold that the testimony of trustworthy observers in every part of the globe has abundantly shown that, in all epidemics of cholera, the fatality of the disease is in an inverse ratio to the degree in which the early diarrhœa is checked. I think this fact is just as well proved as is the apparently antagonistic fact, that the collapse is not occasioned by the abundance of the watery discharges in the later stage.

Now, may it not be that the so-called serous evacuations of cholera are something very different in composition from the evacuations of ordinary serous diarrhœa? They are not merely a normal exudation seeking to wash away the cholera germ, but they contain important and vital constituents of the blood. We can easily understand how in one case, although but a very small amount of fluid be excreted, the absolute amount of these constituents may be large; whilst in another, with a large amount of fluid, the absolute quantity of these important constituents may be small. In the first case, the blood becomes so much altered in its composition that collapse is the result, through the intermediate link of spasm of the smaller pulmonary arteries. In the second case, the blood being but slightly altered in composition, the fatal results are not brought about. Now, on this hypothesis, we can understand good being effected by any means which will serve to retain those constituents in the blood, the loss of which brings about such dire results. Why may not astringents, applied to the intestinal mucous membrane, do this? The cholera poison may act in two ways; it may either first decompose the blood, or it may so alter the action of the intestinal glands that they separate certain vital constituents. In the first instance, the glands would act passively, but in either case astringents may be of service; in the one, by allowing time for recombination in the blood of separated elements; in the other, by suspending action in the glands, morbid as well as normal. It would not be difficult to elaborate this argument, and point to analogous conditions in other diseases; but it is enough to make these suggestions as to a path of inquiry which seems to have been overlooked.

I am, etc.,

T. M. ROOKE, M.D.

LETTER FROM J. SHEPHERD FLETCHER, M.D.

SIR,—With the view of helping in the determination of the important question, "How shall we treat cholera?" and of deciding whether or not the treatment suggested by Dr. Johnson in his very able remarks on that disease be the correct one, I forward you a copy of a Report which I made to the Secretary of State for the Home Department, through Leonard Horner, Esq., in December 1849, on the results of treating the premonitory diarrhœa in its earliest stages. These results, I think all must agree, speak most strongly in favour of the treatment adopted; and what adds much to their value, they were most carefully and accurately kept, so that they are worthy of the fullest confidence. The medicine used was a mixture consisting of the following ingredients:—℞ Cræta præp. ʒiss; confect. aromat. ʒi; tincturæ opii ♏xl; spiritûs ammoniæ compos., spirit. camphoræ, ā ʒij; tincturæ catechu ʒij; tincturæ capsici ♏xv; aquæ destill. q.s. Fiat mist. ℥viij. One tablespoonful for a dose, or two if the case were severe, repeated frequently until relief was obtained. General directions were given to apply warmth all over the surface, and even, in severe cases, to put the sufferer on or near the top of the boiler; and a number of sand-bags were directed to be kept ready heated for application to all parts of the body.

Dr. Johnson's papers I have read with much interest and pleasure. His theory of cholera, as explained by him, appears to carry with it all the evidences of being true; yet I cannot reconcile it with the result of treatment in my own experience. It may be said that the cases here reported are only those of diarrhœa, and that of a light character. This is true with regard to a large number; but a very considerable portion were very severe, and by many would have been classed as true cholera.

An instructive circumstance with regard to treatment happened in the mill of Messrs. Houldsworth, from which 349 cases are reported. At the time this medicine was being used, Dr. Bell, late of Manchester, and formerly physician to the Persian Embassy, where he had seen much cholera, called the medical men of Manchester together and gave a lecture on cholera, in which he advised the use of a mixture consisting of (to the best of my recollection) sulphuric acid, sulphate of magnesia, and quinine. Mr. Houldsworth was a personal friend of Dr. Bell's; and he asked me to allow the trial of Dr. Bell's medicine, with the view of testing its power. This I readily consented to; but Mr. Houldsworth informed me that in a few days the hands were so satisfied of the want of power on its part to check the disease, that they refused to take it, and asked to have the old medicine. This, again, would seem to tell against Dr. Johnson's plan of treatment.

During the whole of the time embraced in these reports, cholera was severe in Manchester, and was almost invariably preceded and accompanied by diarrhœa. The conviction left upon my mind at the time was, that cholera was a disease which, in its premonitory stage, was more under command than any other disease known.

I am, etc., J. SHEPHERD FLETCHER.

8, Lever Street, Manchester, June 6th, 1866.

The accompanying enclosure is a copy of the Report, as sent to Leonard Horner, Esq., Inspector of Factories.

8, Lever Street, Manchester, December 5th, 1849.

DEAR SIR,—I beg to forward you a return of the number of diarrhœa cases which occurred in some of the mills in my district during the prevalence of

cholera, where medicine was given with a view to prevent the diarrhœa going into cholera; together with the result of such treatment.

In the early part of July, cholera being prevalent here, several of the principal millowners spoke to me, with a view of adopting preventive measures against such cases of diarrhœa as might arise amongst the workpeople; and I suggested to them, as well as to others, the propriety of keeping a suitable medicine in the lodge of the mill, and informing all their workpeople that they had provided such medicine; requesting them, at the same time, to make immediate application for it in cases of purging or sickness. At several of the mills, an exact account has been kept of the parties applying for such medicine; and from some of these I have obtained the following valuable returns.

In July, Messrs. T. Houldsworth and Co., Newton Street, commenced furnishing their hands with medicine; and they favoured me with the following return.

In July, there were 90 applicants suffering from diarrhœa, equal to about 10 per cent. per month of the total hands employed; in August, there were 126 cases, equal to 14 per cent.; in September, 148 cases, equal to 16½ per cent.; and in October, 75 cases, equal to 8½ per cent.; total number of cases, 439. Out of this number who took the medicine, not one terminated in cholera; all were relieved. In the return made to me, it is stated: "We are only aware of one case of cholera amongst our people, and that in illustration, rather than otherwise, of the value of the early application of some anti-diarrhœa mixture; for, refusing its proffered aid, the neglecting party was seized with secondary symptoms, and we have only to regret the loss of this single individual."

Messrs. McConnell and Co., Union Street, have kindly handed me the next returns.

In August, there were who received medicine for diarrhœa, 118 persons; in September, 143; in October, 58; in November (to the 13th, when the epidemic had almost ceased), 3; total number of cases, 322. One person only of the above died from cholera. "This person had, there is reason to think, been suffering one or two days previously to her applying for medicine; and the two doses which she took on the morning of her leaving work were vomited." Another of the workpeople came to work in the morning ill, and was immediately sent back—without, however, applying for medicine; and she died in fifty-four hours after.

Messrs. A. and G. Murray, Union Street, have forwarded me a full return, of which the following are the most important particulars.

In August, those receiving medicine were 138 persons; in September, 231; in October, 39; and in November (up to 19th), 3; total, 411. In this mill, not a single case of cholera occurred, although, as shown by the return, diarrhœa cases were very numerous, and many of them very severe. To show the immediate effect which the medicine generally had, I may state that to these 411 persons only 478 doses of medicine were given, showing that in most cases only one dose was sufficient to put a stop to the disease.

The whole of these returns embrace 1172 cases of diarrhœa, many of them exceedingly severe, and closely verging on cholera; yet out of this number, all of whom took medicine, *only a single case of cholera* occurred, and in this it is believed that the purging had been neglected for one or two days before the remedy was applied for; whilst we have two fatal cases where no preventive was taken, in one of which the medicine was refused, and in the other never applied for. These two cases were, I believe, not more serious to all appearances than many of the others who took the medicine and recovered.

The very happy results which have attended this early treatment of these cases of diarrhœa, during the prevalence of severe cholera, in my opinion show most clearly that the diarrhœa which generally precedes cholera, and, if neglected, speedily terminates in that most fatal disease, is very readily subdued by suitable medicine; and that, for this reason, cholera is a disease to be dreaded less even than many of those with which we are daily afflicted; for over no other equally severe disease, so far as I am aware, do we possess such a perfect command in the very earliest stages, as we do of choleraic diarrhœa, and consequently of cholera.

Amongst the persons who make up the number in these returns, it is important to remember that we have all grades, from the middle to the very lowest class, some of them probably living upon bad and insufficient food, and exposed to every influence likely to conduce to severe cholera. The effect of irregularity in diet, drink, etc., was shown by the larger number of applicants on a Monday, many of whom had been drinking on the Sunday.

It now only remains for me to state that the medicines were supplied to the hands gratuitously by their employers; and that to the millowners in my district generally the highest praise is due for the exertions they made to save the lives of those under their employ, by preventing the spread of cholera amongst them.

I remain, dear sir, yours, etc.,

J. Shepherd Fletcher, M.D.

To Leonard Horner, Esq.

Letter from James Heygate, M.D., F.R.S.

Sir,—I have watched with considerable interest the editorial articles, Dr. G. Johnson's papers, and the various letters, in the Journal, on the subject of cholera. I am also aware that you have called for the experience of members of the Association. Hence, if mine be worth anything (dating from the fatal year 1832), perhaps I may be allowed to say that it is wise, and of the utmost importance, to arrest the incipient diarrhœa with astringents and opiates. There are very few cases where you have not premonitory symptoms of this sort.

All sorts of treatment being uncertain, I am reluctant to hazard an opinion as to the best mode when cholera, in all its formidable symptoms, has thoroughly developed itself. Whether the theory advanced by Dr. G. Johnson be the correct one, must I think at present be a moot question. I have always thought that the system being drained of the serous part of the blood was the cause of collapse; and that the arrest of the pulmonary circulation, the blue tinge of the skin, and the treacly condition of the blood, arose from the same cause.

Certainly, when these symptoms occur, no treatment seems to have been successful. Hence the new eliminative plan may be worth a trial. All I contend for is, that it is not frequently difficult to check the incipient symptoms with astringents, and thereby prevent the complaint running into fatal collapse, and then you cause the bile again to flow.

I am, etc., James Heygate.

Derby, June 11th, 1866.

P.S. In your article on the Pathology of Cholera, you say "that cholera-collapse results from an interruption of the pulmonary circulation, and not from the purging and vomiting"; but what is the cause of this "interruption"? Surely the drain of the rice-water—scentless, serous evacuations—would account

for this "interruption"? You say also, "that, during collapse" (that is sinking) "the purging and vomiting are diminished or arrested," etc. No doubt; but the above may be the cause of the collapse. Then, again, you say, "Assuredly, we have no positive proof that diarrhœa passes into cholera." If you question the patient, with his or her feeble whisper, cold breath, and cold extremities, the reply is, "I had looseness of my bowels for some time, more or less." No doubt, collapse in these days very rapidly takes place in some individuals, and apparently from very slight causes. All I am anxious about is, that the premonitory diarrhœa should be checked as soon as possible, and that young practitioners should not be led into neglecting this precaution. May I be allowed to say, that I think your six items admit of a different interpretation to the one you put upon them.—J. H.

Sir,—The question of the treatment of cholera can scarcely be too much ventilated. Having had experience in this disease, I venture to note the conclusions to which I have been drawn, though they may differ from the commonly received opinions.

1. I agree with Dr. Johnson, that in the early stages the strictly eliminative treatment is right.

2. I do not agree with Dr. Johnson in the opinion that castor oil is the best remedy.

3. Believing, as I do, that what is called choleraic diarrhœa is rather an effort of Nature to prevent an attack of cholera, than a premonitory symptom of the disease, I look upon it as a favourable event; and I consider that the patients attacked with diarrhœa in a cholera district are, under proper treatment, better protected from the disease than persons not so attacked.

4. The right treatment of choleraic diarrhœa is a dose of calomel, about three grains combined with five grains of rhubarb, followed up with a common effervescent draught, with a drachm of compound tincture of cardamoms every three hours. I have rarely seen a patient thus treated pass into the stage of collapse.

Allow me to add, that our success in medicine depends almost entirely in discovering the right dose. This point has been too much overlooked.

I am, etc., An Old Hand.

London, June 1866.

Letter from John Thorburn, M.D.

Sir,—If you have nothing more urgent on the subject of cholera, I would like to say a few words. First, on the subject of infection. This I consider to be distinctly proved; and to have been well shown wherever the fewness of the cases allowed them to be distinctly traced. Those who are in doubt on this point might well consult a series of cases published by Professor Gairdner of Glasgow; but I will give one series of cases which occurred to myself.

In November 1854, I was hastily summoned from Edinburgh to take charge of a village and district in Lanarkshire named Whiston. It lies near the wildest part of the Caledonian Railway; and is one of the most unlikely places imaginable for cholera to have pitched upon. (I mean from its wildness and isolation; not altogether from its sanitary state.)

The history of the outbreak was this. A child was brought by rail from Glasgow (thirty to forty miles distant), where cholera was somewhat prevalent. It was suffering from diarrhœa and vomiting. A poor man carried this child four or five miles up the country. Next day, the child died. Two or three days after, the man was found lying by the roadside moribund, and was taken to a farm out-house, where he also died in a state of collapse. The farmer, who did his utmost for him, was next seized with distinct choleraic symptoms, and he died. Consecutively, his wife, child, mother-in-law, and sister-in-law were seized; the second and third of whom also died. The next case was the joiner in the village (three miles off), who acted as undertaker. He also died. Then followed his brother and cousin, who worked with him. After this, I arrived, and there were only four more cases in the village, which were not quite so distinctly traceable; the whole being wound up by my being seized myself.

Such cases as these—and there are many such in Professor Gairdner's pamphlet—need little comment, and are not to be upset by the experience obtained in large cities, where so many other influences are at work to spread the disease and obscure its undoubted, even if not virulent, infectiousness. The contaminated water-supply theory of propagation, though doubtless correct in many instances, could not have applied here.

Next, as to the question of treatment. Along with all your readers, I have taken some interest in the discussion now going on. Looking at the matter theoretically, I am inclined to believe, as you apparently do, that Dr. Johnson has the best of it; and I trust the inquiry will be pursued as energetically, though a little less personally. Some addition to our knowledge must accrue. But nevertheless, in the present state of knowledge, I would decline to act on his theory, in the premonitory diarrhœa stage, and would seriously advise others to be careful in so doing. Facts are stubborn things; and my little addition to the facts mentioned by some of your correspondents is this. In October 1853, I was employed at Gateshead, a suburb of Newcastle-on-Tyne, during the dreadful epidemic there. There was no tracing infection there; for the whole place seemed infected. I was myself occupied for nearly a fortnight, night and day, with only an hour's sleep on a sofa occasionally. Either by myself or with my friend Mr. Wilson, I saw about 150 fatal cases. The cases of diarrhœa were innumerable.

After collapse set in, or even very severe vomiting, I do not believe that anything we did made a particle of difference; but I often regret we had not the method of subcutaneous injection to test various remedies. In the premonitory diarrhœa, it was quite otherwise. We had each a large district to visit, and called daily at every house. Whenever we could hear of a case of diarrhœa, we administered a mixture of chalk, catechu, and opium, and herein lies the practical fact. In the whole district visited by me, not a single case thus treated ran on to choleraic collapse. Two sets of cases alone baffled us; first, where collapse set in without premonitory symptoms, or where these were too short to be attended to; and secondly, where the people wilfully, and in spite of our queries, allowed the diarrhœa to go on, under the fatal popular delusion that purging is wholesome for the system. Now, I do not maintain that the alvine flux is the cause of collapse; there are many strong reasons for believing it is not; but I cannot lose sight of the fact, that simple choleraic diarrhœa, when it exists, can be stopped by astringents; and that, if it be so stopped, something takes place in the system which enables it to throw off the tendency to the more violent symptoms.

This may seem very illogical; it does so to myself; but I am convinced that it will be the opinion of many who, like myself, have had the opportunity of testing the truth of the fact, and, at the same time, of reading Dr. Johnson's clear theoretical opinions. My impression is, that the chameleon will turn out to be of more than one colour; and that, while astrin-

gents will be proved to be curative of choleraic diarrhœa and preventive of choleraic collapse, it will also be found that something else or something more than the evacuations are at work to cause the collapse; and so a means may be found of treating those cases which are hopelessly beyond the reach of the astringent plan. I am, etc.,

J. Thorburn.

Manchester, June 11th, 1866.

P.S. In my own case, mentioned above, like too many of our profession, I abstained from the use of the medicines which I had found so useful to others.

Letter from Daniel Noble, M.D.

Sir,—Is there not at least as good reason for regarding the diarrhœa of typhoid fever to be eliminative, as for so regarding that of cholera?

Has it, on any such hypothesis, at any time occurred to pathologists that the fever in question should be treated by purgatives?

I am, etc., Daniel Noble.

Manchester, June 18th, 1866.

CONTAGION AND TREATMENT OF CHOLERA.

Letter from Charles R. Drysdale, M.D.

Sir,—The interesting debate which has for some time past been so ably conducted in the pages of your Journal has very much unsettled me upon one or two points. I had intended, before reading the remarks of Dr. G. Johnson and yourself, to have published a pamphlet upon this all-important subject, embodying the debate which took place in November last, in the Harveian Society, on the question above alluded to; but Dr. Johnson's remarks have made me delay a little.

After hearing all that has been said for and against the contagiousness of cholera, I confess that my own idea is, that we should act as if it *were* contagious, since this is taking the safe side of the question; and all non-contagionists, even Drs. Fuller and Greenhow, cannot deny that there is a great deal to be said on the other side. Consequently, quarantine regulations ought to be strictly enforced, and isolation of the sick ensured, either in special wards, or, better still, in special hospitals.

And now, as to treatment. Of course, it is impossible that there should be complete agreement on this point; but still I believe that all parties will agree upon one fundamental point. That point is, sir, that persons who, for a shorter or longer time, have been suffering from serous diarrhœa, should at once be taken into hospital, or go to their own houses, and there lie down and keep cool and quiet until convalescent. This, I believe, is the *most important* point in the treatment of this dreadful epidemic. I was in Paris in October last, and was informed that by this plan of treatment, accompanied by the administration of small doses of quinine and opium, the cure of such cases was invariably assured. The theory of purgation, if true for cholera, ought to hold good for measles, scarlet fever, and syphilis; but we all know how useless eliminative treatment has been found to be in all virulent intoxications.

As to the treatment in collapse, plenty of cooling drinks and rest seem all that can be advised, with warm embrocations (turpentine stupes) to the abdomen and extremities. And, lastly, the stage of fever is best treated, as all fevers are now treated, by light nourishment and cooling lotions to the head.

I write these few lines, sir, in the hope that some of the eminent physicians who have lately enlightened us on this all-important question may see that there is at least one point of treatment on which all are agreed. I am, etc.,

Charles R. Drysdale.

99, Southampton Row, W.C., June 13th, 1866.

THE DEBATE ON VACCINATION.

Letter from S. H. Steel, M.B.

Sir,—In considering the questions debated at the last meeting of the Metropolitan Counties Branch, it appears that a decision must be taken between two opposite methods of carrying out public vaccination.

Either, 1. Public vaccinators must be appointed, as proposed by Dr. Hillier, limited in number, confined to their special function, and endowed with special powers.

Or, 2. Every registered practitioner must be appointed a public vaccinator, according to Mr. Lilley's plan, and entitled to claim from the public a fee for every certificate of successful vaccination, in addition, of course, to private remuneration.

No middle course will be effective. Such a course has already been tried and has failed. Public vaccination, in the hands of the Poor-law medical officers, has not secured an effectual result, for reasons not, on the whole, discreditable to those officers, but which I need not now consider.

Neither shall I discuss the relative merits of these two plans, nor the conditions necessary to render either of them effectual. I content myself with expressing my conviction that the honour and the interests of the profession require that vaccination should be left in our hands. Let every practitioner be interested in the registration of vaccination by giving him a claim to a moderate fee for his certificate. I believe that judiciously devised compulsory measures will also be found necessary. The sanction of Government and of the law thus conferred upon the operation, will prove effective upon many minds even of the ignorant. The enforcement of such measures should be a duty imposed upon the superintendent-registrars.

One point, in reading the recent debate, surprised me much. No objection to Mr. Lilley's proposal was urged more strongly than the difficulty found by practitioners performing only a limited number of operations in keeping up a supply of good lymph. This was insisted upon by one speaker after another, and met with no reply. The answer, as suggested by my own experience, is obvious. Since the introduction of Dr. Husband's capillary tubes, I have never been for a day without lymph; and a failure of the operation is a thing I scarcely remember. This seems a small matter, and scarcely a sufficient answer to a weighty and repeated objection; but a simple mechanical expedient such as this has often overcome graver difficulties. One practical point I may mention. These tubes, as supplied by the makers, are usually too large; and a scanty supply of lymph, instead of proving sufficient to charge several, will hardly be enough for one, and is wasted by being diffused on the interior of the tube. Moreover, a small tube is more easily and effectually sealed than a large one. I am, etc.,

S. H. Steel.

Abergavenny, June 12th, 1866.

A Sanitary Suggestion. Dr. Gibbon suggests that the disused burying grounds in the Holborn district, which are now neglected places, should be converted into public gardens. They are three in number, and about six acres in extent.

Medical News.

ROYAL COLLEGE OF PHYSICIANS OF LONDON. At a general meeting of the Fellows, held on Friday, June 15th, 1866, the following gentlemen, having undergone the necessary examination, and satisfied the College of their proficiency in the science and practice of medicine, surgery, and midwifery, were duly admitted to practise physic as Licentiates of the College:—

Hallett, Thomas George Palmer, 69, Queen's Crescent, Haverstock Hill
Humphreys, Frederick William, 19, Trinity Square
May, Henry, Birmingham
Nankivell, Arthur Wolcot, Torquay
Oppert, Francis, M.D.Berlin, 31, Great Russell Street
Parsons, Daniel Walter, Liverpool
Power, Richard Eaton, Portsea
Webster, Thomas, Redland, near Bristol

At the same meeting, the following were reported by the examiners to have passed their primary examination:—

Smith, Frederick Walter, St. Thomas's Hospital
Toulmin, William, Guy's Hospital

ROYAL COLLEGE OF SURGEONS OF ENGLAND. The following members of the College, having undergone the necessary examinations for the Fellowship, on May 29th and 30th, were reported to have acquitted themselves to the satisfaction of the Court of Examiners, and at a meeting of the Council, on June 14th, were enrolled Fellows of the College.

Archer, Edmond, Cape of Good Hope; diploma of membership dated December 29, 1846
Bruce, Alexander, Albert Terrace; April 26, 1864
Darling, William, New York; November 21, 1856
Duka, Theodore, Her Majesty's Indian Army; October 7, 1853
Falwasser, Francis, Army; March 26, 1858
Jordan, Thomas Furneaux, Birmingham; May 2, 1854
Little, Louis Stromeyer, Brook Street, Grosvenor Square; April 22, 1862
Lush, Wm. George Vawdrey, Wilton; April 27, 1864
Marsh, Fred. Howard, St. Bartholomew's Hospital; June 3, 1861

It is stated that only one candidate failed to acquit himself to the satisfaction of the Court.

UNIVERSITY OF CAMBRIDGE. Degree of Doctor in Medicine and Master in Surgery, conferred June 16.

Welch, Thomas Davies, Caius College

APOTHECARIES' HALL. On June 14th, 1866, the following Licentiates were admitted:—

Harrison, J. A., Wirksworth
Harvey, Thomas, Waterloo Road
Sargent, J. Forbes, Bentinck Terrace, Regent's Park
Schott, F. Julius. Frankfort-on-the-Maine
Spearman, George, Plymouth
Stevens, G. J. B., Strood
Thurston, W. F., South Bank, Notting Hill
Wathen, J. H., Fishguard

At the same Court, the following passed the first examination:—

Codrington, J. F., Guy's Hospital
Fiddian, A. Paull, King's College Hospital
Stothard, W. J., Guy's Hospital

APPOINTMENTS.

POLLOCK, Julius, appointed Assistant-Physician to Charing Cross Hospital.

ROYAL NAVY.

COMERFORD, John T., Esq., Assistant-Surgeon, to the *Griffon*.
FLYNN, Frederick F., Esq., Assistant-Surgeon, to the *Nimble*.
MANGLE, Robert, Esq., Surgeon, to the *Cumberland*.
PATERSON, James, Esq., Assistant-Surgeon, to the *Flora*.
ROBERTSON, Angus, M.D., Surgeon, to the *Flora*.

VOLUNTEERS, (A.V.=Artillery Volunteers; R.V.=Rifle Volunteers):—

FISHER, F., Esq., to be Assistant-Surgeon 27th Kent R.V.
MARSACK, B., Esq., to be Hon. Assistant-Surgeon 17th Kent R.V.
MOURITZ, R. H., Esq., to be Assistant-Surgeon 7th Cheshire R.V.

BIRTHS.

DAVIDSON. On June 19th, at Erith, the wife of James Davidson, M.D., R.N., of a son.
GEERE. On June 7th, at Brighton, the wife of George Geere, Esq., Surgeon, of a daughter.

MARRIAGES.

CALT, William, Esq., of Ringmer, to Elizabeth, fourth daughter of Alexander TOWNE, Esq., Surgeon, of Kingsland Crescent, at St. John's, Hackney, on June 19.
KING, John Bishop, M.D., Assistant-Surgeon H.M. Indian Army, to Joanna, second daughter of the late Henry W. SMITH, Esq., of Island Hall, at St. George's, Prince of Wales's Island, on April 21.
RAYNER, Thomas Vernon, Esq., Surgeon, to Eliza, third surviving daughter of the late Richard HICKMAN, Esq., of Grove End Place, St. John's Wood, at Christchurch, St. Marylebone, on June 14.
STRANGE, William H., M.D., of The Avenue, Belsize Park, London, to Anna Jane, third daughter of William PIRRIE, M.D., Professor of Surgery in the University of Aberdeen, on May 24.

DEATHS.

BOYCOTT. On June 15th, at 23, Stanley Gardens, Notting Hill, aged 1 year and 8 months, Annie, youngest daughter of Thomas Boycott, M.D.
MACDONOGH. On June 11th, aged 46, Anne Dean, wife of John Macdonogh, Esq., Surgeon, Clapham.
SCOTT. On June 13th, Catharine, wife of David Scott, M.D., of Murray Street, Camden Square.
SMITH. On June 4th, at Tiverton, aged 64, Sarah Frances, widow of Josiah Smith, M.D., of Staines.
URE, Alexander, Esq., Surgeon, at 18, Upper Seymour Street, on June 13.

MR. ALEXANDER URE, late surgeon of St. Mary's Hospital, died on the 15th inst. He appears never to have recovered from a serious fall which he had from a horse, about three years ago. Mr. Haynes Walton will succeed him as surgeon to St. Mary's Hospital.

WESTERN MEDICAL AND SURGICAL SOCIETY OF LONDON. At the annual meeting, held June 1st, the following officers were elected for the next session: *President*—Dr. Fuller; *Vice-Presidents*—Mr. P. Hewett, Dr. Marcet, Mr. T. Dickinson, Dr. Anstie; *Council*—Dr. Way, Mr. Vasey, Dr. D. Davies, Mr. Traer, Mr. Knight, Dr. Daniell, Dr. Blandford, Mr. T. Holmes, Mr. J. R. Lane, Dr. Morell Mackenzie, Mr. Nayler, Dr. Fyfe; *Treasurer*—Dr. Baines; *Honorary Librarian*—Dr. Godwin; *Honorary Secretaries*—Mr. Milner, and Mr. C. Hunter; *Auditors*—Mr. T. Taylor, and Mr. Hall.

SCARLET FEVER. On Monday last, Sir J. C. Jervoise asked the Vice-President of the Committee of Council on Education whether his attention had been directed to the statement of the medical officer of the Privy Council (First Report Cattle-Plague Commission, p. 46) "We constantly see in our practice that the physician carries home scarlet fever to his children, without taking it himself, carrying the infection in his dress, or about his person," and what measures were contemplated to arrest this source of danger to the public health. Mr. Bruce replied that the attention of her Majesty's Government had been called to the subject, but they did not see their way to any effectual legislation upon it.

BRITISH PHARMACEUTICAL CONFERENCE. The British Pharmaceutical Conference will meet at Nottingham, on August 21st, being the time of the meeting of the British Association for the Advancement of Science. Professor Bentley, F.L.S, etc., is the President. The proceedings usually extend over portions of three days, consisting in the reading and discussion of papers, containing the results of the investigations of professional subjects. From experience of the two annual meetings that have been held, in Bath and Birmingham respectively, in 1864 and 1865, it is confidently anticipated that a large number of chemists will assemble from most parts of the country.

Ophthalmia is raging among the women and children with the troops stationed at Meerut.

The Austrian Army. Professors Dummreicher and Pitha have closed their lectures at the University of Vienna, and have joined the army. Dummreicher goes to Olmütz, the head-quarters of the Northern army; and Pitha to Verona, the head-quarters of the Southern army. Both of them are accompanied by "several young operators".

A Villanous Compound. At the Dewsbury Police-court, a few days ago, six tradesmen were charged with selling methylated spirits without licence. The spirits were sold under the name of "Concentrated Essence of Indian Brandee", a deleterious mixture of naphtha and brandy of the worst quality. In defence, it was urged that the offence had been committed in ignorance of the pernicious nature of the article, the defendants having been given to understand that it was a capital remedy for coughs and other ailments. In each case, the mitigated penalty of £12 : 10 was imposed.

Mineral Waters of Vals. In a memoir concerning the acidulous, gaseous, bicarbonated, sodaic waters of Vals (Ardèche), Dr. Tourelle winds up as follows: "It evidently follows from this treatise that the waters of Vals ought to give, and give without any doubt, more favourable results than all the other known alkaline waters, on account of the variety of their mineral parts, and of the large quantity of gas which they contain. It has been observed that with those waters there is not to be feared that hyposthenisation so dreadful in the employment of alkaline waters not very ferruginous nor carbonic."

Spread of the Cholera. The cholera has broken out at Angers and St. Nazaire. At Nantes four persons died from the epidemic on the 12th inst., and eight fresh cases occurred. The cholera is on the increase at Amiens, and in the surrounding country; medical assistance has been sent for from Paris. An outbreak of cholera has taken place in the Prussian army. On the 4th and 5th inst., thirty cases, six of which proved fatal, occurred in the 3rd regiment of the guard. Cholera is also raging at Swinemunde, Frankfort-on-the-Oder, Neustadt-Eberwald, Cammin, Arnswalde, and Stettin. In the latter town one hundred and eighty-seven cases occurred from the 2nd, to the 9th of June, one hundred and three of which were fatal.

Treatment of the Sick Poor. The following evidence has been given at the inquiry into the treatment of the sick at the Rotherhithe Workhouse, by Mr. T. F. Firth, the medical officer during the last two years: he had £35 a year, and found the drugs. He did not know what the drugs cost, but thought they cost from £12 to £15 annually. He visited the workhouse generally at least once a day, and sometimes three or four times a day besides. He had never complained to the guardians of any mismanagement, or anything else about the infirmary. He had made suggestions as to the requirements, and they had always been carried out. Had never applied for bed-rests or night-stools. Never heard of any case of cruelty in the infirmary on the part of the nurse Brittan. Believed the stimulants were properly given to the sick, otherwise he should have held Miss Beeton responsible. Miss Beeton had told him that the wine was bad, and the spirits not so strong as they should be. He thought he had had reason to complain of some of the sick not getting the beer ordered for them. There was no paid night nurse. Some of the sick were in a very helpless state at times in the infirmary. Did not believe it possible that one paid nurse could look after these helpless patients by day and night.

Nitro-Glycerine, which has lately attracted the public attention by such terrific explosions, is formed when glycerine is gradually added, at low temperature, to a cooled mixture of nitric and sulphuric acids. The pure nitro-glycerine is a heavy oily liquid, of nearly 1.60 specific gravity; clear, slightly straw-coloured; explodes by concussion, not by being ignited; ceases to burn when the light is removed, and decomposes with explosion at a temperature of 350° Fahr. Under the name of glonoin, it had been used in medicine.

Trichinæ. The Academy of Sciences, at Chicago, lately appointed a committee to examine into the subject of trichinæ. The main objects of the committee were, first, to ascertain whether trichinæ actually existed in the hogs of this country, and in those of the north-west in particular; and, secondly, should they exist, to determine the extent of the danger thereby incurred. Portions of muscle of one thousand three hundred and ninety-four were examined, and the results were that, out of the one thousand three hundred and ninety-four hogs examined, twenty-eight were found trichinous, or about one in fifty. In the city of Brunswick, of nineteen thousand seven hundred and forty-seven hogs examined in the years 1864-5, only two were found with trichinæ in their muscles; a proportion of one in ten thousand.

An Useful Life. With the utmost regret we announce the death from diphtheria of Miss Lucy Nevile, head nurse at the Lincoln County Hospital. She was the daughter of the Rev. C. Nevile, of Thorney, a descendant of one of the oldest county families; but, though brought up amid all the accustomed refinements of her position in society, she preferred to devote herself to the employment of nursing the sick. Accordingly, she became a member of the society at King's College Hospital, London, and while there obtained the highest commendations and certificates of ability as a nurse. Shortly Miss Nevile was appointed head nurse to our hospital. We have many ladies in the county of Lincoln of whose names we are justly proud, but few will be remembered with more affectionate regret than the name of Lucy Nevile, the hospital nurse. (*Lincolnshire Chronicle.*)

Ozone, and the Splitting Up of Carbonic Acid, under the Influence of Electricity. In a note to the Academy of Sciences, M. G. Jean stated that he employed an induction coil, provided with a peculiar condenser, for dividing the spark into an infinite number of very feeble sparks. By this apparatus, he said, he proved that carbonic acid, under the influence of the sparks, split up into carbonic oxide and oxygen; and the odour and other tests showed that the oxygen was strongly ozonised. Atmospheric air exposed to the same influence becomes ozonised, and forms nitric acid (?), which suddenly decomposes into nitrous acid when the air is heated. Ozonised oxygen, the author says, has the property of giving rise to vapours when mixed with sulphurous or nitrous acids, and these vapours are very persistent in the presence of ammonia and iodine. Crystals of iodine dropped into a vessel of ozonised oxygen also give rise to a very thick vapour, which gradually precipitates in the form of iodic acid. A coating of linseed oil on glass exposed to ozonised oxygen became dry in an hour, and its weight was found to have increased by 20 per cent. The quantity actually absorbed, the author stated, must have been much more considerable, for it was disengaged in the form of strongly smelling acid vapours. (*Chemical News.*)

The Testimonial to Mr. Griffin. The presentation of the testimonial will take place at a public meeting, to be held at the Freemasons' Tavern, Great Queen Street, on Thursday, July 5th, at 3 P.M. The Treasurer, Dr. Fowler, has issued a circular to the Poor-law medical officers, asking those who have not forwarded their subscriptions to the fund to do so without delay, in order that each and all may show some slight appreciation of, and some gratitude for, those untiring energies which, during the last ten or eleven years, Mr. Griffin has bestowed on the cause of Poor-law medical reform. The subscribers and friends of Mr. Griffin are also requested to send their *cartes de visite* for the photographic album which it is decided additionally to present to Mr. Griffin. The testimonial is now on view at the manufacturers', Messrs. Mappin and Webb, 71 and 72, Cornhill.

Harrogate. Dr. Kennion has lately published "Observations on the Medicinal Springs of Harrogate." "Two reasons," he says, "induce me to offer a short account of Harrogate and its medicinal springs. One reason is, that so little is generally known about the place, and the vast resources which it presents to invalids; the other that, to the large and valuable *répertoire* which Nature has already so bountifully given us, we have lately had a very important addition, in the discovery, by Professor Sheridan Muspratt, of the existence of protochloride of iron in considerable quantity in one of our springs, thus constituting it a chalybeate water of, in all probability, very great therapeutic value, and one which, in respect of this constituent, is without a prototype."

Public Health. The Bill now before the House of Commons contains some useful clauses. Among nuisances to be abated by the authorities are to be included: a house or room so overcrowded as to be dangerous or prejudicial to health; a factory or workplace not already under the operation of the factories or bakehouse Acts, not kept in a cleanly state, or not ventilated in such a manner as to render harmless, as far as practicable, any gases, dust, or other impurities generated in the course of the work, that are injurious or dangerous to health; a fireplace or furnace for working engines by steam, or in any mill, factory, etc., which does not, so far as is practicable, consume its own smoke. But this last part of the clause is not to come into operation for a year, in places where at present there is no law compelling such consumption of smoke. A penalty not exceeding £5 is imposed for exposure in any public place, or public conveyance, of any person suffering from a dangerous infectious disorder, without proper precaution against spreading it; and there is a like penalty on the owner or driver of a public conveyance who does not immediately provide for its disinfection, after it has with his knowledge conveyed any such sufferer. Carriages for the conveyance of such persons may be provided by the local authorities. The sewer authorities may compel the owner of any house in their district, which is without effectual drainage, to remedy that defect. Various other powers are given by the Bill to the sanitary authorities for the sake of the public health.

Oxidation of Fatty Vegetable Oils. M. Cloe sums up the results of his investigations as follows: 1. All fatty oils, without exception, absorb oxygen from the air, and increase in weight. 2. Elevation of temperature facilitates the operation. 3. Intensity of light also has a marked influence on the progress of the phenomenon. 4. Light transmitted through coloured glass retards the oxidation. Starting from colourless glass, the retardation is increased by coloured glass in the following order: Blue, violet, red, green, yellow—that is, oil covered with yellow glass, oxidises most slowly. 5. In the dark the oxidation progresses very slowly. 6. The presence of various matters accelerate oxidation. 7. In the resinification there is a loss of carbon and hydrogen and an assimilation of oxygen. 8. The various oils in oxidising furnish the same products, gaseous and volatile compound acids, unchanged solid and liquid fatty acids, and a solid, insoluble matter, which appears to be a definite immediate principle. Oils oxidised in the air no longer contain glycerine. 9. Lastly, drying oils do not differ chemically from the non-siccative oils. (*Chem. News.*)

Therapeutic Effects of the Ligation of Large Arteries. Dr. D. F. Wright communicates, in the *Richmond Medical Journal*, an article on the therapeutic effects of the ligation of large arteries. In this paper it is claimed, "that the ligation of the principal artery of a member, which is ordinarily supposed to occasion danger of gangrene and necrosis in the parts supplied by the occluded artery, has, on the contrary, a marked therapeutic influence, not only upon tumefaction and unhealthy discharges, and indolence in the healing process, but especially upon gangrene itself, which repulsive and dangerous disease it has uniformly and promptly arrested, in every instance in which it has been applied." In the five cases witnessed and described by the author, and in the six cases reported by Dr. Campbell, this uniform result was observed, that immediately from the date of ligation, large tumefaction has been superseded by recovery of the original contour, fetid ichorous discharges by laudable suppuration, and phagedenic gangrene by vigorous granulations, resulting in rapid separation of the eroded tissues. In all these instances the ligation was resorted to for the arrest of hæmorrhage; but so marked was its effect upon the gangrenous condition, that the question arises seriously, whether it may not be resorted to expressly for this therapeutical purpose. Dr. Wright considers these cases as offering sufficient ground for further observation, and suggests that every instance in which, for any purpose whatever, the artery is tied which supplies a gangrenous limb, the results ought to be carefully noted, recorded, and published, in order that it may be seen whether future experience is in harmony with what has been stated. (*Philadelphia Medical Reporter.*)

Army and Navy Medical Officers. In the House of Commons on the 14th inst., Colonel North asked the Secretary to the Treasury whether the recommendations of the committee presided over by Admiral Sir Alexander Milne, relative to the medical officers of the navy and army and upon which the authorities both of the navy and army had been for some time in communication with the Treasury, were likely to be decided upon shortly. He begged to remind the House that the committee reported early in February. Mr. Childers said, that in July last the College of Physicians wrote to the War Office, complaining that the status of army surgeons was unsatisfactory, and to the Admiralty, that navy surgeons were, both as to pay and rank, not on a par with army surgeons. In consequence, the War Office and the Admiralty appointed a department committee, consisting of military and naval officers, and of medical men recommended by the Colleges of Physicians and Surgeons, to inquire into the rank, pay, and position of the surgeons of the two services. The Treasury were not parties to the inquiry, and they had as yet only been officially in communication with the Admiralty on the subject. When the Government were in possession of the definite views of both the departments, they would be in a condition to deal with the cases

f both the army and navy surgeons at the same ime. The question was a very important one, in-olved a large amount of money, and required care-ul consideration. Colonel North asked whether no ommunication had been received from the War)ffice. Mr. Childers said the War Department had ot yet made their recommendations upon the report f the committee; but he personally had been in ommunication with his noble friend.

METROPOLITAN POOR-LAW MEDICAL OFFICERS' ASSOCIATION. At a preliminary meeting of metropolitan Poor-law medical officers, held on June 20th, 866; Dr. Rogers, of the Strand Union, in the chair. t was moved, seconded, and unanimously resolved—'1. That an Association be formed, to be called 'The Metropolitan Poor-law Medical Officers' Association.' . That the enclosed form of address be printed, and ent to every parochial medical officer within the netropolitan district. 3. That the following gentlemen be appointed officers of the Association *pro tem.* oseph Rodgers, M.D., President; F. Godrich, Esq., Treasurer; T. O. Dudfield, M.D., Hon. Secretary." The following is a copy of this address. "London, une 20th, 1866. Dear Sir,—An Association of metropolitan union and district Poor-law officers has been formed, with the object of mutual assistance in difficulties arising out of our duties; and also for the purposes of urging upon our respective local boards, the Poor-law Board, and the public, such revision of our position as public servants as our status as members of a learned and scientific profession demands. The present moment is peculiarly opportune for the formation of such an Association; inasmuch as recent revelations have clearly demonstrated the absolute necessity of some change in the system of metropolitan Poor-law medical relief; and the public are prepared to urge some alteration on the legislature. Under these circumstances, for us to remain quiescent is to allow those who would aid us to form the conclusion that we are indifferent to the just claims of the sick poor, and careless of our position as state servants. We consider that a small annual subscription will be sufficient to cover our working expenses. Should you feel disposed to join us, you will kindly signify the same to one of the undersigned at your earliest convenience. We are, etc." Another meeting will be shortly held, of which due notice will be given.

BOOKS RECEIVED.

Cholera Non-Contagious. By E. Hearne, M.B. London: 1866.
Brief Remarks on Cholera. By Robert J. Spitta, M.D.Lond. London: 1866.
Homœopathy. Two Letters. By David Scott-Smith. 1866.
On the Function of Articulate Speech, and on its Connection with the Mind and the Bodily Organs. By W. T. Gairdner, M.D. Glasgow: 1866.
The Common Nature of Epidemics. By Southwood Smith, M.D. London: 1866.
Defects in Sight and Hearing. By T. Wharton Jones, F.R.S. London: 1866.
A Manual of Medical Jurisprudence. By A. S. Taylor, M.D., F.R.S. Eighth Edition. London: 1866.
Statistical Tables of In-Patients of St. Bartholomew's Hospital during 1865. London: 1866.
Right Foods for Infants and Children. By the late T. Herbert Barker, M.D. London: 1866.
On the Effects of Elevation and Floods on Health. By G. A. Rowell. London: 1866.
An Inquiry into the Reasons, etc., of the Prescription of Intoxicating Liquors in the Practice of Medicine. By Dr. F. R. Lees. 1866.
The Physiological Anatomy and Physiology of Man. By R. B. Todd, W. Bowman, and Lionel Beale, F.F.R.S. A New Edition by the last named Author. London: 1866.
Note-Book of Materia Medica, Pharmacology, and Therapeutics. By R. E. Scoresby-Jackson, M.D. Edinburgh: 1866.
The True and the False Sciences: A Letter on Homœopathy. London: 1866.
The Principal Baths of France. By Edwin Lee, M.D. Fourth Edition. London: 1866.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....Metropolitan Free, 2 P.M.—St. Mark's for Fistula and other Diseases of the Rectum, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TUESDAY. .... Guy's, 1½ P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.

WEDNESDAY... St. Mary's, 1 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.

THURSDAY.....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Great Northern, 2 P.M.—London Surgical Home, 2 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.

FRIDAY..... Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

SATURDAY..... St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1·30 P.M.—Charing Cross, 2 P.M.—Lock, Clinical Demonstration and Operations, 1 P.M.—Royal Free, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

TUESDAY. Royal Medical and Chirurgical Society, 8.30 P.M. Papers on "Stricture of the Urethra", by Mr. Callender and Mr. Nunn; on "Elephantiasis", by Mr. Meade and Mr. T. Bryant; and other papers by Mr. Hulke, Dr. Down, Dr. S. Ringer, Dr. H. Weber, Dr. Fenwick, and Dr. Pavy.

TO CORRESPONDENTS.

*** *All letters and communications for the* JOURNAL, *to be addressed to the* EDITOR, 37, *Great Queen St., Lincoln's Inn Fields, W.C.*

COMMUNICATIONS.—To prevent a not uncommon misconception, we beg to inform our correspondents that, as a rule, all communications which are not returned to their authors, are retained for publication.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

WE regret that we are compelled to defer the publication of several communications; which, however, shall appear with as little delay as possible.

MR. LUKE has been twice President of the Council of the College of Surgeons; and twenty years has been a Councillor. He was elected an Examiner in 1851. Clearly, therefore, he has had his share of College management, and much more than his share. The only grounds upon which he can ask for re-election are—that these College appointments are life-holdings.

STATISTICS OF CANCER.—Mr. Moore has the pleasure to acknowledge the return of "Registers for Cases of Cancer", from Marten Perry, M.D., Evesham; Samuel Rutherford, Esq., Pulborough.

ERRATUM writes:—"There is a mistake in your last number. Mr. South, Mr. Cæsar Hawkins, and Mr. Luke, are not subject to the quinquennial reelections, to which the other examiners (with the exception of Mr. Lawrence) are. They were appointed examiners before the last (the supplemental) Charter was granted, and do not come under its operation. They can be only removed by vote of the Council. The fact is, as you truly say, that under the present system—once an examiner, always an examiner. Mr. Lawrence cannot be removed at all.

CLITORIDOTOMY.—SIR: A relative and patient of mine, not wishing to consult me upon a particular occasion, went to another surgeon. She was told that she had "an ulcer" in the bowel; subsequently, that she had "polypus" and "fissure". Ultimately, she was very strongly urged to have the clitoris removed.

June 9th, 1866. I am, etc., F.R.C.S.

WORKHOUSE INFIRMARIES.—SIR: If eventually the Workhouse Infirmaries of London are improved and conducted upon the principle of the large Metropolitan Hospitals, is it intended that the appointments of medical officer, etc., be honorary or paid, upon the plan adopted by the Guardians at present?

Gratuitous services are always a great let-down to our profession; and, as I have not seen this question fully discussed in your JOURNAL, I shall, for one, be glad to hear your opinion upon the matter. I am, etc.,

JOSEPH C. B. SMALLMAN, M.D., etc.

Willingham-by-Ston, Gainsborough, June 12th, 1866.

F. C.—The article in the *Saturday Review* of the 2nd instant, on Cholera, was by the pen of one of our most distinguished physicians. As a model of what medical writing should be, we recommend it as worthy of all consideration.

POOR-LAW MEDICAL REFORM.—SIR: Permit me again to trespass on your valuable space to inform the Poor-law medical officers that I have to-day received from the Poor-Law Board a reply to my letters of May 17th and June 7th, which is as follows:—

"I am directed to state that your observations on the proposed Bill on Poor-Law Medical Relief, will receive the consideration of the Board. They are, however, unable to appoint a time for the attendance of a deputation on the subject. ENFIELD, *Secretary*."

From the foregoing reply, and from what we read in the journals, I think it more than probable that some general measure for the amendment of the medical relief of the poor is in contemplation by the Poor-Law Board.

I have applied to several Members of Parliament to bring in the Bill proposed by the Association, copies of which were sent to the subscribers in March last; but the general opinion appears to be, that situated as Parliament now is, with the Reform Bill before it, no private member would have a chance of carrying a Bill of the kind this session, unless it have the support of the Poor-Law Board, or be brought in by that body as a Government measure. Under these circumstances, we must wait and carefully watch the movements of the Poor-Law Board in Parliament; and it is just possible we may, whilst united and with money in hand, find ourselves sufficiently powerful to amend any Bill brought in by them, should it not meet our views. This course was eminently successful with the Vaccination Bill; and, although we have not been able to make it all we could wish, still we have been the means of inducing the Select Committee to make improvements in it which will benefit the public vaccinators of England and Wales to the extent of some thousands *per annum*, and amply repay the Association for the labour of the last ten years, even should no other reform be accomplished; but I feel confident other beneficial measures are in store for us. I am, etc.,

RICHARD GRIFFIN.

12, Royal Terrace, Weymouth, June 13th, 1866.

ARMY MEDICAL DEPARTMENT.—SIR: It would appear, from a paragraph in the JOURNAL of the 2nd instant, that you still believe the authorities will carry out the recommendations of the Committee which recently assembled at the Admiralty. I would wish to suggest for your consideration the probability of such a statement attracting candidates for the approaching examination (in August), and the almost certain result which may be expected to follow a good supply of candidates.

It is believed, with much reason, that if a moderate number of assistant-surgeons can be obtained at the forthcoming examination, the recommendations of the Committee—moderate as they are—will be consigned to the "waste-paper basket". "Hopes and promises" have recruited the Army Medical Department sufficiently to keep it alive up to the present time; and so long as it can be maintained in the same manner, however indifferently, it is vain to hope for the realisation of the one, or the fulfilment of the other. As matters at present stand, the service has been damaged by the appointment and result of the Committee, for it attracted a supply of candidates.

It is therefore to be hoped that all who have it in their power to influence *probable* candidates for the service, will advise them to wait for the *official promulgation* of a new warrant, embodying the recommendations of the said Committee, before they commit an act which in after years they will have to lament (when too late) as "suicidal" and ruinous to the prospects of those of their own profession, with whom they will be associated for life.

I have very recently had an opportunity of conversing with a young medical officer on the subject, and found him "well up" in the empty promises which have been so liberally scattered in the medical and military journals, but only gradually becoming acquainted with the disadvantages which have been "ventilated" of late years in the medical journals.

I trust I may be pardoned if I offend, but I certainly fear greatly that the leading men of the profession are inclined to place too much faith in the disposition of the authorities to act honestly by the medical department. We know that benefits conferred in consequence of necessity, have been withdrawn as soon as the necessity has passed away; how, then, can we suppose that the same "powers" will willingly remedy existing grievances so long as they can obtain the necessary numbers without?

I am, etc., OBSERVER.

[The Army Medical Department was well supplied with candidates before the Committee was appointed. The candidates are mainly our Irish brethren; and the supply of them from Ireland is, we believe, on the increase rather than otherwise. We do not agree with our correspondent about the Colleges' resolutions. By giving their assent to the recommendations, they have thereby morally pledged themselves, so far as in them lies, to the carrying out of the recommendations. If the Horse Guards should refuse to accept the Committee's Report, we may be sure that the Colleges will say their mind to the profession. We quite agree that the profession would do well to distrust Horse Guards' promises or possible intentions. EDITOR.]

T. K.—Adam Smith, we believe, was the writer of the words—"The great success of quacks in England has been altogether owing to the real quackery of the regular physicians."

THE NITROGEN TREATMENT OF CHOLERA.—SIR: I give you a brief statement of my treatment of cholera in 1849, and am now thoroughly convinced that a decided principle was established by the universal cure of every case (111 cases) that came under my attention; and, as the disease was very fatal under others' treatment, a fair conclusion is drawn, that some specific was undoubtedly obtained. It should be observed, that the premonitory diarrhœa of cholera was always checked, and decided benefit was felt by the patient within five or twenty-five minutes from the commencement of the medicine. The assumption, that all were cholera in its different stages, arises from such form of fatal disease not having been experienced in the locality of Barnstaple before that period.

My treatment consisted in administering every ten minutes a drachm of the following mixture:—Saturated solution of chloride of ammonia, saturated solution of alum, dill water, and strong infusion of coffee, of each one fluid-ounce; camphor mixture, four fluid-ounces. A teaspoonful of strong infusion of coffee should be taken to allay thirst, and a tablespoonful of beef-tea, made with plenty of common salt and pepper, frequently, when the symptoms have abated. A saucer, containing solution of chloride of lime, common vinegar, and camphor mixture, should be placed in the room. Abstinence from wine, spirits, beer, sago, and gruel, were observed. I am, etc,

Bath, May 29th, 1866. WILLIAM PARKER, M.R.C.S.

TRANSFUSION OF BLOOD.—SIR: In your number of June 9th, page 623, the question of priority as to the suggestion of the transfusion of blood in cattle-plague is alluded to. You will perhaps allow me to quote a passage from my second letter to the Lords of the Privy Council, September 30th, 1865, in which I recommend the establishment of *one* experimental hospital by the Government on a large scale, and in a suitable locality.

"Again, the effect of the injection of certain substances into the veins, and the transfusion of two or three quarts of healthy blood into the veins, should be tried; and, if found of any efficacy, should be employed in the treatment of *valuable animals*."

My letters were sent in manuscript to the Privy Council, and then published in the *Mark Lane Express;* my object being to give them publicity among agriculturists and cattle owners.

At the time I wrote this letter, treatment of all kinds was adopted, as the disease by the generality of English writers was thought to be curable. I think at the present time that no treatment of any kind should be allowed; but if the hospital I suggested had been formed by the Government, the supposed efficacy of the transfusion of blood, and of many other supposed remedies, might have been tested.

I have long been of opinion, as many of my friends are aware, that transfusion of blood should be practised in some human diseases, such as fevers of a low type; and I am waiting for a favourable case to try the experiment.

I am, etc., EDWARDS CRISP, M.D.

42, Beaufort Street, Chelsea, June 12th, 1866.

LIME-INHALATIONS.—SIR: The notice contained in the JOURNAL for May 26th, concerning the application of lime in diphtheritic affections, must not be passed over with silence, for two reasons. 1. It is true, that lime possesses a great dissolving power on diphtheritic membranes. But to learn that, I assure you, you need not go to Ohio; for the fact is well known in this country, as well as on the continent. See, for instance, my book *On Inhalations* (pages 57 and 117), or Lewin's work on the same subject, and you will find that lime has been used for years in the affections mentioned above. 2. Dr. Geiger in Ohio has only *imagined* to have used lime; but, as everyone who is acquainted with the first rudiments of chemistry will easily see, has not done so in reality. "He obtained some unslacked lime, placed it in a vessel, and poured upon it first cold water; and upon inhaling it, could disco no effects. He then poured over another portion hot water, and inhaled the steam arising from it. After inhaling it for a few moments, he could distinctly feel in the air-passages the smarting action of the lime, and determined to try the effect," etc. Now there is no chemist required; every mason's labourer will tell you that there is no difference whether you pour cold or hot water on unslacked lime, either of them very soon assume a very high temperature, whereby the volume of the lime increases, while the water is turned into steam, and escapes as such. It is self-evident that, if you inhale that steam, you inhale nothing but the steam of common water. The only way to inhale chemical bodies which are not volatile—as lime, for instance—is by means of an atomiser.

I am, etc., H. BEIGEL, M.D.

3, Finsbury Square, May 28th, 1866.

COMMUNICATIONS have been received from:—Dr. C. HANDFIELD JONES; Mr. T. M. STONE; Dr. THOMAS SHAPTER; Mr. RICHARD GRIFFIN; Mr. MCKEAND; Mr. C. HOLTHOUSE; THE HONORARY SECRETARY OF THE WESTERN MEDICAL AND SURGICAL SOCIETY OF LONDON; Dr. C. HOLMAN; Dr. H. SIMPSON; Dr. MERRIMAN; Dr. HEYGATE; Dr. SAMELSON; Mr. WM. PARKER; Dr. DANIEL NOBLE; MEDICUS; Mr. F. WHITWELL; MILES; Mr. SOUTHAM; Dr. A. T. H. WATERS; Mr. SEARLE; Mr. T. H. BARTLEET; THE HONORARY SECRETARIES OF THE OBSTETRICAL SOCIETY; Dr. B. FOSTER; Dr. SKINNER; Mr. DOLBY; Dr. BEIGEL; A VOLUNTEER ASSISTANT-SURGEON; HONORARY ASSISTANT-SURGEON; Mr. HUNT; Dr. FOWLER; and Dr. DUDFIELD.

Illustrations

OF

HOSPITAL PRACTICE:

METROPOLITAN AND PROVINCIAL.

MANCHESTER EYE HOSPITAL.

CASE OF EXTRACTION OF SOFT CATARACT IN BOTH EYES BY SUCTION.

Under the care of R. H. Mc KEAND, Esq., Surgeon to the Hospital.

JAMES W., aged 2½ years, residing in Walpole Street, Blackburn, was admitted a patient into the Manchester Eye Hospital on May 9th, 1866. The parents stated that the child was about twelve months old when they first noticed that he could not see so well, and their attention was in consequence directed to the child's eyes, when they perceived something white in the pupils of both. They positively assert that he could see perfectly well before that period. It may be well to mention here, that the father, at the age of five years, became blind from cataracts in both eyes, shortly after recovering from an attack of small-pox.

On examining the child's eyes, both pupils were found to be occupied by cataracts of a soft milky nature, and I concluded the case to be a very proper one for the use of the suction-curette; therefore, on May 16th, the child being placed thoroughly under the influence of chloroform, an incision was made into the cornea of the left eye with a broad needle-knife opposite the outer margin of the dilated pupil; the knife being withdrawn, the ordinary hook for rupturing the capsule was introduced, and the capsule torn round its circle, and from side to side. Upon the instrument being removed, the suction-curette was introduced, and the whole of the opaque lens was removed without the slightest difficulty.

The right eye was then at once dealt with in a similar manner, except that instead of the broad needle-knife, the incision through the cornea was made by means of a small iridectomy-knife, which upon the whole appeared to answer better, the incision being made with less pressure. The same proceedings were adopted as in the opposite eye, leaving perfectly clear pupils; the eyelids were then closed with tissue-plaister and bandage. Next morning, after removing the dressings, both eyes were found perfectly quiet and free from all irritation; the pupils were quite clear; and the little patient could readily run after balls or oranges hurled along the floor; indeed, the eyes looked so well, and the child seemed so pleased with everything and everybody, that it was permitted to run about the hospital in all directions, exciting quite a sensation amongst the inmates at the almost magical restoration of vision.

On the 23rd, just one week after the operation, the parents came over to take the child home, greatly delighted at so rapid a recovery; since which period, not having heard from them, I may fairly conclude the child progresses favourably.

REMARKS. I have early published the success of this case, it being the first in which I have operated on both eyes at the same time by suction; and, indeed, the first upon which I have tried the suction-curette in case of congenital cataract. It forms altogether the fifth successful one—a sequel to the four others published by me in the JOURNAL of April 28th of the present year.

Original Communications.

HOW SHALL WE TREAT INCIPIENT CHOLERA?

By C. HANDFIELD JONES, M.B., F.R.S., Physician to St. Mary's Hospital, etc.

[*Concluded from page* 491.]

I HAVE devoted the more space to the consideration of variola, because its phenomena have more of the appearance of eliminative actions than those of the other exanthemata, and indeed, in one sense, are actually such. But I think a good deal of reason has been shown for the belief that they are not salutary and desirable efforts of Nature, but essentially morbid processes, and that, instead of encouraging and promoting them, the very reverse is nearer to correct practice, though, of course, no rude repulsion is to be sanctioned. Instead of only thinking about eliminating poison, we have to care *for checking its reproduction, and for invigorating the system to withstand it.* Elimination is best carried on by organs which *retain their healthy status;* and the pulmonary seems to be the great apparatus intended for this end. Important as elimination may be, the care for it is not to deter us from the use of other means, as narcotics, which sustain and restore nervous power, when judiciously used, although they may to some extent check excretion.

In scarlatina, it seems to me a pure hypothesis to regard any of the phenomena in the light of eliminative processes, or as being in the least degree salutary efforts. The eruption is, in all probability, the mere result of paralysis of vasomotor cutaneous nerves, and is imitated to perfection in some cases of burns and surgical injuries.

The angina and the renal inflammation have no claim that I can see to be considered anything else than local derangements of nutrition produced by the toxic agent, and do not afford indications of treatment any more than the pleurisy and pericarditis which occasionally occur. I suppose we are agreed that a case which runs its course with a moderate angina and no nephritis, is of a better kind than one where these local affections are severe. Trousseau affirms that it is the same in scarlatina, as in variola, that the gravity of the disease in each instance is directly proportionate to the intensity of the eruption. The most effective treatment in scarlet fever is one which, while it ensures a healthy state of the *primæ viæ* by an emetic at the outset and repeated aperients, aims especially at sustaining the strength of the system under the depressing influence, and calming irritability of the nervous system. Quinine, carbonate of ammonia, opium, and cold affusion, are remedies whose efficacy has been well proved, but which I can hardly conceive any observation of the "natural efforts of cure" would have suggested to us. The testimony of Trousseau to the good effects of cold affusion in severe cases is very strong, and corroborates to a great extent the statements made by Currie.

In measles, the phenomena generally seem to have the same significance as in scarlatina. One symptom, however, seems to have some claim to be ranked as an eliminative process. I refer to the diarrhœa which sets in on the day of eruption, and is thus described by Trousseau. "Almost always devoid of danger, this phenomena seems, in the simplest cases, to constitute even a favourable crisis, at the moment when the exanthem shows itself on the skin. It

seems at this period, when the morbid leaven has attained its maximum activity, when the desquamation, as Sydenham termed it, is about to set in with all its force, that there are not sufficient emunctories open. Thus, independently of the coryza, of the ocular catarrh, of the bronchial catarrh, the disorder affecting the bowels produces a catarrhal diarrhœa, which appears to be an advantage, especially in children; in adults, this symptom is more rare. I am speaking, let it be well understood, only of diarrhœa on the day of the eruption. It is sometimes very abundant, the patients having ten, or even fifteen, stools in twenty-four hours. But if this diarrhœa have nothing alarming when the other symptoms—the eruption and the fever—proceed in a regular manner, it is very different when the eruption is defective, when the eyes cave in (*se cavent*), when the intestinal flux becomes immoderate and exceeds its habitual duration. You must then not delay to interfere; as otherwise choleriform symptoms may appear in young children. Even if the diarrhœa, lasting more than twenty-four hours, continues to be as violent the second day as it was the first, it is necessary to act, and in this case opium is the heroic remedy; it arrests the intestinal flux by acting on the bowels, while at the same time, by its diaphoretic virtues, it favours the development of the exanthem by its action on the skin." (*Clinique Méd.*, vol. i, p. 145.) He goes on to describe how the diarrhœa, if it persist, may pass into a dysenteroid affection, attended with bloody and mucous stools. The above passage seems to me of much interest; it warrants the idea that at a certain period of a disease, when there is probably an undue amount of intravascular tension, a serous flux may be beneficial, by relieving a state of plethora and thereby lessening local congestions. But the short space of time during which the flux usually continues, the necessity for arresting it if it persists or is attended with dangerous symptoms, and the certainty that the poison continues to affect the system long after it has subsided, disincline me very much to regard it as having much importance in the matter of elimination. The treatment of measles seems, for the most part, to be confined to moderating the morbid actions which the virus sets up, and to conducting the patient quietly and safely through the stages of the disease. We cannot do anything directly to cure; recovery is probably the result of the pulmonary exhalation.

With regard to our common continued fevers, typhus and typhoid, little need be said. The importance of promoting free pulmonary exhalation is admitted by all; but the rest of our treatment aims solely at sustaining the strength, and arresting any morbid process which in any way causes additional hindrance to the play of the vital machinery. Nothing in the way of elimination is recommended by the best authorities. Dr. Buchanan has no hesitation in arresting diarrhœa by opium and astringents in cases of typhus; and Dr. J. Harley acts in the same way in typhoid, except during the early stage, when he thinks a moderate diarrhœa beneficial. Trousseau gives a saline purgative in repeated doses, especially when the diarrhœa is attended with meteorism, *for the purpose of stopping the flux.* If this medication does not succeed, he has recourse to chalk, bismuth, and nitrate of silver. It is evident that elimination is not intended; otherwise the aim would be to sustain, and not to check the flux, until the disease had passed by. In my own practice, a little opium, with or without catechu, added to the habitual nitric acid mixture, has acted well. The unfavourable influence of defective resisting power in typhus patients is strongly affirmed by Dr. Buchanan. Persons who are attacked after having undergone extreme exhaustion and fatigue usually have a high mortality. "Overworked soldiers, doctors, and nurses, for example, get the disease with peculiar severity; and, if the patient try to keep about, going on with his work until he takes to his bed from sheer inability to stand, he materially diminishes his chance of recovery."

In erysipelas, I have been told that some physicians, doubtless convinced of the importance of imitating the natural process of cure, have applied blisters to the inflamed parts. Such a procedure would be fully warranted by the doctrine that the local morbid processes in toxic diseases are salutary by the elimination they effect. The vesications which so often form in erysipelas, according to this view, should by all means be promoted; and nothing should be done to check the beneficial evacuation of morbid fluid from the inflamed surface. I suppose, however, none of us, if we got erysipelas, would wish to be treated thus *secundum theoriam.* The contagiousness of this disease, by the way, was lately well shown in a case under my care. A man had erysipelas of the face and a small scalp-wound. A nurse, who had a scratch on her right hand, dressed this little sore. Shortly after, she was attacked pretty severely by erysipelas of the *same* hand. Here the action of the poison was limited to the infected part.

Syphilis is, I think, justly regarded by Mr. Hutchinson as a zymotic disease—a specific fever analogous to the other exanthemata, but of much slower course. The points which I wish to remark upon in its history, with reference to the present question, are these: 1. That its virus may lie latent in the system for a long period. It is notorious that patients are often treated apparently with complete success, and the poison believed to be eliminated; but, after the lapse of years, the disorder recurs again, showing that it had never quitted the system, and that only its manifestations had been suppressed. 2. That such latency is most likely to persist while the general vigour of the frame is maintained. Any debilitating influence brought to bear upon the subject of a latent taint may permit such taint to become active, says Mr. Hutchinson (*Vide* Reynolds's *System of Medicine*, vol. i, p. 311). The following interesting observation by Mr. J. Marston seems to me to be explicable only by admitting that the resisting power of the frame is impaired by heat and invigorated by cold. He states that the Mediterranean climate is most mischievous in cases of syphilis during the warmer six months of the year. Over and over again, during the hot months, symptoms of constitutional syphilis have refused to yield to any treatment till the winter set in; and as frequently almost they proved so intractable as to require invaliding to Great Britain, where the patients regained their health, often rapidly, without any treatment, or with the aid of the same measures as had failed entirely in the relaxing climate of the Mediterranean (*Med.-Chir. Trans.*, vol. xlvi, p. 83). The plain inference from these two facts is, that elimination cannot be rated highly as a means of cure in syphilis.

In contesting as I have done the eliminative character of the morbid actions which are provoked by zymotic poisons—and the same may be said, I believe, of those excited by all others—I would not be misunderstood. It is fully granted that harm may be done by repelling a morbid action from a part where it comparatively does no harm, to another of much more vital consequence. It is certainly better to have the skin hyperæmiated or pustulated, than the brain or kidney; to have the tonsils inflamed,

rather than the lungs; the joints, rather than the heart; and we are justly cautious in doing anything which might cause such a metastasis. But it seems to me a long step from the above simple fact to regarding every morbid action as prompted by a curative effort of Nature. A paroxysm of ague might surely be thought to terminate by a critical sweat, an effort of Nature to expel the poison. But, in the matter of treatment, no observance of Nature's indications serves us at all; we take no account of them, and are simply guided by experience, at first purely empirical, but subsequently elevated by reflection and comparison till it becomes scientific and rational. This has taught us that, in the case of all malarious disorders, a cure is obtained, or prevention secured, by means which fortify the body, especially its nervous system, and enable it to resist, and be as it were indifferent to, the noxious agency. Continued fevers we cannot cure; but we can certainly render the frame less liable to succumb to the action of their specific causes. It makes a serious difference whether a person is exposed to infection when he is fatigued, exhausted, and dispirited, or when he is in the opposite condition. In both cases, the poison enters the blood—it must do so; but in the one it is resisted, in the other it overcomes the vital resistance. Even *after* the system has received the miasm, and been more or less affected by it, there is reason to think that the ultimate issue may for a time depend on the circumstance, whether the toxic action is promoted by enfeebling, or impeded by invigorating, influences. Dr. Copland records (Art. Infection, p. 364) some cases in which persons who exhibited symptoms of the disease, after exposure to the concentrated emanations of typhus, were preserved from a further development of the malady by an active employment of tonic and stimulant remedies. *Contra*, he relates (Art. Disease, p. 571) a striking instance in which, after a number of men had been exposed to a pernicious malaria during one night, but were afterwards removed far away to sea, those only sickened who were subsequently subjected to great fatigue; the others, all but two, remained well.

So far, then, as zymotic diseases go, the conclusions which I came to from a consideration of variola are fully borne out. As to other disorders of toxic character, it does not seem necessary to advert to them particularly. As Dr. Johnson has, however, alluded to rheumatic fever, I will just state that, though I should not check the profuse sweats of the malady by the direct application of cold, I should certainly not encourage them, if I thought them excessive and weakening, as they often are; and more, that I should certainly endeavour to restrain them by the free administration of bark as soon as the primæ viæ were in a tolerably healthy state, and the urine had become fairly free. Most surely, profuse sweating alone will not cure acute rheumatism; at least, there are many cases which it will not. A relative of my own, serving in the army in India, was invalided and sent home on account of rheumatism, probably subacute. He got well on the voyage home. Such an instance reminds one of Mr. Marston's experience in syphilis in the Mediterranean, and shows that free cutaneous elimination is not the most essential thing in rheumatism. Of all acute toxic affections, the most simple and typical is snake-bite; and the great remedy in this, we know, is alcohol. The poison may be eliminated or destroyed in the system, if the patient live long enough. To promote either we have no power; all we can do is to stimulate him freely, "to obviate the tendency to death," which in this case is by asthenia. In a sudoral fever, would any one take the sweating as a beneficial effort of Nature, and attempt to cure by promoting it?

But, to return to cholera, or rather to incipient cholera; for with the fully developed disease I am not attempting to deal. It seems to me that the general results which consideration of other similar diseases supplies fit in very well with our most certain information about this toxic condition. How completely Annesley's observations (p. 218), as to the best preservative means against cholera, accord with those I have cited with regard to malarious and typhus fevers! His words are: "All that I can say under this head may be comprehended under the general injunction of avoiding the predisposing or exciting causes of the disease. Whatever tends, directly or indirectly, to debilitate or fatigue the system; whatever lowers its vital energy, as excesses of every description, disposes to the operation of the efficient cause of the malady. On the other hand, I am fully persuaded that whatever tends to preserve this energy serves to render the system impregnable to its operations." The whole passage well deserves perusal. In Dr. Acland's memoir, it is stated that many lives were saved by the distribution of food. The evil influence of long marches has often been noticed in India.

If we have seen, in other diseases, that treatment having elimination for its object was undesirable, so far, at any rate, as it was to be carried into effect by any organs which were the seat of pathological processes, I cannot but think that there is very forcible evidence that the same applies to incipient cholera. Can we neglect the very prevalent persuasion that, in cholera periods, any unusual relaxation of the bowels was a sign of approaching danger; or look upon the numerous instances recorded of cholera being to all appearance induced by the operation of a saline aperient as merely *post hoc propter hoc* occurrences? I certainly cannot. Sir R. Martin says (p. 560): "The number of instances which I observed in Calcutta of Epsom or Seidlitz salts leading to profuse serous diarrhœa and subsequent fatal cholera is a circumstance worthy of notice." Dr. Goodeve writes: "It has been argued, that the vomiting and purging are salutary, and that they eliminate the poison. It is very questionable whether fluxes produced by organic poisons are necessarily eliminative of the actual poison that was introduced into the system, or of its products. Whether the exudations in cholera be eliminative or not, there can be but little doubt that they are very destructive methods of cure. If this purging were beneficial, we should expect to see that cases of cholera with preliminary diarrhœa would be slight; whereas we often see that a man has diarrhœa for a week or more quite as copious as could be produced by a few doses of castor-oil, and yet these very cases often pass into profuse purging, collapse, and death. Most men who have had much experience in cholera will say that, when they succeed in checking the discharges before collapse comes on, their patients are saved. They justly fear the result of active purgative medicines in seasons of cholera. It is hardly possible that experience can have gone quite wrong in these matters." Such is the evidence of high authorities in India; and at home the testimony is quite as strong. Dr. Acland, writing at Oxford, says: "No medical man here, I believe, doubts the great danger of neglecting diarrhœa, the facility with which it is checked in far the majority of cases, ... and its exceeding tenacity when it has continued some hours or days." The Report of the College of Physicians expresses the opinion that "the popular theory, that the discharges are an effort of Nature to throw off a *materies morbi*, is not only unsupported by any known

facts of the disease, but, when applied to practice, is found to increase the violence of the symptoms." (P. 165.)

If Sydenham and many physicians since his time have thought it desirable to diminish as much as possible the variolous eruption, and at the present day we check or arrest the diarrhœa of continued fever, cauterise or apply astringents to the inflamed throat of scarlatina, and renounce all evacuation in erysipelas, I do not think we are, on *à priori* grounds, withheld from arresting choleraic diarrhœa. Experience must, I think, pronounce whether it be wise to do so or not. It is stated, on the one hand, that the arrest of the evacuations by opium and astringents has been followed by the worst consequences; and, as we have just seen, the opposite procedure has appeared to many to have the same result. When collapse is fully established, one would think the arrest of intestinal excretion might be more injurious than in other cases of similar disease, for the reason that the pulmonary exhalation is so much diminished. This, however, does not hold in choleraic diarrhœa, where no interruption of the aëration of the blood exists. To me it really seems that there is at least very strong grounds for scepticism whether the arrest of choleraic diarrhœa by opium and astringents is so pernicious as Dr. Johnson represents it, or whether it is not in many cases a very great advantage. I have questioned a good many practitioners, physicians and others of large experience, relative to this matter, and I find a very general consent to the view that the diarrhœa should be checked promptly, though opinions differ to some extent as to the most efficacious means. Dr. Acland found the same; and I hold it to be a matter of considerable importance to be aware that very different remedies may prove efficacious in cases which outwardly have a great resemblance to each other. I can by no means agree with Dr. Johnson that thirty grains of sesquicarbonate of soda in strong mint-tea every half-hour, with bland nutriment, is a treatment which can have no "direct remedial effect"; and that, while Mr. Wakefield imagined he was arresting the disease with magical rapidity (three doses being usually sufficient), the truth really was, that the eliminating process had come to an end spontaneously. Such happy coincidences, if frequent, are at least highly suggestive. I have long regarded alkalies as "tissue-sedatives", and believed that they might aid materially to tranquillise the inflammatory nisus in a part; and that to this probably was owing their virtue in acute rheumatism. Now, though we have not a clear idea of the pathological condition of the intestinal mucous membrane during life, we cannot hesitate to regard it as in a state of extreme catarrhal irritation, not altogether dissimilar to that of severe coryza. In such conditions, it is quite certain that the normal condition of the capillary walls must be considerably modified; the amount of fluid which they allow to escape is vastly increased. An experiment of Matteucci shows that solution of carbonate of soda has a large power of *im*bibition; and it is thus at least conceivable that it may, in certain states, be capable of arresting the outward gush of the fluids traversing the intestinal walls. It will of course be objected, that, if we allow this property to alkalies, we must refuse it to acids, respecting whose astringency there is much more direct evidence. I am, happily or unhappily, credulous enough to believe that both agents may act similarly in different cases; and I find myself supported in this belief by no mean authorities. Trousseau says, in his lecture on *Dyspepsia*: "This equal success of alkalies in some instances, of acids in others, seems to imply a contradiction . . . . which is, however, only apparent. The important point to be aware of is that which is taught by the observation of facts; viz., that these alkaline or acid remedies act in a more general manner, not only on the whole of the intestinal apparatus, but also, and yet more, on the entire economy. So true is this, that the choice of such or such an alkali, of such or such an acid, is not a matter of indifference." (Vol. iii, p. 53.) Another eminent authority, Sir R. Martin, says, in his chapter on Chronic Diarrhœa: "In this, as in other morbid affections where acidity and rancidity of the stomach and bowels are so liable to exist together, it is remarkable how often we find the mineral acids fulfil all the indications ordinarily accomplished by alkalies. So much is this the case, that nothing but observation and experience can enable us to decide on the remedy most suitable to each case." Dr. Acland, speaking of choleraic diarrhœa, says: "No astringent was uniformly successful. In some cases, sulphuric acid was employed with the most marked success; in others, it utterly failed. It did so in the case of one of my own colleagues, where the choleraic diarrhœa came on to an alarming extent. The disease was arrested, and his life was saved, by the sulphate of copper with opium." Writing of the diarrhœa of variola, Mr. Marson says: "The sulphuric acid often answers the purpose of stopping the diarrhœa when the chalk mixture has failed; but the chalk mixture so generally affords relief, that we always try it first." My own belief is that, in proportion as the morbid condition of the intestine approaches nearer to that of inflammatory irritation, alkalies, chalk, and bismuth are likely to be beneficial; whereas, when the flux is more purely passive, acids find their opportunity. I have little doubt that in cholera, as in other diseases, harm has often been done by treating all cases outwardly similar in precisely the same way. As to the fact that, in numerous instances, the prevention and arrest of diarrhœa have been the saving of life, it seems to me that, according to existing evidence, there cannct be two opinions. I will merely refer at present to Mr. D. Davies' experience, as stated by him in the *Medical Times and Gazette*, May 5th, 1866; and to Dr. Goodeve's article in Reynolds's *System of Medicine*. Surely we may well doubt, with the latter, that experience has hitherto gone quite wrong.

Dr. Johnson seems to think that the influence which I believe castor-oil to exert in allaying intestinal irritation is mythical. He seems scarcely aware how generally accepted the doctrine of substitutive medication is, at least among French physicians; and that there are various results produced by purgatives, which cannot be explained merely by their eliminant operation. I am tolerably certain that castor-oil does in some cases remove existing catarrhal irritation by an action which can only be described as alterative. Its soothing effect on the conjunctiva must not be forgotten, nor that it has been used with collodion as an application to burns.

One more remark before I conclude. Is it not possible, accepting Dr. Johnson's theory that the collapse is essentially dependent on spasm of the coats of the small pulmonic arteries, that subcutaneous injection of opium may be beneficial? May it not aid in relaxing the spasm? I confess I should prefer atropia for this purpose; but, as opium and ether are certainly highly beneficial sometimes in the asthmatic paroxysm, and as enemata of opium are freely used by surgeons in spasmodic stricture of the urethra, the practice does not seem to me irrational. Perhaps the good effect of opium and diffusible stimulants, when given early, may depend on their rendering the pulmonary nerves less susceptible of the poisonous influence, and therefore

less likely to be irritated into the production of spasm. John Hunter said that opium did good by preventing disease from doing harm. Dr. Watson mentions a case of asthma in which morphia with ether would stop a commencing paroxysm, but had little influence over one that was fully formed. I submit that, taking Dr. Johnson's view of the production of collapse, the most rational practice would be to adopt measures to remove the spasm. Chloroform inhalation and subcutaneous injections seem likely to be much more effectual than any remedy addressed to the morbidly affected surfaces. I am, of course, aware that chloroform has failed in many cases; but does it or any remedy avail always in asthma? Are we not constantly finding that the idiosyncrasies of the nervous system are endless?

I hope, in what I have written, I have not forgotten the intention with which I set out; and that Dr. Johnson will believe that I do not wish to be an opponent, but rather a co-labourer with him in inquiring after truth.

Reviews and Notices.

HANDBOOK OF NATURAL PHILOSOPHY. By DIONYSIUS LARDNER, D.C.L. ELECTRICITY, MAGNETISM, AND ACOUSTICS. Seventh Thousand. Revised and edited by GEORGE CAREY FOSTER, B.A., F.C.S., Professor of Experimental Physics in University College, London. With four hundred Illustrations. Pp. 442. London: 1866.

A KNOWLEDGE of Natural Philosophy is of high importance to members of the medical profession; and no text-book more fitted for their instruction has been published than the late Dr. LARDNER'S excellent *Handbook*. The preparation of a new edition of the part relating to Electricity, Magnetism, and Acoustics has been entrusted to Mr. FOSTER, who has done his work conscientiously and well. Preserving as far as possible the language and arrangement of the author, he has made such changes in the book as bring it up to the knowledge of the day; the principal additions being in the parts relating to Electricity and Magnetism. In cases where entire paragraphs have been inserted, the new matter is distinguished by being included within brackets.

We heartily recommend the book in its present amended form to our readers, as one which contains correct and sufficient information on the subjects treated in it.

A MANUAL OF MEDICAL JURISPRUDENCE. By ALFRED SWAINE TAYLOR, M.D., F.R.S., Fellow of the Royal College of Physicians, and Professor of Medical Jurisprudence and Chemistry in Guy's Hospital. Eighth Edition. Pp. 707. London: 1866.

DR. TAYLOR has reduced his *Manual* in bulk by nearly two hundred pages—an improvement certainly, for it was growing beyond its designation. This reduction he has effected by omitting the details of cases contained in former editions, but which are now consigned to his larger work, of which we gave a notice a short time ago. This excision of matter has enabled him not only to diminish the size of the book, but to make some valuable additions, in the form of two chapters on evidence, and on the duties and responsibilities of medical witnesses, and of remarks on several medico-legal subjects not treated of in previous editions. The author has also added numerous engravings illustrative of the crystalline forms of poisons, etc. As a guide to medico-legal practice, Dr. Taylor's *Manual*, in this its latest form, must meet with even more favour among the profession than that which has hitherto justly fallen to its share.

A PRACTICAL TREATISE ON DISEASES OF THE TESTIS, AND OF THE SPERMATIC CORD AND SCROTUM. By T. B. CURLING, F.R.S., Surgeon to the London Hospital, etc. With numerous Wood-Engravings. Third Edition, revised and enlarged. Pp. 609. London: 1866.

MR. CURLING has introduced into this new edition of a well known standard work such additions and amendments as have resulted from ten years' experience, gained since the issue of the second edition. He has added chapters on Inguinal Hydrocele; Sterility; and Congenital Vascular Tumours of the Scrotum.

In his preface, the author takes occasion to refer to the attention which has in recent years been paid to malformations and diseases of the testis by French pathologists and surgeons, among whom he specially notices M. Gosselin, who in 1857 translated into French, with valuable additions and remarks, the second edition of Mr. Curling's work; and the late M. Godard, to whom pathologists are indebted for some very valuable memoirs on the teratology, etc., of the human seminal apparatus.

No word of praise is necessary. We have only to announce the appearance of the work; and this we do with pleasure.

ON THE SAFE ABOLITION OF PAINS IN LABOUR AND SURGICAL OPERATIONS, BY ANÆSTHESIA WITH MIXED VAPOURS. By ROBERT ELLIS, Surgeon-Accoucheur to the Chelsea, Brompton, and Belgrave Dispensary, etc. Pp. 80. London: 1866.

MR. ELLIS'S object in writing this book is to point out a means of obviating the dangers attending the use of chloroform as an anæsthetic. He has arranged his remarks in four chapters: 1. On some Defects of Existing Anæsthetic Processes; 2. On the Vaporisation of Anæsthetic Fluids; 3. On the Physiological Influence of the Anæsthetic Vapours; 4. On the Fluids and Apparatus employed for the Mixed Vapours.

In the first chapter, the author argues that chloroform, being a potent agent and acting in small doses, and having moreover a brief stimulant action while its depressing effect is prolonged, should not be the first agent used for producing anæsthesia.

"What it seems to me we require, is to commence the anæsthetic operation with some of those substances which will give a gentle stimulus to the patient, sustaining the heart-power, tranquilising the emotional condition, and thus gradually introducing the stage of first partial, and then complete, insensibility."

How Mr. Ellis proposes to carry out this object, we shall presently see.

He goes on to point out that a large number of the

fatal accidents from chloroform have arisen where it has been administered in a concentrated or very imperfectly diluted form; and observes that there is no safe method of giving the anæsthetic except that which was devised by the late Dr. Snow, and which has been carried out in practice by Mr. Clover.

A mixture of vapours, the author says, has been demonstrated by the Chloroform Committee of the Royal Medical and Chirurgical Society, to be the best method of producing anæsthesia. But, he observes, the mixtures recommended by the Committee have not come into general use; and this he attributes to two causes—the longer time required to produce insensibility; and the unequal evaporation of the various ingredients.

The second chapter contains a summary of the experiments of the Chloroform Committee and of the author on the Vaporisation of Anæsthetic Fluids; viz., alcohol, chloroform, and ether. From these, Mr. Ellis draws the following conclusions.

"1. The ingredients of the anæsthetic mixtures evaporate, in a great degree, independently of each other, and in extremely differing quantities.

"2. Though alcohol exerts, *in vacuo*, a powerful influence in restraining and equalising their evaporation, this influence is in great measure annulled on evaporation into free air, as into an inhaler.

"3. The only method of obtaining a true anæsthetic mixture of fluids is by consideration of the respective volatility of its ingredients, and so adjusting their proportions as to provide that all should evaporate simultaneously.

"4. But, as this can only be done by a very great reduction of the quantities employed, both of alcohol and chloroform, then the object of the mixture is entirely frustrated, and it is reduced in its properties to one similar to ether only—the most volatile of the ingredients always taking precedence of the rest.

"5. If impure alcohol and ether are used, these defects of unequal volatisation become still more exaggerated, and the result vitiated by the water left behind after evaporation." (Pp. 26-7.)

In the third chapter, we learn that Mr. Ellis's method consists essentially, not in mixing the fluids before inhalation, but in allowing the vapours to commingle in regulated proportions and thus become inhaled. In this way, he employs alcohol, ether, and chloroform, together, giving at first larger proportions of the stimulants, and towards the end increasing the amount of chloroform. Several cases are related for the purpose of shewing the efficacy of the practice.

Some remarks on the importance of purity in the fluids to be inhaled, and on the mechanism of the apparatus devised by the author, occupy the fourth chapter; but, for the details, we must refer to the work itself.

When the book was published, Mr. Ellis was probably unaware of the method of producing local anæsthesia by ether-spray, which has for its ultimate object the same as that which is proposed in the present work. But, as there are, apparently, still a number of cases in which anæsthesia by inhalation is indispensable, Mr. Ellis does not the less deserve the thanks of the profession for his endeavours to find out a means of diminishing, if not of removing, the dangers attendant on the administration of chloroform. We hope that his method will receive a fair trial in cases where the use of chloroform is indicated.

A Guide to the Practical Study of Diseases of the Eye; with an Outline of their Medical and Operative Treatment. By James Dixon, F.R.C.S., Surgeon to the Royal London Ophthalmic Hospital, Moorfields. Third Edition. Pp. 383. London: 1866.

Mr. Dixon has, he informs us in the preface, not merely revised his former edition, but has re-written a considerable portion of the work, and has rearranged and corrected the remainder. His object has been, as on previous occasions, to produce a book fitted for the use of those commencing the study of diseases of the eye; and in doing so he has allotted the fullest share of description to the appearances presented to the view of the observer, rather than to the symptoms, which vary according to the susceptibility of the patient. The subject of treatment is briefly but practically handled.

There are no coloured engravings; they have been omitted on the ground that, if executed as they ought to be, they would increase the price of the book too much. In their absence, Mr. Dixon specially recommends the study of "the beautiful and correct drawings of Liebreich."

The style of the author is plain and demonstrative; and the book, which contains notices of the latest improvements in ophthalmic surgery, is in its present form well adapted for use as an introductory treatise on the diseases of the eye.

Elements of Qualitative Chemical Analysis. By W. H. Spencer, Fellow of the Cambridge Philosophical Society. Pp. 90. London and Cambridge: 1866.

In this book, the author has throughout the greater part arranged the results in a tabular form. The work will, we have no doubt, be found convenient and useful by many students of chemistry.

On some Varieties and Effects of Cancerous Disease of Bone. Liston Clinical Prize Essay, University College, 1860. By Wm. Hickman, M.B., etc. Pp. 47. London: 1865.

The author, in this essay, refers to and relates cases of spontaneous fracture of bone occurring in persons of cancerous diathesis; and, from his observations on cases which have come under his own notice and those which have been described by others, arrives at the conclusion that there is a form of infiltrated cancer of bone, either primary or secondary, in which the deposit can be discovered only by the aid of the microscope. The infiltrated cancer originates in the medulla of the cancelli and the Haversian canals, which latter break up and coalesce, so as to produce rarefaction and atrophy, and, in the advanced stage, to render the bone brittle, as in fragilitas ossium, and ultimately soft and pliable, as in mollities ossium. The author thinks it probable that many of the cases described as fragilitas or mollities ossium have been really cases of cancer; and that many of the cases of spontaneous fracture attributed to atrophy have really been due to cancerous disease in the bone.

The book also contains the description of a case of Scirrhous Disease of Bone occurring in a Horse; and the history of a case of Primary Encephaloid of

the Periosteum of the Ilium, accompanied with Sciatic Hernia.

This essay, we learn from the title-page, obtained for Mr. HICKMAN the Liston prize medal in 1860—an honour of which it was fully worthy. The absence of the author, and other causes, have prevented its publication until the present time: it is not the less, however, an interesting communication to pathological science.

ON DROPSY, and its connection with Diseases of the Kidneys, Heart, Lungs, and Liver, as well as in some other Diseases of those Organs without Dropsy. Illustrated by numerous Drawings from the Microscope. By W. R. BASHAM, M.D., F.R.C.P., late Croonian Lecturer at the College; Physician to the Westminster Hospital; etc. Third Edition; enlarged, revised, and re-arranged. Pp. 437. London: 1866.

DR. BASHAM has revised and re-arranged the former edition of his work on Dropsy, and has incorporated with it the chief part of his Croonian Lectures delivered before the Royal College of Physicians in 1864. A number of illustrative cases have been added; and the plates have been placed together at the beginning, instead of being scattered through the book.

We have no doubt that the book, scientifically practical as it is, will meet with the same favour at the hands of the profession as has been accorded to its predecessors.

ON HIP-JOINT DISEASE, with Reference especially to Treatment, by Mechanical Means, for the Relief of Contraction and Deformity of the Affected Limb. By WILLIAM CURTIS HUGMAN, F.R.C.S., late Surgeon to the Hospital for Deformities, Great Portland Road, London. Second Edition. Pp. 95. London: 1866.

THE author's aim in writing this book is sufficiently indicated in the title-page which we have copied. It is, to advocate in cases of hip-joint disease a mechanical means of treatment which, he says, has proved effectual in his hands, and consisting in the retention of the patient in the prone position.

TRANSACTIONS OF THE OBSTETRICAL SOCIETY OF LONDON. Vol. VII. For the year 1865. With a List of Officers, Fellows, etc. Pp. 335. London: 1866.

As the reports of the Proceedings of the Obstetrical Society have already appeared in the pages of the BRITISH MEDICAL JOURNAL, it is unnecessary for us to give an analysis of the volume before us. The book contains the papers in full, with the discussions which followed their reading; and is well illustrated, whenever necessary, by numerous plates and woodcuts.

We are glad to see that the Obstetrical Society continues to gain ground, and that the papers contributed retain the scientific and practical value which has characterised those that have appeared in former years.

We are requested to remind members of the Association that the Annual Subscriptions became due on the 1st of January. They can be paid either to the Secretaries of the Branches; or to the General Secretary, T. Watkin Williams, Esq., 13, Newhall Street, Birmingham.

British Medical Journal.

SATURDAY, JUNE 30TH, 1866.

THE COLLEGE OF SURGEONS: PAPER-VOTING.

WE dare say the country Fellows of the College of Surgeons have not forgotten what was last year told them by the College on the voting-by-paper question; and will not, in consequence, fail to improve the approaching occasion by refusing to vote for any man who will not support their claim, or rather their right, to such a vote.

The body of Fellows was established expressly for the purpose of forming a voting constituency; but the Council virtually refuse to allow the country Fellows to exercise their special privilege. For reasons obvious to every medical man, the present system, which requires the presence of each voter in London at the election of Council, practically excludes country Fellows from taking part in the vote.

It must have been a very ingenious gentleman who drew up the answer given by the Council last December to the petition of the British Medical Association. We will venture to say that not one person in a thousand would have pressed the reason alleged by the Council: "Voting by paper would tend seriously to diminish the active and thoughtful interest in the affairs of the College which personal attendance is calculated to promote."

The answer is clever, and is really suggestive of Lincoln's-inn legal ingenuity; but it deceives no one. Both those who gave it and those to whom it was given know perfectly well that it is simply an excuse—a wretchedly bad and a very injudicious excuse. It tells the country Fellows that they are unfit to exercise their privilege; and plainly also tells them that the Council are determined (as long as they can) to keep the election in the hands of the London Fellows. It is impossible to read this answer by any other light. The Council know as well as we do that the sacrifice in time and in money required of country Fellows who attend personally to vote in London virtually bars their voting; and, knowing this, they, by refusing to give the vote by paper, determine that the elections shall remain in the hands of the London Fellows. What grounds have the Council for saying that voting by paper would be

detrimental to the interests of the College? Whose interests is it that the Council have been so studiously caring for these many past years under the present system of voting? Do the Council really think, when they say that a paper-voting would "seriously diminish the thoughtful interest of Fellows in the affairs of the College", that the profession has forgotten the sort of "thoughtful interest in the affairs of the College" which has been invariably and constantly exhibited by the Council under the present system?

The Council's answer is plainly a mere sham—nothing but a pretence for shelving the question, and for getting rid of the troublesome idea of obtaining a new Charter, which would be involved in the giving of a paper-vote to country Fellows. And what is more needed to the College than a new Charter? A new Charter would necessarily involve other very large changes. It would enforce an entire alteration in the present constitution of the College; and it is in this fact that we find an interpretation of the refusal of the Council to grant the voting by paper.

We have been told that by thus arguing we create an antagonism between the town and the country Fellows. But every fair reasoner will see at once that it is not we who create the regrettable antagonism, but the Council. It is the Council who declare that the voting of country Fellows would be "detrimental to the welfare of the College." The Council it is who declare that the country Fellows are unfit to exercise their voting powers. The Council it is who say, Unless you submit to the heavy fine involved in leaving your practice and journeying to London, you shall have no vote; your fitness for voting is proved by your capacity of taking a journey to London. No journey, no vote. We beg, therefore, distinctly to decline the responsibility of being a creator of antagonisms; and as distinctly to affirm that the Council, and the Council alone, are responsible for the antagonism which manifestly does exist between the London and country Fellows in this matter of voting.

THE ELIMINATIVE IN DISEASE.

Dr. Noble asks if there is not "as good reason for regarding the diarrhœa of typhoid fever to be eliminative, as for so regarding that of cholera;" and adds, "Has it ever occurred to pathologists that typhoid fever should be treated by purgatives," on any such hypothesis? The answer is, undoubtedly, Yes. French pathologists have employed laxatives in typhoid fever, with the idea of removing peccant matters from the bowels. "Most French physicians," says Dr. Murchison, "including Andral, Bretonneau, and Louis, have recommended the frequent administration of laxatives." Louis reported this treatment as superior to all others in every form of the malady; and certainly many English physicians at the present moment, if they do not encourage, do not (as a rule) interfere with, the diarrhœa of typhoid fever.

Doubtless, on this very obscure subject of "elimination", we must speak with much reserve; but surely we may say that the pathology of typhoid fever suggests at least the idea that the diarrhœa may be a mode of elimination of a poison from the body. The very fact of the constancy of diarrhœa as a symptom of typhoid fever is a strong *à priori* argument in favour of the idea.

Whether we agree or not with Dr. Budd as to the specificity of the intestinal lesions and of typhoid intestinal excreta, we are surely all unanimous in the practical conclusion, that the excreta are to be treated as contagious matters. We have, at all events, no proof that such excreta may not be elements of contagion. For reasons of this kind, it may be argued legitimately enough, if it be well to destroy and treat as poisonous typhoid excreta, when removed out of the body, can it be well to shut up and retain such excreta within the body? It may be fairly assumed, moreover, that those glands of whose functions we know so little—Peyer's and the solitary glands—are in this case brought into such remarkable action for the purpose of eliminating some poisonous materials from the body. Doubtless, the diarrhœa may be an accident attendant upon and excited by the inordinate action of these glands in typhoid fever; but, if so, still it is thereby that the supposed poisonous glandular secretions are removed out of the body.

We willingly admit that the diarrhœa may be dangerous, in two ways. It may be excessive, and so tend to destroy life by exhaustion. Moreover, if ulceration of the bowels have taken place, hæmorrhage and fatal perforation of the bowel are to be dreaded. Consequently, we have here two reasonable indications for arresting an excessive diarrhœa under certain conditions. There is the danger of death from exhaustion to be provided against; and there is the danger lest the mechanical movements of the bowel may (as in common ulcer of the stomach) cause fatal perforation of the ulcerated patches.

The arresting of the movements of the bowels, therefore, in cases of typhoid fever, where there is excessive action of them, in no way opposes the theory of an eliminative effort. Indeed, we have no proof that arresting the diarrhœa arrests the supposed eliminative action of the disease—*i. e.*, arrests the action of the Peyerian glands. This may still go on, although the diarrhœa which usually accompanies it be arrested. It may be, therefore, justly argued, that if, in the special cases of excessive diarrhœa, we suspend the (supposed) eliminatory action,

we do so, not because we desire to interfere with or arrest that action, but solely because superior reasons compel us. We have to anticipate a fatal exhaustion, hæmorrhage, and perforation of the bowel. There is, let be remembered, no similitude between the fatal issue of cholera and the fatal issue of typhoid fever. We have the clearest evidence to show that it is the arrestment of the pulmonary circulation which destroys life in cholera, not the diarrhœa. But, in typhoid fever, it is equally clear that death may result from the exhaustion of excessive diarrhœa.

From all this, it seems evident that there is nothing in the case of typhoid fever which, by analogy, should lead us to argue (as Dr. Noble would infer) in favour of the arresting of the intestinal excreta in cholera. Rather, it may be said that the analogy leads us to a precisely opposite conclusion.

In conclusion, we would remark that the subject of elimination in disease is one well worthy of serious consideration. We believe we may say that the matter has not been philosophically worked out in accordance with modern pathology. The ideas at present held of it by the profession are assuredly very vague and indistinct.

Professor Seux has published a paper on Cholera in the Marseilles Hospitals during 1865. In the Hôtel-Dieu of that city, there were 239 cholera patients, of whom 105 recovered; 41 died immediately on their arrival; consequently, the actual deaths were 93 out of 198. Premonitory diarrhœa was absent in a large number of cases; it did not appear until after, or simultaneously with, vomiting, and only two or three hours before the algide stage set in. It was absent, in particular, at the beginning of the epidemic, and when it was at its height, "as if the intensity of the disease prevented the secretion—a fact which oppears to justify here, as at Brest, a greater proportional mortality at that period. The epidemic of 1865, as observed here, has, at all events, certainly proved that this so-called infallible sign is often absent." As for treatment, emetics were thought salutary; purgatives dangerous, excepting calomel. As for specific methods, hydrotherapeia gave 11 deaths out of 12 patients; copper, 4 out of 9; Calabar bean, 1 out of 2; alkalies, 16 out of 30. Dr. Caradec relates the cholera epidemic at Brest in 1866 in the Women's Hospital. Of 112 patients, 39 died, or 35 per cent. Of 113 men at the Marine Hospital, 50 died, or 44 per cent. Premonitory diarrhœa was observed in every case; but, says *L'Union Médicale*, the author does not, like Dr. Seux and others, indicate its exact nature and duration. All he says is: "The longer it had lasted, the greater number were the cures; the more recent it was, the greater the mortality." If Dr. Caradec had noted the period of the epidemic when these variations in the diarrhœa were observed, his account might probably have been not different from that of Dr. Seux. He says, indeed, "the first attacks of the epidemic were violent, and often fatal." If, continues *L'Union Médicale*, the duration of the diarrhœa were short in these cases, we have a solution of the usefulness of emetics and purgatives given to evacuate the mortal poison. It was with the object of elimination that M. Caradec employed those remedies. At Brest, as well as at Marseilles, ipecacuanha was much in favour. Antispasmodics and narcotics succeeded well in *cases of moderate intensity* —a limitation, says *L'Union*, which suggests the idea rather of the natural course of the disease and spontaneous cure, than of the merits of the remedy. Dr. Seux says that the lesions of cholera are to be found in the intestines; M. Perier, in his Report on Cholera (1865), that they exist in the brain!

The *Army and Navy Gazette* states that it is understood the Horse Guards will allow promotion to go on in the Guards as heretofore so far as the present medical officers are concerned; but that all future medical officers will be subjected to the terms of the Warrant of 1860, which has just been disinterred by Sir R. Anstruther's motion in Parliament.

Mr. Spencer Smith has withdrawn his name as a candidate for the Council of the College of Surgeons at the present election. He has done so for the purpose of avoiding any chance of division in the liberal party; and doubtless for the purpose also of ensuring the election of Mr. Charles Hawkins. Of course, Mr. Spencer Smith will present himself for election on the next occasion.

The presentation of the testimonial to Mr. Griffin will take place on July 5th, at 3 p.m., at the Freemasons' Tavern. Medical students are invited to attend the meeting.

The cholera is on the decline at Amiens. It broke out there on the 15th, and has destroyed 215 persons. The disease has appeared at Hesdin (Pas de Calais), at Dunkirk, and in other communes of this district. It is declining at Nantes, where 137 have died of it. It has broken out at Ciolati (mouth of the Rhone).

In a "railway case" which occurred a few days ago, the Lord Chief Justice strongly denounced attempts at compromise when a man was on a sick bed, the victim of an irreparable and incurable disease, and more especially so when a medical man abused the opportunity afforded him in endeavouring to make terms with a patient in favour of the company. He hoped for the future such a course would be discontinued.

It seems to us impossible that the Horse Guards, however good their will to do so, can reject the recommendations of the Admiralty Committee. It is certain that those recommendations are fully accepted by the Admiralty and by the Secretary of War. The heads of the military and naval services —the Admiralty, the Horse Guards, and the War Office—represented by Admiral Milne, Lord Paulet, and Captain Galton, after long and careful inquiry, signed, and gave their full sanction to, the Report, which was also unanimously signed by the other members of the Committee, with the exception of Dr. Gibson, who took an objection which has in reality nothing whatever to do with the grand settlement of the questions in dispute. As we have already said, the Colleges of Physicians and Surgeons, in approving of that Report, have, in our opinion, pledged themselves to the profession that they will, so far as they are able, see that its terms are carried out. If any of the governmental authorities concerned should reject those terms, it will then clearly be the duty of the Colleges to speak their mind to the Government and to the profession at large on the subject; and we have no doubt that they will do so. Those who blame the Colleges in this matter, are apt to forget that it is to the action taken by the College of Physicians that they owe this very Report and its recommendations.

We are glad to hear that the Poor-law medical officers of London are about to form an Association for the purpose of mutual support and intercourse. The disclosures of painful doings in poor-house infirmaries, which, thanks to the energy of Mr. Hart, Dr. Anstie, and others, have been so effectually and unsparingly made, will not fail, we fear, to bring down public blame on our own profession. We trust the Association in question will take seriously into consideration the position which, as members of the medical profession, they may hold before the public at large. What will the public say of those medical men who have tacitly borne a part in some of these workhouse proceedings? The public will argue that, if any one engaged in a hospital should know whether or not the sick are properly treated, it should be the medical officer of the hospital; and they will also, and not unreasonably, argue that it is impossible to relieve him who plays so conspicuous a part in the hospital of whatever blame may attach to a systematic maltreatment of the sick. It will be no answer such as will satisfy the public, that medical men say they have done the best they were able to do for the sick under the circumstances of the case; that they have recommended and advised, and even urged, the right and proper thing. The public will reply (and will not the profession at large endorse the answer?), "Your silent acquiescence in these proceedings has been regarded by us as an approval of them. We have never for a moment believed that you would be a party to doings which are a scandal to humanity. Your taking part in the carrying of them out is held by the world to be a guarantee that the sick are not improperly cared for. Surely, also, the public will not accept as an excuse the plea that the work is wretchedly done because the pay for its doing is scandalously wretched, or that boards of guardians force upon their medical officers work which is infinitely beyond their powers to perform. Excuses of this kind may be well enough from pauper nurses and the miserable underlings of the system, but, we are sure, will meet with no hearing from an indignant public. Why did you accept the responsibility of a work which you know you cannot perform in accordance with the dictates of common humanity, and wherein men's lives are at stake?" This kind of reflections will, we fear, naturally present themselves to the consideration of all who have followed out the workhouse infirmaries revelations. An unreasoning and indignant public will have no mercy, and will doubtless involve in its wrath all who hold office under the system, so that the many, on whom no shadow of blame can rest, may be made to suffer for the shortcomings of the few.

The exposures daily made of cruelties practised in pauper infirmaries reflect nothing but discredit on all authorities connected with the carrying out of the system. No persons deserve greater blame than they do who form the Poor-law Board. The *Times* has well brought home the case against them.

"There are official inspectors of these workhouse infirmaries, employed by the Poor-law Board for the express purpose of preventing such malpractices. What have all these inspectors been about? Why is it necessary for Mr. Hart to go with Mr. Farnall in order to open that gentleman's eyes to facts which it was his especial office to discover? It is impossible to suppose that the horrors now brought to light in the Whitechapel Infirmary have been the growth of a week, or a month, or even a year. We cannot but conclude that the metropolitan inspectors have grossly neglected their duty; and these tardy revelations are as great a scandal to the Poor-law Board and its officers as to the subordinate authorities. When Mr. Farnall's duty has been thus taken out of his hands, it is no satisfaction to the public that he should now be holding inquiries and making a great parade of zeal and efficiency. It was his duty, as a metropolitan inspector, to have himself prevented such abuses, instead of leaving us to hear of them from such casual sources as a conscientious nurse or a pauper of more than usual spirit."

The cholera is widely spreading in Germany, says *Wiener Medizinische Wochenschrift*. It is now epidemic in many parts of Pomerania. In Stettin, where it has assumed a threatening character, there have been, since the beginning of June, 144 cases and 70 deaths. The disease has also been conveyed to the north into the neighbourhood of Berlin.

It has also appeared in the Rhenish Provinces, and Holland at Rotterdam. In Milan, several cases are reported.

Dr. Benedikt informs the Vienna Medical Society that the subcutaneous injection of curare has a favourable influence over epileptic diseases. A man, 20 years of age, had had fits of epilepsy since he was 9 years old. During five months he was subjected to curare-injections in hospital. For the last fifteen months, he has had no return of the fits. Four similar cases, equally successful, were related by Dr. Benedikt. The injections were used three times a week under the skin in the neck. The eighth of a grain of commercial curare was used at each injection.

M. Sichel's work, *Iconographie Ophthalmologique*, is, we read, the fruit of thirty years' labour, containing a description and representation of all the diseases of the eye which are capable of being figured, of surgical operations, and of the instruments required in ophthalmic surgery.

Dr. Beer (*Deutsche Klinik*, 1866) relates a case of complete recovery after an ovarian pregnancy, the fœtus having been separated *per anum*. He refers to a similar case in Hildebrandt's *Praxis*.

The Prussian military authorities have had experiments made to learn the best and cheapest mode of curing itch (*Berliner Klinische Wochenschrift*). The result is that liquid storax is recommended. Peruvian balsam gave the best results; but then its use for soldiers is too costly. The storax (one ounce) is mixed with olive oil (four drachms), and is applied twice. The frictions are to be carefully made over every part of the body except the head. The itch-insect is thereby killed in twenty-four hours. Irritation of the skin was never produced by the storax. The effective element in the storax is styrol (C^{16}, H^8). Styrol is miscible with oil.

Dr. Noffe (*All. Medizinische Zeitung*, 1864) describes a case of neuralgia of the back and left side of the mouth, which was cured by electricity. The pain came on after exposure to cold. Ordinary remedies having failed, Dr. Noffe operated by filling the ear with water, placing one conductor in the water, and the other against the mastoid process. In this way, through the chorda tympani, he proposed to act on the lingual nerve. The effect was immediate; and a few sittings effected a complete cure.

"Inter arma silent pulveres et pilulæ," says *Wiener Medizinische Wochenschrift*. "Who cares now for any other powder than that which was discovered by the Franciscan monk Schwarz, for the health and good of humanity? Who cares for other pills than those which, through the mouths of six and twelve pounders, promise to bring so much happiness and so many blessings to the world, to civilisation, and to humanity."

Professor Pitha of Vienna, on the 23rd inst., was ordered immediately to Verona by telegram.

M. Marey has presented to the Academy an apparatus for measuring and tracing out muscular contractions. The instrument is made on the same principle as his sphygmograph. M. Marey suggests that the instruments will be found of service clinically, affording a means of diagnosis in nervous and muscular affections.

M. Poggiale tells the French Academy of Sciences that electricity, in his opinion, has a direct influence in developing the physical and intellectual qualities. In one month, by electric baths, etc., he added three *centimètres* to the height of a youth who was a "positive abortion, intellectually and physically," and raised him from the bottom to the top of his class.

Hassan Effendi Mahmoud, in *L'Union Médicale*, gives an account of the Egyptian School of Medicine. It appears that in Egypt it requires six years to make doctors. In England, we turn them out in four years. Perhaps it may be interesting to the Medical Council to know how the studies of the youth are arranged there. The programme of the first and second years' studies includes chemistry, physics, and natural history. In the third year are taught anatomy, physiology, surgical operations, and dressing. In the fourth year, surgery and general pathology, hygiene, and materia medica. In the fifth year, medicine and surgery, therapeutics and pharmacy. In the sixth year, operative surgery, medicine, legal medicine, and obstetrics. During the whole six years, the students regularly attend the hospital. At the end of the six years, the student enters the hospital as assistant. No student can pass from one class to another until he has been examined on the subjects of the previous year's study. Do Egyptian medical students imbibe knowledge less rapidly than their European *confrères*, or is the term of four years too short for proper imbibition and digestion of medical knowledge on the part of the British student? We beg to suggest this question for the consideration of the Medical Council.

M. Ricord is justly angry at the abuse made of his name. *L'Union Médicale* gives a letter written by him to a friend in London. "*Mon cher ami:* For a long time there has been sold in London, under my name, a horrible *élixir* (Dr. Ricord's Elixir). How must I proceed to punish the charlatans, and to enter an energetic protest against the infamous abuse made of my name? Pray act for me in any way you think best."

M. Worms states his conviction to the Academy that, under ordinary circumstances, cholerine may be certainly prevented from passing into cholera by means of sulphuric acid, which, he says, he has exclusively used in three successive epidemics.

In a letter to Professor Hebra, Küchenmeister relates two experiments made by him to show the contagiousness of the liquid part of the variolous eruption. He first made a sheep breathe air which had traversed tubes filled with serosity taken from variolous eruption. Nothing resulted. In the second, he took the shirt worn by a variolous patient for twelve hours, and in whom the pustules had become umbilicated, and so placed it that the animal was forced to breathe air which passed through its texture. Nine days afterwards, there appeared an eruption on the inside of the animal's thighs.

Dr. Angelucci of Rome adds his testimony to that of Trousseau and others, in favour of the use of raw meat as the most efficacious of remedies in the cure of chronic diarrhœa.

The University of Prague has been closed during the war.

THE HARVEIAN ORATION.

On Tuesday last, the Harveian Oration was delivered by Dr. Paget at the College of Physicians, before a crowded audience. It is not too much to say that Dr. Paget's pure, elegant, and simple diction, charmed his hearers. No one present, however wedded to the ancient classics he might be, could have regretted that the oration was delivered in our mother tongue. The most perfect Latin composition would never have stirred the feelings and won the attention of a college auditory as this did. The profession will doubtless have the pleasure of reading it in print.

Dr. Paget cited the words of Harvey's deed of endowment—that the orator was "to exhort the members of the College to study and search out the secrets of Nature by way of experiment"; and proceeded to put his exhortation in the form of examples of the ways in which medicine had actually been advanced "by way of experiment". He gave Harvey's discovery of the circulation in illustration of the way in which medicine had been advanced through physiology; Sydenham's work as an illustration of the direct advancement of practical medicine by the independent study of disease, and generalisation from a large experience; and Jenner's discovery of vaccination as an illustration of the advancement of practical medicine by the immediate application to medicine of a single observed fact. Commenting on vaccination, he suggested the possibility of the discovery of other analogous means of protection against other diseases.

Having by his first three examples illustrated the intellectual powers and processes by which medicine has been advanced, he gave one more instance, in illustration of the moral qualities and temper of mind that fit men for such achievements. The last instance was taken from the improvement in the treatment of insanity; and the chief heroes were Pinel and Conolly.

Association Intelligence.

BRITISH MEDICAL ASSOCIATION: ANNUAL MEETING.

The Thirty-fourth Annual Meeting of the British Medical Association will be held at Chester, on Tuesday, Wednesday, Thursday, and Friday, the 7th, 8th, 9th, and 10th days of August next.

President—S. J. Jeaffreson, M.D.Cantab.

President-elect—Edward Waters, M.D.Edin.

The Address in Medicine will be delivered by J. Hughes Bennett, M.D., F.R.S.Edin., Professor of the Institutes of Medicine and Clinical Medicine in the University of Edinburgh.

The Address in Surgery will be delivered by William Bowman, Esq., F.R.S., etc.

The following special subjects will be introduced for discussion:—

Dr. Sibson, F.R.S., and Mr. Holmes: What is the influence of Hospitals on Health and Mortality,

Dr. Stewart: Is the Expectant Method to be relied upon in the Treatment of any form of Acute Disease?

Mr. Alfred Baker (Birmingham): Are there any trustworthy facts as to the Origin of Pyæmia?

Professor Christison, F.R.S. (Edinburgh): Observations on the Register of Deaths in Scotland.

Gentlemen intending to read papers, cases, or any other communications, are requested to give notice of the same to the General Secretary at their earliest convenience.

T. Watkin Williams, *General Secretary.*

13, Newhall Street, Birmingham, June 5th, 1866.

NORTH WALES BRANCH.

The annual meeting of the North Wales Branch will be held at Westbury Mount, Menai Bridge, the residence of R. Thomas, Esq., on Tuesday, July 3rd, at 12 o'clock noon; J. C. Davies, M.D., of Holywell, President, in the chair. Luncheon will be provided by Mr. Thomas. After the meeting, the members and their friends will dine together at the George Hotel, near Bangor, at 3 p.m.

Gentlemen having papers or cases to read, are requested to make an early intimation of the same to the Secretary; and also to state whether they intend to stay for dinner.

D. Kent Jones, *Hon. Secretary.*

Beaumaris, June 5th, 1866.

WEST SOMERSET BRANCH.

The annual meeting of the West Somerset Branch will be held at the George Hotel, Ilminster, on Wednesday, July 11th, at 2.30 p.m.; G. R. Burtt, Esq., will take the chair. Dinner at 5 p.m.

Gentlemen intending to read papers or cases are requested to forward the titles of the same to the Honorary Secretary, without delay.

W. M. Kelly, M.D., *Hon. Sec.*

Taunton, June 11th, 1866.

BRANCH MEETINGS TO BE HELD.

NAME OF BRANCH.	PLACE OF MEETING.	DATE.
North Wales. [Annual.]	George Hotel, near Bangor.	Tuesday, July 3, 12 noon.
West Somerset. [Annual.]	George Hotel, Ilminster.	Wed., July 11, 2.30 P.M.
Metropol. Counties. [Annual.]	Crystal Palace, Sydenham.	Wednesday, July 18, 3.15 P.M.
Bath and Bristol. [Annual.]	Mineral Water Hospital, Bath.	Thurs., July 19th, 4.30 P.M.

METROPOLITAN COUNTIES BRANCH.

The fourteenth annual meeting of the Metropolitan Counties Branch will be held at the Crystal Palace, Sydenham, on Wednesday, July 18th, at 3.15 P.M. *President* for 1865-66, Edward H. Sieveking, M.D.; *President-elect* for 1866-67, Henry Lee, Esq., F.R.C.S.

At 5.30 P.M., the members will dine together; Henry Lee, Esq., in the chair.

A. P. Stewart, M.D.
Alexander Henry, M.D. } *Hon. Secs.*

London, June 4th, 1866.

BATH AND BRISTOL BRANCH.

The annual meeting of the Bath and Bristol Branch will be held at the Mineral Water Hospital, Bath, on Thursday, July 19th, at 4.30 P.M. Dinner at the York House, at 6.30 P.M.

R. S. Fowler, *Hon. Secretary.*

Reports of Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, May 8th, 1866.

James Alderson, M.D., F.R.S., President, in the Chair.

FISSURE OF THE PALATE. BY C. H. MOORE, ESQ.

Mr. Moore introduced a young man, aged 18, who had been born with a completely fissured palate and upper lip, and with the right nostril open throughout into the mouth. The hare-lip was closed by Mr. Moore when the patient was six weeks old, and in his subsequent growth the separated alveolar ridge had come into contact without actually uniting. The fissure at present therefore began at the level of a line drawn across between the lateral incisor teeth; it widened to the breadth of nearly an inch, and ended by a double uvula. With the view of avoiding an operation, Mr. Moore requested Mr. Turner, assistant dental surgeon to the Middlesex Hospital, to attempt to fill up the gap.

Mr. Turner exhibited the obturator which he had constructed. It consisted of a piece of soft or partially cooked India-rubber, adjusted to the free margins of the cleft, and overlapping both their upper and under surfaces; a pendulous portion filled up the space between the halves of the divided uvula, allowing them free action in front of it. The apparatus was fixed to one tooth on either side of the mouth by a metallic bar, which fitted across the palate. Mr. Turner thought this to be the most complete mechanical contrivance yet applied to the correction of deficiencies of the palate, and likely ultimately to supersede the ordinary plastic operation. By its use, the trouble and pain of the operation, with its attendant risks of complications and failures, were avoided; and the natural arch of the palate, which the plastic operation more or less depressed according to the width of the fissure, was preserved. Where, moreover, the paucity of soft tissue round the fissure of the hard palate rendered complete occlusion difficult, if not impossible, the patient might, after all, be compelled to use an artificial palate. (This obturator was the invention of Dr. Kingsley, an American dentist, by whom it was introduced into this country.)

Tuesday, May 22nd, 1866.

James Alderson, M.D., F.R.S., President, in the Chair.

ON CONTINUED INOCULATION AND RECENT VIEWS ON SYPHILIS. BY GEORGE GASKOIN, M.R.C.S.

In noticing the inoculation of syphilis on warm-blooded animals, as first effected by M. Auzias Turenne, in 1844, this paper instanced the jealous opposition which these experiments encountered at the hands of leading syphilographers in Paris. This prejudice was increased to a more active antagonism when, as he pursued his demonstrations, M. Auzias alighted on the discovery of a natural limit to the number of these inoculations. The law of immunity from the assault of a particular virus acquired by repeated inoculation of the same was proclaimed by M. Auzias in a paper addressed to the Academy of Sciences, at Paris, in 1850, and his ideas having by this time become matured by reflection, as well as by experiment, the terms of the address were so ample as to appear ostentatious: a handle was thus afforded to ill-will and to Parisian ridicule, of which those in possession of the field did not fail to take advantage, at his expense. The academical censure, however, which fell on syphilisation in France, was not a premeditated attack, but arose out of circumstances foreign to this question. A young German physician, L., having acquired syphilis experimentally, consulted both M. Auzias and M. Ricord, and these gentlemen conjointly made one or two inoculations on him, which L. repeated afterwards, a few times with great irregularity. When these sores wore temporarily a bad appearance, M. Ricord brought the patient under the eyes of the Academy of Medicine; not very considerately as far as he himself was concerned, for L.'s case was an unmistakable proof of contagion from secondary syphilis. M. Velpeau moved for a report on the case, a report which, maintained in its first view, could hardly have terminated otherwise than in a censure of M. Ricord's fundamental doctrine of the non-contagion of secondary syphilitic affections. M. Ricord, however, whose influence was then extraordinarily great in the Academy, managed to displace the question: the committee of reporters constituted themselves a jury for examining the doctrines of M Auzias, and condemned syphilisation at a time when materials for opinion were not procurable. Messrs. Malgaigne and Depouil were severely handled for upholding the right of free inquiry, and a veto and an anathema were placed on syphilisation by the press, and by the verdict of the Academy. The decision was accepted as law by Europe, except in Piedmont and Norway. In the first-named country, the Cavalier Sperino was already, in spite of much violent opposition, in the path of clinical observation. In none of these countries did the governments lend themselves as instruments of oppression to thought or action; the barrier to progress of ideas arose purely out of professional interests and prejudice. More recently, in France, these questions had undergone revision. M. Auzias held a well-merited scientific position; the late Dr. Melchior Robert obtained permission to practise syphilisation in the

public hospitals of Marseilles, and was gratified by his success; Messrs. Nélaton, Gilbert, and Gosselin had made essays in the same line of treatment; M. Bazin lamented the want of freedom to carry out his intention. Certain of the French societies and publications seemed favourable to the method, but the public were with difficulty reassured. After noticing the apparent benefit of material culture in modifying syphilis in England, as compared to other countries, the labours of Dr. Boeck, in Norway, both as regards leprosy and syphilis, were briefly alluded to.

Reference was made to the French school of syphilography as little favourable to native talent, borrowing first the ideas of Hunter, and now of Carmichael. The doctrine of non-contagion of secondaries, the key-stone of Ricord's teaching, received its *coup de grace* in the year 1859, when the Home Minister, on the instance of M. Auzias-Turenne, demanded a report from the Academy of Medicine; and to this report, M. Ricord, as a member of the committee, acceded on the May 31st of that year, conceding the fact of the contagion of secondary syphilis, and putting an end, it was to be hoped, to a renewal of scandals which had fallen heavily on many innocent individuals. The pretension of the French school to rest diagnosis on the inoculability of the chancre, was declared to be futile. Their "*chancre mixte*," or mixed chancre, was a species brought into being to support that view. A case was adduced of a young man in the Lock Hospital, with hard dry chancre and secondaries. In this patient the chancre was stimulated into secretion by savine ointment. He was inoculated daily from this sore on the arms, with few intermissions, for the space of seventeen days. At the end of that time a positive result was obtained, and the matter of the ensuing inoculation was carried into a series of eight generations. The same matter was brought into use in syphilising other hospital patients, and was returned to him from one of these, at an early period of his syphilisation, when it went through a further series of seventeen inoculations. In due course immunity was obtained. The patient was in robust health, and apparently cured of his disease.

Correspondence.

THE COLLEGE OF SURGEONS.

Sir,—The present is an imminent crisis in the affairs of the College of Surgeons of England. If individual members of the British Medical Association can talk about "being discourteously pushed aside" on such an occasion, or if any movement for the benefit of an institution is to be treated as a purely personal matter, I think it would not be long before the British Medical Association were voluntarily wound up. The coming election at the College will decide whether or no the Fellows will sanction, by re-electing both the members of Council who go out by rotation, the mode in which the Council have carried out, or rather have not carried out, the provisions of the two last Charters? If they re-elect both Mr. Luke and Mr. Hilton, they tell the Council, We are perfectly satisfied with the mode in which you have carried on the affairs of the College; we admit you are right in never electing Examiners outside of the Council; we acknowledge you are quite right in electing the Examiners for life; we approve of you in passing over Sir Benjamin Brodie as President; we, the country Fellows, believe you are acting justly in not procuring a new Charter to allow us to vote by proxy! This is what, in effect, they will say if they re-elect both those gentlemen.

The Council, no doubt, feel that on this election the future management of the College must turn; for they are exerting themselves (it is but justice to say that this does not apply to them all) to bring about the re-election of the above-named gentlemen, and to keep out of the Council any one who would be likely to bring about a change.

It will be the Fellows' own fault if things go on as they have done. The Fellows, or a great majority of them, are of opinion the Examiners should not be necessarily on the Council. The Council think otherwise. Well, the Fellows have the power of carrying out their opinions. They have only, when an Examiner applies for re-election into the Council, not to elect him. Can anybody give any valid reason why Councillors should be elected for life in the College of Surgeons, when it is not the custom to do so in other institutions? The Fellows would wish that they should remain in the Council for a fair length of time; but look at the time the first ten members of the Council have been in office. Mr. Lawrence, 37 years; Mr. Swan, 35; Mr. South, 25; Mr. Luke, 20; Mr. Skey, 18; Mr. Hodgson, 17; Mr. Wormald, 17; Mr. Mackmurdo, 16; Mr. Kiernan, 16; Mr. Partridge, 14. Mr. Lawrence has been an Examiner 26 years; Mr. South, 18; Mr. Hawkins, 17; Mr. Luke, 15; Mr. Skey, 11. Surely the most inordinate appetite ought to have been satiated with such a length of office.

Another real grievance is, that the Examiners do not represent the present teaching in the profession; and pupils and teachers very justly complain that their knowledge is not fairly tested. The Board of Examiners for the Army and Navy are obliged to reject, for gross ignorance, candidates who have been passed by the College. Is this reputable? If not, why should not the mode of election into the Court of Examiners be altered, and younger men introduced? If the Fellows do not seize the opportunity of the coming election for expressing their opinions, the Council will say, "Why should we make any alteration, when the profession are satisfied with the mode in which we have acted?"

This is a matter for the consideration of the Members as well as Fellows. The reputation of the College should be as dear to one body as to the other. If the College of Surgeons fall in the estimation of the public, the reputation of every Member will also be lowered. At the coming election, the question at issue must be settled one way or the other; so I trust every Fellow will record his vote, in order to show how he thinks the College should be managed.

I am etc.,

A Member of the British Medical Association.

[We have long ago been forced to the conclusion, which common sense and justice plainly dictate, that so long as Examiners sit on the Council—in other words, elect and re-elect themselves to the office; so long as Fellows are forced to enter the Council in order to become Examiners; so long as men enter the Council mainly or solely for the purpose of obtaining the desired Examinership; so long as men are forced to look in a certain direction within the Council in order to be sure of obtaining the Examinerships—so long as this anomalous position holds, there can be no real or permanent reform in the Council-management of the College. Editor.]

Visitation of Examinations. Dr. Storrar and Mr. Cæsar Hawkins have been elected visitors to the examinations of the College of Physicians during the ensuing year.

Medical News.

ROYAL COLLEGE OF PHYSICIANS OF LONDON. At a general meeting of the Fellows, held on Monday, June 25th, 1866, the following gentlemen, having undergone the necessary examination, were duly admitted members of the College:—

Charles, Thomas Edmondston, M.D.Edin., 12, Elizabeth Street, Eaton Square
Congreve, Richard, 37, Southampton Row
Cumberbatch, Lawrence Trent, M.D.St. And., 12, Cadogan Place

The following gentlemen were elected fellows of the 25th instant.

Andrew, James, M.D.Oxon.
Buchanan, George, M.D.Lond.
Chadwick, Charles, M.D.Edin.
Falconer, Randle W., M.D.Edin.
Fox, Wilson, M.D.Lond.
Hewitt, W. M. Graily, M.D.Lond.
Latham, Peter Wallwork, M.D.Cantab.
Ogle, William, M.D.Oxon.
Southey, Reginald, M.B.Oxon.
Travis, Nathaniel A., M.D.Edin.

APPOINTMENTS.

SMITH, Eustace, M.B., appointed Physician-Extraordinary to the King of the Belgians.

ARMY.

GRANT, Staff-Surgeon-Major J., retiring on half-pay, to have the honorary rank of Deputy Inspector-General of Hospitals.
KILGOUR, Staff-Assistant-Surgeon P., to be Assistant-Surgeon 78th Foot, *vice* S. S. Skipton, M.D.
SKIPTON, Assistant-Surgeon S. S., M D., 78th Foot, to be Staff-Surgeon, *vice* Staff-Surgeon-Major J. Grant.
STREET, Staff-Assistant-Surgeon J. P., to be Staff-Surgeon, *vice* Staff-Surgeon-Major L. Barron, M.D.
SWETTENHAM, Surgeon-Major W. K., M.D., 5th Foot, to be Staff-Surgeon-Major, *vice* A. M Tippetts.
TIPPETTS, Staff-Surgeon A. M., to be Surgeon 5th Foot, *vice* Surgeon-Major W. K. Swettenham.

VOLUNTEERS, (A.V.=Artillery Volunteers; R.V.=Rifle Volunteers):—

HUSSEY, E. L., Esq., to be Surgeon 1st Administrative Battalion Oxfordshire R.V.
ROSE, H. C., M.D., to be Assistant-Surgeon 3rd Middlesex R.V.
ROY, W., M.D., to be Assistant-Surgeon Perthshire Royal Rifle Militia.
WILKIN, J. F., Esq., to be Hon. Assistant-Surgeon 40th Kent R.V.

BIRTHS.

CHILD. On June 23rd, at Oxford, the wife of Gilbert W. Child, M.D., of a son.
DIPLOCK. On June 22nd, at Oakley Square, the wife of Thomas B. Diplock, M.D., of a daughter.
VALPY. On June 24th, the wife of W. H. Valpy, M.D., of Maddox Street, of a son, stillborn.
WELLS. On June 25th, at 3, Upper Grosvenor Street, the wife of *T. Spencer Wells, Esq., of a son.

MARRIAGES.

BLAKER, Edwd. S., L.R.C.P.Ed., Portland, Dorset, to Julia, daughter of John RENSHAW, Esq., of Dunedin, New Zealand, at Broadwater, Sussex, on June 20.
EDWARDS, Walter, Esq., Surgeon, of Bampton, Devon, to Catherine Elizabeth, daughter of the late James ELLIS, Esq., of Glasgow, at Ottery St. Mary, on June 20.
GORDON, Huntly John, M.D., Surgeon-Major 69th Regiment, to Elizabeth, youngest daughter of the late A. E. GREGORY, Esq., at All Saints' Church, Finchley Road, on June 21.
PARSONS, Charles, M.D., of Dover, to Venetia Digby, youngest daughter of Captain Richard SPRYE, of Kensington, on June 20.
HAIR, James, M.D., of Bures St. Mary, Suffolk, to Katherine, fourth daughter of James DALTON, Esq., of Bures House, Suffolk, on June 20.
HINCHLIFF, George, Esq., of Portsdown Road, Maida Hill, to Mary Alice, eldest daughter of John WHITMORE, M.D., of Wimpole Street, on June 21.
RICHMOND, Sylvester, M.D., of Northallerton, to Agnes Bruce, eldest daughter of the late James MAIR, M.D., of Alderstone, Midcalder, near Edinburgh, on June 20.
SAUNDERS, Charles Edward, M.D., of Cuckfield, Sussex, to Edith, youngest daughter of *T. S. BYASS, M.D., of Cuckfield, on June 19.
WALES, John, Esq., Assistant-Surgeon Royal Artillery, to Helen Jane, only child of the late Charles LEAVISS, Esq., of Willington Northumberland, on June 20.
WEEKES, Henry, Esq., Surgeon, of Old Brompton, Kent, to Harriet youngest daughter of *Henry HOLMAN, Esq., of East Hothley Sussex, on June 21.

DEATHS.

ARGENT, Samuel, Esq., at Hinckley, Leicestershire, aged 72, on June 18.
BLENKINSOP, H., Esq., Surgeon, at Warwick, aged 53, on June 20.
*JACKSON, Henry, Esq., F.R.C.S.Eng., at Sheffield, aged 59, on June 25.
LIZARS, Alexander J., M.D., late Professor of Anatomy in the University of Aberdeen, at Ambleside, on June 12.
NEWMARCH, Henry, M.D., late Surgeon Bengal Army, at York, aged 68, on June 22.
RIDLEY, Thomas L., Esq., Surgeon, of South Shields, at Riding Mill Corbridge, Northumberland, on June 20.
SOPER. On June 22nd, aged 36, Sarah Elizabeth, only child of John Soper, M.D., of Ashburton, Devonshire.
WHITLY, David Jones, M.D., at Briton Ferry, South Wales, aged 41, on June 15.

NEW NORTH STAFFORDSHIRE INFIRMARY. The foundation stone of this institution, to be erected at Harthill near Stoke upon Trent, was laid on Monday last by His Royal Highness the Prince of Wales.

THE LIVERPOOL CHILDREN'S HOSPITAL. The Duke of Edinburgh last week laid the foundation stone of an Infirmary for Children in Myrtle-street, Liverpool, on which His Royal Highness congratulated Dr. Stephens on having been the first person to introduce an infirmary for children in the town.

TESTIMONIAL TO SIR WILLIAM FERGUSSON. The annual festival of the old students at King's College Hospital took place on the 21st inst., Dr. Druitt in the chair. The affair was rendered more interesting than on former occasions in consequence of the presentation of a superb testimonial to Sir William Fergusson, in acknowledgment of the high estimation in which he is deservedly held by the former and present pupils of King's College, many of whom attended from distant parts of the provinces.

ROYAL COLLEGE OF PHYSICIANS. The following officers for the ensuing year were elected on the 25th instant:—*Censors*: W. A. Guy, M.B.; H. Davies, M.D.; G. Johnson, M.D.; T. B. Peacock, M.D. *Treasurer*: J. Alderson, M.D. *Registrar*: H. A. Pitman, M.D. *Librarian*: W. Munk, M.D. *Examiners—Anatomy and Physiology*: C. Handfield Jones, M.B.; W. Brinton, M.D.; *Materia Medica, Chemistry, etc.*: A. W. Barclay, M.D.; A. S. Taylor, M.D.; *Principles and Practice of Medicine*: F. J. Farre, M.D.; E. H. Sieveking, M.D.; *Midwifery and the Diseases peculiar to Women*: C. West, M.D.; H. Oldham, M.D; *Principles and Practice of Surgery*: Holmes Coote, Esq., F.R.C.S.; G. D. Pollock, Esq., F.R.C.S. *Curators of the Museum*: J. Alderson, M.D.; G. H. Roe, M.D.; W. Wegg, M.D.; F. Sibson, M.D.

CATTLE-PLAGUE IN IRELAND. We understand that the Dublin Cattle-Plague Committee have requested the Government to procure the assistance of Dr. Andrew Smart of Edinburgh, and of Professors Simonds and Gamgee of London, for the purpose of investigating any other cases of suspected Rinderpest which may arise. The *Irish Times*, in a leader on this subject, remarks: "We trust that Professor Simonds, Professor Gamgee, and Dr. Smart of Edinburgh, or, if not all three, one of them, will be commissioned to examine the cases supposed to have occurred here. All who are interested in the prosperity of Ireland will bow to the decision of the gentlemen we have named. They are men of European reputation, and of the most independent and honourable character. At present there exist very serious doubts whether we have had a case of cattle-plague in Ireland."

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....Metropolitan Free, 2 P.M.—St. Mark's for Fistula and other Diseases of the Rectum, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TUESDAY. .... Guy's, 1½ P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.

WEDNESDAY... St. Mary's, 1 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.

THURSDAY.....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Great Northern, 2 P.M.—London Surgical Home, 2 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.

FRIDAY..... Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

SATURDAY..... St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1·30 P.M.—Charing Cross, 2 P.M.—Lock, Clinical Demonstration and Operations, 1 P.M.—Royal Free, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY. Epidemiological Society, 8 P.M. Dr. J. Burdon Sanderson, "On the Cattle-plague in its relation to Epidemiology."

WEDNESDAY. Obstetrical Society of London. 7 P.M., Council Meeting. 8 P.M., Dr. Routh, "On a New Mode of Treating Epithelial Cancer of the Cervix Uteri and its Cavity"; Dr. Tilt, "On the present Surgical Tendency of Uterine Pathologists, and on Division of the Cervix Uteri"; and other papers.

TO CORRESPONDENTS.

*** *All letters and communications for the* JOURNAL, *to be addressed to the* EDITOR, 37, *Great Queen St., Lincoln's Inn Fields, W.C.*

COMMUNICATIONS.—To prevent a not uncommon misconception, we beg to inform our correspondents that, as a rule, all communications which are not returned to their authors, are retained for publication.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

ERRATUM.—In Dr. Greenhow's letter (June 16th), for "healthy secretions", read "healthy evacuations".

ERRATUM.—In Dr. T. M. Rooke's letter in last week's JOURNAL, the sentence, "but when Dr. Johnson proceeds to argue that *the cause of the copiousness*", etc., should be read "*because the copiousness*", etc.

THE POLLING of last year at the College of Surgeons resulted as follows:—Mr. Quain, 225; Mr. Paget, 205; Mr. Turner, 141; Mr. Hewitt, 118; Mr. Shaw, 58; Mr. Chas. Hawkins, 47; Mr. Erasmus Wilson, 24; and Mr. Ure, 20.

THE BRITISH ASSOCIATION meets this year at Nottingham, under the presidency of Mr. Grove. Dr. James Hooker gives one of the evening addresses.

POOR-LAW MEDICAL REFORM.—SIR: It would be prudery on my part to pretend ignorance of the honour intended to be paid me on July 5th; and therefore permit me space to say I hope the meeting will not be confined to the donors of the testimonial only, but that all Poor-law medical officers, who can spare the time, will attend, in order that I may take that opportunity of personally consulting them as to the steps they desire to pursue in future in regard to Poor-law Medical Reform.

I am, etc., RICHARD GRIFFIN.

12, Royal Terrace, Weymouth, June 25th, 1866.

The meeting will be held at the Freemasons' Tavern, Great Queen Street, on Thursday, July 5th, at 3 P.M. If any Members of Parliament would honour the meeting with their presence, they would be enabled to ascertain the feeling of the profession on the subject of the medical relief of the poor.

A CORRESPONDENT writes:—"Let me ask through your columns the opinion generally prevalent in the profession, as to whether it is etiquette on the part of a surgeon to call on the patients of a retiring surgeon who has disposed of his practice."

VOLUNTEER UNIFORMS.—SIR: Volunteer Surgeon has given a very apt description of volunteer medical officers' uniforms; but he will find it is six years, and not five, before an assistant-surgeon claims the relative rank of captain. I think, too, he will also learn that assistant-surgeons of corps, or honorary assistant-surgeons of separate companies forming part of a battalion only, wear the cocked hat at drills, etc., of their individual corps or companies. On regimental parades, etc., it is worn by those officers who belong to the regimimental staff, and who alone are expected to fall in on the right of the line. I am, etc.,

June 1866. MILES.

VOLUNTEER UNIFORMS.—SIR: Your correspondent, Volunteer Surgeon, states in his letter of May 29th, that the appointments of volunteer surgeons ought to be similar to those used in the regular service, including the cocked hat. At a meeting of the officers of the battalion to which I am attached, the question of the uniform of the medical officers was fully discussed; and it was decided that, as we were a *rifle* battalion, we ought to adopt the rules of the regular Rifles; and that, consequently, a shako, the same as worn by the other officers, and not a cocked hat, should be worn. I am, etc.,

June 19th, 1866. HONORARY ASSISTANT-SURGEON.

VOLUNTEER UNIFORMS.—SIR: Is your correspondent, "A Volunteer Surgeon", right in stating that assistant-surgeons do not wear *spurs*? I see in the "Army Dress Regulations" (p. 102), that they come under the head of "mounted officers of infantry"; and surely, if mounted, they wear spurs. I can also find no authority for a *green* plume. The same guide says, that regimental staff-officers, both of infantry and rifle regiments, wear a *black* one.

I am, etc., A VOLUNTEER ASSISTANT-SURGEON.

June 18th, 1866.

CHRONIC EMPYEMA WITH FISTULOUS OPENINGS.—SIR: Permit me to direct Mr. Berkeley Hill's attention to a case of the above disease, reported in the BRITISH MEDICAL JOURNAL of June 27th, 1863, in which the means used by him, with the addition of injections of chloride of lime and nitrate of silver, were employed with perfect success. The patient was examined a short time ago by two medical men, who declared that one side of the chest was now as healthy as the other.

I am, etc., FRANCIS WHITWELL.

Shrewsbury, June 18th, 1866.

THE CURATIVE EFFORTS OF NATURE.—SIR: The writer of a leading article in the *Medical Times and Gazette*, says: "As for 'Nature', she is a mere sham. A mere cloak, a cobweb, a phantom. If it suits us, we respect her efforts; if not, we set her at naught; but in either case it is not 'Nature', but our own wisdom and experience (if we have any) that we follow. So much for Nature."

This tirade against Nature and her guidance, forms a curious contrast with the following well known aphorism; "Homo naturæ minister et interpres, tantum facit et intelligit quantum de naturæ ordine re vel mente observaverit, nec amplius scit aut potest."

I am disposed to think that in our estimate of Nature and her curative efforts, we shall find that Bacon is a safer guide than the author of that very remarkable article.

I am, etc., NATURÆ MINISTER.

STATISTICS OF CANCER.—Mr. Moore has the pleasure to acknowledge the return of "Registers for Cases of Cancer", from T. Eyton Jones, Esq., Wrexham; Henry Anderton, L.R.C.P.Ed., Wavertree; J. C. Worthington, Esq., late House-Surgeon, Middlesex Hospital; T. W. Nunn, Esq., F.R.C.S., Stratford Place.

COMMUNICATIONS have been received from:—Dr. THOMAS SKINNER; Mr. R. H. M'KEAND; Mr. G. A. BROWN; Mr. RICHARD GRIFFIN; Mr. BRADBURY; Mr. SEARLE; THE HON. SECRETARY OF THE EPIDEMIOLOGICAL SOCIETY; Mr. W. PARKER; Dr. T. M. GREENHOW; Mr. TRUSTRAM; Dr. J. STEAVENSON; Dr. ROBERT FOWLER; Mr. A. BRACEY; Mr. J. H. BARTLETT; Dr. J. R. WARDELL; Mr. J. J. EVANS; Dr. T. M. ROOKE; and Mr. C. H. MOORE.

BOOKS RECEIVED.

1. Notes on Health in Calcutta and British Emigrant Ships. By W. H. Pearse, M.D. London: 1866.
2. On Diseases of the Respiratory Passages and Lungs. By W. G Barker, M.D. London: 1866.
3. Clinical Surgery in India. By J. Fayrer, M.D. London: 1866.
4. The Anatriptic Art. By Walter Johnson, M.B. London: 1866.
5. On the Use of the Sphygmograph in the Investigation of Disease. By B. W. Foster, M.D. London: 1866.
6. The Convolutions of the Human Cerebrum. By W. Turner, M.B. Edinburgh: 1866.
7. Gleet; its Pathology and Treatment. By Henry Dick, B.A., M.D. Second Edition. London: 1866.
8. On Railway and other Injuries of the Nervous System. By J. E. Erichsen. London: 1866.

INDEX.

A.

Abdomen, disease of in a child, 474
Abortion from lead-poisoning, 346; enlargement of uterus after, *ib.*; criminal, trial for, 669
Abscess, deep-seated, cases of, 94; retropharyngeal in an infant, 148; lacrymal, Von Graefe's treatment of, 382; retroleucomatous, 384; perforating, of heart, 414
Absorption, diminished, during cholera-collapse, Dr. G. Johnson on, 61, 87
Academy of Sciences, prizes of, 285
Accident in chemistry, 318; fatal, to a physician, 321; railway, on Brighton line, 507
Accidents from carriages in London, 58, 354, 448
Acetic acid in cancer, Dr. J. Barclay on, 407
Acland, Dr. H. W., Harveian Oration, *rev.*, 495
Acne, syphilitic, 522
Actions for recovery of fees, Williams *v.* Davies, 110; Ladd *v.* Fennimore, 591; for injury, conflicting evidence in, 392, 479; Dr. Paterson *v. Glasgow Morning Journal*, 402; against Dr. Armstrong, for alleged malapraxis, 498, 530, 533, 534, 537, 582, 584, 615, 637, 669; against surgeons of St. George's Hospital, 668
Acupressure, Dr. Simpson on, 32; Mr. Syme on, 33
Adams, Mr. M. A., modern methods of treating cataract, 39; suction-curettes, 319; foreign bodies in eye, 397; case of anophthalmos, *ib.*
Adamson, Mr. J., belladonna in opium-poisoning, 18
Adipose tissue, change of in amyloid degeneration, 336
Agnew, Dr., removal of membraniform obstructions from pupil, 79
Ague, relation of cholera to, 655
Air, Dr. H. Barker on deodorisation and disinfection of, 10; in mines, pressure and temperature of, 343; separation of oxygen by dialysis, 401
Albert medal, 294
Alcohol as a deodoriser, 7, 8, 9; oxidation of in the body, 153
Alkalies, effect of in oxidation, 387
Allan, Dr. James, death of, 400
Allen, Mr. J., lithotomy, 213
Almonds, essence of, poisoning by, 137
Alteratives, chemical action of, 387
Althaus, Dr. J., pathology and treatment of hysteria, 245
Alum, experiments with as a deodoriser, 3, 7
Alumina, silicate of, as a deodoriser, 5
Amaurosis, essential nature of, 81; double, injection of nitrate of strychnine in, 524
Amblyopia, Von Graefe's treatment of, 411
America, military surgery in, 88; medical staff of army of, 105; deaths in army, 136, 349; war hospitals in, 137; cattle-plague in, 321; Indians in, 350; treatment of insane in, 422; preparations for cholera in, 494; asylums for drunkards in, 507
Ammonia, carbonate of, as a deodoriser, 5; solution of as a deodoriser, 7, 8, 11; volcanic, 27
Ammonium, chloride of, as a deodoriser, 57
Amputation for neuralgia of stump, 81; at Hip-joint, Mr. J. S. Gamgee on case of, *rev.*, 97; of thigh, for arterio-venous cyst in popliteal nerve, 157; at hip-joint, 255; of cervix uteri, 345; intrauterine, 398; by Mr. Carden's method, Mr. Syme on, 442; Mr. Le Gros Clark on, 491; of legs and arms for frost-bite, 673
Amputations in American war, relative mortality of, 104
Amussat's operation, case of, 400
Amyloid degeneration, changes of adipose tissue in, 336
Anæsthesia, local, by ether-spray, Dr. Richardson's method of, 153, 181, 191, 231, 258, 445, 450, 501, 618; surgical operations performed by, 206, 240, 261, 266, 267, 286, 293, 370; discussion on in Surgical Society of Paris, 367; in Cæsarean section, 369; suggestion for application to cancer, 426; combination of caustics and hæmostatics, 450; in veterinary surgery, 625; discussion on, 675
Anæsthesia with Mixed Vapours, Mr. R. Ellis on, *rev.*, 691
Anæsthetic, comparison of ether and chloroform as an, 25, 316; nitrous oxide as an, 81, 633; bichloride of carbon as an, 346
Anatomical Remembrancer, *rev.*, 99; museum, an, 428
Anatomy of Vertebrates, Mr. Owen on, *rev.*, 224, 361
Andrew, Dr. J., diagnosis of endocardial murmurs, 334
Aneurism of innominate artery, 31; femoral, digital compression in, 43; femoral, ligature of common iliac artery for, 81; of abdominal aorta, 95, 335; diffuse femoral, ligature of external iliac for, 149; popliteal, 273; intrathoracic, Dr. J. Russell on, 514
Aneurisms, investigation of by sphygmograph, 331
Angina, Dr. Sieveking on pathology of, 403
Animal substances, Dr. Barker on deodorisation and disinfection of, 3
Animals, Dr. Brown on question of existence of insentient, 519
Anophthalmos, cases of, 397, 412
Aorta, abdominal, aneurism of, 95, 335; thoracic, perforation of by œsophageal cancer, 227
Aphasia, supposed connection of with local lesion of brain, 209; Dr. J. Russell on case of, 567
Apothecaries' Hall, examinations in arts, 33
Aplone bodies, 385
Armsby, Dr. J. H., strangulated congenital inguinal hernia in a female, 633
Armstrong, Dr. J., action against for alleged malapraxis, 498, 530, 637; resolution of West Kent District Meeting, 533; of East Surrey District Meeting, 533; of Bath and Bristol Branch, 559, 584; of Metropolitan Counties Branch, 582, 615; Dr. Bonney on, 534; letters on, 537, 565; on induction of premature labour, 539
Army, Austrian, medical service of, 667, 683
—— British, medical service of, origin of committee on, 49; memorial of British Medical Association on, 51; assault on surgeon-major of, 84; resolution of Irish Medical Association, 156; remarks on report of committee, 229; report on, 233; candidates admitted to, 243; alleged complaints against report on, 259, 312; proceedings in parliament regarding, 322, 507, 684; letter on report of committee on, 324, 686; resolution of College of Physicians on, 340; statistics regarding 369; recipients of Victoria medal in, 367; alleged partiality in appointments to Foot Guards, 393, 402 428, 501, 508; resolution of College of Surgeons on, 421; question of compliance with recommendations of committee on, 530, 582, 696; proceedings in Medical Council regarding, 549, 600; returns regarding candidates in 1865, 600; titles of in Army List, 550, 602: parliamentary vote to hospitals, 294: mortality in, in China, 315, 316, 535; mismanagement in at Hong Kong, 349
—— Prussian, disease in, 652
—— United States, statistics of wounds and operations

in, 88, 104; medical staff of, 105; deaths in, 136, 349; hospitals of, 137; proposed reorganisation of staff of, 261; diarrhœa in, 498
Art in medicine, 264
Arteries, carotid, wound of, 281; carotid, cerebro-spinal meningitis after ligature of, 525; large, therapeutic effects of ligature of, 684
Artery, innominate, aneurism of, successful ligature of arteries in, 31; femoral, aneurism of, 43, 81, 149; common iliac, ligature of, 81; external iliac, ligature of, 149; popliteal, aneurism of, 273; infracostal, 336
Ascarides, treatment of, 537, 593
Ashes, wood and coal, as deodorisers, 6
Assault on a surgeon-major, 84; on a surgeon, 480
Assistants, unqualified, 502
Association, British Medical, memorial on Army and Navy Medical Services, 51; report of meeting of committee of council, 395; financial statement for 1865, *ib.*; notice of annual meeting, 613, 669
——— Bath and Bristol Branch, ordinary meetings, 262, 424, 584; resolutions regarding Dr. Armstrong, 584; amendment of sanitary laws, 584, 585
———Birmingham and Midland Counties Branch, ordinary meetings, 82, 183; annual meeting, 671
———East York and North Lincoln Branch, annual meeting, 614
———Lancashire and Cheshire Branch, annual meeting, 670
———Metropolitan Counties Branch, ordinary meetings, 130, 344, 395, 615; amendments of sanitary laws, 130, 286, 344, 395; president's conversazione, 502; resolutions regarding Dr. Armstrong, 582, 615; discussion on public vaccination, 615
———Northern Branch, special meeting, 183
———South Eastern Branch, East Surrey district medical meetings, 240, 533: West Kent district meetings, 397, 533; resolutions regarding Dr. Armstrong, 533
———South Midland Branch, annual meeting, 642
———West Somerset Branch, intermediate meeting, 370
Association, British, for Advancement of Science, invitation to Exeter, 232; memorial of Physiological Subsection to Medical Council, 545
———County and City of Cork Medical Protective, memorial to Medical Council, 559
———Irish Medical, remarks on Medical Council, 75; resolution on army and navy medical services, 156
———Manchester Medico-Ethical, petition regarding vaccination, 641
———of Metropolitan Poor-law Medical Officers, 685, 696
———National Olympian, 163
Astigmatism, selection of glasses in, 412
Astragalus, compound dislocation of, 80
Asylum, Colney Hatch, entertainment at, 110; Central Ohio, statistics of, 162; new City of London, 189, 213; Clare County, 294; for Idiots, at Earlswood, 375; Northern Counties, for Idiots, 401; Sussex, small-pox in the, 507
Asylums, lunatic, in Italy, 155; for drunkards, in America, 507
Atmospheric pressure in mines, 27, 343
Atrophy, muscular, 633
Atropine, hypodermic injection of, 212, 320
Auricles, Dr. Shapter on function of, 380
Australia for the Consumptive Invalid, Mr. I. B. Brown, jun., on, *rev.*, 227
Axilla, gangrene of in children, 640

B.

Babington, Dr. B. G., death of, 401; biography of, 446
Baker, Mr. B., abortion and menorrhagia from lead-poisoning, 346
Balfour, Dr. G. W., Introduction to the Study of Medicine, *rev.*, 174; art in medicine, 264
Ballard, Dr. T., malignant disease of abdomen in a child 474
Balman, Dr. T., recurrent miliaria after scarlet fever, 36
Baly, Dr., memorial of, 667
Barclay, Dr. A. W., treatment of cholera, 556, 561, 620 reply of Dr. Johnson to, 645
——— Dr. J. (Banff), infanticide, 222; citric, acetic, and carbolic acids in cancer, 407
Barker, the late Dr. T. H., prize essay on deodorisation and disinfection, 1
Barnes's dilator, Mr. Tubbs on use of, 67
Barnes, Dr. R., address to Obstetrical Society, 106; sudden death during labour, 345
Baronets, medical, 49, 50, 85, 129, 134, 668
Barwell, Mr. R., lateral curvature of spine, 82, 216
Basham, Dr. W. R., on Dropsy, *rev.*, 693
Beck, Dr. T. S., enlargement of the uterus after abortion or delivery, 346
Bee, varieties and species of, 26
Beer, Dr., recovery after ovarian pregnancy, 697
Beigel, Dr. H., lime-inhalations, 686
Belcher, Mr. P., the cattle-plague and vaccination, 58
——— Dr. T. W., Neligan on Diseases of the Skin, *rev.*, 413
Belladonna in opium-poisoning, Mr. J. Adamson on, 18
Benedek, General, 625
Benedikt, Dr., hypodermic injection of curare in epilepsy, 697
Bennett, Dr. J. H., remarks on his Restorative Treatment of Pneumonia, 389; restorative treatment of pneumonia, 627
Benzole as a deodoriser, 4, 8, 9
Bequests, 59, 108, 349, 455, 507, 591
Berry, Mr. S., obstructed labour, 53
Bichloride of carbon, anæsthetic properties of, 346
Bickerton, Mr. T., malignant disease of larynx, 263
Biographies of living New York surgeons, 583
Birmingham, proposed sanatorium for, 314
Birth, quadruple, 374
Bladder, urinary calculus in, 212, 213; sound broken in, 316; sacculated, 397
Blennorrhœa of newly born children, Von Graefe's treatment of, 383
Blepharadenitis, Von Graefe's treatment of, 384
Blepharoptosis, Von Graefe's treatment of, 381
Blepharospasmus, neurotomy in, 382
Blisters, treatment of rheumatism by, 369
Blood, Dr. G. Johnson on changes of in cholera, 165, 219; deficient arterialisation of in polysarcia, Dr. J. Russell on, 220; as a medicine, Dr. De Pascale on, 463; transfusion of in cattle plague, 502, 529, 560, 623, 686; transfusion of in cholera, 526, 558; transfusion in poisoning by carbonic oxide, 625; spontaneous effusion of in vitreous humour, Mr. McKeand on, 630
Blood-letting, Dr. G. W. Balfour on controversy regarding, 175; Mr. J. H. James on results of experience in, 197; in cholera, 272, 415; in pneumonia, 390
Blood-stains, detection of by microspectroscope, 320
Blunt, Mr. T. P., deodorisers and disinfectants, 67
Board, Mr. E. C., death from imbibition of chloroform, 541
Bodington, Dr. G., treatment of cholera, 58, 158, 214
Boeck, Dr. W., on syphilisation, 25
Boehr, Dr., case of twins, 344
Bone, nucleus of phosphatic calculus formed by, 212
Mr. W. Hickman on Cancerous Disease of, *rev.*, 692
Bones affected by congenital syphilis, 148; of ear, disconnection of, 674
Bonney, Mr. F., case of Rudman *v.* Armstrong, 534
Botany, Lindley and Moore's Treasury of, *rev.*, 124
Bougie, œsophageal, death from use of, 137
Bouley, M., cattle-plague in Paris, 48, 78; treatment of in various countries, 77
Boussingault, M., functions of leaves, 343
Bowerbank, Dr., treatment of cholera, 470
Bowman and Bloxam's Introduction to Practical Chemistry, *rev.*, 361

Brabazon, Dr. A. B., treatment of cholera, 159
Brady, Mr. H. B., medicated pessaries and suppositories, 508
Brain, tumour of, with intermittent emprosthotonos, 147; connection of aphasia with local lesion of, 209; Dr. Russell on, 567; hæmorrhage in, in a child, 397
Bran-biscuits, 637
Brande, Dr. W. T., death of, 182, 190
Brighton, hospital abuses at, 161, 180
Broadbent, Dr. W. H., prognosis in heart-disease, 595, 659
Bromine as a deodoriser, 8, 9; detection of by spectrum analysis, 343
Bronchopneumonia in an infant, 132
Brondgeest, Dr., influence of chloroform on respiration and circulation, 227
Brown, Dr. F. J., desiderata in medicine, 241; his comments on the recommendations of the Army and Navy Medical Services Committee, 337, 373, 429; question of existence of insentient animals, 519
——— Mr. I. B., and the London Surgical Home, 77, 108; the actual cautery in ovariotomy, 398; Curability of Certain Forms of Insanity, etc., in Females, *rev.*, 438; *Church Times* on his book, 456; letters on his operation, 478, 537, 593; Dr. Brown-Séquard's opinion, 509; proposed testimonial to, 579, 626; letter from, 593
——— Mr. I. B., jun., Australia for the Consumptive Invalid, *rev.*, 227; intrauterine amputation of limbs, 398
——— Dr. J., Mr. Syme and acupressure, 56
Brushfield, Dr., testimonial to, 321
Bryant, Mr. T., Clinical Surgery, *rev.*, 362
Buchanan, Dr. G., testimonial to, 535
Buck, Dr., deep-seated abscesses, 94
Bullet, erratic course of, 149, 309
Burns, Dr. J. J. D., gangrene of the lungs, 521
Burrows, Dr. G., presentation of testimonial to, 129; address to Medical Council, 544
Buxton mineral waters, 345
Byers, Mr., presentation of testimonial to, 189

C.

Cabs, infected, 480
Caddy, Dr. J., fever on board the *Pylades*, 399
Cæsarean section compared with craniotomy in distortion of the brim, 53; in a case of ruptured uterus, 146; local anæsthesia by ether-spray in, 369; case of, 673
Cairo, cholera in, 27
Calculi in a renal cyst, Dr. Philipson on, 309
Calculus, renal, Mr. J. Hinton on, 122; phosphatic, with nucleus of bone, 212; large mulberry, 213; biliary, treatment of, 522
Cancer, Mr. T. W. Cooke on, *rev.*, 73; alleged relation to tubercle, *ib.*; of the eye, 81; Intrathoracic, Dr. Cockle on, *rev.*, 177; of pharynx, 212; epithelial, of œsophagus, with perforation of aorta, 227; encephaloid, of femur, amputation at hip-joint for, 255; of ovaries, 262; of larynx, 263; of pancreas, 264; Mr. C. H. Moore on antecedents of, 406; Dr. J. Barclay on acids in, 407; of Bone, Mr. W. Hickman on, *rev.*, 692
Canney, Dr. G., reduction of chronic inversion of uterus, 650
Carbolic acid as a deodoriser, 4, 6, 8; spurious, 322; in cancer, Dr. J. Barclay on, 407
Carbon, bichloride of, as an anæsthetic, 346
Carbonic oxide, poisoning by, 29; transfusion of blood in poisoning by, 625
Carden, Mr. H. D., his method of amputating, Mr. Syme on, 442; Mr. Le Gros Clark on, 491
Carlyle, Mr. T., installation as Lord Rector of University of Edinburgh, 375
Carnochan, Dr., nitrous oxide as an anæsthetic, 633
Carpenter, Dr. A., house-drainage, 287
Carriages, hospital, 270
Casati, M., ovarian cyst forming crural hernia, 280
Castor-oil, quantity manufactured in United States, 211
Catamenia, how affected in tuberculosis, 66
Cataract, Mr. M. Adams on modern treatment of, 39; simultaneous extraction of lens and capsule in, 44; of old standing, extraction of, 55; wheel-shaped, *ib.*; glasses for, 62; black, Mr. H. Walton on, 91; suction-curettes for, 241, 265, 319; pyramidate, 398; Von Graefe's method of operating on, 409; cysticercus in a, 410; soft, extraction of by suction, Mr. McKeand on, 434, 687
Catheterism of Eustachian tube, syphilis communicated by, 342
Catsup from livers, 285; a French idea of, 362
Cattle-plague, Lancisi's description of, 20; Lanzoni's description, 74; Ramazzini's description of, 527; eruption in, Mr. R. Ceely on, 16, 62; Mr. Squire's photograph of, 153; Mr. Squire on, 183; relations of small-pox, 46; vaccination in, remarks on, 77, 78, 103, 127, 154; rules for, 105; Mr. Belcher on, 58; Mr. Griffin on, 83; Mr. Dayers on, 108; Mr. Gamgee on, 128; Mr. Swete on, 159; Mr. A. B. Steele on, 211; M. Mouley on, 294; homœopathic treatment of, 31, 111, 136, 232; Mr. Worms, treatment of by garlic, 182, 205, 233, 284, 323; proposed transfusion of blood in, 502, 529, 560, 623, 686; prevention of, Mr. Gamgee on, 16; in France, 23; *Saturday Review* on, 85; Dr. Heygate on, 86; Mr. Griffin on, 107; novel method of, 349; transmission of, Mr. Ceely on, 83; decline of, 405, 444; Dr. Farr's views regarding, 207, 637; reports of Commissioners on, 182, 582, 665; discussion on in Bath and Bristol Branch, 262; Mr. Gamgee's work on, 283; Dr. Smart's investigations of pathological anatomy of, 323; Dr. Mackinder on, 452; in Jardin d'Acclimatisation of Paris, 48; in North Wilts, Mr. Jennings on, 56; in Madras, 59; in Holland, 189; in America, 321; in Ireland, 530; among sheep, 295, 322; the National Fast, 316; neglect of precautions, 341
Cautery, actual, in ovariotomy, 398; galvanic, in ranula, 524, 622
Ceely, Mr. R., the cattle-plague an eruptive fever, 16, 62; result of inoculation in cattle-plague, 77; transmission of cattle-plague through sheep, 83; suggestions for vaccination in cattle-plague, 105
Chalybeate spring, new, at Harrogate, 122
Chambers, Dr. T. K., treatment of rheumatic fever, 187; Some Effects of the Climate of Italy, *rev.*, 226; hospital statistics, 297
——— Mr. T., and spiritualism, 260, 400
Change of type in disease, Dr. Russell on, 35; Dr. Draper on, 59; Dr. G. W. Balfour on, 175
Chapels, mortuary, proposed in Liverpool, 28
Charcoal as a deodoriser, 4, 5, 6; in dyspepsia, 362
Charterhouse, election of medical officer of, 321, 348, 590
Cheever, Dr., division of pneumogastric nerve in man, 45
Chemical Analysis, Qualitative, Mr. W. H. Spencer on, *rev.*, 692
Chemistry, accident in, 318; Introduction to Practical, Bowman and Bloxam's, *rev.*, 361; Animal, Dr. Odling's Lectures on, *rev.*, 385
Child, cerebral hæmorrhage in a, 397; disease of abdomen in a, 474
Children, fatty liver in, 148; employed in factories, 189; proposed hospital for at Chelsea, 427. *See* also Infants
China, mortality in army in, *see* Army; health of troops in, 459
Chinese, mortality among at Shanghae, 521
Chlorine as a deodoriser, 7, 10, 11, 13; detection of by spectrum analysis, 343
Chloroform as a deodoriser, 9; compared with ether as an anæsthetic, 25, 316; from methylated spirit, 26; deaths from, 84, 154; mode of administration of, 209; influence of on respiration and circulation, 227; Mr. Board on death from imbibition of, 541; Mr. Ellis on dangers from administration of, 691

Cholera, leading articles on, 100, 363, 470, 471, 526, 556, 610, 634, 694; Dr. G. Johnson on diminished absorption in, 61, 87; on correlation of lungs, liver, and kidneys, as illustrated by collapse, 165; on changes in blood in, 219; on pathology and treatment of, 271, 483: transfusion of blood proposed in, 526, 558; Sir H. Cooper on, 631; Dr. H. Jones on, 655, 687; letters on pathology and treatment of, Dr. Bodington, 58, 158, 214; Dr. J. G. Davey, 159, 214; Dr. A. B. Brabazon, 159; Dr. Johnson, 187, 240, 272, 586, 622, 645; Dr. Duplex, 426; Dr. H. Jones, 476; Dr. A. W. Barclay, 561, 620; Dr. T. Skinner, 587, 646; Mr. R. W. Watkins, 589; Dr. A. Ransome, *ib.*; Mr. A. B. Steele, 621; Dr. Noble, 622, 648, 681; Dr. R. J. Spitta, 647; Dr. T. M. Greenhow, 648: Dr. T. M. Rooke, 678; Dr. J. S. Fletcher, *ib.*; Dr. J. Heygate, 679; Dr. J. Thorburn, 680; Dr. C. R. Drysdale, 681; Mr. W. Parker, 686; in Cairo, description of, 27; Mr. Gason's theory of, 104; Dr. Macpherson on alleged cures for, 216; Dr. Salisbury on prevention of, 267; Mr. Maclean on treatment of, 281; ice-bag treatment of, 296; blood-letting in, 415; letter of Epidemiological Society in, 421; Dr. Bowerbank on treatment of, 470; Mr. H. Leach on quarantine in, 471; order of Privy Council regarding, 509; treatment of in Liverpool, 531; in Paris, 110; rewards for services during epidemic of, 174, 446; congress on, at Constantinople, 207, 295, 349; preparation for in America, 394, 494; in Bengal, 401; in Germany, 402, 683, 696; on board the *England*, 434, 481; proceedings in Parliament regarding, 456, 536, 653; at Bristol, 481; in Holland, 481; in Liverpool, 481, 507, 531, 534, 565; precautions against at Southampton, 509; ship for, on the Thames, 564; at Swansea, 565; in New York, 590; "mixtures" for, 652; in France, 695
Chuckerbutty, Dr., Pathology of Dysentery, *rev.*, 310
Church, Mr. W. J., prescription of nostrums, 267
Circulation, how affected in cholera, *see* Blood and Cholera; effect of chloroform on, 227
Cities, Dr. J. E. Morgan on Deterioration of Race from Rapid Increase of, *rev.*, 496
Citric acid in cancer, Dr. J. Barclay on, 407
Clark, Mr. Le Gros, Mr. Carden's method of amputating, 491
Clavicle, entire dislocation of, 632
Clitoridotomy, Mr. I. B. Brown on, *rev.*, 438; letters on, 478, 537, 593, 654, 685; case of, 637
Clothing, purification of, 15
Club-practice, underselling in, 270
Cobbold, Dr. T. S., discovery of trichina, 302
Cockle, Dr. J., Intrathoracic Cancer, *rev.*, 177
Coffee, preservation of, 167
Cold, effect of on aged persons, 294; Dr. Sieveking on a, 352
Colic, biliary treatment of, 523
Collapse of Cholera. *See* Cholera
College, New York Medical, destruction of by fire, 645
——— Royal Medical Benevolent, letter from Mr. Propert, 108; anniversary festival of, 481
——— Royal, of Physicians of Edinburgh, pass lists, 188, 563
——— Royal, of Physicians of London, pictures lent to National Portrait Exhibition, 136; Harveian oration, 207; pass-lists, 217, 348, 427, 682; Dr. Sieveking's Croonian lectures at, 299, 325, 351, 377, 403, 431, 457, 511; Dr. Watson's address to, 338; Dr. Richardson's lecture on Local Anæsthesia at, 450; Dr. Acland's Harveian Oration at, *rev.*, 495; application of Privy Council to, 667; memorial of Dr. Baly, *ib.*; Dr. Paget's Harveian oration at, 698
——— Royal, of Surgeons of Edinburgh, pass-lists, 188, 563
——— Royal, of Surgeons of England, reasons of rejection of proposal for voting by written papers, 23; income and expenditure of, 52; preliminary examination, 59; Hunterian Oration, *ib.*; pass-lists, 84, 135, 188, 268, 455, 478, 506, 534, 563, 624, 682; results of examination, 85, 136, 428, 563; presentations of museum catalogue to hospitals, 136, 186; lectures on comparative anatomy, 163; number of fellows in, 217; educational tests of, 269; award of Jacksonian prize, 428; resolution regarding army and navy medical officers, 421; complaint regarding soirée of, 482; election of members of Council, 559, 612, 653, 654, 668, 695, 700; prizes of, 625; voting by papers at, 693
College of Science in Ireland, commission on, 372
——— University, prizes at, 563
Colloid substances, Dr. Ransome on physiological relations of, 118
Collyns, Mr. G. N., reduction of dislocated hip by manipulation, 437
Colonial degrees, proposed recognition of, 569, 571, 573, 574, 578, 662
Colotomy for vesico-intestinal fistula, 400
Comte, M. A., Dr. Acland on his views regarding providence and design, 495
Concert in aid of family of a medical man, 479
Congelation, effect of on animal life, 24
Congress on cholera, *see* Cholera; ophthalmological, 287; medical, of France, 393; British Pharmaceutical, 682
Conjunctivitis, Von Graefe's treatment of 383
Conolly, Dr. J., death of, 260; biography of, 288; Dr. Watson on, 339
Consciousness in animals, Dr. F. J. Brown on, 519
Consolini, M., supposed extrauterine pregnancy, 280
Consumption, Dr. J. E. Pollock on Elements of Prognosis in, *rev.*, 71. *See* Phthisis.
Consumptive, Australia for the, Mr. I. B. Brown, jun., on, *rev*, 227
Contagious diseases, bill for prevention of, 294, 322, 480
Convalescent home at Newcastle, 323, 324; proposed, at Edinburgh, 450
Convicts, mortality among at Chatham, 536
Cooke, Mr. T. W., On Cancer, *rev.*, 73
Cookworthy, Dr. J. C., knighthood and long life, 509
Cooper, Sir Henry, cholera and diarrhœa, 631
Copper, sulphate of, as a deodoriser, 5
Cornea, Von Graefe's treatment of affections of, 384; attenuation of, *ib.*; ulcerative disease of, 385
Coroner, a medical, 16, 260, 269; for Central Middlesex, report of the, 448
Coroners and their inquests, Dr. Taylor on, 465; question regarding fees, 626
Corrigan, Dr. D. J., baronetcy conferred on, 109, 129; death of son of, 321; resignation of as physician to Dublin Hospitals, 349; reported candidature of for Parliament, 590
Cough, Winter, Dr. Dobell on, *rev.*, 441; ear, 543
Counsel, medical, Dr. Taylor on, 467
Courts of law, imperfect ventilation of, 315; Dr. Taylor on medical evidence in, 466
Coutagne, Dr., erythematous eruption following vaccination, 334
Cox, Mr. J., labour complicated with rupture of uterus, 92
Craig, Miss Isa, testimonial to, 590
Craniotomy, Cæsarean section compared with, in distortion of brim, 53
Crawford, Dr., cerebral hæmorrhage in a child, 397
Creasote as a deodoriser, 4, 6, 8, 9
Criminal responsibility and insanity, 472
Crisp, Dr. E., transfusion of blood in cattle-plague, 686
Croly, Mr., treatment of scalds of glottis, 632
Crookes, Mr. W., spurious carbolic acid, 322
Cruise, Dr. F. R., local anæsthesia by ether-spray, 240
Crystalline lens, simultaneous extraction of with capsule, 44; traumatic subluxation of, 398
Curare, subcutaneous injection of in epilepsy, 697
Curgenven, Mr. J. B., contagion of cholera, 626; infanticide, 675
Curling, Mr. T. B., Diseases of the Testis, *rev.*, 691

Curvature, lateral, of spine, Mr. R. Barwell on, 82, 216; Dr. Dick on, 160, 264
Cutter, Dr. J. B., ligature of common iliac artery, 81
Cyst, dermoid, of Fallopian tube, 53; arterio-venous, in popliteal nerve, 157; large renal, mistaken for ovarian tumour, 253; ovarian, forming crural hernia, 280; in kidney, containing calculi, Dr. Philipson on, 309; of Fallopian tubes, 560
Cysticercus in a cataract, 410; in vitreous space, 411

D.

D'Andrade, Mr., apparent vicarious menstruation, 416
Danielli, Dr., poisoning by hyoscyamus, 523
Dauglish, Dr., death of, 84
Davey, Dr. J. G., treatment of cholera, 159, 214; clitoridotomy, 593
Davis, Dr. J. Hall, fibroid tumour of uterus with early pregnancy, 106
Dawson, Mr. J., testimonial to, 583
Day, Dr. H., local anæsthesia by ether-spray, 266
Dayers, Mr. C., the cattle-plague and vaccination, 108
Deaf and Dumb, Dr. H. S. Purdon on the, *rev.*, 440
Death, Dr. G. W. Balfour on, 176; apparent, danger of burial during, 292; question regarding registration of, 477, 506
De Chartres, Duchess, accouchement of 59
Decoration, a new, 294
Degeneration, amyloid, changes in adipose tissues in, 336
Delpech and Reynal, MM., on trichinosis, 375
Demarquay, M., therapeutic uses of oxygen, 523
De Méric, Mr. V., syphilisation, 296
Deodorisation and disinfection, Dr. Barker's prize essay on, 1; Mr. T. P. Blunt on, 67
De Pascale, Dr., use of blood as a medicine, 463
De Pontes, M., female doctors, 59
Dermoid cyst of Fallopian tube, 53
Desiderata in medicine, Dr. F. J. Brown on, 241
Deterioration of Race from Rapid Increase of Great Cities, Dr. J. E. Morgan on, *rev.*, 496
Diabetes, citrate of soda in, 523; bran-biscuits in, 637
Dialysis, Dr. A. Ransome on, 118
Diametral pupil, formation of a, 409
Diamond, organic nature of the, 27
Diarrhœa in United States Army, 498; relation of to cholera, Sir H. Cooper on, 631; Dr. Handfield Jones on, 658; raw meat in, 698. *See* Cholera
Dick, Dr. H., lateral curvature of spine, 160, 264; Professor, death of, 402
Dictionary of Science, Literature, and Art, 296
Diday, M., challenge to homœopaths, 78
Diet, Dr. Sieveking on errors in, 511
Digestion, Dr. Ransome on application of dialysis to physiology of, 119; Imperfect, Dr. Leared on, *rev.*, 362
Digitalis in acute mania, 282
Diphtheria, Dr. Stewart on tracheotomy in, 167, 196; treatment of, 336; lime-inhalation in, 543, 686
Disease, Dr. J. E. Pollock on characters of, 71; Dr. G. W. Balfour on, 176; Dr. Kirkman on type of, 269; pyrexial, Dr. J. W. Gibson on thermometer in investigation of, 249, 278; Dr. Foster on sphygmograph in investigation of, 275, 333; Dr. Sieveking's Croonian Lectures on localisation of, 299, 325, 351, 377, 403, 431, 457, 511; Mr. C. H. Moore on localisation of, 406; odours of, 507; elimination in, 694
Disinfectants, Dr. Herbert Barker on, 1; Mr. T. P. Blunt on, 67
Dislocation of humerus with fracture of neck of bone, Mr. R. T. Gore on, 19; of hip, of long standing, 44; compound, of astragalus, 80; of shoulder, dissection of a, 183; of humerus on dorsum of scapula, 416; of hip reduced by manipulation, Mr. G. N. Collyns on, 437; entire, of clavicle, 632
Distichiasis, Von Graefe's treatment of, 381
Dix, Mr. J., Mr. Syme and acupressure, 56
Dixon, Mr. J., Diseases of the Eye, *rev.*, 692
Dobell, Dr. H., nature, cause, and treatment of tuberculosis, 63, 139; on Tuberculosis, *rev.*, 362; Winter Cough, *rev.*, 441
Drainage, Dr. Carpenter on, 287
Draper, Dr., treatment of pneumonia, 59
Dropped arm, 229
Dropsy, Dr. Basham on, *rev.*, 693
Drugs, use of, 385
Druitt, Dr. R., reform of sanitary laws, 113
Drunkards, asylums for in America, 537
Drysdale, Dr. C. R., causes of prostitution, 184; syphilitic iritis, 290; treatment of acute articular rheumatism, 474; local anæsthesia by ether-spray, 618; contagion and treatment of cholera, 681
Dublin, mortality in 1865, 137; sanatorium in, 455
Duff, Dr., aneurism of abdominal aorta, 335
Duncan, Dr. Matthews, mortality of childbirth as affected by age of mother, 146; laws of human fertility, 208
——— Dr. P. M., and Mr. W. Millard, Manual of Feeble-minded and Idiotic, *rev.*, 387
Dunn, Mr. R. W., syphilisation, 435; syphilitic pemphigus, 462
Duplex, Dr. G., treatment of cholera, 421
Durham, Mr. A. E., radical cure of hernia, 674
Dysentery, Dr. Chuckerbutty on Pathology of, *rev.*, 310
Dysmenorrhœa, obstructive, 560
Dyster, Dr., memorial of Dr. Baly, 667

E.

Ear in Health and Disease, Mr. W. Harvey on, *rev.*, 99; Mr. Toynbee on diseases of bones of, 674
Ear-cough, 543
Earth-mould as a deodoriser, 5
Eastlake, Dr., uterine therapeutics, 106
Echinococcus discharged from vagina, 398
Ectropium, Von Graefe's treatment of, 381
Eddowes, Mr. W., leucocythæmia, 333
Edinburgh, museum of science and art, opening of, 565
Edmunds, Dr. J., testimonial to, 34
Egypt, medical education in, 687
Electrical apparatus of torpedo, 26
Electricity, action of on cutaneous pigments, 26; effect of on carbonic acid, 683; neuralgia of mouth cured by, 697; bodily and mental effect of, *ib.*
Elimination in disease, 694
Ellis, Mr. R., Anæsthesia by Mixed Vapours, *rev.*, 691
Embolism, puerperal cardiac, Mr. C. Steele on, 359; of great vessels of heart, 619
Emphysema, relation of to bronchitis, 441
Emprosthotonos, intermittent, with tumour of brain, 143
Empyema, novel method of treating, 95; chronic, treated by drainage, 644
Encephaloid disease of thigh bone, amputation for, 255
Endocardial murmurs, diagnosis of, 334
Endocarditis, specimen of, 183
England, Dr. Russell on sanitary state of in middle ages, 169
Entropium, Von Graefe's treatment of, 381
Enucleation of eyeball, Mr. J. W. Hulke on, 89; Von Graefe's method of, 412
Ephidrosis, Von Graefe's treatment of, 382
Epicanthus, Von Graefe's treatment of, 382
Epidemic Diseases, Dr. Howe on Physical Cause of, *rev.*, 74
Epilepsy, subcutaneous injection in, 55; excision of clitoris in, 138; (*see* also Clitoridotomy); hypodermic injection of curare in, 697
Epithelioma of œsophagus, 227
Ergot, occurrence of in different plants, 518
Erichsen, Mr., amputation for encephaloid disease of thigh bone, 255
Eruption of cattle-plague, Mr. Ceely on, 16, 62; Mr. Squire on, 183 (*see* also Cattle-plague); popular erythematous following vaccination, 334
Erysipelas, traumatic, Dr. Gibson on range of temperature in, 279; in infants, 639, 640

Erythema, rheumatic, 99; following vaccination, 334
Ether-spray, local anæsthesia by, 153, 181, 191, 206, 231, 258, 286, 367, 445, 501; Dr. Richardson on, 181, 231, 450; Dr. Cruise on, 240; Mr. Tubbs on, 261; Dr. H. Day on, 266; Dr. Farquharson on, *ib.*; Dr. J. Way on, 267; Mr. Heckstall Smith on, 293; Mr. Wilders on, *ib.*; in Cæsarean section, 369; in tenotomy, 370; Dr. T. M. Greenhow on, 426; Dr. Drysdale on, 618; in veterinary surgery, 625
Etherisation, M. Pétrequin on, 25, 316
Ethmoidal mucocele, 55, 398
Excision of scapula, 598
Exophthalmic goître, treatment of by Von Graefe, 412
Experts, medical, Dr. A. S. Taylor on, 466
Extrauterine pregnancy, 223, 342
Eye, examination of, 38, 372; cancer of, 81; Mr. Hulke on enucleation of, 89; syphilitic affections of, 149; Von Graefe's treatment of diseases of, Dr. Samelson on, 305, 355, 381, 408; foreign bodies in, 397; injuries of, Von Graefe's treatment of, 412; Mr. Dixon on Diseases of, *rev.*, 692; M. Sichel's Iconography of, 697
Eyelids, Von Graefe's treatment of affections of, 381; spasm of, 382
Eyes, congenital deficiency of, 397, 412

F.

Face, herpes zoster of, 470; syphilitic paralysis of, 523
Factories, children employed in, 189
Falconer, Dr., registration of temperature in disease, 164
Fallopian tube, dermoid cyst of, 53; cystic development of, 560; gestation in, 673
Farnsworth, Mr. P. J., gunshot wound through lungs, 43
Farquharson, Dr. R., local anæsthesia by ether-spray, 266
Farr, Dr., decline of cattle-plague, 207, 637
Fast, the national cattle-plague, 316
Fat, Dr. Dobell on physiological importance of, 65
Fatty liver, Dr. Dobell on relation of to phthisis, 139; in children, 148
Faull, the late Mr., 136
Featherstone, Mr. death of, 269; character of, 297
Fees, medical, tariff of, 104, 216; action for recovery of, *see* Actions.
Female doctors, 59
Females, Mr. I. B. Brown on Curability of Certain Forms of Insanity, etc., in, *rev.*, 438
Femur, amputation for encephaloid disease of, 255
Ferguson, the late Dr., Dr. Watson on, 339
Fergusson, Mr. W., baronetcy conferred on, 85
Ferments, Dr. Ransome on, 120
Ferns, Mr. John Smith on, *rev.*, 634
Fertility, human, laws of, 208
Fever, remittent, on board the *Pylades*, 399
——— typhoid, range of temperature in, 278; case of, of unusual duration, 304; relapsing, *ib.*; coincident with measles, 637; elimination in, 694
——— typhus, in Liverpool, 28, 371; treatment of, 415
——— yellow, vomit of, 136
Fever-patients, crowding of, 23; conveyance of in cabs, 480
Fibro-cystic tumour of uterus mistaken for ovarian disease, 399
Fiedler, Dr., cause of trichinæ, 342
Filter, a new, 318
Fistula, vesico-intestinal, lumbar colotomy for, 400
Fleitmann, M., preparation of oxygen, 26
Fleming, Dr. C., muscular atrophy, 633
Flesh-juice, ingredients of, 26
Fletcher, Dr. J. S., treatment of cholera, 678
Fœtus, Dr. G. K. H. Paterson on causes endangering life of, 144, 354; Mr. Watkins on retention of in abdomen during forty-three years, 223; causes of position of, 280; extrauterine, removed by gastrotomy, 342; syphilitic tumours in lungs of, 525
Fontan, M., syphilitic tumours in lungs of fœtus, 525
Forces, Dr. Odling on correlation of, 386
Foreign body in eye, 397, 408; degrees and diplomas, proposed recognition of, 569, 572, 573, 574, 578, 662
Forgery, charge of against a surgeon, 163
Foster, Dr. B. W., the sphygmograph in the investigation of disease, 275, 330
——— Mr. G. C., Lardner's Handbook of Natural Philosophy, *rev.*, 691
Foucher, M., double strangulation in femoral hernia, 524
Fox, Dr. C., ear-cough, 543
—— Dr. E. L., treatment of typhus, 415
—— Dr. Tilbury, anomalies of variolous eruption, 78; components of tinea, 443
Fracture of neck of humerus, Mr. Gore on, 19; of larynx, 80; ununited and oblique, treatment of, 254; of skull, compound and depressed, Mr. Hutchinson on, 274; of humerus by muscular action, Mr. C. Terry on, 518; spontaneous, from cancer of bone, 692
France, statistics of population in, 18; treatment of lunatics in, 482
Frazer, Staff Surgeon T., pension to, 189
Fürth, Dr., congenital syphilis affecting the bones, 148

G.

Gaillard, Dr. E. S., treatment of oblique and ununited fractures, 254
Gallstones discharged by navel, 54; obstruction of bowels by, 397; treatment of, 522
Galvanic cautery in ranula, 524, 622
Gamgee, Mr. J., on the cattle-plague,, 16, 128, 283
——— Mr. J. S., Successful Case of Amputation at Hip-joint, *rev.*, 97
Gangrene of lung, Dr. J. J. D. Burns on, 521; of soft parts in infants, M. Herz on, 638
Garlic in cattle-plague, 182, 205, 233, 284, 323
Gas, ignition of by lightning, 471; supply of, 564
Gaskoin, Mr. G., syphilisation, 488, 516, 699
Gason, M., theory and treatment of cholera, 104
Gazelles in Jardin d'Acclimatisation, cattle-plague among, 48
Gee, Dr., cancer of pancreas, 264
Geiger, Dr., lime-inhalations in diphtheria, 543
Gemma, Dr., tumour of brain with intermittent emprosthotonos, 147
Germany, cholera in, 402, 698; lunatic asylums in, 637
Gibbon, Dr. S., the vaccination bill, 421; registration of vaccination, 455
Gibson, Dr. F. W., use of thermometer in pyrexial diseases, 249, 278
Gillett, the late Dr. W. E., 261, 370
Glass, liquid, surgical use of, 525
Glasses for cataract, 62
Glaucoma, Von Graefe's treatment of, 411; Mr. McKeand on iridectomy in, 630
Glottis, treatment of scalds of, 632
Goeppert, M., organic nature of diamond, 27
Goître, exophthalmic, Von Graefe's treatment of, 412
Gore, Mr. R. T., injuries of the humerus and shoulder-joint, 19
Gosselin, M. painful talipes valgus, 148
Goujon, M., cerebro-spinal meningitis following ligature of carotid arteries, 525
Graham, Dr. T., his views on dialysis, 118; claims of to a baronetcy, 137
Grant, Dr. J. A., compound dislocation of astragalus, 80
Granular degeneration of voluntary muscles, 292
Greenhalgh, Dr., Cæsarean section and craniotomy in distortions of brim, 53; iodoform in uterine disease, 106; local anæsthesia in Cæsarean section, 369; obstructive dysmenorrhœa, 560
Greenhow, Dr. T. M., local anæsthesia by ether-spray, 426; treatment of cholera, 648
Greenway, Mr. H., suction-curettes, 241, 319

Griffin, Mr. R., cattle-plague, 83, 107; poor-law medical reform, 112, 135, 160, 242, 265, 324, 376, 426, 585, 686; testimonial to, 60, 112, 138, 164, 188, 215, 244, 350, 537, 654, 684; vaccination, 265, 348, 426, 649
Grimsdale, Dr., case of Cæsarean section, 673
Guards, medical appointments to, 402, 501, 508
Guérin, M., painful talipes valgus, 149
Guernsey, organisation of militia medical staff of, 316
Guinier, Dr., paracentesis thoracis in an infant, 281
Gull, Dr., experiments on treatment of rheumatism, 152
Gunshot-wound through lungs, 43; extraordinary, 149, 309
Guy, Dr. T., election as coroner, 260, 269
Guyot-Dauncey, M., citrate of soda in diabetes, 523
Guy's Hospital Reports, contents of, 112

H.

Hæmaturia in crew of ship carrying turpentine, 211
Hæmoptysis, Dr. Dobell on, 66
Hæmorrhage from detached placenta, Mr. Tubbs on, 67; cerebral, in a child, 397; uterine, acetate of lead in, 443
Hall, Dr. C. R., apparent prevalent slowness of pulse, 373
—— Sir John, death of, 109
—— Dr. J. C., Trades of Sheffield, *rev.*, 441
Hamilton, Dr., separation of epiphysis of humerus, 94; dislocation of humerus in dorsum of scapula, 416; resection of scapula, 598
Hammond, Dr. W. A., on Wakefulness, *rev.*, 123; visit to Europe, 136
Hardey, the late Mr. R., 531
Harrogate, discovery of new chalybeate spring at, 122; Dr. Kennion on springs of, 684
Harveian Oration, Dr. H. W. Acland's, *rev.*, 495; Dr. Paget's, 698
Harvey, Dr. John, legal application by, 401
——— Mr. W., the Ear in Health and Disease, *rev.*, 99
——— Dr. W. H., death of, 564
Hayem, M., changes in adipose tissue in amyloid degeneration, 336
Head, herpes zoster of, 470; gangrene of in children, 639
Health, Dr. G. W. Balfour on, 176; pursuit of under difficulties, 311; Dr. Sieveking on definition of, 431. *See* Sanitary laws
Heart, Dr. Peacock on Causes and Effects of Valvular Disease of, *rev.*, 98; inflammation of muscular structure of, 132; character of beat of, 287; investigation of by sphygmograph, Dr. B. W. Foster on, 275, 330; diagnosis of murmurs of, 334; Mr. C. Steele on puerperal embolism in, 359; Dr. Shapter on physical phenomena of, 380, 486; Dr. Sieveking on diseases of, 403; perforating abscess of, 414; tumours in, *ib.*; Dr. Broadbent on prognosis in disease of, 595, 659; embolia of great vessels of, 619
Heath, Mr. C., aneurism of innominate artery, 31; Minor Surgery and Bandaging, *rev.*, 310
——— Mr. W., bowels obstructed by gall-stones, 397
Hepatitis, Dr. Sieveking on, 378
Herapath, Dr. W. B., the micro-spectroscope, 320
Herbalist, charge against a, 34, 59
Herbarium, proposed pharmaceutical, 504
Hermaphrodism, Dr. J. H. Webster on case of, 145
Hernia, inguinal, hydrocele of, sac of, 43; crural formed by ovarian cyst, 280; double femoral, 424; femoral, double strangulation in, 524; strangulated congenital inguinal in a female, 633; successful operation for radical cure of, 674
Herpes zoster of head and face, 470
Hervieux, Dr., mortality in lying-in hospitals, 102
Herz, Dr. M., gangrene of soft parts in infants, 638
Heygate, Dr. J., the cattle-plague, 86; treatment of cholera, 679
Hickman, Mr. W., Cancerous Disease of Bone, *rev.*, 692
Hicks, Dr. Braxton, uterine polypus, 53
Hill, Dr. James, registration of deaths, 477
Hill, Mr. M. Berkeley, chronic empyema treated by drainage, 644
Hingeston, Mr. J. A., the dropped arm, 229
Hinton, Mr. J., renal calculus, 122
Hip, old standing dislocation of, 44; Mr. J. S. Gamgee on Successful Case of Amputation at, *rev.*, 97; amputation at, 255; amputation for encephaloid disease of femur, *ib.*; Mr. G. N. Collyns on reduction of dislocation of by manipulation, 437; Mr. Hugman on Disease of, *rev.*, 693
Hippophagy in Paris, 24; in Berlin, 321
Hodgkin, Dr., death of, 401; biography of, 447
Hofmann, Dr., poisoning by mercuric methide, 60
Hogg, Mr. J., vegetable parasites, 443
Holmes, Mr. T., lumbar colotomy for vesico-intestinal fistula, 400
Holthouse, Mr. C., treatment of strabismus without operation, 173, 251, 357, 462
Homœopaths, M. Diday's challenge to, 78
Homœopathic treatment of cattle-plague, 31, 111, 136, 232
Homœopathy, principle of, 59; alleged progress of, 154
Hongkong, mortality of troops at, 315, 316, 349, 535
Horse, transmission of cow-pox to, 150
Hospital, Bath United, bequest to, 349
——— Buxton Bath, annual report of, 294
——— Charing Cross, bequest to, 59; proceedings regarding memorial to Mr. Llewellyn, 394
——— for Children, proposed, at Chelsea, 427
——— City of London, for Diseases of the Chest, bequest to, 456
——— City Orthopædic, anniversary dinner of, 521
——— Clinical, at Naples, 88
——— Consumption, at Brompton, bequest to, 59
——— Convalescent, at Weybridge, bequest to, 456
——— Fowey Cottage, report of, 59
——— General, at Birmingham, bequest to, 108
——— Great Northern, bequest to, 349
——— Herbert, at Woolwich, 472
——— King's College, gift to, 401
——— London, bequest to, 456
——— Middlesex, gift to, 109
——— new, in Liverpool, 84
——— Portsea Island Union, medical statistics of, 195
——— Queen's, at Birmingham, bequest to, 108
——— Roman Catholic, closing of a, 401
——— Royal Free, bequest to, 456
——— Royal Victoria, presentation of Sir C. Bell's drawings to, 190
——— St. Bartholomew's, statistics of, 342; prizes at, 561
——— St. George's, resignation of Dr. Pitman, 422; discussion on introduction of Sisterhood nurses, 445; bequest to, 456; action against surgeons of, 668
——— St. Mary's, anniversary dinner of, 349; bequests to, 456
——— St. Thomas's, training of nurses in, 391
——— Seamen's, bequests to, 59, 456
——— Surrey County, bust of late Prince Consort presented to, 243; inauguration of, 481
——— Sussex County, bequest to, 59, 506
——— University College, concert in aid of, patronised by the Queen, 84, 189; gift to, 174
——— Westminster, gift to inmates of, 34; prizes at, 508
Hospital-carriages, 270; nursing sisterhoods, 476
Hospitals, abuses, etc., of, at Brighton, 161, 180
——— Fever, deputation to Mr. Villiers on accommodation in, 70
——— London, and Lord Henry Seymour's will, 104
——— Lying-in in Paris, mortality in, 24, 369; Dr. Hervieux on mortality in, 102
——— public, in Morocco, 506
——— rating of, 536
——— statistics of, in Italy and England, 226, 297

Hospitals, United States War, statistics of, 137
——— village, remarks on gratuitous medical services in, 76, 129; Mr. Napper on, 133; Dr. S. Thomson on remuneration of medical men in, 259; Mr. H. Swete on, 491
Houdin, M., an iridoscope, 372
Houghton, Mr. J. H., propagation of syphilis by vaccination, 223
Houses, ancient English, Dr. J. Russell on, 169
Howard, Mr. W. D., volcanic ammonia, 27
Howden, Dr. T., Italian lunatic asylums, 155
Howe, Dr. A. H., Physical Cause of Epidemic Diseases, *rev.*, 74
Hugman, Mr. W. C., Hip-joint Disease, *rev.*, 693
Hulke, Mr. J. W., enucleation of the eyeball, 89
Humerus, Mr. Gore on injuries of, 19; separation of epiphysis of, 94; dislocation of in dorsum of scapula, 416; fracture of by muscular action, Mr. C. Terry on, 518
Hunter, Mr. C., hypodermic injection of atropine in spinal neuralgia, 212, 320; cancer of pharynx, 212
Hutchins, the late Mr. W., 424
Hutchinson, Mr. J., opacities in vitreous humour, 193; popliteal aneurism, 273; compound depressed fracture of skull, 274
Huxley, Mr. T., his lectures at College of Surgeons, 163; relation of physical science to medical science and education, 503
Hydatids in the orbit, 44
Hydrocele of hernial sac, 43; diffuse, diagnosis of lipoma of cord from, 281
Hydrogen, peroxide of as a deodoriser, 7; introduction of, 350
Hydrophobia, treatment of, 591, 619; deaths from, 669
Hyoscyamus, poisoning by, 523
Hypodermic injection of quinine, 31; of morphia in epileptic convulsions, 55; of atropine in spinal neuralgia, 212, 320; circular of Royal Medical and Chirurgical Society regarding, 368; of nitrate of strychnine in amaurosis, 524; of curare in epilepsy, 697
Hysteria, Dr. Althaus on pathology and treatment of, 245

I.

Ice-bag treatment of cholera, 296
Iconographie Ophthalmologique, M. Sichel's, 697
Idiots, National Asylum for, 375; Northern Counties Asylum for, 401
Imans, Dr., aneurism of abdominal aorta, 95
Incurables, home for, donations to, 564
India, cattle-disease in, 59; Dr. Sieveking on diet of troops in, 511
Indians, American, diseases of, 242
Infant, broncho-pneumonia in an, 132; retropharyngeal abscess in an, 148; paracentesis thoracis in an, 281; with amputation of limbs, 398
Infants, Von Graefe's treatment of blennorrhœa in, 383; Dr. Herz on gangrene of soft parts in, 638
Infanticide, Dr. J. Barclay on case of, 222; Dr. G. K. H. Paterson on, 144, 354; increase of, 374; Dr. Lankester on, 448; resolution of Harveian Society on, 590; discussion on, 675
Infirmaries, Workhouse, management of, formation of committee on, 189; remarks on, 257, 285, 313, 393, 420, 422, 468, 471, 560, 581, 696; recommendations regarding, 402; deputation to President of Poor Law Board, 423; meeting of guardians concerning, 592; official inquiry into, 683; Dr. Smallman on, 685
Infirmary, Wells, bequest to, 59; Worthing, bequest to, *ib.*; Bristol Royal, contribution to, 109; Queen's County, refusal of donation to, 349; Royal National Sea-bathing, bequest to, 456
Inflammation, Dr. Balfour on treatment of, 177
Inquests, coroners', Dr. Taylor on, 465
Insane, statistics of, 162; treatment of in America, 422
Insanity, paper on treatment of, 93; apparent increase of, 436; and criminal responsibility, 472
Insentient animals, Dr. F. J. Brown on Unzer's question as to existence of, 519
Internal injury, case of, 673
Intestinal obstruction from gall-stone, 397; diagnosis of, 507
Intrauterine stem, a, 560
Iodide of potassium, purification of, 26; in lead and mercurial poisoning, 147; in tertiary syphilis, Mr. H. Smith on, 201
Iodine as a disinfectant, 4, 8, 11, 12, 13, 15; detection of by spectrum analysis, 343
Iodoform in uterine disease, 106
Ireland, infirmaries in, 294; commission on new college of science for, 372; sanitary science in, 507; cattle-plague in, 530; union medical officers in, 624
Iridectomy in glaucoma, Mr. McKeand on, 630
Iridoscope, an, 372
Iris, Von Graefe's treatment of affections of, 408
Iritis, syphilitic, treated without specifics, 290
Iron, sulphate of, as a deodoriser, 5, 7
Iron-dust in railway travelling, 42
Irwin, Dr. C. K., acetate of lead in uterine hæmorrhage, 443
Italian lunatic asylums, 155; chamber and senate, medical men in, 316
Italy, Dr. T. K. Chambers on Effects of Climate of, *rev.*, 226
Itch, storax in, 697

J.

Jamaica, lepers in, 240
James, Mr. J. H., results of experience in bleeding, 197
Jardin d'Acclimatisation in Paris, cattle-plague in, 48
Jeannel, M., saturated saline solutions, 27
Jennings, Mr. J. C. S., cattle-plague in North Wilts, 56
Jobert de Lamballe, M., property of, 375
Johnson, Dr. G., diminished absorption during choleraic collapse, 61, 87; his theory of cholera, 100, 363, 556; physiological correlation of lungs, liver, and kidneys, illustrated in cholera, 165; pathology and treatment of cholera, 187, 240, 271, 483, 586, 622; physical changes in blood of cholera patients, 219; pathology of collapse, 645. *See* also Cholera
——— Dr. H., the sense of smell applied to medicine, 38
Jones, Dr. Bence, oxidation of alcohol in the body, 153; animal quinoidine, 481, 501
——— Dr. C. Handfield, typhoid fever of unusual duration, 304; treatment of cholera, 476, 655, 687
Journal of Mental Science, 191; new American Medical, 294, 310
Jurisprudence, Medical, Dr. Taylor's Principles and Practice of, *rev.*, 464; Dr. Taylor's Manual of, *rev.*, 691

K.

Keith, Dr., case of ovariotomy, 147; and the Edinburgh Royal Infirmary, 210
Kennedy, Mr. J., digital compression in femoral aneurism, 43
Kennion, Dr., medicinal springs of Harrogate, 684
Keratitis, diffuse, 384
Kidney, specifics for diseases of, 38; function of, 45; Mr. J. Hinton on calculus in, 122; Dr. G. Johnson on physiological correlation of with lungs and liver, 165; large cyst of mistaken for ovarian tumour, 253; Dr. Philipson on cyst of containing calculi, 309; Dr. Sieveking on diseases of, 379
Klob, Dr., use of raw meat, 342; results of myocarditis, 414
Knee-joint, limited disease of, 94; Mr. Carden's method of amputating at, 442
Knighthood and long life, 481, 509
Krakowizer, Dr., pyæmia, 81

Kratz, Dr., trichiniasis at Hedersleben, 76
Krause, Dr. W., large renal cyst mistaken for ovarian tumour, 253
Krohne and Sesemann, MM. local anæsthesia by ether, 191
Kuborn, M., poisoning by stramonium, 523
Küchenmeister, Dr., contagiousness of variolous eruption, 698
Kühn, Dr., occurrence of ergot on different plants, 518

L.

Labour, obstructed, 53; induced by Barnes's dilator, Mr. Tubbs on, 67; Mr. F. Cox on rupture of uterus on, 92; Dr. G. K. H. Paterson on causes endangering fœtal life during, 144, 354; mortality in as affected by age of mother, 146; missed, Mr. R. W. Watkins on case of, 223; sudden death during, 345; Mr. C. Steele on cardiac embolism during, 359; artificial premature, 416; premature, Dr. Armstrong on induction of, 539
Lacrymal passages, treatment of obstruction of, 382; abscess, *ib.*
Laennec, statue of, 422
Lallemand, M., chemical effects of magnesium light, 27
Lancisi on cattle-plague in Italy, 20
Lane, Mr. J. R., pathology of syphilis, 505
Lankester, Dr., report on inquests, 448; deaths from accident, *ib.*; infanticide, *ib.*
Lanzoni on the cattle-plague in Italy, 75
Lardner's Handbook of Natural Philosophy, *rev.*, 691
Laryngitis, Dr. Sieveking on, 539
Larynx, fracture of, 80; malignant disease of, 263
Laycock, Dr., influence of nervous system on disease, 525
Leach, Mr. H., quarantine in cholera, 471
Lead, nitrate of as a deodoriser, 5, 8; iodide of potassium in poisoning with, 147; abortion and menorrhagia from poisoning with, 346; acetate of in uterine hæmorrhage, 443
Leading Articles: Academy of Sciences, prizes of, 285; Action for malapraxis against Dr. Armstrong, 498; against surgeons of St. George's Hospital, 668; Anæsthesia, local, by ether-spray, 153, 181, 231, 258, 286, 367, 445; Armstrong, Dr., action for malapraxis against, 498, 530, 582, 637, 669; Army and Navy Medical Services Committee, 49, 229, 258, 312, 366, 696; Army, venereal disease in, 202; loss of life in at Hong Kong, 315; Association of Poor-law Medical Officers, 696; Baronets, medical, 49, 50, 668; Bennett, Dr. Hughes, his statistics of pneumonia, 389; Blood, transfusion of in cattle-plague, 502, 529, 560; transfusion of in cholera, 526; Bouley, M., on the cattle-plague, 77; Brighton, hospital abuses at, 180; Bristol, training school for nurses at, 419; Brown, Dr. F. J., and the navy medical service, 337; Brown, Mr. I. B., proposed testimonial to, 579; Burrows, Dr., testimonial presented to, 129; Canadian Medical Council, 667; Carpenter, Dr. A., on drainage, 287; Catsup from livers, 286; Cattle-plague, 20, 46, 48, 74, 77, 103, 127, 128, 182, 205, 207, 232, 283, 284, 316, 341, 444, 502, 527, 529, 531, 560, 582, 637, 665 (*see* also Cattle-plague, in its place in the Index); Cholera, 100, 207, 363, 470, 471, 526, 556, 610, 634 (*see* also Cholera in its place in the Index); College, Royal, of Physicians of London, election of President, 338; College, Royal, of Surgeons of England, election of members of Council, 559, 612, 668, 693; Congress, French Medical, 293; Council, the Medical, 75, 662, 667; Diseases, natural course of, 152; Elimination in disease, 694; Ether-spray, local anæsthesia by, 153, 181, 231, 258, 286, 312, 366; Farr, Dr., decline of cattle-plague, 207, 637; Fast, the national, 316; Fees, medical, tariff of, 104; Gamgee, Mr., the cattle-plague, 128, 283; Garlic in cattle-plague, 182, 205, 284; Gazelles, cattle-plague among, 48; Guards, medical appointment in the, 501; Gratuitous medical services, 76; Hawkins, Mr. Charles, and the Royal College of Surgeons, 559, 612; Health, Public, 178, 256, 286, 311, 417; Herpes zoster of head and face, 470; Hervieux, M., mortality in lying-in hospitals, 102; Honours, hereditary, to medical men, 49; Hospital abuses at Brighton, 180; St. George's, and trained nurses, 445; action against surgeons of, 668; Hospitals, lying-in, mortality in, 102; village, 259; rating of, 637; Infirmaries, workhouse, inquiry into management of, 257, 313, 365, 393, 420, 468, 560, 579; Irish Medical Association and the Medical Council, 75; Jardin d'Acclimatisation in Paris, cattle-plague in, 48; Johnson, Dr. G., his theory of cholera, 100 (*see* Cholera); Lancisi on the cattle-plague, 20; Lanzoni on the cattle-plague, 74; Law-courts, imperfect ventilation of, 315; Markham, Dr., herpes zoster of head and face, 670; transfusion of blood in cattle-plague, 529; Meat, diseased, 445; Medical Acts, amendment of, 392, 662, 667; Medical Council, 75, 444, 530, 662, 667; Medical fees, tariff of, 104; Medical men, hereditary honours to, 49; Medical schools in London, 499; Medical services, gratuitous, 76; vestrymen, 340; Metropolitan Counties Branch, 129; Navy medical service, 202, 229, 259, 312, 337, 364, 366; Nightingale fund, 391; Nurses, trained, 391, 419, 445; Pitman, Dr., resignation of, 422; Pneumonia, statistics of treatment of, 389; Public Health, 178, 256 286, 311, 417; Ramazzini on the cattle-plague, 527; Rating of hospitals, 637; Rheumatism, treatment of, 152; Richardson, Dr. B. W., and local anæsthesia (*see* Anæsthesia); St. Pancras vestry and workhouse, 103, 365, 422, 471; Sanitary laws, necessity of amendment of, 178, 256, 286, 311, 417; Schools, medical, in London, 499; Sick poor, treatment of (*see* Infirmaries and Workhouse); Simpson, Dr., and his letter, 50; Small-pox, relation of to cattle-plague, 46; relation to vaccinia, 125, 150, 204; Statistics as a guide in treatment of pneumonia, 389; Surgical Home, the, 77; Testimonial to Dr. Burrows, 129; proposed, to Mr. I. B. Brown, 579; Thomson, Dr. Spencer, on village hospitals, 259; Thudichum, Dr., disease of meat, 445; Transfusion of blood in cattle-plague, 502, 529, 560; in cholera, 526; Trichiniasis, 76, 368; Vaccination in cattle-plague, 77, 103, 127, 128; Vaccinia, relation of to variola, 103, 125, 150, 204; Venereal commission, the, 153, 202; ventilation of law courts, 315; Vestrymen, medical, 340; Village hospitals, 259; Virchow on trichiniasis, 368; Watson, Dr., address to College of Physicians, 338; baronetcy conferred on, 668; Workhouse infirmaries, 257, 313, 365, 393, 420, 468, 560, 579; Worms, Mr., his treatment of cattle-plague, 182, 205, 284.
Leared, Dr. A., Causes and Treatment of Imperfect Digestion, *rev.*, 362
Leaves, functions of, 343
Lectures, Croonian, on Causes and Effects of Valvular Diseases of the Heart, Dr. Peacock's, *rev.*, 98; clinical, on opacities in the vitreous humour, Mr. Hutchinson's, 193; on pathology and treatment of hysteria, Dr. Althaus's, 245; Croonian, on the localisation of disease, Dr. Sieveking's, 299, 325, 351, 377, 403, 431, 457, 211; sanitary, in Leeds, 323; on Animal Chemistry, Dr. Odling's, *rev.*, 385; at College of Physicians, Dr. Richardson's, 450, 504
Lee, Mr. H., Diseases of the Veins, *rev.*, 541
Leech-cage, a new, 343
Leeds, sanitary association in, 323
Lefeuvre, Dr., syphilitic facial paralysis, 523
Lepers in Jamaica, 240
Letellier, Dr., poisonous principle of mushrooms, 369
Leucocythæmia, Mr. W. Eddowes on, 333
Levées, medical men present at, 322, 535
Levi, Dr. P., acute progressive paralysis, 334
Libel, Dr. Paterson's action for against Glasgow Morning Journal, 402
Life, effect of congelation on, 24; Dr. G. W. Balfour on, 176

Lime as a deodoriser, 3; inhalation of in diphtheria, 543, 686
Limprecht, M. ingredients of flesh-juice, 26
Lipoma of spermatic cord, 281
Lithotomy, case of, 213
Littleton, Dr. T., Mr. I. B. Brown's operation, 537
Liver, fatty, in children, 148; Dr. Johnson on correlation of with lungs and kidneys, 165; Dr. Sieveking on disease of, 378, 511
Liverpool, proposed mortuary chapels in, 28; typhus in, 28, 371; cause of unhealthiness of, 28, 371; cholera in, 507, 531, 534, 565
Livers, manufacture of catsup from, 285
Llewellyn, the late Mr. D. H., memorial of, 394
Lloyd, Mr. E., the Charterhouse election, 348
Localisation of disease, Dr. Sieveking's Croonian Lectures on, 299, 325, 351, 377, 403, 431, 457, 511
Lockyer and his pills, 429
London, sick poor in, *see* Infirmaries
Lunacy commissioners, vote to, 479
Lunatic, treatment of a, 375
Lunatics, treatment of in France, 482; statistics of in Germany, 637
Lungs, gunshot-wound through, 43; Dr. Johnson on diminished absorption by in cholera, 87, 101; Dr. Johnson on correlation of with liver and kidneys, 165; Dr. Burns on gangrene of, 521; of fœtus, syphilitic tumours in, 525
Lutton, Dr., treatment of biliary calculus, 522
Lying-in Hospitals. *See* Hospitals
Lymphangitis, corneal, 384
Lyons, Dr. R. D., elected physician to Dublin Hospitals, 349

M.

MacCormac, Dr. W., local anæsthesia by ether-spray, 501
McCraith, Dr. J., hypodermic injection of quinine, 31
MacGillivray, Mr. P. H., hydatids in orbit, 44
M'Gregor, the late Sir John, 82, 110; will of, 590
Mackay, Mr. J., preservation of meat, 625
McKeand, Mr. R. W., extraction of soft cataract by suction, 434, 687: cases in ophthalmic practice, 630
Mackenzie, Dr. W., glasses for cataract, 62
Mackesy, Dr. T. L., defective education of medical men, 75; the army and navy medical services, 156
Mackinder, Dr. D., the vaccination bill, 324; cattle-plague, 451; epilepsia erratica, 598
Maclean, Dr., fracture of larynx, 80
——— Dr. W., treatment of cholera, 281; ice-bag treatment of cholera, 296
Macnamara, Dr., medical education, 75
Macpherson, Dr. J., cures for cholera, 216
McWhinnie, the late Mr. A. M., 317
Madden, Dr. T. M., insanity and criminal responsibility, 472
Madge, Dr., fibrous tumour of uterus, 398
Magnesia, sulphate of as a deodoriser, 5, 7
Magnesium light, chemical effects of, 27
Malapraxis, actions for. *See* Actions
Malaria, Dr. Handfield Jones on relation of to cholera, 655
Malcolm, Mr. J. B., empyema cured in a novel manner, 95
Malformation of the heart as a cause of valvular disease, 98
Malgaigne, the late M., character of, 260
Mammalia, Mr. Owen's subdivision of, 361
Mammoth, discovery of a, 494
Mania, acute, digitalis in, 282
Manslaughter, charge of against a surgeon, 137
Marey, Mr., instrument for tracing muscular contractions, 697
Markham, Dr., herpes zoster of head and face, 470; transfusion of blood in cattle-plague, 529
Marriott, Dr. C. H., cases of ovariotomy, 459
Marshall, Mr. J., disease of placenta, 560
Martin, Dr., removal of extrauterine fœtus, 342
Martyn, Dr. P., double femoral hernia, 424
Marzattini, Dr. G., lipoma of spermatic cord, 281
Matteucci, M., electricity of the torpedo, 26
May, Mr. G., jun., treatment of contracted vagina, 112
Maysmor, Dr. H. L., medical baronets, 134
Meadows, Dr. A., amputation of cervix uteri, 345; cystic development of Fallopian tubes, 560; intrauterine stem, *ib.*
Measles coincident with typhoid fever, 637
Meat, diseased, 33; alleged death from, 315; raw, use of in Prussia, 342; diseases of as affecting public health, 445; preservation of, 625; raw, in diarrhœa, 698. *See* Trichinæ
Mecca, pilgrims to, 568
Medal, the Albert, 294
Medals of Royal Geographical Society, 564, 623
Medical Acts, amendment of, 392, 662; Dr. Burrows on proceedings regarding, 544; appointment of committee on, 545; discussion on Bill in Medical Council, 568; report of Committee, 572; amended Draft Bill, 573; reasons for alterations, 578
——— assistants, unqualified, 502
——— baronets, 49, 50, 85, 129, 134, 137, 668
——— Congress of France, subjects for discussion in, 393
——— Council, remarks on in meeting of Irish Medical Association, 75; proceedings regarding Amendment of Medical Acts, 341, 392, 545, 555, 568, 570, 572, 609; Dr. Sharpey as a member of, 394; forthcoming meeting of, 444; session of, 530, 544, 568, 598; new member of, 544; opening remarks by president, *ib.*; business and finance committees, 545; memorial from Physiological Subsection of British Association, 545; time of meeting on Saturdays, 547; visitation of examinations, 547, 603; returns from licensing bodies, 547, 605; preliminary education of medical students, 547, 552, 598; army medical service, 549, 600; medical service of navy, 549, 608; medical titles in *Army List*, 550, 570, 602; letter from Dr. Mackesy, 550; restoration of a name to the *Register*, 550; the case of Richard Organ, *ib.*; application of a student to be registered, 551; conduct of business, 552, 609; memorial of City and County of Cork Medical Protective Association, 559, 609; revision of standing orders, 579, 610; rearrangement of recommendations of Council, 579, 606, 609; report on general education, 599; the *British Pharmacopœia*, 599, 601, 607; report of Finance Committee, 600, 609; registration of medical students, 606; Executive Committee, *ib.*; rejected candidates at examinations, *ib.*; publication of minutes, 610; appointment of treasurer, *ib.*; votes of thanks, *ib.*; summary of proceedings of, 662; resolution of Lancashire and Cheshire Branch, 667
——— counsel, Dr. Taylor on, 467
——— education, leading article on, 499; Mr. Huxley on relation of general science to, 503; in Egypt, 697
——— evidence, the *Times* on, 368; conflicting, 392; Dr. Taylor on, 464
——— examinations, visitation of, 392, 547, 603, 664
——— experts, Dr. Taylor on, 466
——— fees, tariff of, 104, 216
——— heresies, patrons of, 36
——— Institution, Liverpool, reports of, 54, 211, 263
——— Jurisprudence, Dr. Taylor's Principles and Practice of, *rev.*, 464; definition of, 468; Dr. Taylor's Manual of, *rev.*, 691
——— members of the Italian Chamber, 316
——— men, censure of, 268
——— officers of health, attacks on, 103
——— officers of Lincoln Dispensary, payment of, 420
——— practitioners in Peru, 136
——— pupil, assault on a, 243
——— Register, names removal from, 34; restoration of name to, 550; clauses of Draft Medical Bill regarding, 569, 570

Medical reports for inquests, errors in, 465
——— schools in London, advantages of amalgamation of, 599
——— science, Mr. Huxley on relation of general science to, 503
——— Section of Royal Manchester Institution, reports of 55, 397
——— services, gratuitous, 76, 129
——— students, preliminary education of, 547, 552, 598; registration of, 579, 606, 665
——— titles in *Army List*, 550, 570, 602
——— vestrymen, 340
——— witnesses, duties of, 464, 466
Medicine, Dr. G. W. Balfour's Introduction to Study of, *rev.*, 174; desiderata in, 241; true foundation of, 514
Medicines, proposal to Medical Council to investigate actions of, 545
Meldon, Dr. A. S., transfusion of blood in poisoning by carbonic oxide, 625
Melsens, M., iodide of potassium in lead and mercurial poisoning, 147
Membraniform obstructions of pupil, removal of, 79
Meningitis, cerebro-spinal, after ligature of carotid arteries, 525
Menorrhagia dependent on lead-poisoning, 346
Menstruation, how affected by tuberculosis, 66; apparent vicarious, 416
Mental work, excessive, Mr. H. Walton on impaired vision from, 436
Merchant vessels, scurvy in, 413; precaution against cholera in, 667
Mercuric methide, poisoning by, 60
Mercury, metallic, discharged by skin, 55; iodide of potassium on poisoning by, 147
Meredyth, Dr. A. C., duality of venereal ulcers, 425, 477
Meryon, Dr. E., granular degeneration of voluntary muscles, 292
Methylated spirit, chloroform from, 26; unlicensed sale of, 683
Microspectroscope, blood-stains detected by, 320
Midwives, unqualified, 295
Miliaria, recurrent, after scarlet fever, Dr. Balman on, 36
Mill, Mr. J. S., his opinion on large families, 447
Mineral waters, Buxton, 345; of Harrogate, 684; of Vals, 683
Mines, atmospheric pressure in, 27, 343
Moir, Dr. J., traumatic rupture of uterus, 146
Moore, Mr. C. H., arterio-venous cyst in popliteal nerve, 157; antecedents of cancer and localisation of disease, 406; proposed cure for cattle-plague, 623; cleft palate, 699
——— Mr. H. G., clitoridectomy, 657
Morehead, Dr. C., pathology of pneumonia and hepatitis, 473
Morgan, Dr. J. E., Deterioration of Race from Rapid Increase of Great Cities, *rev.*, 496
Morocco, public hospitals in, 506
Morphia, subcutaneous injection of in epileptic convulsions, 55
Mortality in lying-in hospitals, 102, 369; in Dublin in 1865, 137; returns of, 243, 294
Morton, Dr. T. G., reamputation for neuralgia of stump, 81
Mouth, gangrene of in children, 640
Mucocele, ethmoidal, 55, 398
Murchison, Dr. C., testimonial to, 535
Murder of an American physician, 321; of an American surgeon, 428
Murmurs, endocardial, diagnosis of, 334
Muscles, voluntary, granular degeneration of, 292; atrophy of, 633
Muscular tissue as a dynamic apparatus, Dr. Odling on, 386; action, Mr. C. Terry on fracture of humerus by, 518; contractions, instrument for tracing, 697
Museum, an Anatomical, 428; British, additions to natural history specimens, 479; Edinburgh, of science and art, 565
Mushrooms, poisonous principle of, 369
Mussels, death from eating, 677
Myocarditis, Dr. C. B. Radcliffe on, 132; results of, 414

N.

Napper, Mr. A., gratuitous attendance at cottage hospitals, 129, 133
Natural Philosophy, Mr. Foster's edition of Lardner's Handbook, *rev.*, 691
Navy, medical service of, projected improvements in, 49, 229, 312, 529; memorial of British Medical Association regarding, 52; deficiency of officers in, 109; recommendations of committee regarding, 236; proceedings in parliament regarding, 232, 322, 507, 653; letter on, 324; Dr. F. J. Brown's remarks on, 337, 373; resolution of College of Physicians regarding, 340; extracts from evidence regarding, 364; statistics of, 366; resolution of College of Surgeons, 421; returns to Medical Council, 549, 608
Navy, small-pox in, 456; Austrian, deficiency of medical officers in, 590
Neligan, Dr. J. M., Practical Treatise on Diseases of the Skin, *rev.*, 413
Nerve, pneumogastric, division of in man, 45; popliteal, arterio-venous cyst in, 157
Nervous centres, syphilitic diseases of, 319; Dr. Sieveking on diseases of, 404; system, influence of on disease, 525
Nesfield, Dr., gall-stones passed by navel, 55
Neuralgia in a stump, amputation for, 81; of spine, hypodermic injection of atropine in, 212, 320; of mouth, electricity in, 697
Neuromata, multiple, 157
Neuroparalytic ophthalmia, 384
Neuroretinitis, treatment of, 411
Nevile, Miss L., death of, 683
Nightingale fund, operations of, 391
Nitroglycerine, properties of, 683
Nitrous acid as a deodoriser, 11, 13
——— oxide as an anæsthetic, 81, 632
Noble, Dr. D., statistics, 260; treatment of cholera, 622, 648
North, Dr. N. L., entire dislocation of clavicle, 632
Nostrums, prescription of, 267
Notta, Dr., use and indications of Villate's solution, 524
Nunneley, Mr. T., discovery of trichinæ, 252
Nurses, training of, 391; training institution for at Bristol, 419; sisterhood, proposed introduction of at St. George's Hospital, 445; unqualified, in workhouse hospitals, 581
Nursing sisterhoods, 476

O.

Obesity, Dr. J. Russell on case of, 220
Obstruction of intestines from gall-stone, 397; diagnosis of, 507
Odling, Dr. W., Lectures on Animal Chemistry, *rev.*, 385
Odours of disease, 507
Œsophagus, death from introduction of bougie into, 137
Oils, vegetable, oxidation of, 684
Ophthalmia, neuroparalytic, 384
Ophthalmic practice, Von Graefe's, Dr. Samelson on, 305, 355, 381, 408
Opium, Mr. Adamson on belladonna in poisoning by, 18
Oppolzer, Dr., illness of, 136, 154; congratulatory address to, 446
Orbit, hydatids in, 44
O'Reardon, Dr., death of, 322
Organ, Mr. R., application to Medical Council, 550
Ovarian tumour, large renal cyst mistaken for, 253; cyst forming crural hernia, 280; pregnancy, recovery after, 697

Ovaries, cancer of, 262; fibro-cystic tumour of uterus mistaken for disease of, 399; objections to puncturing cyst of, 502
Ovariotomy, mortality after, 133; Dr. Keith's cases of, 147; in Edinburgh Royal Infirmary, 210; operations for under mistaken diagnosis, 253, 399; local anæsthesia by ether-spray in, 286, 427; use of actual cautery in, 398; Dr. Marriott on cases of, 459
Owen, Mr. R., Anatomy of Vertebrates, *rev.*, 224, 361
Oxalic acid, attempted suicide by, 359
Oxygen, preparation of, 26, 471; separated from air by dialysis, 481; therapeutic uses of, 523; states of, 533
Ozone as a deodoriser, 9, 14; properties of, 683

P.

Pacchiotti, Dr., rules for vaccination, 415
Packard, Dr. J. H., amputation at hip-joint, 255
Page, Dr. F., medical statistics of Portsea union hospital, 195
Pagenstecher, Dr., simultaneous extraction of lens and capsule, 44
Paget, Dr. G. E., Harveian oration, 698
Palasciano, Professor, memorial of, 316
Palate, cleft, 699
Pancreas, Dr. Dobell on connection of defective function of with tuberculosis, 63, 139; cancer of, 264
Pancreatic emulsion, Dr. Dobell on, 143
Pannus, Von Graefe's treatment of, 384
Paracentesis thoracis in an infant, 281; in case of chronic empyema, 644
Paralysis, acute progressive, 334; syphilitic facial, 523
Parasites, vegetable, 443
Parenchymatous organs, Dr. Sieveking on diseases of, 378
Paris, mortality in hospitals of, 369; streets in, pulled down, 625
Parker, Mr. W., treatment of cholera, 566, 686
Parsons, Mr. J., scheme for management of public roads, 270
Paterson, Dr. G. K. H., causes endangering fœtal life during labour, 144, 354
——— Dr. James, action against *Glasgow Morning Journal*, 109, 402
Patruban, Dr., infracostal artery, 336
Payen, M., purity of iodide of potassium, 26
Payne, Dr. H., death of, 59
Peacock, Dr. T. B., Causes and Effects of Valvular Disease of the Heart, *rev.*, 98
Pelvis, Cæsarean section and craniotomy in distortion of brim of, 53
Pemphigus, syphilitic, Mr. R. W. Dunn on, 462
Peritonitis, treatment of, 147: Dr. Sieveking on, 377
Peru, medical profession in, 136
Pessaries, medicated, 508
Pétrequin, M., etherisation, 25, 316
Pharaoh's serpents, effect on health of manufacture of, 321
Pharmaceutical ethics, 136; herbarium, 504; conference, 682
Pharmacopœia, British, proceedings in Medical Council regarding, 599, 601, 607
Pharmacy, Year-book of, *rev.*, 441
Pharynx, cancer of, 212
Philipson, Dr. G. H., renal cyst containing calculi, 309; the Prudhoe convalescent home, 324
Photographs of Diseases of the Skin, Mr. A. B. Squire's, *rev.*, 99, 362
Phthisis, Dr. Dobell on, 63, 139; Dr. J. E. Pollock on Prognosis in, *rev.*, 71; Dr. Russell on pneumothorax at commencement of, 302; as a disease of nutrition, Dr. Sieveking on, 404
Physical science, importance of in medical science and education, 503
Physician, fatal accident to a, 321; murder of a, *ib.*
Pigments, cutaneous, action of electricity on, 26
Pilgrims, Mecca, 568
Pitman, Dr., resignation of, 422
Placenta, battledore, 53; detached, hæmorrhage from, Mr. Tubbs on, 67; diseased, 560
Plaster of Paris as a deodoriser, 5
Pneumonia, morbid anatomy and early physical signs of, 30; Dr. J. Russell on, 35; Dr. Draper on treatment of, 59; trichinous, Dr. Sieveking on, 326; origin and course of, Dr. Sieveking on, 352, 457; remarks on Dr. Hughes Bennett's statistics of treatment of, 389; pathology of, 473; Dr. Hughes Bennett on restorative treatment of, 627
Pneumothorax at commencement of tubercular deposit, Dr. J. Russell on, 302
Podophyllum, action of resin of on the uterus, 106
Poggiale, M., influence of electricity, 697
Poisoning by carbonic acid gas, 29, 625; by mercuric methide, 60; by litharge in wine, 136; by essence of bitter almonds, 137; by lead and mercury, iodide of potassium in, 147; by unsound meat, alleged, 315; by lead, abortion and menorrhagia dependent on, 346; by oxalic acid, 359; by stramonium, 523; by hyoscyamus, *ib.*; by morphia, 625
Pollock, Dr. J. E., Elements of Prognosis in Consumption, *rev.*, 71
Polymerone bodies, 385
Polypus, uterine, 53; Dr. J. G. Swayne on cases of, 69; of lower eyelid, 384
Polysarcia, Dr. J. Russell on case of, 220
Poor Law medical relief, Mr. H. Terry, jun., on, 56; in Ireland, 624; medical reform, Mr. Griffin on, 83, 112, 135, 160, 188, 215, 242, 324, 376, 426, 686; appointment, tossing for, 509, 537
Population of chief towns, 350; Dr. J. E. Morgan on increase of in cities, 497; of United Kingdom, 564
Pork, diseased, 135
Post, Dr., wound of both carotids, 281
Potash, nitrate of as a deodoriser, 5, 7; chlorate of as a deodoriser, 7; silicate of, uses of in surgery, 525
Potassium, chloride of as a deodoriser, 5, 7; iodide of, purity of, 26; in lead and mercurial poisoning, 147; in tertiary syphilis, Mr. H. South on, 201
Pouchet, M., effect of congelation on animal life, 24
Poultices, use and abuse of, 504
Precaution, a, 591
Pregnancy, early, with fibroid tumour of uterus, 106; supposed extrauterine, 280; tubal, 673; ovarian, 697
Pridham, Mr. T. L., entertainment to old people, 84
Prize Essay, Hastings, Dr. Herbert Barker's, 1
Prizes for application of voltaic pile, 260; of Academy of Sciences, 285; Jacksonian, of Royal College of Surgeons, 428; at Westminster Hospital, 508; at St. Bartholomew's Hospital, 561; at University College, 563; of College of Surgeons, 625
Prognosis in Consumption, Dr. J. E. Pollock on, *rev.*, 71; in heart-disease, Dr. Broadbent on, 595, 659
Propert, Mr. J., the Medical Benevolent College, 108
Prostitution, medical aspects of, 184
Prudhoe convalescent home, 323, 324
Prussia, cholera in army of, 652
Pterygium, Von Graefe's treatment of, 384
Public health, legislation regarding. *See* Sanitary Laws
Pulse, Dr. Foster on investigation of by sphygmograph, 275, 330; apparent prevalence of slowness of, 373
Pupil, removal of membraniform obstructions from, 79; diametral, Von Graefe's method of forming, 409; contraction of, with intrathoracic aneurism, Dr. J. Russell on, 514
Purdon, Dr. H. S., Treatment of Deaf and Dumb, *rev.*, 440
Pursell, Dr. J., treatment of rheumatism, 215
Pyæmia, nature of, 81
Pyrexial diseases, Dr. F. W. Gibson on use of thermometer in, 249, 278
Pyroligneous acid as a deodoriser, 8

Q.

Quadruple birth, 374, 590
Quaglino and Scarenzio, MM., syphilitic diseases of the eye, 149
Quarantine in cholera, 471, 481; at New York, 591; at Gibraltar, 652
Quinine, hypodermic injection of, 31
Quinoidine, animal, 481, 501

R.

Rabbits, communication of tubercle to, by inoculation, 282
Rabe, Dr., double uterus and vagina, 416
Radcliffe, Dr. C. B., acute myocarditis, 132
Ramazzini on the cattle-plague, 527
Ransome, Dr. A., physiological relations of colloid substances, 118; treatment of diarrhœa and cholera, 589
Ranula, galvanic cautery in, 524, 622
Rawdon, Dr., ulcer of stomach, 54
Registration of deaths, questions regarding, 477, 506; of students, 606
Reid, Dr. J. S., testimonial to, 239
Respiration, influence of chloroform on, 227
Retina, extensive detachment of, 398; Von Graefe's treatment of detached, 411; causes and treatment of detachment of, 643
Retinitis, syphilitic, 149, 412
Retroleucomatous abscess, 384
Retropharyngeal abscess in an infant, 148
Revaccination, death after, 54
Rheumatism, expectant treatment of, 152; Dr. Chambers on treatment of, 187; Dr. Pursell on, 215; blisters in, 369; Dr. Drysdale on treatment of, 474
Richardson, Dr. B. W., local anæsthesia by ether spray, 181, 231, 450, 675; introduction of peroxide of hydrogen, 350; use and abuse of poultices, 504; public vaccination, 615. *See* also Anæsthesia and Ether
———— Dr. W. L., treatment of diphtheria, 336
Ricord, M., abuse of name of, 697
Ritchie, Dr., dermoid cyst in Fallopian tube, 53
Rivers, pollution of, 637
Roads, public, suggestion for management of, 270
Roberts, Mr. John, death of, 23
——— Dr. W., subcutaneous injection, 55
Rooke, Dr. T. M., treatment of cholera, 678
Rooms, disinfection of, 13
Roseburgh, Dr., examination of fundus oculi, 38
Routh, Dr., fibro-cyst tumour of uterus mistaken for ovarian disease, 399
Rupture of uterus, Mr. F. Cox on case of, 92
Russell, Dr. J., acute pneumonia, 35; sanitary state of England during the middle ages, 169; case of polysarcia, 220; pneumothorax at commencement of phthisis, 302; syphilitic disease of nervous centres, 319; intrathoracic aneurism, 514; loss of faculty of expression, 567

S.

Saemann, Dr., injection of nitrate of strychnia in amaurosis, 524
St. Pancras workhouse, fever in, 190; proceedings in vestry, 341, 365, 422; inquiry into proceedings at workhouse, 471
Saline solutions, crystallisation of, 27
Salisbury, Dr., prevention of cholera, 267
Samelson, Dr., restoration of vision after long blindness, 55; ethmoidal mucocele, 55, 398; wheel-shaped cataract, 55; metallic mercury discharged by skin, *ib.*; optical instruments, 56; reminiscences of a four months' stay with Professor Von Graefe in Berlin, 305, 355, 381, 408; staphyloma pellucidum with pyramidate cataract, 398; traumatic subluxation of lens, *ib.*; modified linear extraction, *ib.*; operation for extensive detachment of retina, *ib.*
Sanatorium near Bagshot, 34; at Birmingham, 314; in Dublin, 455
Sanders, Dr., case of aphasia, 209
Sands, Dr., erratic course of a bullet, 149
Sanitary legislation, defects in, 82; Dr. Druitt on reform of, 113; amendment of, discussion in Metropolitan Counties Branch on, 130, 344, 395; deputation regarding, 163; leading articles on, 178, 256, 311, 417; recommendations regarding, 286, 397; proceedings of Bath and Bristol Branch, 584, 585
Sanitary state of England in the middle ages, Dr. J. Russell on, 169; lectures at Leeds, 323; advice, 342; Science in Ireland, 507
Sankey, the late Mr. W., 289
Sansom, Mr. A. E., anæsthetic properties of bichloride of carbon, 346
Sawdust as a deodoriser, 4
Scalds of glottis, treatment of, 632
Scanzoni, Dr., cause of positions of the fœtus, 280
Scapula, resection of, 598
Scarenzio, Dr., ranula treated by galvanic cautery, 524
Scarlet fever, Dr. Balman on recurrent miliaria after, 36; questions in Parliament regarding, 682
Schönbein on oxygen, 533
Schuh, Dr., death of, 24
Schuller, Dr., retropharyngeal abscess in an infant, 148
Scurvy in the mercantile navy, 413
Senna, Port Royal, 343
Sewage of large towns, 213
Shanghai, mortality among Chinese at, 521
Shapter, Dr. T., diseases of the heart and lungs, 380, 486
Sharpey, Dr., his re-election to Medical Council, 394
Shearer, Dr., broncho-pneumonia in an infant, 132
Sheep, variola of, 243, 374; cattle-plague in, 295, 322
Shoulder-joint, Mr. Gore on injuries of, 19. *See* Humerus
Sibley, Mr. S. W., multiple neuromata, 157
Sichel, M., his Iconographie Ophthalmologique, 697
Sieveking, Dr., Croonian lectures on localisation of disease, 299, 325, 351, 377, 403, 431, 457, 511; conversazione, 502; on laryngitis, 539
Sigmund, Dr., causes of spread of syphilis, 637
Simonin, M., atmospheric pressure in mines, 27, 343
Simpson, Dr. D. J., death of, 185
———— Sir J. Y., acupressure, 32; remarks on his letter, 50
Skey, Mr., ranula treated by galvanic cautery, 622
Skin, metallic mercury discharged by, 55; Mr. A. B. Squire's Photographs of Diseases of, *rev.*, 99, 362; Neligan's Treatise on Disease of, *rev.*, 413; parasitic diseases of, 443
Skinner, Dr. T., death after revaccination, 54; treatment of cholera, 587, 646
Skull, repair after removal of portion of, 54; Mr. Hutchinson on compound and depressed fracture of, 274
Sleep, Dr. Hammond on physiology of, 123
Smallman, Dr., workhouse infirmaries, 685
Small-pox, relation of cattle-plague to, Mr. Ceely on, 16, 62; remarks on, 46; investigations in France in relation to vaccinia, 103, 125, 150, 204; in the navy, 456; in Sussex Asylum, 507; experiments on contagiousness of, 698
Smart, Dr., his report on cattle-plague, 323
Smell, sense of applied to medicine, Dr. H. Johnson on, 38
Smith, Dr. E., appointment as medical officer of Poor Law Board, 21; as inspector of workhouses, 260
—— Mr. H., iodide of potassium in tertiary syphilis, 201
—— Dr. John, administration of chloroform, 209
—— Mr. John, on Ferns, *rev.*, 634
—— Dr. Protheroe, report concerning, 136
—— Mr. T. Heckstall, local anæsthesia by ether-spray, 293
—— Dr. Tyler, new vaginal speculum, 398
Smoke nuisance, 190, 294; in towns, 591
Smoler, M., treatment of peritonitis, 147

Société de Charité Maternelle, 428
Society of Arts, paper on diseases of meat read at, 445
——— Brighton and Sussex Medico-Chirurgical, resolutions on vaccination, 423
——— Epidemiological, letter of on cholera, 421
——— Ethnological, transactions of, *rev.*, 413
——— Geographical, medals of, 623
——— Harveian, officers of, 60; reports of, 183, 290, 425, 474, 618, 643, 675
——— Medical, of London, officers and Council of, 375
——— Medical Provident, donations to, 138
——— Medico-Chirurgical, of Edinburgh, proceedings of, 209
——— Medico-Chirurgical, of Montreal, annual meeting, 321
——— New York State Medical, annual meeting, 321
——— Newcastle Obstetrical, change of name of, 402
——— North of England Obstetrical, 402
——— Obstetrical, reports of, 53, 345, 398, 560; annual meeting, 106; *conversazione* of, 243, 318, 374; Transactions of, *rev.*, 693
——— Odontological, annual meeting of, 136; reports of, 190, 294, 428, 535
——— Pathological, of London, annual meeting of, 85
——— Pharmaceutical, proceedings at, 504, 508; annual *conversazione* of, 565
——— for Relief of Widows and Orphans of Medical men, 480
——— Royal, soirée of, 481; new fellows of, 652
——— Royal, of Edinburgh, proceedings of, 208
——— Royal Medical and Chirurgical, reports of meetings, 30, 82, 156, 212, 292, 399, 473, 674, 699; officers of, 268; inquiry into hypodermic injection, 368
——— St. Mary's Hospital Medical, meeting of, 138
——— Statistical officers and council of, 322
——— Western Medical and Surgical, reports of, 212, 424, 505; officers of, 682
Soda, citrate of in diabetes, 523
Sodium, chloride of as a deodoriser, 3, 7
Sound broken in bladder, 316
Sounds of heart, Dr. Shapter on production of, 486
Southey, the late Dr. H. H., Dr. Watson on, 338
——— Mr. R., function of the kidneys, 45
Späth, Dr., double uterus, 146
Species and varieties, 26
Spectrum analysis, detection of chlorine, bromine, and iodine by, 343
Speculum, new vaginal, 398
Speech, loss of, connected with local lesion of brain, Dr. Sanders on, 209; Dr. Russell on, 567
Spencer, Mr., Qualitative Chemical Analysis, *rev.*, 692
Spermatic cord, lipoma of, 281
Sphygmograph, Dr. B. W. Foster on the, 275, 330
Spine, lateral curvature of, 82, 160, 216, 264; hypodermic injection in neuralgia of, 212
Spiritualism, Mr. T. Chambers on, 260, 400
Spitta, Dr. R., treatment of cholera, 647
Spleen, excision of, 79, 138
Spurgin, the late Dr., 339, 342
Squire, Mr. A. B., Photographs of Diseases of Skin, *rev.*, 99, 362; eruption of cattle-plague, 153, 183
Staphyloma pellucidum with pyramidate cataract, 398
Steel, Mr. S. H., vaccination, 681
Steele, Mr. A. B., vaccination in cattle-plague, 211; treatment of cholera, 621; tubal gestation, 673
——— Mr. C., puerperal cardiac embolism, 359
Steell, Dr., dislocation of shoulder, 183; endocarditis, *ib.*
Steiner and Neureutter, Drs., fatty liver in children, 148
Stellwag von Carion, M., illness of, 207
Stewart, Dr. A. P., cases of diphtheria, 167, 196; relapsing typhoid fever, 304
——— Dr. H. C., embolia of great vessels, 619
Stilling, S., on puncturing ovarian cysts, 502
Stokes, Mr., testimonial to, 163
Stomach, ulcer of, 54; Dr. Sieveking on ulceration of, 377
Stomatoscope, a new, 163
Storax in itch, 697
Strabismus, Mr. Holthouse on treatment of without operation, 173, 251, 357, 462; Von Graefe's treatment of, 382
Stramonium, poisoning by, 523
Stroppa, M., ligature of external iliac artery, 149
Strychnia, poisoning by, 29; injection of nitrate of in amaurosis, 524
Stump, re-amputation for neuralgia in a, 81
Styptic ether, 450
Styrap, Dr., testimonial to, 33
Subcutaneous injection. *See* Hypodermic injection
Suction, extract of soft cataract by, Mr. M. A. Adams on, 40; Mr. McKeand on, 434
Suction-curettes, Mr. M. A. Adams on, 319; Mr. Greenway on, 241, 319; Mr. T. P. Teale, jun., on, 264
Sugar as a deodoriser, 5, 7
Sulphurous acid as a deodoriser, 7, 11, 13
Suppositories, medicated, 508
Surgeon, charge of manslaughter against a, 137; charge of forging against a, 163, 243; a, killed on a railway, 269; assault on a, 480
Surgery, Minor, Mr. Heath's Manual of, *rev.*, 310
Surgical Home, laudation of, 77, 580; Mr. I. B. Brown on, 108; letter on, 478
Swain, Mr. T., uterine tumour, 183
Swayne, Dr. J. G., polypus uteri, 69
Swete, Mr. H., cattle-plague and vaccination, 159; village hospitals, 491
Symblepharon, Von Graefe's treatment of, 384
Syme, Mr., acupressure, 33; claims of to a baronetcy, 137; excision of tongue, 155; Mr. Carden's method of amputating, 442
Syphilis from vaccination, 24; congenital, affecting bones, 148; tertiary, Mr. H. Smith on iodide of potassium in, 201; propagation of by vaccination, Mr. J. H. Houghton on, 223; communicated by catheterism of Eustachian tube, 342; pathology of, 505, causes of spread of, 637
Syphilisation, Dr. Boeck on, 25; Mr. De Méric on, 290; Mr. R. W. Dunn on case of, 435; Mr. G. Gaskoin on, 488, 516, 699
Syphilitic affections of eye, 149, 412; iritis, treated without mercury, 290; disease of nervous centres, 319; pemphigus, Mr. R. W. Dunn on, 462; acne, 522; facial paralysis, 523; tumours in lungs of fœtus, 525; ulcers, duality of, 425

T.

Tænia from peritoneum of rabbit, 212
Talipes valgus, painful, 148
Tanturri, Dr., syphilitic acne, 522
Tarnier, Dr., mortality in Parisian hospitals, 24
Taylor, Dr. A. S., Principles and Practice of Medical Jurisprudence, *rev.*, 464; Manual of Medical Jurisprudence, *rev.*, 691
Teale, Mr. T. P., jun., suction-curettes, 264
Telegram, medical opinion by, 401
Temperature, fluctuations of within limits of health, 249; correlation of pulse with, *ib.*; means of ascertaining, *ib.*; range of in diseases, 250, 278; in typhoid fever, 278; in traumatic erysipelas, 279
Tenotomy, local anæsthesia in, 370; in Von Graefe's practice, 382
Terry, Mr. C., fracture of humerus by muscular action, 518
——— Mr. H., jun., poor-law medical relief, 56
Testimonial to Dr. Styrap, 33; to Dr. Edmunds, 34; to Dr. Burrows, 129; to Mr. Griffin, *see* Griffin; to Mr. Stokes, 163; to Mr. Byers, 189; to Dr. J. S. Reid, 239; to Dr. Brushfield, 321; to Mr. C. M. Thompson, 530; to Drs. Murchison and Buchanan, 535; proposed, to Mr. I. B. Brown, 579, 626; to Mr. J. Dawson, 583

stis, Mr. Bryant on Diseases of, *rev.*, 362; Mr. Curling on Diseases of, *rev.*, 691
iermo-electric battery, 45
iermometer, Dr. Gibson on use of in investigation of pyrexial diseases, 249, 278
iigh, amputation of. *See* Amputation
iomas, Dr. D. J., old standing dislocation of hip, 44
——— Dr. S., artificial premature labour, 416
hompson, Mr. C. M., testimonial to, 530
——— Mr. H., appointment as Surgeon Extraordinary to the King of the Belgians, 104; phosphatic calculus with nucleus of bone, 212
iomson, Dr. Spencer, village hospitals, 259
iorburn, Dr., local anæsthesia by ether-spray, 427; treatment of cholera, 680
hudichum, Dr., his researches in trichinous pneumonia, 326; diseases of meat as affecting public health, 445
imes, the, remarks on medical evidence, 368
inea, components of, 443
ongue, Mr. Syme on erosion of, 155
orpedo, experiments on the, 26
ossing for an union appointment, 509, 537
owns in the middle ages, 171; large, sewage of, 213; effects of rapid increase of population of, 496
ynbee, Mr. J., disconnection of the incus and stapes, 674
racheotomy in diphtheria, 167; death after from ulceration into artery, 637
rachoma, Von Graefe's treatment of, 383
rance, a, 292
ransfusion of blood in poisoning by opium, 42; in cattle-plague, 502, 529, 560, 623, 686; in cholera, 526, 558; in poisoning by carbonic oxide, 625
ravers, Mr., reported death of, 84
richiasis, Von Graefe's treatment of, 381
richinæ, discovery of, 190; Mr. Nunneley on, 252; Dr. Cobbold on, 302; Mr. Windsor on, 319; inquiry into in France, 221; on pneumonia from, 326; inquiry into in America, 683
richiniasis in Hedersleben, 76; in Austria, 78, 287; precaution against in France, 342; Virchow on cure of, 368; MM. Delpech and Reynal's report on, 375
rousdale, Mr. W. M., cattle-plague, 86
ubal gestation, 673
ubbs, Mr. W. J., hæmorrhage from detached placenta, 67; local anæsthesia by ether-spray, 261
ubercle, inoculability of, 24, 282; Mr. W. Cooke on relation of cancer to, 73
uberculosis, Dr. Dobell on, 63, 139, ; Dr. Dobell on Causes, Nature, and Treatment of, *rev.*, 362
uck, Mr., chloroform from methylated spirit, 26
umour, fibroid, of uterus, with early pregnancy, 106; of brain, 147; of uterus, 183, 398; enchondromatous, of chest, 183; ovarian, large renal cyst mistaken for, 253; encysted, of eyelid, 382; of uterus, mistaken for ovarian disease, 399
umours, dermoid, of cornea, 384; in substance of heart, 414; syphilitic, in lungs of fœtus, 525
urpentine as a deodoriser, 7, 9; hæmaturia in crew of vessel containing, 211
wins, case of, 342

U.

mbilical cord with knots, 55
mbilicus, gall-stones passed by, 55; gangrene of in infants, 640
niversities, Scottish, parliamentary representation of, 535, 564
niversity, Anderson's, in Glasgow, election of professor of medicine, 163
——— of Brussels, complaint against a professor of, 316
University of Cambridge, natural science scholarships in, 34; rearrangement of medical examinations, 136; appointment of demonstrator of anatomy, 294; examinations in, 401; classes of anatomy and clinical surgery, 535; honorary degrees conferred by, 564, 624; pass-list, 651, 682
——— of Durham, examiners in, 591
——— of Edinburgh, report regarding chair of geology in, 110; new fellowship in, 163; Mr. Carlyle installed as Lord Rector of, 375
——— of Glasgow, proceedings in Medical Council regarding conduct of, 551
——— of Leyden, new professors in, 369
——— of London, pass-list, 321; representation of in Parliament, 322, 501; vote for erection of building for, 480
——— of Oxford, pass-list, 651; honorary degrees conferred by, 652
——— Queen's, in Ireland, parliamentary representation of, 590
Unzer's question as to existence of insentient animals, Dr. F. J. Brown on, 519
Ure, Mr. A., death of, 682
Urinary disease, Dr. Sieveking on, 512
Uterus, Dr. J. G. Swayne on polypus of, 69; Mr. F. Cox on labour complicated with rupture of, 92; action of podophyllum and iodoform on, 106; fibroid tumour of with early pregnancy, *ib.*; double, 146; gastrotomy in rupture of, *ib.*; tumour of, 183, 398; amputation of cervix of, 345; enlargement of after abortion and labour, 346; fibro-cystic tumour of mistaken for ovarian disease, 399; double, 416; acetate of lead in hæmorrhage from, 443; treatment of chronic inversion of, 650

V.

Vaccination, syphilis from, 24; in cattle-plague, *see* Cattle-plague; Mr. Houghton on propagation of syphilis by, 223; bill for amendment of, 265, 394, 507; resolution of medical officers of Fulham Union, 320; Dr. Mackinder on, 324; Mr. Griffin on, 348, 585, 649; Dr. Gibbon on, 421, 455; resolutions of Brighton and Sussex Medico-Chirurgical Society on, 423; discussion on in Metropolitan Counties Branch, 615; petition of Manchester Medico-Ethical Association, 641; effect of low payment for, 392; Mr. S. H. Steel on, 681; papular erythematous eruption following, 334; recommendations for, to prevent syphilis, 415
Vaccinia, relation of to variola, 103, 125, 150, 204
Vagina, contracted, treatment of, 112; double, 416
Vaginal speculum, new, 398
Vals, mineral waters of, 683
Van Wicheren, Dr., epithelial cancer of œsophagus, 227
Variola, relation of to vaccinia, 103, 125, 150, 204. *See* Small pox.
Veins, Mr. H. Lee on Diseases of, *rev.*, 541
Velpeau, M., hydrocele of hernial sac, 43
Venereal commission, the, 50, 153; report of, 202; disease, advice for prevention of, 297; ulcers, duality of, 425, 477. *See* Syphilis.
Venesection. *See* Bloodletting.
Ventilation of sick-rooms, 14; of law-courts, 315
Vermin-destroyer, Hunter's, poisoning by, 29
Vertebrates, Mr. Owen on Anatomy of, *rev.*, 224, 361
Vestrymen, medical, 340
Veterinary Surgeon's Bill, 508, 590; surgery, local anæsthesia by ether-spray in, 625
Villate's solution, surgical uses of, 524
Villemin, M., communication of tubercle by inoculation, 24, 282
Vinall, Mr., and the case of Rudman *versus* Armstrong, 537
Vinegar as a deodoriser, 4
Virchow, M., natural cure of trichiniasis, 368

Vision, restoration of after long blindness, 55; impaired from overwork, Mr. Walton on, 436
Visitation of medical examinations, 392, 547, 603, 664, 700
Vitreous humour, Mr. Hutchinson on opacities in, 193; Von Graefe's treatment of opacities of, 411; Mr. McKeand on spontaneous effusion of blood into, 630
Vocal cord, Dr. Russell on spasmodic elevation of in intrathoracic aneurism, 514
Volcanic ammonia, 27
Voltaic pile, prize for application of, 260
Volunteer review at Brighton, accidents at, 374; uniforms, 565, 654
Von Graefe, M., essential nature of amaurosis, 81; Dr. Samelson's reminiscences of a four months' stay with, 305, 355, 381, 408; his eye-clinique, 305, 355; his new method of treating cataract, 410
Von Häsner, Dr., cancer of eye, 81
Voss, Dr., limited disease of knee-joint, 94
Vulva, gangrene of in infants, 640

W.

Wades, Dr. J., registration of deaths, 506
Wagner, Dr. N., action of electricity on cutaneous pigments, 26
Wakefulness, Dr. W. A. Hammond on, *rev.*, 123
Walker, Mr. T. S., hæmaturia in crew of ship carrying turpentine, 211
Walton, Mr. H., black cataract, 91; impaired vision from mental work, 436; detachment of retina, 643
Water, mineral, Buxton, 345; of Harrogate, 122, 684; of Vals, 683
Waters, Dr. A. T. H., morbid anatomy and physical signs of pneumonia, 30
Watkins, Mr. R. W., retention of fœtus in abdomen during forty-three years, 223; treatment of cholera, 588
Watson, Dr., the cattle-plague, 23; address to Royal College of Physicians, 338; baronetcy conferred on, 668
Way, Dr. J., local anæsthesia by ether-spray, 267
Webber, Mr. W., action against inhabitants of Tunbridge Wells, 294
Webster, Dr. J. H., case of hermaphrodism, 145
Wells, Mr. T. S., excision of spleen, 79
West, Dr. R. U., anomaly of placenta, 53
Whewell, the Rev. Dr., particulars of death of, 329
Wilders, Mr. J. St. S., local anæsthesia by ether-spray, 293
Wilks, Dr., the foundation of medicine, 514
Williams, Dr. S. W. D., digitalis in acute mania, 282
Wilson, Mr. E., the election at the College of Surgeons, 654
Windows in the middle ages, 172
Windsor, Mr. J., discovery of trichinæ, 319
Wine, adulterated, conviction for selling, 136
Witnesses, medical. *See* Medical witnesses.
Wood, Mr. C. H., and Sharp, Mr. C., Year-Book of Pharmacy, *rev.*, 441
Workhouse infirmaries, inquiry into. *See* Infirmaries.
Worms, Mr., his treatment of cattle-plague, 182, 205, 233, 284, 323
Wound, remarkable recovery from, 328
Wright, Dr. D. F., effects of tying large arteries, 684
Wurtz, M., as Dean of the Paris Faculty of Medicine, 154
Wynter, Dr., Social Bees, 590

X.

Xerosis, acute, 384

Y.

Year-book of Pharmacy, *rev.*, 441

Z.

Zinc, chloride of as a deodoriser, 3, 4, 6, 7, 8, 9; in surgical operations, 422; sulphate of as a deodoriser, 345
Zymotic diseases, Dr. H. Jones on comparison of with cholera, 657, 687

T. RICHARDS, 37, GREAT QUEEN STREET, LINCOLN'S INN FIELDS.

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Clinical Lecture

ON

ADDISON'S DISEASE.

BY

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Part I.

GENTLEMEN,—I propose to bring under your notice to-day a rare but very interesting disease, which was first recognised only a few years ago by the late Dr. Addison of Guy's Hospital, and is on that account now commonly called Addison's disease. It consists in a particular change of structure of the suprarenal capsules, which usually manifests itself by a peculiar train of constitutional symptoms, and by a very remarkable discoloration of skin. From this last named most striking, though not quite invariable feature, the disease has been frequently but not very happily termed bronzed skin disease; for it is only in a comparatively small number of cases that the peculiar discoloration of skin could be accurately described by the term bronzing.

During the last twelve months, it has singularly happened that we have had in the wards of the hospital four well-marked cases of this uncommon disease; namely, two under Dr. Thompson's care, one under the care of Dr. Stewart, and one under my own care. My own case and one of Dr. Thompson's left the hospital much benefited by treatment, and are still under my occasional observation as out-patients; Dr. Thompson's other case proved fatal on the 2nd instant; and the case under Dr. Stewart is still present in Founder Ward. The suprarenal disease in this patient is, I scarcely doubt, associated with caries of one or more vertebræ, which is by no means an unusual complication of Addison's disease; but the case is none the less, in its history and progress, a typical example of that disease; and the discoloration of skin is perhaps the most characteristic of any which has come under my observation. Partly on this account, and partly also because you have still the opportunity of verifying my statements, I proposed, with Dr. Stewart's permission, to read you an abstract of the notes I have taken of the case.

C. S., aged 32, was admitted an in-patient on the 9th of February. In early life, he worked as an agricultural labourer in his native county of Herefordshire, but for the last thirteen years had been employed as a coal-porter at a London wharf. About three years previously to the commencement of his illness, he had strained his back severely in the lower dorsal region while shunting a loaded coal-truck, and had felt as if something gave way at the moment of the accident. For some days he suffered much pain in the part, and more or less ever afterwards, though he was able to continue his work. He did not himself attribute the origin of his illness to this injury, and, indeed, attached so little importance to it, that I only elicited the fact by careful inquiry. He stated his health to have been uniformly good until about eight or nine months before his admission to the hospital, when his illness began with headache, sweating and debility, followed by loss of appetite, sickness and breathlessness on exertion, with pain in the lumbar region and right flank. The symptoms of asthenia steadily increased; faintness was superadded to breathlessness on making any muscular effort; and he had been incapacitated from labour for about two months before he came under our observation a month ago. The gastric disturbance also continued; he had nausea, and retching at other times, as well as vomiting after food; the pains in the loins increased in severity, and became associated with gastralgia and with pains in both hypochondria; and these symptoms were all much aggravated by any attempt to move about. Three or four months after the accession of the first constitutional symptoms, his wife had noticed a slight duskiness of colour, which she believed was at first confined to the face and hands, but which gradually spread over the whole body, and progressively deepened in hue.

On careful examination a few days after his admission, I found the skin generally of an olive-brown colour, which was especially marked on the face, hands, and neck; the shade being deepest on the more exposed parts, and least dark on that part of the forehead covered by the hair. The chest, down to the fourth rib, was paler than the face and neck; but the nipples and areolæ were very dark. From the fourth rib downwards, the colour gradually deepened; the abdomen was very dark; the groins still more so; and the penis and scrotum almost black. The upper parts of the thighs were also dark, but the colour faded away towards the legs, which were very lightly tinted. On the right flank, and also over the lumbar vertebræ, were well-defined oval patches darker than the surrounding skin, corresponding with the sites of blisters which had been applied some months previously for the relief of pain in those parts. The knuckles likewise were more deeply coloured than the rest of the hands. But for the thoroughly English cast of the man's features, the peculiar tinge of the discoloration might have easily caused him to be mistaken for a person belonging to one of the darker races of mankind. The white pearly hue of the conjunctivæ contrasted strongly with the dusky complexion; and this is a peculiarity which has been remarked by all those who have carefully observed genuine cases of this disease. Upon the face were several small black specks, which might have passed for congenital marks, had not the patient's wife assured me that they had appeared since the commencement of his

illness—a statement corroborated by the fact that they have manifestly darkened and increased in size, if not in number, since he came under observation. Lastly, there was a dark stain upon the right edge of the tongue, near the tip; and the lips and buccal mucous membrane generally were mottled with brownish discoloration.

In this description, noted nearly a month ago, I have not found it necessary to make any change; for the only alteration that has occurred is the general deepening of the discoloration characteristic of the later stages of the disease.

The patient has complained more or less, ever since his admission, of pain in the loins and right side, and of occasional pain in one or other hypochondrium, but most frequently in the right. He also complains of difficulty in stretching out his legs when he has been lying for some time on his back, with his feet resting on the bed and his knees raised; and says that this difficulty is caused by a sense of tightness, as though the extension of the legs were restrained by cords situated between the flanks and the groins. He has, moreover, a feeling of weakness in the back, as if it were broken or had a loose joint; and a sense of constriction round the lower part of the abdomen, which seems to start from the weak and painful portion of the spine. He rarely now attempts to leave his bed; but, when he does so, suffers from vertigo, with dimness of sight and sickness, accompanied by such extreme prostration, that he is afraid of falling; and, when he sits down in a chair, can scarcely rise again. He has an anxious, exhausted expression of countenance, which is increased by sitting up in bed; is breathless on the slightest exertion, with a tendency to yawn, especially at nights; has frequent retchings, and rarely passes a day without vomiting. His appetite is bad; bowels confined, the fæces being dark coloured and dry; urine normal. The pupils of his eyes are large, and act sluggishly under the stimulus of light. He is slightly deaf; but his intelligence is unimpaired. He sleeps badly, owing to the pain in the loins, which he says is more intense by night than by day. There is frequently uneasiness on pressure over the epigastrium and one or other hypochondrium, and always great tenderness on pressure, and severe pain on percussion, over several of the lower dorsal and upper lumbar vertebræ; but he has neither difficulty in micturition, nor yet pain, numbness, nor formication in the lower limbs. The pulse varies from 80 to 100, is exceedingly feeble even when the patient is in a recumbent posture, and becomes almost imperceptible when he is raised up in bed. The percussion-resonance over the anterior and upper part of the chest is slightly deficient; and the respiration is tubular below the right clavicle, and harsh below the left. There is also increased vocal vibration on the right side. The percussion resonance is somewhat deficient over the base of the right lung posteriorly, and the respiration is somewhat harsh over the back of both lungs; but there are no moist sounds. The patient has slight cough, and is subject to catarrh. The heart's impulse, though feeble, is comparatively stronger than the arterial pulse; and the sounds are healthy.

The history and progress of this case render it, as I have said, a typical example of Addison's disease; for although it is true that, besides the vertebral complication to which I have already alluded, there exists apparently some slight inactive pulmonary affection, I need not tell you that neither of these would account for the peculiar constitutional symptoms and discoloration of skin which I have described, and which present in an unusually striking and fully developed form all the features recognised as belonging to this remarkable malady.

As regards the assumed vertebral disease, I am led to diagnose it both by the local pain and tenderness in the lumbar vertebræ, and also by the sense of constriction round the abdomen, and the difficulty in stretching out the legs. Lumbar pain, and obscure pain on percussion over the loins, are indeed common in this disease; but here the pain is more severe and better defined than in simple cases of Addison's disease, and is accompanied by the other symptoms which I have described, and which are by no means usual features. I have no doubt that the injury to the back, received now nearly four years ago, produced some mischief, which set up slowly progressive inflammation, with, as I have said, probably caries of the bone and the formation of an abscess; and, if we should hereafter have the opportunity of examining the state of these parts, I expect that we shall find the cellular tissue around the suprarenal capsules thickened, and the capsules themselves infiltrated with tubercular or scrofulous-looking deposit. The time that has elapsed since the injury is indeed considerable, but by no means unparalleled; and I may mention that, in a case of this disease under my own care some years ago, the illness appeared also to have originated from a strain in the back received seven years before the commencement of definite symptoms of Addison's disease. That there is an intimate relation between the vertebral and suprarenal disease in our present case, I am well assured; and I believe the latter to have been caused by the extension of inflammation from the cellular tissue in the vicinity of the carious bone to that surrounding the capsules, and from it, secondarily, to the capsules themselves, which have thus become the seats of inflammatory deposit. My opinion respecting the origin of the suprarenal disease in this case is confirmed by a careful perusal of all the published cases I have been able to meet with; for not only has caries of the spine been found associated with Addison's disease in more cases than any other lesion, excepting always tubercle in the lungs and other organs, but in many other cases in which it was not found I am persuaded, by the symptoms recorded during life, that disease of vertebræ might have been discovered, had it been sought for at the *post mortem* examinations. Moreover, even when no disease of the spine exists, the capsules are often found adherent to adjoining organs, and surrounded by thickened cellular tissue, shewing that inflammation has probably been the primary link in the chain of local mischief.

The pulmonary affection in this case may be of tubercular character; but, whether or not, it is assuredly much too slight to be of any moment in the illness, and far less could it account for the remarkable prostration and other symptoms under which the man is labouring. Seeing, however, that his occupation has been of a very dusty nature, that he has been subject to catarrh, and that there is certainly no marked difference of percussion-note in the two infraclavicular regions, I incline to believe that the slight chest-symptoms are due rather to continued mechanical irritation arising from the inhalation of dust, than to actual tubercular disease. But on this point I can only speak with some doubt and reserve; for the physical signs are slight, an

patient's condition such as to preclude a thorough nination, and it is certain that tubercular dis- of the lungs has been frequently found associ- l with Addison's disease in so quiescent a form as ave given rise to no prominent symptoms during Moreover, as I have myself explained on many usions, the pulmonary affection caused by me- nical irritants is apt to develope slow tubercular ase in persons of strumous constitution.* Be as it may, after eliminating all those symptoms ch can be referred to the vertebral and pul- nary complications, there still remain, in an un- ally complete degree of development, almost all se especially characteristic of Addison's disease of suprarenal capsules; and, before proceeding fur- r, it will perhaps be well that I should sum up se under the two heads of Constitutional Symp- ns and External Signs; as I have observed them, re or less perfectly developed, in all the genuine es of the disease which I have had the opportunity watching.

. *Constitutional Symptoms.* These are gradually gressive asthenia, often originating without any arent cause, and seldom dating from any definite iod; great languor and indisposition for exertion, h, in advanced cases, breathlessness and palpita- n, frequent sighing or yawning, and generally itness on making any muscular effort, sometimes n on being raised up in bed. There is almost ariably great weakness of the heart's action and narkable feebleness of pulse; loss of appetite; tability of stomach with nausea; and towards end always occasional, often persistent, vomit- . The mind is generally clear to the last; but so at is the prostration in the latest stage of the dis- e, that the patient often lies in a drowsy, appa- tly semicomatose state; from which, however, he be roused by questions, and to these he gene- y gives pertinent, though slow and reluctant wers. The above I should class as the character- c symptoms of the disease; but there are, in many es, pains in the loins, hypochondria or epigastrium, e rarely vertigo and dimness of sight, and occa- ally, near death, a tendency to delirium. Death es place from asthenia, and sometimes rather sud- ly. It is a remarkable fact that, notwithstanding great debility which is the earliest and most con- nt symptom of the disease, there is, as a rule, in omplicated cases, comparatively little or no ema- ion. The skin also is soft and cool; the tongue ally clean and moist until the last days of life; bowels seldom disordered, though sometimes con- d; and the urine generally normal. I should not t to state that the constitutional symptoms which ve described are sometimes masked, or have at t been overlooked, in cases in which Addison's ase existed contemporaneously with some other us wasting disease, such as phthisis or lumbar ess; but even in such cases the languor and prostration have for the most part been out of all proportion to the severity of the more obvious complaint.

II. *External Signs.* The external signs of Addison's disease are found in the peculiar features of the discoloration of the skin, which when present in a fully developed form is, I need scarcely say, the most striking symptom of the disease; and has indeed, in most cases, been the main ground on which it has hitherto been diagnosed. This discoloration of skin is generally of a dusky or yellowish-brown, but sometimes rather of an olive or greenish-brown hue, and gives to the persons in whom it is well marked the appearance of belonging to one of the darker races of mankind. The shade is not uniform on all parts of the skin; being generally deeper on the face, neck, and hands, and in the axillæ and groins, than over the general surface of the body. The penis and scrotum and the nipples and areolæ are usually the darkest parts, and their discoloration may be regarded as among the diagnostic external signs of Addison's disease, although it is true that they have sometimes been absent in otherwise well marked cases. If the patient have been blistered, or have sustained any other superficial abrasion of the skin, the injured surfaces are always darker than the surrounding parts; but the cicatrices of deeper injuries usually remain pale, or, at most, are bordered by a dark ring. Very often also, small, well-defined specks or patches, resembling black freckles, are found upon the face, neck, arms, or trunk; but, so far as I have observed, they appear only on the already discoloured parts. Although the discoloration is generally most marked on certain parts of the body, and may even exist on some parts whilst the skin is in other places of normal hue, there is rarely or never, excepting when the boundary coincides with that of some former injury, any definite line of demarcation between the discoloured and normal portions of the skin, but the former fade insensibly into the latter. In strongly marked cases, the characteristic discoloration is also frequently found upon the lips in the form of an irregular stain running lengthwise, and upon the buccal mucous membrane and sometimes also upon the gums and tongue, in the form of patches or mottled stains; but the discoloration on the tongue, in the only cases I have seen, has assumed a somewhat purplish instead of the usual brownish hue. These discoloured patches inside the mouth may perhaps, when present, be considered as the most decisive of the external diagnostic signs of Addison's disease; they afford a further analogy between the discoloration which takes place in Addison's disease and the natural colouring of the darker races, several individuals of these races who have come under my observation having presented similar dark stains on these parts. It is, on the other hand, important to remark that the conjunctivæ always retain their normal hue, and in the more deeply discoloured cases their pearly whiteness presents a striking contrast to the dusky hue of the face.

* This lecture was delivered on the 14th of March, and the patient referred to died on the 28th. In order to complete the case, I mention that the suprarenal capsules were found in the state ipated, the disease being evidently furthest advanced in the apsule. On the left side of the spine, the intervertebral sub- e had been torn, apparently by violence, from the upper surface e first lumbar vertebra for about two-thirds of its depth, and in of the spine, extending from the seventh dorsal to the third ar vertebra, was an abscess, containing about two ounces of curdy pus. The bodies of the vertebræ involved were denuded rough. Both lungs were extensively adherent to the walls of horax, and the apices presented small masses of obsolete creta- s tubercle, surrounded by consolidated pulmonary tissue.

Morbid Appetite. Dr. Pilcher, in the *Lancet*, relates a case of a lunatic lady who was in the habit of eating nails, stones, and crockery. They were retained in the intestines for ten weeks, and subsequently passed *per anum* without having caused much mischief.

Illustrations
OF
HOSPITAL PRACTICE:
METROPOLITAN AND PROVINCIAL.

LIVERPOOL NORTHERN HOSPITAL.

CASES OF COMPOUND FRACTURE OF THE SKULL.

By H. Lowndes, Esq., Surgeon to the Hospital.

Case I. *Compound Fracture of the Skull; Severe Lesions.* John Rourke, aged 25, was admitted on September 9th, 1863, at 10 A.M., with a compound fracture in the right temporal region, caused by his falling into a ship's hold. I saw him at 11.30 A.M. The wound was about two inches in length, and the fracture seemed very extensive, but not depressed. He had had bleeding from the nose; at the time of his admission he was excited and delirious, but has now sunk into a state of coma, from, which, however, he could be roused; handling the fracture brought on excitement again. Pulse 60. 8 P.M. He had just started up in bed, and talked incoherently of going home, otherwise he had lain in a heavy state. Pulse 70, rather hard.

Sept. 10th, 1 P.M. He had taken a little tea, and had been up to micturate, but in general lay and slept heavily. Touching the fractured bone made him roar, and strike about in great excitement. Pulse 70; head hot, and face rather flushed. I ordered the head to be shaved, and ice to be applied in a bladder.

Sept. 11th. He had not passed urine since the previous day. He lay sleeping, and had taken no food; an attempt to give him some made him very violent. If the wound was touched he howled out. The skin of the forehead was rather red and swollen; the wound was dry and angry; there was great ecchymosis of the eyelids. From his great irritability I could not help suspecting depression; and, in order to make a more thorough examination, gave him a little chloroform. I found a simple fissure of the bone extending both downwards and upwards beyond the wound; neither edge was at all depressed, but the great mobility of the parts satisfied me that the fracture extended deeply towards the base; and I determined not to interfere with it. A poultice was applied to the wound, and a turpentine enema given; and the urine drawn off regularly.

Sept. 12th. He was lying with his eyes open, and answered when spoken to. The injection operated well, and he had taken some beef-tea and milk, and had passed urine himself. He rambled a good deal. I ordered him to have a drachm of tincture of sesquichloride of iron every four hours.

Sept. 13th. He was much worse, quite insensible; had taken no food during the day; pulse 120; intense heat of skin; great palpitation in the epigastric region. I ordered a turpentine enema. He died about 5 P.M.

Autopsy, on Sept. 15th, at 1 P.M. While the scalp was being a reflected, a quantity of sanious fluid poured from the nostrils. The skull was found to be very extensively fractured. The fissure that was seen in the wound was an offshoot from a long crack, extending upwards towards the vertex, and in a downward direction dividing into three main splits, two of which entered the right orbit, and passed down to the body of the ethmoid bone, while the other passed into the squamous portion of the temporal. One fissure crossed over into the roof of the left orbit. The portion of bone most extensively injured was just above the right supraorbital ridge, and fully two inches from the external wound; at this point a fragment of bone was found driven into the brain, and here brain matter was found under the scalp; one large triangular piece of bone lay quite detached, but not depressed; and the roof of the right orbit was fractured in several directions, and one portion of it quite isolated. There was some blood effused, both under the scalp, and under the dura mater. There was some lymph effused on the surface of the brain at the point to which I have referred, and also between the two anterior lobes. The whole of the right anterior lobe was in a pulpy state, its upper part quite disorganised. The rest of the brain seemed healthy.

Case II. *Compound Fracture of Skull, with Depression; Removal of Depressed Bone.* Robert Williams, aged 29, was admitted on December 3rd, 1863, at noon. He had fallen from a high stage leading to a ship's deck on to the wharf. I saw him at 1 P.M., and found that there was a large semilunar flap of scalp; under this the pericranium was exposed for some space, and at one point there was a fracture, with evident depression. The depressed portion was nearly of the size of a shilling; and nearly the whole thickness of the skull could be felt in a portion of the cavity into which the bone had sunk. The wound had bled a good deal; the pulse was low, but the patient was quite sensible. I passed the point of a strong cutting forceps under the raised edge, and removed a piece large enough to allow the elevator to be introduced. The depressed portion was then removed. The inner table was extensively splintered, and a rather long sharp piece that lay loose near the margin of the hole was removed. The dura mater was found to be uninjured. The flap of scalp was laid down again, and the wound dressed with dry lint and a bandage. There was still much collapse, and I ordered six ounces of brandy.

Dec. 4th. He was going on quite well.

Dec. 5th. There were no bad symptoms. The wound was dressed with wet lint; its edges were in apposition, and it looked extremely well. The patient was ordered to have beef-tea and milk; no stimulants. The bowels being costive, six grains of calomel, with twelve of rhubarb, were ordered to be taken immediately.

Dec. 6th. There was high fever; the face was flushed; pulse 120; the skin hot; great thirst. The patient was ordered to have fifteen mimims of tartar emetic wine three times a day.

Dec. 7th. He had been delirious in the night, but was now collapsed; surface cold, pulse not to be felt; his mind was confused, but he knew me, and spoke rationally. He died that evening.

On Dec. 9th, I examined the fracture. The wounded scalp was in part adherent to the parts beneath. The exposed portion of dura mater was covered with a layer of fibrinous lymph, and there was adhesion of the dura mater around the opening in the skull. The dura mater was now laid open with a crucial incision, and found not adherent to the parts beneath; the portion of brain exposed looked healthy and firm, very slightly, if at all, injected, and quite free from any deposit of lymph on its surface. On Dec. 10th, I had the calvaria removed. The veins of the dura mater were gorged with blood. The petrous portion of the right temporal bone presented an ecchymosed appearance, but I could detect no fracture at this point. The portion of the brain corresponding with the external wound, could not be distinguished by its appearance from any other part of the surface, and there was no

projecting or very sharp point of bone at the edge of the opening. The surface of the brain was rather injected, particularly about the base and the cerebellum, and here there was some softening. The general surface of the brain was firm; the ventricles did not contain more fluid than usual, but there was a good deal of fluid in the subarachnoid space. The sinuses were all gorged with blood.

I find in my notes, taken at the time, "I am inclined to think a small bleeding or leeching would have done good in this case, also ice to the scalp."

I need not say that the result in this case was very disappointing to me. The dura mater had not been injured, the whole of the depressed bone had been removed, and for some time the case had gone on well. The morbid appearances at the *post mortem* examination were but slight, and had reference to the base of the brain, where there was no very distinct mark of injury.

Case III. *Compound Fracture of Skull; Hemiplegia; Removal of Depressed Bone.* Michael Noon, aged 32, labourer, was admitted on the morning of Sept. 26th, 1864. A brick had fallen on his head, from some height. There was a wound just to the right of the vertex, and a portion of bone, about the size of a shilling, was completely driven in. He was sensible, but had partial paralysis of the left side. I saw him at 5.30 P.M. There had been no change; he was rational, and could talk, and was free from pain, with the exception of some soreness about the neck and throat, pulse 70. There was partial paralysis, as before; he could lift the left hand slightly, and had complete use of the right hand; the left leg was slightly affected. At one point of the depression a portion of brain-matter could be seen protruding through a fissure, and pulsating. By cutting through an overlapping portion of bone with bone forceps, I was able to introduce the elevator under the depressed portion, but only succeeded in removing the outer table, which seemed to have become almost detached from the inner. The inner table was fractured to a greater extent than the outer, so that there was now this depressed inner table to remove, and I had some difficulty in introducing first a director, and then an elevator, underneath it, and so raising it, and removing it with dressing forceps. There was a good deal of venous bleeding. The wound was loosely brought together, and dressed with a pad of lint, saturated in blood. Low diet was ordered. After the operation, the patient could move the left hand more, but still feebly. He dozed off to sleep in a few minutes.

Sept. 27th, 1 P.M. He had been easy, and had passed a good night. Pulse 84; there was still much loss of power in the left hand and arm; sensation was not affected.

Sept. 28th. He could now move the left leg very freely.

Sept. 30th. The wound was looking well; a poultice was applied; the right side of the head was rather swollen; pulse 72; the bowels had not been moved; and he was ordered to have a castor oil enema immediately.

Oct. 1st. He was better, and free from pain; the bowels were open; pulse 60.

Oct. 6th. He had much pain in the left arm, there was no more power in the limb; the wound was looking well.

Oct. 7th. The pain in the arm was more severe.

Oct. 8th. He had pain in the head; the bowels were confined; pulse 56; he was ordered to have an ounce and a half of compound senna mixture immediately.

Oct. 9th. The pain in the head was gone; pulse 52.

Oct. 10th. He was ordered to have four ounces of port wine, and a chop.

Oct. 12th. He was doing well; pulse 64; tongue clean; the aperient draught was repeated.

Oct. 13th. The bowels had not been moved; and he was ordered eight grains of compound colocynth pill immediately.

Oct. 18th. He had more power in the arm, and could open the hand.

Oct. 25th. He had much more power, and sat up in bed; a shell of bone was bare, and becoming loose. This was afterwards removed. The bowels still remained torpid for some time, but he completely regained the use of his arm, and was discharged cured on December 2nd, 1864, and has remained well ever since. He has just married, and is about to set out for Queensland.

Case IV. *Compound Fracture of Skull; Extensive Extravasation of Blood.* John McGuffie, aged 33, labourer, was admitted on October 6th, 1865, at 8 A.M. Whilst at his work, a large hammer, weighing ten pounds, fell from a height, and struck him on the right side of the head. There was a large scalp wound a little in front of the right parietal eminence, and an extensive fracture could be felt, and a sharp edge of bone apparently raised a little above the level of the rest of the bone. He was sensible; and beyond restlessness, and some collapse, there was no marked symptom. I saw him soon after admission, and saw no reason to interfere, but gave directions to be sent for at once if serious symptoms set in. About 4 P.M. the right pupil became dilated, insensibility gradually came on, the pulse fell to 50, and at 5.30 there was total insensibility, and dilatation of both pupils. At 6 P.M. I saw the patient; symptoms as above, breathing slow and stertorous. As I was pretty sure that extravasation of blood had taken place, I was preparing to trephine at the seat of fracture, when I found that the raised portion of bone was completely broken through in two parts, and could readily be removed; it included the whole thickness of the skull, which was remarkably thin. The removal of this piece of bone exposed a large firm clot, at least an inch thick, pressing upon the dura mater. With the bone-forceps I enlarged the opening sufficiently to allow me to introduce a finger, and with that and a scoop I removed a large quantity of clotted blood. The dura mater seemed healthy, but was much depressed, and did not then recover itself. The pulsation of the brain was distinct. I could pass my finger down into the temporal region without feeling the limits of the clot. Some little arterial hæmorrhage took place from the interior of the skull, and the head was raised, and ice applied. He became more sensible after the operation. A little milk was ordered, and an enema with brandy given.

Oct. 7th, 1 P.M. He had vomited a good deal during the night. There was no bleeding from the wound; pulse about 90. He was more sensible, and answered when spoken to. He had passed urine. A colocynth enema was ordered to be given immediately.

Oct. 8th. He was quite insensible; the bowels had not acted; pulse 140, full; skin intensely hot, and also moist; he passed urine, and took a little brandy now and then.

Oct. 9th. Pulse 140; there was heat of skin; the lungs were loaded. He gradually sank, and died about 3 P.M.

Post mortem Examination, Oct. 11th. On removing the skull-cap, the fracture was found to extend from a little in front of the right parietal eminence, downwards through the squamous portion of the temporal bone, then inwards along the upper surface of the

petrous portion nearly to the sella turcica, and downwards again, quite into the foranen magnum. Two pieces of the squamous portion of the temporal bone were lying loose. Far below the original wound on the head, a very large clot was found, lying between the dura mater and brain. The brain generally was free from inflammatory appearances.

Case v. *Compound Fracture of the Skull; Slight Depression; Removal of Portion of Bone.* William Cogan, aged 28, labourer, was admitted on the morning of November 15th, 1865. He had been on a lighter passing up pig iron into a ship, when a large broken portion of a pig fell on his head, fractured the skull on the left side near the occiput, and drove part of a pocket handkerchief into the fracture. One edge of the fracture was depressed to about the half the thickness the bone. The external wound was very small. He was not unconscious, and there was no irregularity of the pupils. There was slight bleeding from the nose. At 1 P.M. I enlarged the wound, and with the curved bone forceps removed a portion of bone about the size of a shilling, and elevated the remainder of the depressed part. There was copious venous hæmorrhage from the diploe; the dura mater was found to be quite uninjured. Low diet was ordered.

Nov. 16th. He was rather feverish; had not much pain.

Nov. 17th. Pulse 84; no pain in head. He was ordered to have an aperient draught, and to take beef-tea and milk.

Nov. 18th. His head had been painful during the night; bowels not moved. Ten grains of compound colocynth pill were now given, and followed on the morning of the nineteenth by a castor oil injection, without effect. A minim of croton oil and five grains more of the pill, were ordered, and acted freely.

Nov. 20th. Pulse 72; appetite good; the wound was looking healthy.

Nov. 25th. He was allowed to have a chop.

Nov. 28th. He was doing well; and was ordered to have half a pint of porter.

Dec. 8th. He was made an out-patient. The wound was nearly healed; and in every other respect he was perfectly well.

Case vi. *Compound Fracture of the Skull; Depression.* Peter Marsh, aged 21, was admitted early on the morning of December 27th, 1865, with a compound fracture of the skull. There was an extensive scalp-wound on the right forehead, one portion of scalp being missing; and the bone was exposed for a considerable space, and dry. The fracture seemed of great extent, and was, at one point, considerably depressed. He had been found at daybreak lying on the platform at Preston Road Station, and it was not known how the injuries were received. When I saw him at 10 A.M., he was insensible, pulse very low, pupils dilated, the right one more than the left. I removed with a lever a large portion of bone, fully two square inches in size. The dura mater seemed bruised and roughened. Wet lint was applied, and brandy and beef-juice were ordered. At 1.30 P.M., I found him restless; he could not be made to take anything; pulse 48.

Dec. 28th. Pulse 56, intermittent every third or fourth beat. He took very little nourishment.

Dec. 29th. He was rather better; pulse 72. He had been quite maniacal the previous evening, and had passed a restless night. The pupils were now alike, and acted imperfectly. He was ordered to have half a grain of muriate of morphia immediately, and to omit the brandy. 9 P.M. Pulse 100; he had slept a little, but was still restless.

Dec. 30th, noon. Pulse 124; pupils natural. He had slept since midnight; his bowels had not been moved. A colocynth enema was ordered. 9 P.M. Pulse 140, weaker; he was not sensible; the bowels had not been moved. I ordered an enema with an ounce each of castor oil and oil of turpentine, also a little brandy, but he could hardly take any.

Dec. 31st., noon. He had vomited this morning: pulse 124, sometimes intermittent. He had recognised his parents for the first time. He was now in a quiet sleep; his bowels had not yet been moved. The injection was repeated, and his head was shaved. The exposed dura mater was sloughing. The whole right temporal fossa seemed filled with fluid, and the skin at the back of the ear was red and tense. 9. P.M. Pulse 112, weak. He was much more sensible; his bowels had been moved sparingly. He had slept a good deal; he felt hungry. The enema was ordered to be repeated.

Jan. 1st, 1866. He was quite sensible, and talked rationally. As the swelling under the temporal fascia was very painful, an incision was made behind the right ear, and a large quantity of semifluid blood evacuated.

Jan. 2nd. Pulse 84. The enema was repeated.

Jan. 4th. Pulse 68. He had been rather wilder in the night; there was some pain in the head. He was ordered to have five grains of calomel with ten of jalap immediately.

Jan. 5th. The bowels were open; head free from pain.

Jan. 6th. Pulse 68. The tongue was quite clean.

Jan. 9th. He had a good night, and felt quite well; pulse 72. He was ordered to have roast slice for dinner, and a pint of milk.

Jan. 10th. He felt very well and wished to sit up. Extensive suppuration took place in the temporal fossa, and, as it did not find free vent by the opening already made, this was enlarged. Slight hæmorrhage took place from the incision, on Jan. 16th, and again on the 23rd to a more serious extent. I had to enlarge the opening again freely, and secured what seemed to be the bleeding points. On examining the bone that was now freely exposed, behind and above the ear, we found an extensive fracture, evidently continuous with that on the forehead, and there was slight depression. A tablespoonful of wine was given every two hours.

From this time he steadily improved, the original wound was closing, and looked healthy. On Feb. 2nd, 1866, he was discharged at his own request, and went home to his friends in the country.

I learnt that some further hæmorrhage took place, and that a very large shell of bone in the temporal region afterwards exfoliated, and had to be removed by a still further dilatation of the incision behind the ear.* He gradually gained strength, and has called at the hospital recently, quite well.

In this case the fracture was very extensive, extending, in an arched direction, from the forehead to behind the ear, and the dura mater was injured. The collapse and insensibility lasted a very long time, and were followed by dangerous reaction. The patient was a young man, brought up in a healthy country district, and of abstemious habits, and to these circumstances his recovery may be, in great part, attributed.

Case vii. *Compound Fracture of Skull; Removal of Bone Four Days after Admission.* William Hawthorne, aged 30, was admitted on April 11th, 1866, at 8 P.M., suffering from a compound fracture of the skull. On the right side, near the occiput, there was

* Dr. Marsh of this town, who saw the patient at his own home after he had left the hospital, has kindly shewn me the piece of bone that was removed. It consists of a portion of the edge of the squamous part of the temporal bone, and also of a very large piece, nearly three inches long, of the parietal bone—not a mere shell, but the *whole* thickness of the bone.

a large scalp-wound, but not much bone exposed; and no very distinct depression was ascertained on his admission. He was partially unconscious. There was a good deal of hæmorrhage. He had fallen into the hold of a ship. He was ordered tea night and morning, and beef-tea. The next morning the catheter had to be passed, but was not required afterwards. He became quite sensible, took his food well, and seemed very well, until April 15th, when, after taking tea, he was seized with convulsions. At 8 P.M. I saw him; he had just had two epileptiform attacks, and could now hardly speak. The right pupil was greatly dilated, and acted very slightly, the left was nearly normal. Pulse 60, weak, and rather irregular. As the fracture extended beyond reach, I enlarged the wound forwards, on the right side, along the course of the fracture, for above two inches, and then found a considerable depression at one part. Here I was able, without much difficulty, to get the strong curved bone pliers under the raised edge, and remove a portion of it, and then with the lever to break out a portion of the depressed bone, and to elevate the remainder. The aperture disclosed a considerable coagulum lying upon the dura mater; it was of firm consistence, and dark colour, and had apparently been formed for some days. It adhered very firmly to the dura mater. I removed as much of this clot as I readily could. The dura mater seemed uninjured, but a good deal depressed, and did not then recover itself. There was a good deal of bleeding from the divided bone, which I was able to control by little compresses of lint pressed firmly against the edges for some time. After the removal of the clot, the right pupil became more active, but was still a good deal dilated.

April 16th Pulse 72; tongue clean. He was quite sensible, had had a very uneasy night, and had a good deal of pain in the head. His urine had to be drawn off. The right pupil was rather dilated, but acted pretty freely.

April 17th. He had had a good night. Pulse 80; tongue clean. He had still some pain in the head, and some dilatation of the right pupil. He took his food pretty well, and could pass urine. His bowels were moved yesterday. The wound looked healthy; a poultice, not to be applied hot, was ordered.

April 18th. Pulse 72, not quite regular; tongue dry in the centre. He complained still of pain in the head. The wound looked healthy, and was suppurating freely. The pupil was almost natural. He had had a good night, and his bowels had been moved this morning. His face looked flushed.

April 19th. Tongue moist; pulse 92. He had slept well; had great pain in the head. I ordered him a pint of milk daily.

April 20th. He was going on well.

April 21st. Pulse 92; tongue clean; wound healthy. He had slept well; the pain in the head was less. The right pupil was still rather dilated. His appetite was quite keen; he was ordered chop and rice pudding.

April 22nd. Pulse 64, weak, intermittent; tongue clean. He has slept well. He was ordered to have four ounces of wine.

April 23rd. Pulse 88, regular; tongue clean; head easier. The wound looked healthy, and the dura mater was seen pulsating, covered with granulations.

April 25th. He was going on well, and had no pain. The right pupil was still slightly dilated.

May 15. He was still remaining in the hospital, but was quite well. The wound was healed as nearly as possible, and hardly any difference between the pupils could be discerned.

July 2nd. I am still keeping him in the hospital, though he remains perfectly well.

In this case it is remarkable that, though no prominent symptoms appeared before the fifth day, the clot had evidently been formed about the time of the accident, and that there were no inflammatory appearances to account for the access of convulsions. As the attack came on just after tea, we may suppose that there was some vascular excitement which the slightly compressed brain could not bear, as we see patients who have suffered depressed fractures of the cranium subject to epileptiform seizures on any excess.

A most important question in relation to injuries to the head is this: if we have a compound fracture of the skull, with evident depression of greater or less extent, but no symptoms of compression, ought we at once to trephine, or in other modes elevate the depressed bone, or ought we to wait for symptoms? As far as my experience goes, founded on several cases in addition to those I have now recorded, I am inclined to think that wherever the depression is at all marked we ought to interfere, and certainly wherever we have reason to suspect, from the nature of the blow, that the inner plate is extensively fractured. I remember having in one week at the hospital two patients admitted; they both had compound fractures affecting the same part of the skull; there was, in both cases, a moderate amount of depression, and there were no symptoms of compression in either case. They were both left to nature; one recovered; the other, an older man, was seized about the eighth day with inflammatory symptoms of a low type, and soon sank.

I cannot think there is any serious danger, either in trephining, or, when practicable, in removing portions of bone with the cutting forceps and elevator. When we have done that, we are no longer in the dark; there will be no irritating bone left to be perhaps for ever a torment, and no clot to hereafter undergo suppuration; at any rate, a vent will be left. It is a very rare thing for trephining to succeed when it is not undertaken until inflammatory symptoms come on.

THREE CHILDREN AT A BIRTH. The wife of Wm. Stone, of Dan-y-quarry, near Pembrey, had three children born to her on the 16th instant—two boys and a girl. (*Cambria Daily Leader.*)

LEAD-POISONING FROM LEAD GROUND UP WITH FLOUR. During two months, the *New York Tribune* says, people residing in Walkill Valley were attacked by symptoms of lead-poisoning, and in some cases whole families were stricken, and death was caused. The most prominent symptoms were constipation, severe pain in the abdomen, nausea, and vomiting, colic, difficulty in voiding urine, and in many instances the evacuations being mingled with blood; pain and heat in the region of the kidneys, cramps, and partial paralysis of the upper extremities, and an anxious, gloomy expression of countenance. After considerable research, it was found that the lead was conveyed into the stomachs of the sufferers by bread and meal, and, as a greater part of those staples were manufactured at a mill at Phillipsburg, an investigation was made there. It was found that the holes in some of the mill-stones, instead of being filled up with cement, were filled with common lead. The attrition detached particles of lead from the stone and mingled them almost imperceptibly with the flour. The lead when subjected to the baking process, was transformed into carbonate. Dr. Dorrance and Mr. King, on analysing the flour, found lead in it. No less than two hundred and thirteen cases were treated by physicians in the neighbourhood.

Original Communications.

NOTES AND OBSERVATIONS ON DISEASES OF THE HEART AND LUNGS.

By T. Shapter, M.D., F.R.C.P., Senior Physician to the Devon and Exeter Hospital, etc.

[*Continued from* p. 488 *of* vol. i *for* 1866.]

It is now proposed to see how far that law of hydraulics which, while enunciating that the momentum of a liquid is as great as that of a solid, further states that anything which receives the momentum will receive as severe a blow as if from a solid, is applicable to the normal valvular sounds emitted by the heart, and is borne out by the rhythmical phenomena observed during the heart's action. In considering the effect of these phenomena, we soon find that the estimation of other conditions and elements is necessary, viz.: the capacity for resonance of the various tissues which are directly influenced by this momentum, and how far the parts immediately surrounding them are media favourable for the conduction of sound. Nevertheless, they neither add to, nor detract from, the above law.

To proceed. Immediately succeeding the second sound, there is the "pause", occupying two-fifths of the period in which the cycle of the heart's action is performed. The "pause" is characterised, with the exception of the presystolic sound, which is probably due to the eddying of the blood as it passes through the auriculo-ventricular openings, by no ostensibly external active phenomena. It is the period in which the ventricles, by the agency of their elasticity, are gradually expanding, and therefore drawing or sucking in the blood from the right auricle and vena cava, or from the left auricle and pulmonary veins, as the case may be. This is done, looking to the supply afforded by the auricles, so gradually, that the auricles are scarcely collapsed thereby, the blood apparently flowing into these latter almost, if not quite, as quickly as it is thus drawn from them. In all this there arises no obstruction to the flow of blood, nor any indication of the formation of eddies, save, as above stated, such as may be indicated by the presystolic sound; the blood passes easily and inaudibly from the auricles into the ventricles.

This period of the "pause" is then succeeded by the first sound. This takes place at the precise moment in which the ventricles start into contraction, and when the mitral and tricuspid valves are thrown back and closed by the blood thus forcibly impinging against them, and when, as a necessary consequence, these valves recoil on the onward current of blood proceeding through the auricles. One of the functions of the auricle, and perhaps the chief, is now exemplified; for, so sudden and so violent is this closure of the valve, that the obstructed current immediately distends the auricle, and, were it not for its elasticity on the one hand, rupture might ensue, and for those fleshy columns, the *musculi pectinati*, on the other, a constantly recurring over-distension.

The following observations made by Dr. Carpenter (*Principles of Physiology*, p. 557) are so confirmatory of the above, that I venture here to quote them, especially as the facts mentioned therein were recorded entirely independently of the views now sought to be deduced from them. He is referring to the case of a child which came under the notice of Cruveilhier, and where, from the accidental exposure of the heart, ample opportunity was afforded for carefully observing the phenomena, and that by a practised and most competent observer. "The diastole of the heart has the rapidity and energy of an active movement: triumphing over pressure exercised upon the organ, so that the hand closed upon it is opened with violence. This is an observation of great importance; but of the cause to which this active dilatation is due, no definite account can be given. But the dilatation of the auricles appears to be much greater than can be accounted for by any *vis a tergo* (which, as will hereafter appear, is extremely small in the venous system) or by the elasticity of its substance, for it was observed in this case to be so great that the right auricle seemed ready to burst, so great was its distension, and so thin were its walls. Moreover, the large veins near the heart contract simultaneously with the auricular systole, and not with its diastole, so they can have no influence in causing its dilatation."

The first sound, then, is synchronous with this distension of the auricle, and with the simultaneous closure of the auriculo-ventricular valves, and occupies, equally with the preceding "pause" two-fifths of the time consumed in the cycle of the heart's action. Assuming it to be due to the forcible closure of these valves against the stream of blood flowing from the auricle into the ventricle, this dull and prolonged sound may be accounted for partly by the energy of the valvular contraction, and partly by the comparatively large column of blood thus acted on; but chiefly by this column itself impinging on a large amount of soft membranous material, the sound being thus distributed and rendered less sharp, as it also probably is by the expanding of the auricle itself, by which the momentum of the fluid is modified.

It is probable that all these causes, more or less, combine to make that difference in the duration and quality of the first sound, from that which is observable in the second sound, by which it is immediately succeeded.

This second sound, which is comparatively loud and sharp in tone, occupies a duration of time amounting to only one half of that proper to the first sound, and takes place at that moment of time in which the ventricles, after having by their rapid and forcible contraction closed the auriculo-ventricular valves, and after having impelled the blood contained within them into the arteries, resume their quality of elasticity, and then again commence their suction-power. They now offer the condition of being able to redraw back to themselves the blood they have just discharged; but no sooner is such a backward stream commenced, than the semilunar valves are forced thereby into action, and here there occurs, as was the case on the closure of the auriculo-ventricular valves, a sudden obstruction to a moving current of fluid. But this obstruction, though prompt and energetic in its action, and effected through the medium of membranes easily acted on by the opposing current, and being from their structure better conductors of sound, has not to contend with so large an amount of fluid as is the case with the auriculo-ventricular valves, when their respective contractions take place, nor does the fleshy and contracted and consequently empty ventricle offer so fit a medium for the distribution of sound, as is the thin and distended auricle. Hence this second sound is short, sharp, and loud, while the first is dull and prolonged.

The cause of these two sounds is, primarily, the interrupted momentum of the moving fluid; their quality and duration being due to the density

of the medium of the obstruction that receives the blow of this interrupted momentum, together with that of the parts surrounding, they being the means whereby the sound is conducted and rendered appreciable.

Such, then, is the explanation now offered of the normal rhythmical sounds of the heart; but experience shows that these may be variously interfered with, and to the pathologist there then arises an anxious field of inquiry. It now becomes necessary to ascertain whence proceeds this interference, and to what morbid changes or disordered actions it may be due.

Of the disturbance in rhythm only, nothing need here be said, as it will be the subject of reference presently; but we will pass on to a brief consideration of the special physical causes of the substitution, by murmur, of the normal sounds.

In pursuing this inquiry, it will be found that the hydraulic law of the production of sound by the eddying of currents still satisfactorily explains the phenomena of these murmurs, and that a due appreciation of the bearing of this law will assist greatly towards forming just and satisfactory conclusions in the instances presented to us. In the course of discussing some of these, to be subsequently more particularly referred to, this will be rendered more obvious. For the present it will, by way of illustration, be only necessary to summarise some of the more salient positions induced by disordered action.

If the mitral or the tricuspid valves, though efficient as regards their valvular office, present any obstruction to the flow of blood, there will arise a murmur, and this will precede and perhaps entirely take the place of the first sound. In the former of these two instances, the murmur is concluded by it. More often, however, the murmur entirely masks the normal sound; but in both the murmur is induced by some valvular obstruction or want of proportion between the current of blood and the aperture through which it passes, so that a sonorous eddy is thereby caused. But if there be imperfection in these valves, whereby, on contraction of the ventricles, a regurgitation of blood takes place into the auricles (and it is well to bear in mind that this is not an unfrequent condition of these valves, both in disordered states of the heart, as well as in its diseased states), the first sound is never heard, but only a murmur, and that a protracted one, and sometimes even so protracted as to greatly interfere with the audibility of the second sound, or at any rate with its easy and correct appreciation.

The explanation of the above is, that the imperfection in the valves, as regards their closing function, does not efficiently offer an obstruction to the momentum of the flowing current, and hence there is wanting the normal first sound, whilst the murmur, in place thereof, may probably be due to a sonorous eddy in the blood as it enters the ventricle, but certainly to the eddy induced by the regurgitation into the auricle through the limited aperture in the unclosed valve, during the contraction of the ventricle. When the murmur is so protracted as to interfere with the second sound, there is generally abnormal patency, permitting a sonorous regurgitant eddy, and this may succeed and be continuous with a sonorous eddy caused by obstruction to the stream of blood when flowing into the ventricle. The sounds induced by these two eddies are so continuous as to be undistinguishable by the ear, as having two separate and independent sources for their production.

Under these circumstances, the above phenomena will certainly occur, unless it be in those rarer cases where, with a dilated and enfeebled ventricle, the valves are so patent as to offer little or no obstruction to the regurgitant blood; then perchance no proper murmur may occur, but only a continuous and tumultuous sound. The explanation of this is to be found partly in the very undue patency of the valves, and partly in the enfeebled and disordered condition of the ventricle, inducing a deficient momentum in the current of the blood itself.

If there be an obstructing imperfection in either of the semilunar valves, uncomplicated with other morbid complication, there will be a murmur, most probably so distinct and pronounced as somewhat to interfere with the audibility of the first sound—this is, as it were, absorbed and overpowered by it. The second sound immediately succeeds this murmur. Both the murmur and the second sound are heard most distinctly at the base of the heart, over the region of the aortic valves, and in the course of the aorta. This series of phenomena is explained by the sonorous eddying of the blood produced by the imperfection of the valve being synchronous at its commencement with the first sound. For the most part, obstruction is the cause of the murmurs in the semilunar valves. More rarely they are produced by imperfections permitting regurgitation; and then, when regurgitation with an attendant murmur does exist, it is almost always preceded by murmurs as the evidence of obstruction.

It is necessary to observe great caution in concluding the presence of a regurgitant murmur in the semilunar valves. It is probable that it is less common than is generally assumed to be the case; and, most certainly, a murmur often appealed to as evidence of an imperfection in these valves permitting regurgitation, has been eventually shown not to be due to this cause; but, possibly, to only very slight obstructive causes to the systolic flow, or, may be, to some dilatations in the aorta, or even in the pulmonary artery. In investigating and diagnosing the source of these murmurs, it must not be lost sight of that, as they are due not exclusively to regurgitation, but to perturbations in the flow of the blood, they may equally be produced by aneurisms in these arteries, and where there is no regurgitation, as by that amount of imperfection in the valves which permits it.

To what indications are we, then, to appeal for a correct diagnosis as to the precise seat and origin of a murmur thus situated, so as to decide whether it be, firstly, caused by imperfection in the semilunar valves, or, secondly, whether it be regurgitant or otherwise? Certainly, not to the quality of the sound itself; but, amongst other circumstances, to its position as regards time and place; and the due estimation of this is, more frequently than otherwise, most difficult; for, if these valves present so imperfect a condition as to permit regurgitant murmurs, they likewise are deficient in that perfect condition of structure necessary to offer a complete and successful opposition, or contraction, to the momentum of the obstructed stream of blood.

On looking exclusively to these valves, we might perhaps say that, where a murmur is synchronous with the heart's systole, it is due to obstruction, and to obstruction only; but that, where it is synchronous with the diastole, then it is due to regurgitation. In this latter case it should be somewhat prolonged, as continuing during the more lengthened period of the diastole—it being then, and then only, when regurgitation should ensue; and, inasmuch as the diastole is more gradual than the systole, and the arteries, whether aortic or pulmonary, are not favourable vessels for supplying, in a retrograde mode, blood to the ventricles, the regurgitant sounds would be comparatively feeble, and for the most part continuous with

the systolic murmur, or so in succession to it as to present what may be termed a double murmur. Regurgitant murmurs in the semilunar valves are, however, comparatively but of rare occurrence.

The two normal sounds of the heart, as has been shewn, are due to the closure of the valves against the current of the blood. The murmurs, on the other hand, are, as regards the valves, heard under disordered conditions of these valves, so that their normal relations to the flow of the blood become disturbed; and hence they may arise whenever there is a current of blood relatively too large for the aperture guarded by these valves, and thus presenting a condition of obstruction to its free flow. Any circumstances, therefore, occurring to these valves whereby the fluid passing through them finds a narrowed passage will produce a murmur, and consequently it is immaterial, as a source of sound, whether the blood flows normally onwards or abnormally backwards—the physical condition as regards production of sound is the same.

It may be, in the present day, no very difficult task to set forth what may be the sounds heard as proper to each lesion of the heart; nevertheless, practically, a differential diagnosis is frequently fraught with great difficulty, inasmuch as the sounds and murmurs are often continuous, or one sound may mask or entirely supersede another. Then, again, there is the contiguity of the similar parts of the two hearts, and the synchronism in their actions and their sounds, to be estimated and carefully and duly separated.

The due appreciation of these confusing indications requires much practical skill, and a large necessity for taking into consideration many attendant circumstances. Some few of these constantly recurring difficulties in diagnosis will now be referred to.

[*To be continued.*]

CHLOROFORM IN DYING.

By Joseph Bullar, M.D., Physician the Royal South Hants Infirmary.

So many cases where most attention is expected, are those where disease can only be palliated, that palliation becomes a very important part of our duties. Few of this large class are more distressing, than when extreme restlessness and sleeplessness accompany the exhaustion of the last days or weeks of the life of the very aged, especially when (as is often the case) the mental consciousness is still active, and the failure of power in the vital organs is actually felt, with none of that physical courage to bear the suffering, which the same patients had when younger and stronger. That true health, or at least that tenacity of life on which its long duration depended, keeps them alive and suffering, and conscious of this suffering, for a length of time tedious to themselves and often most wearisome to those who watch over them, and who look (so often in vain) to medical aid for an alleviation which would relieve themselves as well as the patient.

Small opiates, which at an earlier stage may have been useful, at this later one often aggravate the distress instead of soothing it; and it is in this condition that the cautious inhalation of chloroform is a great boon.

A lady, aged 82, had been for some years confined to her bed and sofa, and, without any appreciable bodily disease, was now gradually sinking. For some years she had suffered mentally from depression taking a religious form as to her soul's safety, and so persistently, that it seemed like a delusion from the powers of the brain becoming enfeebled. But she had a good appetite; could employ herself much with finger-work; and, though confined to her room and much in bed, had a very fair amount of bodily health. Some months before her death, the delusions were attended with more excitement and irritability; she slept less, and often not at all; and her appetite gradually declined. Small doses of liquor opii sedativus (from five to ten drops) at night soothed her at first; but, as her strength diminished, the same doses excited her brain, and she lay in a very distressing state of restlessness and prostration, exacting constant attention from those watching her. She lost her appetite and power for solid food, and could only take small quantities of beef-tea and weak brandy and water. In this painful condition, about five weeks before her death, I recommended the inhalation of twenty drops of chloroform at a time at bedtime, on a handkerchief; having first given it to her myself, to see whether it soothed and was agreeable to her, or otherwise; and it was found that this prevented the exciting affects of the liquor opii sedativus until its narcotism exhibited itself, and by both together she had quieter nights. But, after a few days, the opiate was discontinued, as it excited, and chloroform alone used, with so pleasant a result to the patient herself, that she frequently, by a sign, indicated her wish to inhale it, and was partially for a month and wholly for five days before death kept almost constantly under its moderate influence. The effect was to quiet the delusions, to make her mind peaceful and happy, and also to raise the pulse and respiration. Her daughter observed this, and I found it to be the case. When she was so weak that the pulse could only be felt with difficulty, a short inhalation of chloroform rendered it distinctly perceptible, and the respiration became slower and more natural.

At my request, one of this patient's daughters stated in writing their observations on chloroform in their mother's case, as the inhalation was carried out by these ladies and a middle-aged sensible attendant.

"A pleasing feature in her case," writes the daughter, "was, that chloroform never made her really insensible; it only lulled her pain, gently calmed her spirits, and frequently, but not always, sent her to sleep for a few minutes, when she would awake quite herself, with a perfectly natural look and manner, and perhaps ask how long she had been asleep; and this after so many months of fearful excitement. We felt nervously anxious at first of giving her too much, and we never omitted to watch the pulse. One morning, after breakfast—a time when she was generally low—I had given her the usual dose of brandy and water, when she said, 'I do not like the brandy as I did; give me some of the nice stuff to smell' (meaning chloroform). I did so with some anxiety, as she was so low, when, to my great relief, the pulse gradually rose. I continued giving small doses at short intervals, when it very soon regained its usual strength. After this, we constantly noticed the same thing; and we no longer hesitated to give her as much as she craved, especially as the breathing powers were much relieved and became more free, and the countenance took a peaceful and happy expression, such as we had rarely seen in her of late years. To our minds, this craving was an instinct of nature. She had for a long time been asking for something to smell, and nothing we could get for her seemed what she wanted; but, when she had once felt the effects of the chloroform, she never asked for anything else, but for that constantly.

"My mother used just under a quart. The greater part was given during the last week or ten days of

her life; but, the night before she died, she inhaled nearly half a pint. Still she was conscious till within six or eight hours of her death; at that time, we believe she became quite insensible."

Statements of this sort by intelligent friends, who watch effects and describe them without any bias, are especially valuable.

This statement is satisfactory as to chloroform soothing the mind; for, under its mild influence, the patient was more like herself in the most tranquil periods of her life, and altogether different from that excited and restless or depressed condition which, as her bodily powers failed, added so much to her sufferings. It is also valuable in showing that, in certain weak states of body, chloroform strengthens the pulse and respiration—a fact often observed by those who watch the pulses of patients undergoing operations under chloroform. If the dying state be reckoned by the respiration becoming quicker and the pulse failing, this patient took five days in dying; and, as the chloroform so obviously increased the strength of the pulse and breathing, it rather prolonged than shortened life. Indeed, it seemed to act like the tonic stimulus of food or wine in a stronger bodily condition, and at a time when neither of these could be taken.

This was one of the few cases in which (no *post mortem* examination having been made) the only return of the cause of death I could make was the decay of old age. The lungs, heart, digestive organs, and kidneys, were without disease; and the delusions were attended with no paralysis or loss of cerebral or nerve power.

In the next case, although the patient was 75 years of age, and had been breaking for two years, he did not die of old age, but was greatly worn down by pain. He was well known in this county as a sportsman. He had hunted, shot, and fished from his youth, and still shot all the season; indeed, his last illness was brought on by exposure to cold in shooting, beginning by severe catarrh, and followed by violent pain of the left side of his face and scalp and ear. The pain resisted quinine and other neuralgic remedies, and its obstinacy was eventually explained. He had been deaf for some time; but increased deafness of the ear, with tenderness and some fulness over the mastoid process of the left temporal bone, indicated disease of the petrous portion. He was a man who had been able to bear pain unflinchingly. He was organised for a sportsman—tall, lean, muscular, no fat, large-chested, and bony. In hunting, he had at various times broken or dislocated several of his long bones; and his brother told me he had seen seven men with pulleys trying to reduce his dislocated shoulder, whilst he uttered no complaint; and the surgeons said (in that heroic age of remedies) they could not make him faint. But this pain was so excruciating that it wore him down. It was always there, but at times in acute paroxysms. He had chronic cough and expectoration from bronchitis, and latterly passed much pus from the bladder, giving suspicion of pyæmia, with complete loss of appetite and failing strength. He could never in his whole life take opium, as it excited him; and when he had it now, it produced no relief, but distressing sensations and sickness. In this condition, and about three weeks before his death, when all hopes of his recovery had passed, I recommended him to inhale chloroform. It relieved the pain, and gave him bodily comfort. The effect, he said, was like champagne, when he could drink a bottle of it. As he became weaker, he increased the quantity of it, and kept himself much under its influence. In the last five days, sixty-three ounces of chloroform were used. He was a strong-willed man, who would do as he liked; and, having once felt the agreeable relief which chloroform gave him, he compelled his niece (who watched him) and his servant to wet his handkerchief with it as often as he called for it. It rendered his last days bearable, and indeed comfortable, instead of a period of excruciating pain. There was no *post mortem* opportunity of seeing the disease which produced this great suffering; but, as the mastoid process was tender on pressure and swollen, and the skin somewhat red, with complete deafness, it was evidently from diseased bone. It recalled a case I saw in February 1863, of a man who seemed literally to die of pain referred to the sacrum and coccyx, which came on after exposure to wet three months before admission into the South Hants Infirmary; and by no remedies could the pain be removed. Subcutaneous injections of morphine, chloroform, veratrine, aconitine; externally, blisters, with morphia, hot hip-baths, were thoroughly tried; externally and internally, opium, chlorodyne, cannabis indica, quinine, iodide of potash, and guaiacum. Short relief was given by relays of four leeches, but this only for a short time; and the poor fellow was actually worn down, and died from this pain. My friend, Professor Aitken of Netley, kindly examined minutely a portion of the sacrum and coccyx I sent him, and the cause was discovered to be vascular tumours in the bony structure. He thus described them. "In both pieces of bone, after the flesh had been removed, vascular tumours are seen. One of them is nodulated, and of the circumference of a shilling; the other less. They are imbedded in the spongy bone, and one at least presses upon the nerves as they make their exit through the sacral foramina. I am of opinion that more of these little tumours have existed in the substance of the sacral bones; perhaps also in the spongy parts of the vertebræ. They seem to me to be of a varicose nature, and connected with the venous system, rather than the arterial."

This case, as in the former, came on after exposure to cold. He had lived very freely, occasionally drinking very hard; and, though only sixty-two, was a worn-out man. He had Bright's kidneys.

It did not occur to me to make him inhale chloroform, as I should do now; for it was one of the most distressing diseases I ever watched, as nothing alleviated his constant pain; and (as the cause showed) nothing but such an anæsthetic as inhaled chloroform would have destroyed pain from tumours pressing on sensitive nerves amongst bone.*

The only other case in which I have given chloroform to the dying was that of a lady, many years ago, who was subject to very painful attacks of gall-stones. Chloroform inhaled was the only relief. After several gall-stones had passed, at varying intervals of weeks and months, one attack came in which the pain never ceased, and she died after many days, deeply jaundiced. Her son, who was studying medicine, administered the chloroform. "It had the effect," he writes, "of very quickly lulling the pain; and, the moment she was out of pain, I desisted. At such a moment, she was sometimes conscious of my presence, sometimes not. The amount of chloroform used altogether was very large indeed." I found, *post mortem*, a gall-stone of the size of a small marble, impacted in the common duct, two inches from the duodenum. The liver was very large and light yellow; and there was an ovarian tumour, with hair and bones in it, the pressure of which on the crural nerves during life had caused much suffering. She had been an invalid for a long time. In this case, also, when the patient had felt the relief from chloro-

* Unless Dr. Richardson's ether spray would do it now.

form, she would have it given to her. I have seen one patient die from a gall-stone rupturing the duct; and the agony is such, that any amount of chloroform which gave ease would be justifiable; so would it be in cases of rupture of the stomach and intestines. But, in these cases, it must be given as long as life exists; and, when once its relief is experienced, we may be sure the patient will insist on its continuance to the fatal end.

I look back many years with regret to a night during the whole of which a lady of the most sensitive nervous organisation died in inconceivable suffering. Dr. Baillie said to her in her girlhood, "You will have a great deal to suffer in your life, my dear, but don't talk about it;" and his prescience was too true. For many years before her death, she constantly suffered abdominal pain, restlessness, and general distress; and latterly the cause of this was explained by the discovery of an abdominal tumour. This suddenly burst internally; and, after twenty-four hours of what was literally horrible torment, she died. Having watched the case for years, I knew she must die; but, from the weakness of her heart, I feared chloroform might extinguish life at once. With my present experience in chloroform, I should have given it freely, with the belief that the chances would be in favour of its rather prolonging life, which was shortened by the pain; and opium gave no relief.

The rule, in advising chloroform in these cases, is to judge by its immediate effects. In these instances, it was so agreeable, without any after discomfort, that, when once given, the patients insisted on its continuance; and this is our guide.

The inhalation had better first be tried by the medical attendant himself; twenty minims being dropped on a handkerchief, and held before the mouth and nose at such a distance as to admit air, but not far off; and the patient directed to breathe naturally. If it irritate or nauseate, or be in any way repugnant, these are probably unfit cases. If it soothe, and the patient ask for it again, it may be very safely entrusted to a careful nurse or female member of the family, giving clear directions that at first no more than twenty minims should be poured on a handkerchief at a time, and held at a certain distance; and that the breathing and pulse should be watched. A second supply should not be used, if the first has produced its soothing effect.

There is one question which must not be avoided, and that is the ethical one.

It is reported that Queen Maria Theresa said, in dying, "Give me no opiates; I would meet my God awake." And we meet with similar instances, where the patient sometimes, and more often his friends, think it is wrong, in a religious point of view, to give narcotics in dying. But it is not recommended for these "great hearts" to use chloroform, but for the weak ones, who suffer so terribly from the mental and bodily exhaustion of dying. The best answer to those who doubt its propriety on religious grounds, is in these letters from the relatives of two of these patients. One writes:

"For my mother, chloroform seemed to clear her intellect, and enabled her to speak with thankfulness and hope regarding her eternal interests, as she had not done for so long; and I cannot but think that more precise knowledge of its effects in individual cases would dissipate those anxious thoughts of friends on this, as on other points, to the benefit of all concerned."

The next letter is from the lady who watched the patient, to her father.

"I am quite aware of your dislike to anything like a sedative being used when a human being is passing from time to eternity. The free use of chloroform in my uncle's case was unavoidable. After once inhaling it, he would have it. But, had it been denied him in his last hours, the agony which he was suffering was so excruciating that consciousness as to everything but that, was gone. Chloroform stupifies for the time; but, when its effects are past, the faculties are alive again, and the person able to attend to other things. Were I in attendance upon a dying person, I should prefer his having temporary relief from pain; as, if he had not, he would not, humanly speaking, be more able to attend to the things which concern his soul's salvation, than if he had not obtained relief from chloroform; or I would rather say, not so capable."

These letters are satisfactory answers to those who, in ease themselves, theoretically object to soothing others in the saddest form of distress; for they show that chloroform thus administered, by relieving restlessness or pain, renders the patient, in intervals of ease, more capable of normal thought and feeling.

Transactions of Branches.

LANCASHIRE AND CHESHIRE BRANCH.

PRESIDENT'S ADDRESS.

By A. T. H. Waters, M.D., Liverpool.

[*Delivered at Liverpool, June 13th, 1866.*]

Gentlemen,—My first duty, on taking this chair, is to thank you for electing me to an office which I deem it both a privilege and an honour to fill; and my second duty is to offer you a few remarks incidental to my position and to the occasion which has called us together.

I would first of all express the strong opinion I entertain of the value of these annual gatherings, not simply as means of friendly intercourse, or for the interchange of views on matters of professional interest, but inasmuch as they tend to keep alive in us a spirit of honourable ambition and rivalry, the basis of all progress, whether in science or in art.

I doubt not there are some amongst us who, at one or other of our anniversary meetings, have first felt spring up within them the desire of honourable distinction; who, seeing the way in which honour has been dealt to others, have experienced a craving for a like reward; and who, from such period, can trace the development of a germ, which, as it has grown and strengthened, has been to them the harbinger of professional advancement and success; and if in only a few instances such a result should have been achieved, if the influence of our Association should only occasionally have led to extraordinary exertion, it would well deserve the support of our profession; but it has had an effect of a far wider range in a different direction. It has, I venture to say, been the means of bringing into closer alliance larger numbers of our body; it has exerted itself, in some instances successfully, to remove the grievances and improve the status of our profession; and it may, I think, by its precepts no less than by the example of its members, have tended to promote the observance of a higher professional morality.

My own connexion with the Association has been one of much pleasure and satisfaction; and I cannot do other than urge all who have not joined our ranks, and especially the younger members of the profession, to enrol themselves with those who constitute, in almost every district, an important section of our

body, and to reap from membership the same enjoyments and advantages which it has afforded me.

There are many subjects, gentlemen, to which I might on this occasion direct your attention. The time, however, which the president may claim is so short, that to deal fairly with any single topic becomes impossible, whilst to skim lightly over many topics is often neither interesting nor profitable. I shall venture, whilst apologising for the imperfection of the manner in which I shall deal with it, to touch upon a subject, on which we all, no doubt, often reflect, which comes before us in our daily life, and, in one of its aspects, is frequently thrust upon us with no friendly hand.

It is a remark which we by no means infrequently hear, that medicine makes no advance; that, amidst the remarkable progress which has characterised the present age in respect of many sciences, the science of medicine remains almost, if not quite, stationary; that, whilst nature has been interrogated successfully by the professors of other sciences, the professors of medicine have failed to win from her the triumphs, and achieve the successes, which diligent research and properly conducted inquiries ought to have yielded. It is true that assertions of this kind are not made by those who know most of what medicine has done. They are, nevertheless, frequently found in literature which circulates widely amongst the most highly educated of our population, and should not therefore, I think, be lightly passed over. And, although we may feel ourselves individually untouched by the shafts which are thus aimed at the science we practise, we should ever be jealous of its honour, and desirous to vindicate its position.

Before, however, I pass to consider some of those circumstances which, in my opinion, show the steady, if not the rapid, advance of medicine, both as a science and as an art, I would refer briefly to that which, I believe, constitutes the great peculiarity of medicine, which renders it so different from all other sciences and arts, and makes it the most difficult of them all.

In comparing the science of medicine with other sciences, the peculiar difficulties of medicine have been too little regarded. We would by no means underestimate the difficulties of the chemist or of the astronomer, and we willingly admit that the precision which characterises the labours of the former, and the exactitude with which the predictions of the latter are fulfilled, demonstrate the high degree of perfection to which their respective sciences have been brought. But the subjects to which medicine relates immeasurably transcend those of the physical philosopher. The investigation of the phenomena of life is surrounded by difficulties with which the physicist never meets. The physician and the physical philosopher can, up to a certain point, travel the same road, and derive from their investigations the same definite conclusions; but when a point is reached which would give to the chemist or the astronomer a final result, then the physician is only approaching his greatest difficulty. The unchangeable nature of inorganic matter gives rise to one unvarying result wherever inorganic matter is acted upon by the same cause. But organic matter is ever varying, ever unstable; and in that highly complex body which is the object of the physician's operations, there are so many circumstances beyond the mere physical, so many varieties of individual constitution, so many peculiarities, so many influences of a mental, of a moral, nature, that it becomes a problem of a far different character to that which the chemist or the astronomer has to decide, when the physician is called upon to consider the effects which the same cause will produce on different individuals, or on the same individual at different periods. Were the science of life as perfect as that of chemistry, were we even thoroughly acquainted with the laws which regulate diseased action, there would still remain great difficulties in reference to the use of remedial measures in the treatment of disease. We should still have to study the peculiarities of each individual, and carefully select the remedies appropriate to his case. The practice of medicine would indeed be easy, were it simply a question of administering a particular remedy for the cure of a particular disease. But this is not the practice of medicine. It consists not, and I venture to say never will consist, in the application of specifics. But it consists in the use of remedial measures, in the selection of which we are guided, not simply by the disease itself—*i. e.*, whether it is a pneumonia, a pericarditis, or any other affection—but also, and especially, by the pathological conditions which have either given rise to the disease or have been produced by it. And herein lies the great difficulty of therapeutics; but herein also lies its point of greatest interest. It is this which gives its great peculiarity to medicine—the ever varying condition of those who are the objects of the physician's operations, the manifold phases which the same disease may present in different individuals, and lastly, but by no means least, the different effects which the same remedy may produce in different persons; and, in judging of the progress of our science, these are circumstances that should ever be taken into consideration; but they are circumstances which can only be appreciated by those who are engaged in the difficult work of practical medicine. The experience of a single individual extends over but a short period indeed in the history of a science. What, in this respect, are ten, twenty, thirty, forty, nay fifty years? But, if we look back for the period of fifty years, and compare the practice—as detailed in the writings we possess—which then prevailed with that of the present day, I venture to say that there is no one who will deny that, in many respects, undoubted improvement has taken place. On so important a subject as this, I would speak with feelings of diffidence; but if I may venture on an opinion with reference to the characteristics of modern medicine, I think I may say that we have learned to pay more regard to the constitutional condition of our patients, and to address our remedies with greater precision to these states, than was the case even twenty or thirty years ago. And I think perhaps I shall not be wrong in claiming as a result of this practice a diminution in the mortality of some diseases, and a shortening of the period of convalescence from them. If this be true—and, if time permitted, I think I could bring forward statistics which would go far to prove it—it forms no unimportant success of the medicine of the present day. The fact—if it be a fact—would tend to show that, as the science of medicine has been cultivated, as our means of diagnosis and our knowledge of diseased action have increased, so has the practical art of therapeutics advanced. Although the question, whether we can treat disease better than our predecessors, is the great point in reference to the advance of medicine, and the point on which our criticisms dwell, we must ever bear in mind that medicine must be considered as a whole; that every step in physiology, in pathology, or in diagnosis, is a real advance in medicine; and when we show that, by using the various means with which the labours of the last fifty years have furnished us, we can ascertain, at an earlier period of their development than could our forefathers, the existence of certain organic diseases, we have pointed out a palpable improvement in our art.

But it may perhaps be thought that I am speaking in too general terms, and that, to disprove the assertion to which I have alluded, it is necessary to show some specific advance in medicine. It is impossible, in such an address as this, to go into matters of detail; but, setting aside some of what may be termed the great successes of medicine, I would rather dwell on topics of a less striking nature, and the more so, that we have been not infrequently accused of parading our great successes, and under them of sheltering our innumerable failures. I think we have abundant evidence of the advance of medicine, in the improved treatment which characterises the present day, of many of the diseases of the organs lodged in the three great cavities of the body—the head, the chest, and the abdomen.

It is certainly an advance that has taken place of late years that we are able to separate the various forms of so-called apoplexy, to refer them to their proper pathological conditions, and to have shown that they are not necessarily dependent on effused blood. It is no unimportant step that has been made, the recognition of the fact that blood-poisoning, the result of some distant disease, may produce all the symptoms of profound apoplexy. The investigation that has been made into the condition of the cerebral vessels, has taught us that one of the great predisposing causes of apoplectic seizures is a diseased condition of the capillaries of the brain—a condition similar to that which in the arteries gives rise to aneurism, and closely allied to, if not identical with, fatty degeneration of the muscular fibres of the heart. I think it capable of proof that a practice has resulted, from the recognition of these views, in reference to various affections of the brain, which has been the means of prolonging and of saving life. And in the treatment of the various forms of delirium, have we not learned a valuable lesson? It is not long since delirium was supposed to indicate a certain condition of the brain which required the most powerful so-called antiphlogistic remedies. We now know that, in a large majority of cases in which we meet with this symptom, it depends upon no organic disease of the brain whatever; that it is merely a perverted function of the organ; and requires a treatment far different from that which was formerly adopted. It is true that we are still in much doubt with reference to many disorders of the nervous system; that their pathology is very obscure, and our treatment of them very empirical; nor is this to be wondered at, considering the great difficulties with which the investigation not only of the diseases, but also of the structure and function of the nervous system, is involved.

It is perhaps, however, with reference to the diseases of the chest, that the most palpable advances have been made in modern medicine. Auscultation, percussion, an improved anatomy and physiology of the thoracic organs, have imparted a precision to our knowledge of their diseases which was altogether unknown fifty years ago.

I need not particularise individual diseases; but it may, perhaps, be fairly said that, even within the last twenty years, a better acquaintance with the nature of the inflammatory process—resulting in part, no doubt, from empirical inquiry, and in part from the advance of physiology and pathology—has led to a treatment of various inflammatory conditions of the chest, which has diminished their mortality, as well as shortened their duration; whilst, with reference to many chronic affections, an equally if not still more marked improvement has resulted. Witness the improvement that has taken place in the treatment of consumption, and in some of the chronic diseases of the heart.

Nor is there wanting evidence of the most positive kind that the labours of the physician, in reference to the diseases of the organs of the abdomen, have been attended with the most satisfactory results. Chemistry and the microscope have been of great value to practical medicine, in the diagnosis and treatment of stomach, renal, and hepatic diseases. How often does it happen that the nature of a case is at once cleared up by simply boiling a small quantity of one of the fluids of the body? And can anything be more characteristic of scientific exactitude than the successful exhibition of a remedy, which we have been led to prescribe from the recognition, by means of the microscope, of a certain deposit in one of the excretions? These are points with which we are all familiar. They may, perhaps, be thought so simple as scarcely to deserve a reference in addressing a professional audience. They form, however, some of the successes of medicine.

I hope it may not be thought that I would wish to claim for Medicine a higher degree of merit than she is fairly entitled to. I would speak with diffidence of her successes, and acknowledge her many shortcomings and failures. We confess our ignorance of the essential seat of numerous affections. We admit our inability to treat successfully some of those epidemics which occasionally visit our land. We acknowledge that we have discovered no antidote for the poison of many specific diseases endemic amongst us. But has modern medicine done nothing in reference to maladies of this kind? Have we not learned much of the laws which regulate their transmission, of the causes of their spread, and of the means by which they may be prevented? It is true that, with regard to the question of prevention, we often see that the teachings of science are unheeded by those who are responsible for the preservation of the public health and of public interests; and it but too often happens that the dictum of the pseudo-man-of-science, or the nostrum of the quack, prevails over the matured conviction of him whose life has been devoted to the study of the subject on which he ventures to express an opinion; and thus we see that in a great national calamity, in the presence of a virulent epizootic, the crudest and most childish notions are allowed to influence actions, in reference to the prevention and treatment of a disease on which science has pronounced a definite opinion, founded on the result, not of hasty generalisation, but of long experience. And thus it comes to pass, that the public are made to believe that the cattle-plague is bred by the filth of a London cowhouse, and that a large percentage of cures will follow the exhibition of homœopathic globules. But science always justifies her teachings; and at length we see brought into operation a system to check the further extension of the disease, which, if adopted six months earlier, might have saved the country incalculable wealth. The lesson is one of great value; but it is a lesson that has often been taught, and often disregarded.

It is disheartening to the true disciple of medicine to see, on the one hand, the neglect of her teachings, and, on the other, the exaltation of some false system of therapeutics; but, were it not that the public interests and human life are often endangered, medicine might be content to wait for the irresistible force of circumstances to make good her assertions.

The mistakes which the practitioners of medicine make, and the differences of opinion which they express, are matters of proverbial remark, on which the public seem sometimes to dwell with a peculiar satisfaction. It would be indeed a marvellous thing, if we never made mistakes, and if we always agreed; but yet I venture to think that these mistakes and differences of opinion are quite exceptional; and cer-

tain it is that we often see an agreement, both as to the nature and treatment of disease, which shows that our means of diagnosis have reached a high degree of development, and that our therapeutics are not altogether unstable. But let me ask, are we, who practise the most difficult of all sciences, the only men who commit errors, or who disagree? Does the mechanic never fail in his calculations? To make an inert body, of a given weight, pass over a given space, along a given incline, under conditions which are accurately known, is surely a problem which admits of easy solution; but yet we have seen that the effort to launch one of our great vessels of war has of late signally failed at the first attempt. Has the astronomer settled the rapidity with which light travels? Has he told us the exact number of millions of miles that our planet is distant from the sun?

Do we never see differences of opinion between the learned judges of the land? Nay, do we not frequently see the most opposite opinions expressed from the same bench, on matters which, to the uninitiated, seem the easiest possible to solve? And is it not true that it sometimes becomes a question of the number of votes, whether a man or a woman is legally married or not?

We do not make these remarks with any view of disparaging the professors of the law, the astronomer, or the mechanic; but we make them to shew that, in reference to diversity of opinion or errors of judgment, the professors of medicine do not stand alone.

But, gentlemen, I feel that I have already exceeded the ordinary limits of a president's address. I cannot, however, pass over one subject in connexion with the successes of medicine. It is only within the last few months that the production of local anæsthesia by ether-spray has been brought under the notice of the profession; and, should the process be found to possess only a portion of the value that has been attributed to it, it would be a great boon to humanity. This subject belongs more particularly to the department of surgery; but, in referring to it, and in claiming the introduction of anæsthetics in general as amongst the successes of medicine, I am reminded of the interest which the public have in the progress of our art—a point which is, I think, rather apt to be lost sight of in considering the relations of the profession to the public, and of the public to the profession. Interested as every man is in the advance of medicine, the public have a far wider stake in it than the members of the profession themselves. Although we believe that the progress of science does not depend on the protection or the patronage of the State, yet it cannot, I think, be doubted that it is alike the interest and the policy both of governments and of people to encourage the labours of those who are devoting themselves to an all-absorbing pursuit, and to stimulate by the prospect of honourable distinction, if not of great reward, the ambition of the students who are daily passing from our medical schools. Had this been done in one great department of our profession, had the authorities of this country dealt fairly with the medical officers of our public services, we should not now witness the difficulty which is experienced in finding efficient surgeons willing to devote their lives to the service of the Crown. That which has happened with reference to Her Majesty's service may also happen to our profession at large; and, should the rewards of Medicine compare unfavourably with those of other honourable occupations, her ranks may be but imperfectly recruited by those who would best discharge her functions. Probably Medicine, although she is a jealous mistress, exacting from her suitors an almost undeviating allegiance, will, by her own powers of attraction, by the interesting and absorbing character of her pursuits, never fail to enlist amongst her followers some of the brightest intellects of every age; yet it cannot be doubted that, in making choice of a calling, men are influenced much by the honours, the emoluments, and the distinctions, which it may possibly afford.

In the ordinary course of events, we cannot expect that science, and especially our science, will move with rapid steps; but, in the results of the labours of the past few years, we have every encouragement to look forward with hope to the constantly increasing certainties of practical medicine; and, although there is much in our profession that is unsatisfactory and difficult, let us never forget that it brings us to the study of subjects which are amongst the most elevating and interesting which the human mind can contemplate, and that our daily work is a work of beneficence; and, animated with a love of our calling, let us endeavour with earnestness and zeal to maintain its honour and contribute to its success.

BATH AND BRISTOL BRANCH.

CASE OF POISONING BY OPIUM: RECOVERY.

By E. Ludlow, M.B.Lond., F.R.C.S., Assistant House-Surgeon to the Bristol Royal Infirmary.

[*Read May 17th*, 1866.]

Of all the cases of poisoning by opium which come under our notice, by far the larger number require but a slight amount of treatment; and those cases are comparatively few which, on account of their severity, require the prolonged and careful application of remedies. Of this latter kind was the case of which I will now relate the details.

William Cole, aged 33, was brought by some policemen to the Bristol Royal Infirmary a little before 12 P.M. on August 2nd, 1865. He had been found lying insensible in a street. Nothing further was then known about him. An empty one-ounce phial had been found upon him, and this had obviously contained laudanum. On admission, the man was quite insensible. His pupils were very much contracted. His breath smelt strongly of opium. His respirations were not quite seven per minute; and the pulse was almost imperceptible in the radial artery. A considerable quantity of mustard and water was immediately pumped into the stomach. But, as no act of vomiting was induced, the stomach was emptied by means of the stomach-pump. The liquid which was thus evacuated was dark brown in colour, and smelt strongly of opium. After this, quantities of warm water were pumped into the stomach, and out of it again, until the water returned quite uncoloured. However, in spite of these measures, the man's somnolence continued to be profound; whilst at the same time his respiration became more shallow, and his pulse did not improve. The intense contraction of the pupils also continued. It was plain that a very large proportion of the laudanum which he had imbibed had entered his circulation, and that it was thus producing its poisonous effects. The chief of these were the sopor and the diminishing power of the muscular system; and, in consequence of this diminishing muscular power, respiration was continually becoming more imperfect; and this was the most pressing danger. Therefore, in order to induce more perfect respiration, various methods were adopted. He was pricked and pinched, and absolutely no effect at all was produced. He was subjected to a strong galvanic current, and with no better success than attended the pricking and

pinching. Of course, whilst in this condition, he could not be walked about. He was slowly, but surely, getting worse. I determined to try the effect of a towel wetted with cold water. Therefore, having procured a wetted towel, I brought it down upon his face as forcibly and sharply as I could. The effect of this measure was exceedingly satisfactory; the man took a very satisfactory inspiration. I therefore had the man's shoulders uncovered; and to this part I applied the wetted towel fully twenty times in rapid succession, and as forcibly and sharply as I could. By this means the man was considerably roused, so that, with assistance, he was got upon his legs; and, when this was accomplished, he was led rapidly backwards and forwards. Nevertheless, he soon again showed a tendency to somnolence; and, after perhaps every six steps, he allowed his legs to trail behind him. Therefore, as he passed, or, I should rather say, was dragged, to and fro, assistants stationed at intervals struck him on the back sharply and quickly with the wetted towel. This process continued for several hours; and it was very hard work, and thoroughly tired several policemen whose services had been procured. Occasionally, the man drank some strong coffee. It was found necessary also to refresh the policemen with a more intoxicating liquid. The blows with wetted towels were productive of very considerable lividness of the skin of the man's back. Some idea may be formed of the severity of the punishment which was inflicted on the man's back, when I inform you that four new reel-towels were entirely destroyed by the process. In fact, had it not been for the obvious improvement in the man's condition which attended this method of treatment, I should soon have stopped it; for I was afraid that perhaps portions of the skin of the back might slough on account of the severe bruising. The walking about and the thrashing with wetted towels were continued until about five o'clock in the morning; and the good effect of these measures was very apparent, for the man was fully awake, and the tendency to go to sleep again was very much decreased. But I suppose that at length the continual walking about had exhausted the man; for, about five o'clock in the morning, he became suddenly very faint, and was apparently about to die of syncope. He was brought round from this condition by means of brandy and water. He was then placed in bed, where he immediately went to sleep; but he had now a tolerable pulse at the wrist; and his respiration, although still somewhat slow, was of a good character.

I saw the man again at 10 A.M. on August 3rd. He then gave me the following account of himself. He was a painter by trade, and at present living in Bath. He had been for eleven years in the Royal Marines. He had had dysentery in 1860, in the West Indies. He was invalided March 15th, 1865, on account of phthisis. For some time past he had been in the habit of drinking occasionally half an ounce of laudanum, on account of restlessness at night. On this occasion, he imbibed about one ounce of laudanum; and he thought that the laudanum which he took on this occasion was of better quality than that which he usually drank.

Dr. Garrod has recommended that powdered animal charcoal should be given in cases of poisoning by opium; and he says that by this means opium may be rendered inert. Of course, in order that the charcoal may be useful, the opium must be in the stomach. If opium have entered the circulation, obviously powdered animal charcoal will be useless.

It has been recommended also by some one, that belladonna should be administered in opium-poisoning. It is argued that, because belladonna dilates the pupil and opium contracts it, the one will neutralise the other; and, in fact, that the one is a perfect antidote for the other. If this point could be established, it would be of immense value. At present, the fact of the very poisonous nature of both of these drugs would produce some hesitation about giving one in order to protect a person from the evil consequences of the other.

In the case which I have just now related, whipping with wet towels proved to be a most satisfactory and efficacious remedy, although other powerful applications failed. This resulted, as it seemed to me, from the fact that, whereas a pinch, a prick, or a galvanic current, rather sluggishly stimulates a few sentient nervous extremities, on the other hand, a sharp stroke from a wet towel applies a quick shock to a large number of sentient nerves, and thus forms a most powerful stimulus to reflex movement. I have mentioned that I was afraid lest these wet towels might have done so much injury to the skin of the man's back, that a certain amount of sloughing might be produced. The result proved that my fears were unfounded. The next day, there was certainly a considerable amount of bruising on the man's back. The man himself said that his back felt a little sore; but within four days both the feeling of soreness and the appearance of bruising had disappeared. I may also mention that, in answer to a question of mine, the man said that he had no recollection whatever of being pinched, or pricked, or thrashed with a wet towel.

EAST YORK AND NORTH LINCOLN BRANCH.

CASE OF PYÆMIA.

By the late ROBERT HARDEY, Esq., Hull.

[*Read May 23rd*, 1866.]

ON February 3rd, 1866, I was called to visit Mr. H. He gave the following history of himself. His usual health was good; but about ten days previously he began to have an enlarged gland in the left axilla, which went on increasing in size. He shewed it daily to a chemist. On Wednesday, February 1st, it had become as large as a pullet's egg, and very painful, the pain extending down the left arm to the hand. On that night the pain suddenly ceased, and he told his wife that the swelling had burst; but of this there was no external evidence. By breakfast-time next day, the pain had left the arm and gone down the left side and into his leg, and caused acute pain in the heel. During this day the left foot and ankle became considerably swollen and painful, and the right foot slightly so.

When I saw him on the afternoon of the 3rd, I found him quite crippled in his feet, which were both swollen, especially the left, which was also painful, but not discoloured. He looked flushed; his pulse was about 90, and feeble; tongue furred, but moist. He complained of great weariness; had no appetite, but considerable thirst.

On examining the axilla, I found beneath the skin a large hardened axillary gland, nearly of the size of a pullet's egg, in the centre of which was a cavity, into which my finger entered freely, and which would have contained within it a good sized boy's marble or a nutmeg. The gland itself was not painful; but the pain and stiffness were still in the loins and side. I ordered him strong beef-tea and wine, and prescribed the tincture of sesquichloride of iron with spirit of nitrous ether every three hours.

Feb. 4th. The symptoms were much as on the previous day, but somewhat aggravated. The patient

was much more helpless; pulse 95, small and feeble. The pain was more in his loins; he had also some cough, which gave him great pain in the hypogastrium. His urine was scanty, high coloured, and evidently contained blood; there were flakes of coagula floating in it. His urine pained him while passing it. He felt very weak, and had great difficulty in getting from the bed to the sofa. He said he had scarcely any sleep the last night, and was very thirsty. I ordered him to add a third of a glass of old port to his drinks; and I also added a drachm of the tincture of sesquichloride of iron to his mixture, and gave him an anodyne draught at bed-time, and a senna draught for the next morning.

Feb. 5th. I found him rather better on the whole; countenance bright; pulse at 84. The swelling in the axilla was nearly gone. The urine was much improved, much clearer, but still scanty. Both feet were highly œdematous. I ordered him to repeat the mixture, and also to take a teaspoonful of the following between the doses:

℞ Liquor. taraxaci concentr. ʒvj; potassæ nitrat. ℈ij; aquæ ad ℥ij.

He was also directed to take a dose of castor-oil immediately; and to apply turpentine stupes over the kidneys.

Feb. 6th. The patient was something better than yesterday; but the swelling of the feet was not reduced, and he now had pains in the right shoulder and elbow. The urine was clearer and paler. He was ordered to take another dose of castor-oil, and go on with the tincture of iron.

Feb. 7th. He was still better in every respect. The urine was more natural, and passed off more easily. The feet were still much swollen. He looked much better; the appetite was now good; the swelling in axilla was nearly gone.

Feb. 8th. The legs and feet were quite relieved, and the swelling was gone; but both hands were greatly swollen and painful, with red patches on the backs of them. The pain in them had prevented him from sleeping. Both feet were still relieved of swelling and pain. His urine looked natural, and was more plentiful. He perspired profusely when in bed. I ordered him to have an anodyne at bedtime, and to repeat the castor-oil and tincture of iron.

Feb. 9th. The swelling and pain of the right hand were nearly gone, but had returned to the foot of the same side. The left foot was still free from pain; the left hand was swollen and painful. I ordered him an opening pill; and an ounce of the following mixture every four hours:

℞ Potassæ bicarb. ʒiss; vini colchici ʒj; spirit. æther. nitr. ʒij; aquæ ad ℥vj.

Feb. 10th. The patient was much as on the previous day. The limbs were also as before.

Feb. 11th. His general health was improved. He had had a good night, and had been well purged. The left hand had lost its pain and swelling, and the foot of the same side had again received the affection.

Feb. 14th. He was improving in every respect; but the pain and swelling (in a minor degree) were still flitting from hand to foot, and foot to hand.

Feb. 19th. He was nearly well. He had fully recovered his looks, and could walk about the room. His appetite was excellent. The bowels were occasionally opened by castor-oil. One foot and the opposite hand were still slightly swollen, but were not painful.

Feb. 26th. I saw Mr. H. He was still feeble, but in all other respects quite recovered from his serious attack. I ordered him change of air; and his recovery was soon complete.

SOUTH-EASTERN BRANCH: EAST SURREY DISTRICT MEETING.

CASE OF RUPTURE OF THE CORNEA: TRAUMATIC CATARACT, ETC.

By J. Walters, M.B., Reigate.

[*Read May 11th*, 1866.]

———, a pale, delicate looking boy, 10 years old, came under the observation of my partner, Dr. Holman, and of myself, on December 8th, 1865. Four weeks previously a squib had burst in front of the right eye. The accident was not immediately followed by pain or hæmorrhage. Water-dressing was applied; and subsequently a belladonna lotion used externally. Calomel was given, but not pushed to salivation. He had suffered latterly a great deal from supraorbital pain; his appetite had fallen off; and he had become extremely weak.

On examining the eye, the globe was found to be intensely hard; the ciliary region was much injected; the cornea was very prominent; and down its centre was a vertical scar extending two-thirds of the way across, but not involving the ciliary region. At its lower part was a button of prolapsed iris. The iris itself was bulged forwards, so as to leave very little anterior chamber. The pupil was moderately dilated, and occupied with opaque lens matter. No foreign body could be seen. There was good perception of light with the eye.

We considered that the eye was in imminent danger; and that, unless the swollen and opaque lens were speedily removed, and the tension thereby relieved, it must inevitably be lost. It was decided to ask Mr. Bowman's opinion on the case. He entirely concurred in the opinion we had expressed; and proposed to combine iridectomy with removal of the lens, so as to relieve the glaucomatous condition of the eye. In the meantime, until the operation could be performed, the symptoms were greatly relieved, and the pain lessened, by soothing treatment and free dilatation of the pupil with atropine.

The operation was unavoidably postponed till December 11th, when it was performed by Mr. Bowman. The iridectomy was made downwards and outwards, so as to give the greatest scope for vision; and the capsule having been freely torn through, the softened lens was readily removed by the suction-curette. No foreign body could be detected. A compress was kept over the eye for some hours after the operation; when it was removed, and cold water dressing applied; a solution of atropine (half a grain to the ounce) being dropped into the eye twice a day. Subsequently, the patient suffered very little pain. The eye soon regained its natural tension, and the cornea sank back to its proper curvature, but long remained weak and irritable.

He can now (Feb. 14th, 1866) bear to have the eye thoroughly examined, and is able to count fingers and read large letters with it. The pupil is occupied with a layer of opaque capsule, which adheres to the iris at the circumference. There is no doubt that he will have good vision with the eye when this is removed.

This case exhibits a remarkable recovery from a complicated injury to the eye. It would seem that the cornea and the capsule of the lens were both ruptured by the force of the explosion, and that the injury was limited to the front textures of the eye; otherwise he would not have so much vision with it. The opaque capsule prevents an examination of the deeper parts. The operation of iridectomy was indicated, not only to relieve the intense hardness of the globe, but also to draw the pupil away from the scar in the cornea. It may perhaps remain a ques-

tion as to how far it contributed to reduce the tension in this particular case, as it was combined with removal of the swollen lens; but there can be no doubt of the necessity, in cases of traumatic cataract, of removing the swollen lens at an early period, if it is causing pain or setting up inflammation in the eye. The relief which followed the instillation of atropine before the operation was performed, shows the value of a proper use of that drug in such cases. By thoroughly dilating the pupil, the iris is kept away from being pressed upon by the swollen lens-substance. Belladonna applied externally, is of little use in dilating the pupil. A solution of atropine must be dropped into the eye itself. This case shows also the inutility of mercury in reducing a glaucomatous condition of the eye.

Sequel. Chloroform having been given (March 17th), Mr. Bowman removed the opaque capsule in the following manner.

A fine needle was first used to separate the slight adhesions of the capsule to the iris. It was then readily removed by cannula-forceps through a small opening in the cornea.

April 30th. All irritation in the eye has for some time entirely subsided, and very little deformity is visible. He is able to read No. 4 Jäger's types with a two and a half inch focus lens, and is to return to school in a few days.

A Vicar's Perfect Cure. The Rev. E. Bligh writes: "The Birling recipe for hydrophobia is in much demand, as prepared at Birling by the proprietors, who for many years have enjoyed the reputation of possessing exclusively the cure for that terrible disease. I am informed by the proprietors that Mr. Field's recipe is his own in every sense, and not that of the family at Birling. The Birling medicine has often proved to be, without doubt, a perfect cure."

Mysterious Poisoning. An inquiry made by the coroner for South Northumberland at Ponteland,, which has extended over two months, into the circumstances of the deaths of three brothers named Bushby, was resumed on Thursday. In the early part of the year the deceased, strong, powerful Northumberland farmers, with the whole of their household, were prostrate with illness, and it was doubtful whether it was occasioned by the unsanitary condition of the surroundings of the farmhouse or by slow poisoning. They had the best medical advice, but the three brothers succumbed to the attack and died. A good deal of discussion took place as to the mysterious circumstances of these men's deaths, and the very serious results which had followed the illness of the other persons who had been ill—for the survivors are all more or less likely to be invalids for life—and the inquiry having been put into the hands of the county constabulary, the body of John Bushby was disinterred, and the viscera were analysed, the result of which left no doubt that he had died from the effects of arsenic. Notwithstanding, however, the long and patient inquiries which have been made by the coroner and jury, no clue has been found as to how the poison had got into the persons of the deceased men, whether it had been administered wilfully or had got into their food by accident. Mrs. Bushby, of Allendale—who went to the farm while the men were ill and dying, and who appears to have been poisoned also, for she is quite paralysed and has been confined to her bed sixteen weeks—being unable to attend, and the coroner and jury feeling disinclined to close the inquiry without having first penetrated the mystery of the violent death of the three brothers, they have adjourned the inquest until the 30th of August.

We are requested to remind members of the Association that the Annual Subscriptions became due on the 1st of January. They can be paid either to the Secretaries of the Branches; or to the General Secretary, T. Watkin Williams, Esq., 13, Newhall Street, Birmingham.

British Medical Journal.

SATURDAY, JULY 7th, 1866.

CHOLERA AND ITS HOME.

Dr. Macpherson, in his work, *Cholera and its Home*, thus sums up his views as to the localisation of cholera.

"The whole question why cholera attacks a fleet, or a town, or a barrack, or a jail, or the banks of a river, for a time, and then dies out—how one part of a station suffers, while another escapes—how cholera may be epidemic in a district, yet not in jail . . . . is still wrapped in mystery."

Dr. Macpherson has "no facts to bring forward regarding the incubation of the disease. It may be presumed that it is usually exceedingly short." Nor does he think that we have any data from which we can draw any exclusive theory as to its mode of diffusion, whether it is by contagion or malaria. He gives a good illustration of the more deadly character of the disease at the beginning than at the end of an outbreak. At Kurrachee, of the first 100 cases admitted, 79 died; of the second, 66 died; of the third, 50; and of the fourth, 40. This difference in the effect of the disease doubtless accounts for the "remarkable comparative effects" often ascribed to drugs at different periods of the cholera-epidemics. He admits that the cholera-poison is eliminated through the intestines; and truly adds, that there is nothing analogous in cholera to the eruptive fevers. The only point in which we suppose any analogy has ever been suggested is that of "elimination". We may here observe, that Dr. Macpherson evidently does not hold the same idea of the term evacuation which others do against whom he argues. He says: "In the case of a mineral . . . . poison, after it has been absorbed, it is useless to attempt to eliminate it by emetics and a purgative." But he forgets that there is no analogy between this case and the case of cholera. In cholera, there is undoubtedly, and, as he admits, a distinct "elimination", through the gastric and intestinal mucous membrane; but there may be no such effort in the case of mineral poison. To give purgatives, therefore, or emetics, to assist an "eliminative effort" which does not exist, would plainly be an act of absurdity. But surely, in the case of mineral poisoning, there are eliminative efforts; and certainly the very last thing which we

should do would be to obstruct them. Who, for example, in a case of arsenical poisoning, would attempt to prevent the escape of the arsenic with the urine? Should we not rather attempt to aid its escape?

Dr. Macpherson admits, as we understand him, that there is a poison in cholera, and an eliminative effort. The question, therefore, to be answered, is this: Ought we to restrain, to increase, or let alone, the eliminative effort? The prime and main question being, *Ought we to restrain it?* There is, we apprehend, a considerable difference between giving purgatives to, letting alone, and astringing, cholera patients. This is too much forgotten. Men seem to argue as if they thought that those who object to astringents must necessarily approve of purgatives. "An excessive eruption in small-pox," argues Dr. Macpherson, "is often fatal: why, then, should we endeavour to increase the evacuations in a disease supposed to be kindred?" But here he manifestly begs the question—assumes as true the very point disputed; viz., that the evacuation of cholera in the one case, and the excessive eruption in the other, destroy life. It may, indeed, *per contra*, be very properly argued, that the excessive eruption is only a measure of the intensity of the small-pox; and we venture to add that, however excessive the eruption, no medical man would think of attempting to "drive it inwards". The argument from analogy, therefore, if it be worth anything in this case, clearly goes rather to corroborate the *non-restraining* than the restraining treatment of cholera. Analogy would say, if it be wrong to restrain the eruption of small-pox, equally is it wrong to restrain the evacuation of diarrhœa.

Dr. Macpherson is not satisfied with any theory of the phenomena of cholera yet propounded. He says, "till one is found, it may be suggested that the cholera-poison . . . . may either, as it usually does, attack the pulmonic circulation more slowly through the capillaries of the alimentary canal and the general periphery, or, as it does more rarely, directly by causing obstruction of the pulmonic artery."

As to treatment, Dr. Macpherson considers that "undue importance has been attached to the operation of medicines in the stage of collapse." He states, also, that the average treatment of the disease in India is now much the same as it was in 1817. This, he says, original Indian reports confirm; but hereon we must decidedly differ from him. Purgatives and bloodletting were assuredly once much more largely used in India than they are at the present time. He says himself elsewhere, that "bleeding was for a long time enthusiastically practised in India;" and also admits that "India, following in the wake of Europe in the treatment of disease in general, has . . . . adopted a less lowering method of treatment." Moreover, it is certain that in former days, when bleeding and calomel were *the* remedies for cholera, stimulants were either not given at all, or assuredly were not given as they are now. Historical documents seem to us to completely contradict the idea of the treatment of cholera being now much the same as it formerly was.

Dr. Macpherson thinks that drugs of all kinds are of little or no avail during the collapse stage; but he is strongly in favour of arresting the premonitory diarrhœa with opium, and of giving stimuli in moderation. Of the difficulty of arriving at any just conclusions as to the value of drugs in cholera, he makes remarks well worthy the consideration of any one who has a pet cure for the disease.

THE annual meeting of Fellows of the Royal College of Surgeons for the election of members of Council took place on Thursday last. A large number of provincial Fellows were present; among whom were Messrs. Lund, Turner, Mellor, and Southam, of Manchester; Paget of Leicester; Wiblin of Southampton; Fox of Broughton; Green of Bristol; Cantrell of Wirksworth; Isbell of Plymouth; Jones of Brackley; Lingen of Hereford; Norman of Southsea; etc. The ballotting commenced at a quarter past 4 and closed at 5 P.M., when the following was found to be the result.

Hilton (John) . . .	162,	including	17	plumpers.
Hawkins (Charles) . .	113	,,	30	,,
Luke (James) . . .	86	,,	6	,,
Wilson (Erasmus) . .	35	,,	8	,,

Mr. Hilton was therefore re-elected; and Mr. Charles Hawkins was chosen in the room of Mr. Luke. The last named gentleman is therefore in the same condition as Mr. Cæsar Hawkins—that of being an Examiner without having a seat in the Council.

A MEETING of Poor-law medical officers and other members of the medical profession was held on Thursday last at the Freemasons' Tavern, for the purpose of presenting to Mr. Richard Griffin a testimonial in recognition of his long-continued and unwearied efforts in the cause of Poor-law Medical Reform. Mr. Lord of Hampstead was called to the chair; and, after a few appropriate remarks had been made by him, Dr. Fowler gave a summary of the proceedings connected with the testimonial; the first idea of which, he said, arose from a letter published two years ago by Mr. Prowse of Amersham. Dr. Fowler proposed, and Dr. Nicholas seconded, a vote of thanks to the subscribers to the testimonial who were not Poor-law medical officers. Dr. Joseph Rogers then proposed, and Dr. Duffield seconded, a vote of thanks to the medical and general press. In doing so, Dr. Rogers made special reference to the praiseworthy part taken by Mr. Ernest Hart, of

whose labours the Chairman also spoke in terms of high and well merited approbation. Mr. Hart acknowledged the vote. The Chairman, in an appropriate address, presented to Mr. Griffin the testimonial; which consisted of a handsome silver epergne, having as its design the "Good Samaritan", and bearing an inscription to the effect that it was presented to Mr. Griffin in recognition of his labours, continued during more than ten years, in the cause of Poor-law Medical Reform; and an album containing the photographic portraits of many of the subscribers to the fund. Mr. Griffin, in his reply, recapitulated the leading events in connexion with his labours, and proposed the adoption of a memorial to the Poor-law Board; which memorial, having been adopted, was signed by the Chairman on behalf of the meeting.

The change of Ministry cannot fail to promote the interests of our army and navy medical brethren. General Peel and Sir John Pakington have always had good will towards the medical services, and, if they obtain power, will, we may be sure, not fail to use it. Moreover, as we hear, Sir Alexander Milne (who was Chairman of the Admiralty Committee) has been made First Naval Lord of the Admiralty. This fact will assist in furthering the carrying out of the Reports of that Committee. One obstacle to progress in this matter has been, as we understand, the protest made by Dr. Gibson to that part of the Report which gives greater pay to the naval than the army medical officer. This protest has been seized upon by the Treasury as a cause for reducing the proposed scale of pay to the navy. No reasonable being could have expected that it would have had any other effect. It was plainly absurd to suppose it could have operated to *raise* the proposed scale of the army up to that of the naval medical officer; for it was beyond all reason to believe that the Treasury would give the army medical officers a greater increase of pay than that proposed by the Committee. This protest has, therefore, produced its natural result. It has encouraged the Admiralty to take away from the naval medical service the extra pay proposed. The protest is, in fact, an illustration of what in the fable is represented by the dog in the manger. However, we may now fairly hope, for the reasons above given, that the recommendations of the Committee will no longer be allowed to sink into forgetfulness, under the ill-will of the Horse Guards, the apathy of the War Office, and the childish niggardness of the Treasury.

Dr. Wilks, *apropos* of a case of cholera (*Lancet*), says he entirely disagrees with those who say that mischief is done by astringents; and that he equally disagrees with those who think any good is done by them. Astringents certainly do not astringe; they exert no influence, either good or bad. We know of no drug that is capable of checking the course of cholera; and the sooner we publicly admit the fact the better. It is to be wished that Dr. Wilks had been more explicit. It may be true that astringents do not act as such in cholera, and that drugs do not influence the course of the disease; but when Dr. Wilks says that they exert no "influence, good or bad, upon the disease", does he mean also to say, that large doses of calomel, of opium, and of strychnia, etc., given in cholera, may not exert some very serious influence, good or bad, upon the body? If those doses do no good *quoad* the disease, may they not, in so far as they are absorbed, produce very serious mischief?

The *Wiener Medizinische Wochenschrift* says that in one of the suburbs of Vienna there lately appeared a strange epidemic—the main symptom being swollen, sore, and painful faces—attacking only the male sex. The disease was traced by the medical men to the use of a shaving-paste, which had been highly recommended as a "clean shave" by Barber Johann Gautier. His paste rendered unnecessary the use of the razor. The privileged paste was found to consist mainly of arsenic. Of course, it was confiscated, and the aspiring barber subjected to legal penalties.

Countess Wenkheim has contributed a thousand bottles of splendid Tokay for the benefit of wounded Austrians. The Empress-Mother has given 10,000 yards of flannel for bandages. The bandagist, Vogl, has presented splints, etc., of the value of 1100 florins.

The Minister of Public Works, with the Sanitary Inspector-General, have visited Amiens. The deaths there from cholera were very numerous on June 30th, and on the 1st inst. The epidemic is concentrated in the centre of the Old Town, where the population is densest. The higher parts and the suburbs are free from it. Seven Parisian *internes* assist the medical body there. Two medical men, Drs. Leger and Thullier, have fallen victims to the cholera; so also have five Sisters of Charity and the venerable curate of one of the parishes. Numerous cases, it is observed, have occurred without any of the usual prodromata. On the 4th instant, the Empress visited the cholera-patients at Amiens. The Emperor was prevented from accompanying Her Majesty by affairs of state.

A medical club, *prononcez cleubs*, has just been founded in London, says *L'Union Médicale*, under the name of Sydenham. The same journal also tells us that a similar honour (of *baronnet*) to that conferred on Dr. Watson has been given by the Bey of Tunis to Dr. Lombroso, a celebrated Italian physician, in the service of the Bey.

Dr. Moleschott has been elected a citizen of Italy.

THE LATE HENRY JACKSON, ESQ., OF SHEFFIELD.

Mr. Henry Jackson, an esteemed practitioner in Sheffield, and an old member of the British Medical Association, died on Sunday week, the 24th June. Mr. Jackson had been suffering for some time from aneurism in the right parietal region. Till within a very short time, he had not confessed it even to his medical friends, though he suffered intense pain. He persisted in attending to his duties; and on the 22nd June, he was in his place at the Infirmary to receive applications and admit patients. He returned home much exhausted. Mr. Jackson had so much confidence in the local members of the profession, that he refused to consult any of the great surgeons of the metropolis; and all he could be induced to do was to receive a visit from his old friend Mr. Hey of Leeds, who entirely concurred in the opinion which had been formed, that amputation was indispensable as the last, though by no means hopeful, chance of prolonging an invaluable life. The operation was performed on June 22nd, by Mr. W. Favell, in the presence of Dr. Bartolomé, Mr. Jonathan Barber, and Mr. Brown, house-surgeon of the Infirmary. On Saturday the report was, that the sufferer was as well as could be expected; but a very bad night succeeded, and in the course of yesterday it was obvious that Mr. Jackson was sinking fast, and at a late hour on the 24th June he expired. Throughout these painful scenes, he received from his attached medical brethren unremitting attention; Dr. Branson, Mr. Barber, Mr. W. F. Favell, and others, being constantly with him.

Mr. Henry Jackson was the only son of an eminent surgeon of the same name, who lived in the same house where the lamented subject of our notice has lived and died. He was most carefully educated for his profession; and, though his retiring disposition has withheld him from notoriety, professional or otherwise, he has had a deservedly high reputation. To his medical brethren, the death of Mr. Jackson is a most severe less. He was acknowledged to be at the head of his profession in Sheffield. In reading and in experience, he was preeminent. He kept himself well up in the progress of science generally, but especially in his own department; and, having been one of the surgeons of the Infirmary for nearly thirty-four years, his practice was most varied and extensive. To every one who ever had occasion to see Mr. Jackson, the benevolence of his disposition was known. He was most sympathetic and kind to his patients; and the stores of his learning and his skill were most readily and constantly at the disposal of the profession, and especially of its younger members. Mr. Jackson was a great collector of rare and curious books, and possessed a knowledge of antiquities, especially local, such as scarcely any one equalled. He married Miss Swettenham, sister of Mrs. Overend, by whom he has four sons. Henry, the eldest, is a Fellow of Trinity College, Cambridge. Arthur, the second son, has passed his examinations to enter upon his father's profession, and was about to join him. The third son, Percy, is a student at Cambridge; and the fourth, Bernard, is at school at Cheltenham. Mr. Jackson was about sixty years of age.

The foregoing account is abridged from the *Sheffield Intelligencer*. Another local paper (the *Sheffield Daily Telegraph*) thus writes of him.

"In personal appearance, a fine sense of professional honour, and perfect courtesy of manner, Mr. Jackson appeared to represent what may be termed the transition stage between the elder and present brotherhood of our regular surgeons. Affinities of professional taste brought him into intimate relation with the Overends, father and soon; and he took an active interest in the Medical School established under their auspices in Sheffield, participating, as he did, in the zoological enthusiasm of the former, and emulating the successful practice of the latter of these gentlemen. But, besides this, he was the neighbour, the friend, and fellow-practitioner in his own line, of the late Dr. Younge, for whose character, manners, and ability he had a traditional as well as an experimental respect. Cast as his lot was in an age of advance in his own profession, as well as in every other department of human knowledge, he kept pace not only with the purely perceptive and the directly practical discoveries of the times in the healing art, but with its literature, as well technical as general. Few men, indeed, were better acquainted with the lives of the famous physicians and surgeons —ancient or modern— whose engraved portraits adorned his rooms, than he whose pride was to rank worthily with them.

"Amidst the most sedulous attention to the duties of his arduous profession, Mr. Jackson made time for a large amount of miscellaneous reading, and not seldom was he seen with a book in his hand during his constant movements in a carriage. Besides keeping up with the current literature of the day, he had a special taste for bibliography, biography, topography, and general archæology; his library being probably richer in works of these classes than any other in the town. He took a particular interest in the names and writings of authors connected in any way with his native town or its vicinity, and of these he had a curious collection. Often, indeed, did the Philosophical Society win from him a promise to read before them a paper on this subject; but the plea for postponement was always based on the yet imperfect state of his materials.

"Mr. Jackson was well known and highly respected by the late Joseph Hunter, the author of the *History of Hallamshire* and other interesting works; and when, several years ago, Mr. Holland initiated that movement which resulted in placing a fine portrait of that learned topographer in the Cutlers' Hall, his most efficient coadjutor was Mr. Henry Jackson.

"He was an early, active, and highly esteemed member of the Literary and Philosophical Society, to the presidency of which he was elected in 1858, from whose chair he was rarely absent on the occasion of the monthly meetings; and of the council he was always a member. It may be that in this connexion his views were remarkably liberal; the engagement of first-rate lecturers, on high terms, having often taken place by his advice—always with his approval. Among these may be mentioned the celebrated Professor Owen, who was Mr. Jackson's guest during his visit to Sheffield; and the pleasurable remembrance of those who listened to the lectures of the most dis-

tinguished living naturalist of the age is only surpassed by the recollection of those who had the gratification of meeting him under the roof and in the company of his intelligent and genial host."

Association Intelligence.

BRITISH MEDICAL ASSOCIATION: ANNUAL MEETING.

The Thirty-fourth Annual Meeting of the British Medical Association will be held at Chester, on Tuesday, Wednesday, Thursday, and Friday, the 7th, 8th, 9th, and 10th days of August next.

President—S. J. Jeaffreson, M.D.Cantab.

President-elect—Edward Waters, M.D.Edin.

The Address in Medicine will be delivered by J. Hughes Bennett, M.D., F.R.S.Edin., Professor of the Institutes of Medicine and Clinical Medicine in the University of Edinburgh.

The Address in Surgery will be delivered by William Bowman, Esq., F.R.S., etc.

The following special subjects will be introduced for discussion:—

Dr. Sibson, F.R.S., and Mr. Holmes: What is the influence of Hospitals on Health and Mortality,

Dr. Stewart: Is the Expectant Method to be relied upon in the Treatment of any form of Acute Disease?

Mr. Alfred Baker (Birmingham): Are there any trustworthy facts as to the Origin of Pyæmia?

Professor Christison, F.R.S. (Edinburgh): Observations on the Register of Deaths in Scotland.

Gentlemen intending to read papers, cases, or any other communications, are requested to give notice of the same to the General Secretary at their earliest convenience.

T. Watkin Williams, *General Secretary.*

13, Newhall Street, Birmingham, June 5th, 1866.

BRANCH MEETINGS TO BE HELD.

NAME OF BRANCH.	PLACE OF MEETING.	DATE.
West Somerset. [Annual.]	George Hotel, Ilminster.	Wed., July 11, 2.30 P.M.
Metropol. Counties. [Annual.]	Crystal Palace, Sydenham.	Wednesday, July 18, 3.15 P.M.
Bath and Bristol. [Annual.]	Mineral Water Hospital, Bath.	Thurs., July 19th, 4.30 P.M.
Reading. [Annual.]	Council Chamber, Reading.	Wednesday, July 25th, 4 P.M.

WEST SOMERSET BRANCH.

The annual meeting of the West Somerset Branch will be held at the George Hotel, Ilminster, on Wednesday, July 11th, at 2.30 P.M.; G. R. Burtt, Esq., will take the chair. Dinner at 5 P.M.

Gentlemen intending to read papers or cases are requested to forward the titles of the same to the Honorary Secretary, without delay.

W. M. Kelly, M.D., *Hon. Sec.*

Taunton, June 11th, 1866.

METROPOLITAN COUNTIES BRANCH.

The fourteenth annual meeting of the Metropolitan Counties Branch will be held at the Crystal Palace, Sydenham, on Wednesday, July 18th, at 3.15 P.M. *President* for 1865-66, Edward H. Sieveking, M.D.; *President-elect* for 1866-67, Henry Lee, Esq., F.R.C.S.

At 5.30 P.M., the members will dine together; Henry Lee, Esq., in the chair.

A. P. Stewart, M.D.
Alexander Henry, M.D. } *Hon. Secs.*

London, June 4th, 1866.

BATH AND BRISTOL BRANCH.

The annual meeting of the Bath and Bristol Branch will be held at the Mineral Water Hospital, Bath, on Thursday, July 19th, at 4.30 P.M. Dinner at the York House, at 6.30 P.M.

R. S. Fowler, *Hon. Secretary.*

READING BRANCH.

The annual meeting of the Reading Branch will be held at the Council Chamber, Reading, on Wednesday, July 25th, at 4 P.M.

George May, jun., *Hon. Secretary.*

Reading, July 2nd, 1866.

SOUTH-EASTERN BRANCH: ANNUAL MEETING.

The annual meeting of this Branch was held at Tunbridge Wells, in the Assembly Rooms of the Royal Sussex Hotel, on Thursday, the 14th instant. The chair was first taken by Edward Westall, M.D., President; and afterwards by Charles Trustram, Esq., President-elect for the ensuing year. There were present at the meeting: J. Armstrong, M.D. (Gravesend); J. M. Barry, M.D. (Tunbridge Wells); J. M. Burton, Esq. (Lee); J. Blaxland, Esq. (Tunbridge Wells); A. Carpenter, M.D. (Croydon); E. Clapton, M.D. (Southwark); H. J. Collet, M.D. (Worthing); H. Colebrook, M.D. (Southborough); R. Gravely, Esq. (Newick); C. Holman, M.D. (Reigate); G. Holman, Esq. (Uckfield); G. F. Hodgson, Esq. (Brighton); A. Hall, M.D. (Brighton); H. Lewis, M.D. (Folkestone); T. H. Lowry, M.D. (Town Malling); B. Marsack, Esq. (Tunbridge Wells); A. Napper, Esq. (Cranley); R. J. Starling, Esq. (Tunbridge Wells); G. Stilwell, Esq. (Epsom); F. H. Sankey, Esq. (Wingham); T. H. Smith, Esq. (St. Mary Cray); C. Trustram, Esq. (Tunbridge Wells); C. R. Thompson, Esq. (Westerham); J. S. Warter, M.D. (London); J. R. Wardell, M.D. (Tunbridge Wells); W. Wallis, Esq. (Hartfield).

Dr. Westall, on taking the chair, said he had but little to remark upon in connection with the Society's history during the past year. It had been a period in which no great event had occurred affecting any of them personally, or the Branch generally, save that the Society had suffered in the loss of some of its best and most distinguished members. To the memory of these, their departed friends and associates, he had no doubt the speakers who followed him would do every justice. His duty was now simply to introduce to them the President of the year, Charles Trustram, Esq., a gentlemen well known in the place and neighbourhood, as well as to the members of the

Society, and in whose hands he could leave the proceedings of that day with the assurance that they would be ably and efficiently conducted. [*Applause.*]

Dr. Westall then vacated the chair; and Mr. TRUSTRAM took his place amid renewed applause.

President's Address. The PRESIDENT then delivered an address.

Mr. J. BURTON moved—

"That the best thanks of this meeting be given to the President for his address, and that he be requested to allow it to be published in the JOURNAL."

The resolution was seconded by Mr. W. WALLIS, and carried unanimously.

The PRESIDENT had hardly presumed to think his production would have been worth a place in the JOURNAL; but, if the contrary opinion was entertained by the meeting, he should be most happy to accede to the request. Perhaps, as tending to show that there were certain departments of the profession requiring to be worked up to a higher point, it might not be without advantage.

Report of the Council. Dr. HOLMAN (Honorary Secretary) then read the following Report of Council.

"The Council of the South Eastern Branch have much pleasure in offering to their brother associates a cordial welcome to Tunbridge Wells. At the meeting held here in 1848, the report of the Council touched upon the then vexed question of medical reform, and poor-law medical relief, and warmly vindicated the professional conduct of one of its members, whose character had been unjustly assailed. The question of Medical Reform since then has been met by the passing of the Medical Act, and the appointment of the Medical Council. The Act has been almost wholly inoperative from numerous total omissions and various defective clauses, whilst the power of the Council has been proportionately curtailed. An amended Act has now been prepared, by which it is hoped that the Council will be empowered to compel complete registration, to protect those registered, to prosecute irregular practitioners, and to compel the licensing bodies to adopt some sort of uniformity in the standard of the preliminary examinations, as well as for the subsequent test of those seeking a diploma to become authorised medical practitioners.

"Reform in the public medical services had been left untouched until after the meeting at the Crystal Palace last year, when a commission was appointed to inquire into the alleged grievances of the Army and Navy Medical Officers. The College of Physicians nominated Dr. Markham, Editor of the JOURNAL, to serve on the commission, who was thus enabled to represent the College and the members of the British Medical Association. The Council have great satisfaction in stating that the commissioners advised that the main grievances complained of should be redressed, and, although their report does not perhaps give all that the officers in the two services might desire, still their recommendations will go far to ameliorate the position of those officers, and remove the distrust of the junior members of the profession to enter the army or navy, and, it is hoped, may induce a better class to apply for employment in the public services. The Council are convinced that the earnest and uncompromising advocacy of their associate, Dr. Frederick Brown, of Rochester, has conduced in no small degree to bring about this satisfactory result.

"With regard to Poor-law Medical Reform, no adjustment has yet been arrived at, but the agitation with respect to workhouse infirmaries, and the evidence adduced at the various inquests, has shown so plainly the overwhelming amount of work thrown on poor-law medical officers, and the inadequate stipends awarded them, as to thoroughly arouse the attention of the public, and, it is hoped, will in due time bring about a recognition of the just claim of the poor-law medical officer.

"The reports on Workhouse Hospitals brought out in the *Lancet*, (in part the labour of one of the most intelligent members of the South Eastern Branch,) have also done good service; and the Council learn with pleasure the admission of the medical element at the poor-law board, by the appointment of Dr. Edward Smith as medical inspector.

"The Council have to record their hearty sympathy with Dr. Armstrong, of Gravesend, and his son, with regard to the malicious action of Rudman *v.* Armstrong; and, while expressing their regret at the annoyance and expense they have been subjected to in defending themselves, they desire to congratulate them on having earned and received the approving testimony of so many men eminent in the profession, as well as the warm and cordial regard of their professional neighbours, as evinced by the resolution passed at the West Kent District Meeting, at Dartford.

"Slowly, but surely, the labours of Sanitary Reformers are making way with the public. Time has been necessary to develope the great truths they enunciated, and by the hard logic of facts has the present position of sanitary science been gained. It has been difficult to persuade either government or the public of the absolute necessity of obeying certain simple, natural laws; by slow degrees government became convinced that it was requisite to pass laws to compel people to be clean and live; by still slower degrees have the public submitted to be taught to live. Step by step has the knowledge that obedience to sanitary regulations is an integral part of social and political economy been gained, and the time has now come, when, in the opinion of many thinking men, the sanitary arrangements of all places should be put under the more direct supervision and control of the government.

"The JOURNAL has continued steadily to improve, but the same want is yet too frequent, viz., the absence of clinical reports of cases from the provincial hospitals. The medical staff of many of these institution are too much occupied to prepare them, but if the house-surgeons could receive some small pecuniary inducement to send up reports, revised by the physician or surgeon, a very valuable mass of information might be brought forward, most useful to the busy general practitioner. While making this suggestion, the Council fully recognise the services of Dr. Markham, the editor, who has, in the matter of the JOURNAL, and also of the army and navy medical reform, earned the best thanks of the Society.

"The numbers of the Association have been considerably augmented in the past two years, and its value is daily becoming more generally recognised. The questions referred to in this report have been often before the members, and received their constant attention. The results thus far attained, are in great measure due to their efforts, individually and collectively.

"That such results can be gained, should be an inducement to professional men to join the Society, even if from no higher or better motive. The influence of Dr. Brown and Dr. Markham has been greatly increased by the knowledge that they expressed not only their own views, or the views of the classes they represented, but that they were supported by the warm sympathy of an Association numbering some two thousand four hundred medical men. It is highly desirable that many more of the practitioners of the United Kingdom should be brought within its ranks.

Combined action can do much. The Association is no union of half-educated men of narrow views, thinking of little else but selfish ends, but rather the union of highly educated intelligent minds, capable of correctly estimating the rights of the public as well as their own presumed wrongs, both willing and able calmly to discuss all the bearings of each question, and to come to sound conclusions.

"Again, when oppressed and harassed by the anxiety of unfounded legal prosecutions, the respectable practitioner can appeal to the highest tribunal, the opinion of his compeers in the profession, and in their verdict can place every confidence, and can claim from them such support as was shown to our esteemed friend, Dr. Armstrong, first in the court of justice, and next at a meeting of those who best knew him, the medical practitioners in his own immediate neighbourhood.

"The social good resulting from mutual association has been so often dilated upon, that it is needless again to pursue the subject; suffice it to say, that the warmest approval is expressed by those gentlemen who have been longest in the Association, whether they speak of it professionally or socially.

"The District Meetings in Kent have been most successful during the past year, and the thanks of the Branch are due to Dr. Brown and Mr. Bowles, for the admirable way in which the business has been carried on. The Council have sanctioned with great pleasure the formation of similar meetings in East Surrey, and they trust that the efforts of Dr. Lanchester, who has been elected Secretary, may meet with similar success. The balance in the hands of the Treasurer amount to £26 : 17 : 6.

"Before concluding this report, the Council would record their sincere sorrow at the unusual mortality among the members of the Branch, during the past twelve months. It would be but too painful to recapitulate all the names of those who have been snatched away, all men of mark in their respective localities:—King, of Brighton, Giraud, of Faversham, Gould, of Wateringbury, members of the Branch since 1850; Sisson, of Reigate, a Vice-President at the time of his death; whilst all who have attended the annual meetings will miss the white hairs and genial greeting of that fine specimen of a true gentleman, Sankey, of Dover."

Mr. A. Napper was sure that the various subjects alluded to in the report read must be very interesting to every gentleman present. He was also certain that they would agree with him when he said, that annual meetings at which such reports were presented not only gave character to the Association, but conferred great benefit upon the profession at large. The report before them had been so ably drawn up as to reflect the highest credit upon those under whose direction it was produced. He moved—

"That the report now read be received and adopted."

Dr. Collet briefly seconded the resolution, which was carried unanimously.

Improvement of Sanitary Laws. Dr. Carpenter moved—

"That a petition be sent to the lords of Her Majesty's Privy Council, in favour of improvement in the sanitary laws of this kingdom; and that it be signed, on behalf of the members of the South-Eastern Branch, by the President."

The duty of the medical practitioner might be divided into two branches—first, the cure of disease; and second, its prevention. To his own mind, although the cure of disease was a pursuit of high honour, that of prevention was one of much higher honour. It must be far more important to the world at large that medical men should prevent disease from arising, than that they should cure it when it had arisen; because in the first instance they prevented loss of life in large masses, while in the second they only could do so in individuals. The means of preventing disease he need not dilate upon; but if he read the petition it would show the various means which it was proposed to use. [The petition embodied the recommendations agreed on by the Metropolitan Counties Branch (Journal, April 14, p. 397); and also those added at the recent meeting of the Bath and Bristol Branch (Journal, June 2, p. 585).] It had become imperative that bodies like this Branch should urge upon the authorities the propriety of appointing the officers therein alluded to. The difficulties to be contended with in dealing with individuals in this matter of prevention—in persuading householders to put their premises in order and remove causes of disease—were well known. It was thought that there was some object in view when the effort was made, and people could hardly think it possible for a medical man to be so philanthropic as to desire to diminish his own business. But it was forgotten that there was one strong influence at work with him; viz., self-preservation. People forgot the number of medical men who fell victims to the diseases with which it was the business of their lives to contend. He (Dr. Carpenter) was connected with a parish where perhaps as much had been done for the public health as in any parish throughout the kingdom. Enormous sums had been spent there in removing the causes of disease; and still they failed in one thing—there was no medical officer of health, and the authorities could not be persuaded that such officer was necessary. They had, therefore, no means of bringing home to the inhabitants the necessity for obeying the laws of Nature. The inhabitants trusted to the authorities for doing everything, but would not of themselves help one bit. And then, if disease of fatal consequence did arise, these people blamed the authorities, but never thought for a moment that the fault was their own. But if the occupiers of houses would not assist the authorities, the whole system became valueless. If there were a medical officer of health in Croydon, the origin and proximate causes of epidemics which now and then would arise in some localities might be effectually banished. His own conviction was, that a medical officer of health was required in every district, for the purpose of compelling certain arrangements to be carried out; and that such officer should not be responsible for his acts to the local authorities. It was easy to see the necessity of this independence of local authority in such matters. The clauses of the petition had been fully discussed in the Journal; and every one interested knew, through that medium, how much could be said in their favour. He concluded by moving the adoption of the petition.

Dr. Collet seconded the resolution. He could endorse every word uttered by the last speaker. He was quite convinced of the necessity of the petition, and especially of that clause which proposed the appointment of a medical officer of health. [*Hear, hear.*] In many places where the Health of Towns Act had been adopted, the authorities sought to screen themselves behind the argument that they had a medical man on the Board. That was all very well, so far as it went; for a medical man was doubtless of great assistance to any board of health; but he was never a responsible person in their sense of the word, and the duties attaching to the position would never be properly discharged except by a responsible medical officer. During the last year or two, at Worthing, they had been without a medical man on the Board, and without a medical officer; the consequence was that, although large sums of money had been ex-

pended upon a complete system of drainage, from want of supervision and foresight, the town had been brought to imminent ruin—a result which never would have followed had they possessed a proper medical officer of health. Every one of the provisions contemplated were of the greatest possible importance, and he seconded the adoption of the petition most cordially.

Dr. ARMSTRONG supported the resolution by an instance within his own observation. At Gravesend there was a board of health, of which the presiding genius was an inspector of police. Some little time ago there was a bad cesspool to be emptied, which had been neglected for a long time. One man went down, was overpowered by the noxious gases, and died; a second went to his assistance, and perished in the same manner; and in this way three men successively lost their lives. Now, the inspector had had entrusted to his keeping a fire-annihilator; and the idea strongest with him seemed to be that, if this machine would extinguish a fire, it must be also efficacious in expelling poisonous gases. So he injected a quantity of its contents into this cesspool. But he (Dr. Armstrong) was glad to say that no other person ventured to go down, even after that, and so they had no means of testing the qualities of the annihilator. He mentioned this as an instance showing strongly the necessity for a medical officer in every large town to see that life was not sacrificed, and that things were properly done.

The PRESIDENT, referring to Dr. Carpenter's observation, said there was no doubt the world was rather surprised to see the medical practitioner apparently "cutting off his own nose" in his efforts to promote health. But the medical profession had shown a growing disposition to remove that which filled its purse; in which movement he did not think self-preservation had taken so prominent a part as Dr. Carpenter had assigned to it. Medical men did their work upon higher principles; they saw women left widows and children fatherless; and those higher feelings of philanthropy which every true-hearted man possessed prompted them to exertions for saving life. He knew that the medical profession must suffer from disease; but he still felt they were entitled to credit for a higher motive than their own preservation. They deserved the thanks of the world, of society, and of the country; for they were always stepping forward to prevent disease where that could be done, and they should not hesitate to claim their proper distinction.

The petition was then unanimously adopted.

Financial Statement. Dr. HOLMAN laid before the meeting the financial statement for the past year; which showed a balance in hand of £26 : 17 : 6.

The Medical Benevolent Fund and the late Mr. Newnham. Dr. BARRY, upon the reading of the above statement, moved—

"That the Treasurer's report be received; and that a donation of ten guineas be sent to the Medical Benevolent Fund."

To this he desired to add, by way of rider—

"The members of the South-Eastern Branch desire to record their sincere regret at the death of Mr. Newnham, for many years a member of the Branch, and one of the earliest promoters of the Medical Benevolent Fund. He practised with great repute at Farnham, where he commanded the warm respect of all. The establishment of the Medical Benevolent Fund, and the good it is yearly enabled to do, is the best and most lasting remembrance of an earnest, untiring philanthropist."

As the subject might be new to some present, he would point out a few of the salient features in the history of this fund. It was established upwards of thirty years ago by the British Medical Association. For the first few years it was not in a very prosperous condition; but then Mr. Newnham of Farnham was appointed treasurer, and threw into it all his energy and business ability. The result was that, while in 1847 the annual income was only £200, in the following year it was £600, and in 1851 it had reached £1100. The object of the fund was to relieve impoverished medical men, their widows and children. It was supported by subscriptions, principally from the medical profession; there being but few lay subscribers. From time to time most munificent legacies had been left to it by members of the profession. The money so left was funded; and, from the interest arising, a certain number of persons every year received small annuities. There were about thirty such annuitants at present, each in receipt of from £10 to £30 a-year. But the liberality of the profession had not stopped there; six houses had been built and vested in the Society, who elected their occupants, and they were all now inhabited by persons receiving annuities. He believed that Mr. Newnham, who worked at the fund with so much energy, injured his own health by those exertions, as he used to sit up till three or four o'clock in the morning, after a hard day's practice, writing letters of appeal. Since then the fund had gone on very fairly, though it could not be said to have overtaken the many deplorable cases of distress brought before the committee every month. Last year £1323 was expended in grants and annuities to persons belonging to the Association. With these observations he begged to move his resolution; and it seemed only proper, as Mr. Newnham was so closely associated with the prosperity of the fund, that, as a sort of rider, the second resolution should go with it. He was a distinguished member of this Branch. He had passed away since the last meeting; but his name must not be passed over without some reverence being paid to it.

Mr. HECKSTALL SMITH said that, as he had for many years followed Mr. Newnham in this work, he knew from personal observation that every word Dr. Barry had said was true, and he had great pleasure in seconding the motion.

The resolution was put from the chair, and carried unanimously.

Place of Next Meeting: Election of President and Vice-Presidents. Dr. HALL proposed—

"That Guildford be the place of meeting in 1867; and that A. Napper, Esq., of Cranley, be President-elect, and Dr. Stedman (Guildford) and C. Chaldecott, Esq. (Dorking), be Vice-Presidents."

Dr. ARMSTRONG seconded the resolution, and it was carried unanimously.

Mr. NAPPER thanked his fellow members for the honour done him, and promised them a right hearty welcome upon their visit to Guildford.

New Members. The following gentlemen were declared duly elected members of the Branch. G. A. Angier, M.D. (Tunbridge); F. Page Atkinson, M.B. (Rochester); H. Bishop, Esq. (Tunbridge); J. Meaburn Bright, M.D. (Forest Hill); C. Buchan, M.D. (Pembury); J. T. Dickson, Esq. (City of London Lunatic Asylum); F. Fagge, Esq. (Hythe); John Franks, Esq, (Sevenoaks); J. H. Graham, M.D. (Lamberhurst); H. Harland, M.D. (Mayfield); C. Hayman, M.D. (Eastbourne); R. S. Henning, Esq. (Tunbridge Wells); Dr. Braxton Hicks, F.R.S. (London); E. M. C. Hooker, Esq. (Hadlow); H. T. Lanchester, M.D. (Croydon); J. R. Leake, Esq. (Upper Norwood); Henry Lewis, M.D. (Folkestone); B. Marsack, Esq. (Tunbridge Wells); E. Marshall, Esq. (Mitcham); W. Mercer, Esq., (Wadhurst); J. W. J. Oswald, Esq. (Ramsgate); John Payne, Esq. (Hurst-

field); J. M. Philbrick, Esq. (Brighton); W. R. E. Smart, M.D. (Royal Greenwich Hospital); J. Taylor, Esq. (Ticehurst); H. Thompson, Esq. (Sevenoaks); H. Townsend Whitling, Esq. (Croydon).

The PRESIDENT said that no less than twenty-eight members had been added during the past year—a larger number than in any previous year.

Council of the Branch. The following were declared elected as the Council:—W. Addison, M.D. (Brighton); F. J. Brown, M.D. (Rochester); J. M. Burton, Esq. (Blackheath); C. Chaldecott, Esq. (Dorking); W. Hoar, Esq. (Maidstone); G. Lowdell, Esq. (Brighton); A. Napper, Esq. (Cranley); E. Ray, M.D. (Dulwich); F. H. Sankey, Esq. (Wingham); C. Trustram, Esq. (Tunbridge Wells).

Representatives in the General Council. The following gentlemen were chosen to represent the Branch in the General Council of the Association:—J. Armstrong, M.D.; G. Bottomley, Esq. (Croydon); J. C. Burrows, Esq. (Brighton); A. Carpenter, M.D. (Croydon); W. Carr, M.D. (Blackheath); H. Collet, M.D. (Worthing); F. Fry, Esq. (Maidstone); T. H. Smith, Esq. (St. Mary's Cray); C. M. Thompson, Esq. (Westerham); E. Westall, M.D. (Croydon).

Votes of Thanks. Mr. HODGSON moved—

"That the best thanks of the members be given to Dr. Westall, the President of the Branch during the past year, and to Mr. Napper, the Vice-President."

He paid a high compliment to Dr. Westall for his ability in the position of President, and alluded with much gratification to the meeting at the Crystal Palace last year.

The resolution having been put and carried unanimously, Dr. WESTALL and Mr. NAPPER acknowledged the vote.

Vote of Condolence, etc. Mr. HECKSTALL SMITH moved—

"That the members of the South-Eastern Branch desire to record their great sorrow at the death of Mr. Sisson of Reigate, one of the Vice-Presidents. He had always taken a great interest in the welfare of the Association; and had won the regard and esteem of all who knew him, by his sterling honesty, his liberality of idea, and his genial, warm-hearted disposition.

"That a copy of this resolution be sent to his mother."

He paid a high tribute of respect to the memory of the deceased gentleman, and moved the resolution with every confidence that it would be unanimously adopted.

Dr. WESTALL seconded the vote; which was carried *nem. con.*

The Peter Martin Memorial. A report having been sent up from the Martin Memorial Committee,

Dr. ARMSTRONG said that it did not often follow that they were able to mark their sense of the great value of the able and distinguished men who were from time to time removed by death from amongst them, in such a manner as they would wish. But they had determined to do something of that kind in evidence of their appreciation of the worth and labours of one of their public servants; he alluded to Mr. Peter Martin, their late secretary. All who had known him concurred in the general feeling that he was a man specially capable as their secretary, and that he had done a great deal of good work for them without compensation of any kind. In the attempt to preserve his memory, and to transmit their sense of his value to those who succeed them, they wished in some way to associate his name with the benefits his labours had helped to secure to the profession. A variety of plans were submitted; and it was ultimately resolved that a fund should be raised, and placed at the disposal of the Medical Benevolent College, to found a scholarship to be competed for by the members of that College from year to year. Now the amount of that fund had reached about £170, and the Committee had thought it desirable to make that sum available for some good purpose. He, therefore, proposed—

"That Dr. Ormerod, the treasurer of the Peter Martin Memorial Fund, be requested to pay the amount, whatever it may be, to the trustees of the Royal Medical Benevolent College, to be applied in perpetuity to establish one or more prizes, to be given annually in such manner as the Martin Memorial Committee or the trustees of the College may decide."

He entirely concurred in this disposition of the fund, because it would identify the name of Peter Martin with the largest and most benevolent movement with which they were connected; and it ought to prove an inducement to young men—the sons of medical men in particular—to strive for a position in their glorious profession.

The PRESIDENT, in a conversation which followed, suggested that some branch of study should be pointed out, for proficiency in which the prizes should be awarded—natural philosophy, for instance—as the basis of medical studies. Otherwise, the prizes would be entirely in the hands of the Council of the College, and might be entirely diverted from the objects which medical men had most at heart. All the students at the College were not the sons of medical men.

Mr. HECKSTALL SMITH, in seconding the resolution, said he should object to any restriction being placed upon the competitors for these prizes. Others than sons of medical men had been deliberately admitted to the advantages of their College—a step which he held to be a good one—and in the interests of the College, as well as in view of the catholic spirit of their late secretary, he would say, let these prizes be perfectly open.

Mr. J. M. BURTON believed that to confine competition for these prizes to one class of pupils would be doing a very bad thing for the boys admitted. It would take away much of the earnest spirit of emulation by giving them the idea of exclusive privileges.

Dr. COLLET said his opinion was in accordance with that of the President. He thought the collateral branches of professional study — botany, chemistry, natural philosophy, and so on—formed a part of education which had been much neglected, and it struck him that if these prizes could be presented for one of these studies, it would be a fine opportunity for directing attention to them. He did not agree with the idea of restricting the class of competitors; but he did think that the prizes should be awarded so as to promote the study of the natural sciences.

The SECRETARY referred to the terms of the resolution, which said the prizes should be awarded "in such manner as the Committee might decide." Now it so happened that every gentleman who had spoken on this subject was a member of that Committee, who had only to meet, talk it over among themselves, and arrange the matter as it most commended itself to their judgment.

The resolution was then put from the chair, and carried.

Election of Secretary. The PRESIDENT said the next subject of consideration was an all-important one. The success of their Society was in large measure dependent upon the gentleman occupying the post of Secretary; and he thought all would agree with him in saying that they had always been ex-

tremely fortunate in that matter, and also that they had now a most able, energetic, and laborious secretary. Those who had never occupied the position knew but little of the labour it involved, and unless a man's heart and soul were in the work the institution must suffer. That their Society did not suffer that meeting and its complete arrangements testified. He proposed the re-election of Dr. Holman.

Dr. WESTALL seconded the resolution. He could endorse every word the President had uttered. No one could know the labour their Secretary had to get through but those who had served in a like capacity; and they ought to express their thanks in the strongest possible terms, and desire that Dr. Holman would continue to hold the office.

The PRESIDENT put the resolution; which was carried by acclamation.

Dr. HOLMAN thanked the meeting very warmly for the kind manner in which the observations of the President had been received. The remarks of Dr. Armstrong were perfectly true, in reference to the increased importance of the Society. The work of the Branch was a very different thing now from what it used to be. There were a great number of questions constantly coming up, with which the Secretary was bound to keep himself *au courant*—questions which related to the profession, and which it was his duty to bring constantly before them. It was in that room, eighteen years ago, that he began to work for this Society; he had gone on with that work, and now felt the greatest possible pride in doing all he could to advance the interests of the South-Eastern Branch. Their numbers had recently so grown that they now stood only second in England—they numbered no fewer than 235 members, and were taking up the cream of the practitioners in the provinces. So long as the Branch was pleased to accept his services, he should be happy to render them.

Dr. Armstrong and Mr. Bonney. Mr. HECKSTALL SMITH asked permission to make a few observations upon a subject which did not then come specially before the meeting, but which, he thought, called for some notice. The case of Dr. Armstrong and his son had been remarked upon in the report. The deep sympathy felt for them had been practically evinced by the payment, in an incredibly short space of time, of the expenses incurred in their defence; and he hoped there would be a full gathering in Gravesend on Tuesday. His object in rising was to state the step which he was advised to take with reference to a gentleman, a member of the Association, who gave evidence on the trial against Dr. Armstrong and his son. No one could possibly object to the fact of one medical man giving evidence against another; it was in the nature of things that such occasions should arise. All were liable to err, and most were somewhat frail; but we might err so grossly or be so greatly frail, that it might become absolutely necessary, painful as it might be, for one medical man to go into the witness-box and give evidence against another. He (Mr. Heckstall Smith) had occasion, some time ago, to call the attention of the profession to the number of these trials—the multiplication of charges against medical men—which could not take place unless some medical brother were found to second the set made against them. A member of the British Medical Association, of the name of Bonney, gave evidence against Dr. Armstrong and his son under these circumstances. He mentioned the subject distinctly, and stated the case particularly, that the reporter might take it down, and that Mr. Bonney might read what was said, have notice of what he (Mr. Smith) was about to do, and so have an opportunity of coming before the Committee of Council prepared to give his own version of the story. During the time that Dr. Armstrong was in professional attendance upon Emma Rudman, Mr. Bonney, knowing that Dr. Armstrong was so attending her, saw the patient three times and gave an opinion upon the case in the absence of Dr. Armstrong. Now he might stop here, and, as a public matter affecting this Association—putting Dr. Armstrong entirely out of the question—he might say it was so grossly unprofessional to offer such an opinion at all, that he deserved to be severely censured for it. But he went a step further, and offered an adverse opinion: he stated that the patient was suffering from ptyalism, when it was proved that she could not have suffered from anything of the kind. But, again, he was found backing up the family of this girl in bringing the vindictive action against Dr. Armstrong, by going into court, and there giving his evidence in such a way that it was patent to those in the court, and called forth a rebuke from the Judge. If he deemed himself right in doing as he had done, and backed that up by going to a court of justice and there laid himself open to observation by the one-sided way in which he gave his evidence, he showed a sort of partizanship, which was just what he ought not to have done. Mr. Smith said that he should bring this case before the Committee of Council, and if they sanctioned the proceeding, he should bring it before the meeting at Chester, and move that he (Mr. Bonney) be dealt with according to the laws of the Association.

The PRESIDENT said that there could be no possible objection to Mr. Smith's mentioning at the meeting his intention to take such steps respecting Mr. Bonney's conduct; but nothing can be done there because he was not a member of the Branch. It certainly was, or should be, the desire of all to see that the course of conduct pursued by every member of the Association is what it ought to be. If Mr. Bonney could explain his conduct, the Society would doubtless be satisfied; if not, it would be for them to say if it was excusable, or whether they thought it necessary to decide that he could no longer be a member of a body which upholds the character of our profession. He would have a fair opportunity of preparing such explanation of his conduct as might, he (the President) hoped and trusted, extricate him from his present position.

Communications. The following communications were read.

1. On Cardiac Murmurs. By J. S. Warter, M.D., London.

Mr. HODGSON, after a brief conversation, moved a vote of thanks to Dr. Warter for his valuable paper, coupled with a request that he would allow it to be published in the JOURNAL.

This was seconded by Mr. NAPPER, and carried unanimously; Dr. Warter acceding to the request for publication of the paper.

2. Observations on Cases in Medical Practice. By J. R. Wardell, M.D., Tunbridge Wells.

3. On a Case of Ovariotomy. By Blackall Marsack, Esq., Tunbridge Wells.

Votes of Thanks were accorded to each gentleman for his paper, and both acceded to the request that they be published in the JOURNAL. A similar vote was also given to the President for his conduct of the business.

The Dinner. The business of the meeting being concluded, the members, to the number of forty, dined together at the Sussex Hotel. C. Trustram, Esq., President, was in the chair; and the Rev. Sir Henry Thompson, Bart., Rector of the parish, was also present; also, the Hon. G. Molyneux, chairman of the Local Board, and G. Browne, Esq., one of the magistrates.

NORTHERN BRANCH: ANNUAL MEETING.

The second annual meeting of this Branch was held in the Board Room of the County Hospital, city of Durham, on Friday, June 22nd; Sir John Fife, M.A., F.R.C.S., in the chair. There were also present, W. C. Blackett, Esq. (Durham); Edward Charlton, M.D. (Newcastle); G. E. Cockcroft, Esq. (Hurworth); Thomas Cossar, M.D. (Hurworth); William Curry, Esq. (East Rainton); Charles Gibson, M.D. (Newcastle); H. G. Hardy, Esq. (Byers Green); Edward Heffernan, Esq. (Spennymoor); John Jobson, Esq. (Bishop Auckland); F. D. Jones, M.D. (Washington); Donald Mackintosh, M.D. (Dinsdale Park); J. C. Murray, M.D. (Newcastle); William Murray, M.D. (Newcastle); G. H. Philipson, M.D. (Newcastle); S. E. Piper, Esq. (Darlington); John Russell, Esq. (Newcastle); George Shaw, Esq. (Durham); William Stoker, Esq. (Durham); D. B. White, M.D. (Newcastle); and as visitors, J. B. Bridick, Esq. (Durham); Matthew Hepple, Esq. (Durham); Edward Pilkington, Esq. (Sunderland); and R. N. Robson, Esq. (Durham).

The Retiring President (Dr. White), in opening the proceedings, said that in terminating his year of office, he would not detain the members very long; inasmuch as, when the period of his presidency commenced, he took the opportunity, on account of the Association not then being so generally known in Northumberland and Durham, of making rather a long address. In the second place, he need not detain them long, because he had to succeed him a gentleman who was much more competent to address them than he himself was. He was exceedingly glad to find that his friend, Sir John Fife, was about to assume the office of President, because they all knew, from his determination and energy of spirit, that when he did enter upon any course he pursued it to its conclusion. They all knew well, that one great institution in Newcastle (the College of Medicine) might be said almost to have been established by him, and piloted through a great number of difficulties. His hope was that Sir John would do as much for this Association, and this feeling removed the regret he otherwise would have had in retiring. He thanked them for the honour of being their President during the past year, and complimented Sir John Fife on his accession to the chair.

President's Address. Sir John Fife then delivered an elaborate address. After thanking the members for the great honour they had conferred upon him, he congratulated them upon the prosperity of the Association. Last year their Branch numbered fifty-two, and since then they had received an accession of nineteen new members. In feeling terms, reference was made to the loss sustained by the death of three of their fellow-associates. The objects of the Association and Branch were then explained. The recent memorials to the Royal College of Surgeons, from the provincial fellows, petitioning for the privileges consequent upon a residence in the metropolis, were instanced as an example of what may be accomplished by unity and organisation. After referring to the great strides that had taken place in science, during the last twenty-five years, the President concluded by detailing the advances that had been made in the knowledge of diseases of the kidney and bladder, the operation of lithotomy being specially referred to.

Dr. Charlton said he had great pleasure in proposing that the thanks of the meeting be given to Sir John Fife, for his able address. In that address Sir John entered thoroughly into the spirit of the profession, and showed that, although he might be considered the father of the profession in Newcastle, there was still the fire of youth in him, such as he exhibited many years ago; that he had still the same interest in the advancement of science; that he was still as able to take a part in it as ever, and he (Dr. Charlton) trusted that many, many years would elapse before he ceased to do so.

Mr. Jobson, in seconding the vote, thought they had been particularly fortunate in having such excellent men for their presidents, past and present.

The President, in acknowledging the compliment, referred to the nature of the Turkish bath as a curative agent.

Vote of Thanks to the Retiring Officers. Mr. Cockcroft moved—

"That the best thanks of the meeting be given to the retiring President, Dr. White, the council of management, and the other officers, for their services, during the past year."

Dr. Jones seconded the motion.

Dr. White returned thanks, assuring them that he took a very deep interest in the Association.

Officers for 1866-7. On the motion of Dr. Cossar, seconded by Dr. William Murray, it was unanimously resolved—

"That the next annual meeting be held in Newcastle; that Dr. Charlton be elected President-elect; Dr. Philipson, Honorary Secretary and Treasurer; Dr. White, Dr. Embleton, S. E. Piper, Esq., and H. G. Hardy, Esq., the Council of Management."

New Member. W. S. Broadbent, Esq., South Helton, was unanimously elected a member of the Association and Branch.

Representatives to the General Council. On the motion of Mr. Curry, seconded by Dr. White, the following members were elected to represent the Branch in the General Council of the Association; Sir John Fife. Dr. Charlton, James Mackie, Esq., and Dr. Philipson (*ex officio*).

Amendment of the Sanitary Laws. Dr. Philipson submitted the resolution received from the Committee of Council of the Association, relating to the recommendations adopted by the Metropolitan Counties Branch, "as to the necessity of pressing on the legislature, by petition or otherwise, the importance of improvement in the sanitary laws."

After observations by several of the members, it was suggested that the matter be referred to the Council of Management, which was agreed to.

Papers. The following papers were then read.

1. On a Peculiar Bend of the Legs in Sitting, as an Indication of Tuberculosis. By D. B. White, M.D.
2. The Self-eliminating Action of Poisons. By Wm. Murray, M.D.
3. Report of a Case of Hydrophobia. By T. Cossar, M.D.
4. Report of a Case of Single Kidney; with Specimen. By J. C. Murray, M.D.

The following papers, from want of time, were deferred.

1. Report of a Case of Aortic and Femoral Aneurism, with Embolism of the Splenic Artery. By G. C. Gilchrist, Esq.
2. Plastic Bronchitis. By G. H. Philipson, M.D.

Votes of Thanks. On the motion of the President, a vote of thanks was passed to the Committee of the Durham County Hospital, for their kindness in allowing the use of their Board-room; and to the gentlemen who had favoured the meeting with papers. A similar compliment having been paid to the President and Secretary, the proceedings terminated.

Dinner. The members and their friends, to the number of twenty-seven, afterwards dined together at the County Hotel, the President, Sir John Fife, occupying the chair, supported by the Mayor of Durham (Wm. Boyd, Esq.), and Dr. Charlton in the vice-chair. After

the loyal toasts, the President, in eloquent terms, proposed success, prosperity, and long continuance to the British Medical Association, and more particularly to the Northern Branch. Dr. White proposed the health of the President, who, in responding, gave "The Mayor and Corporation of Durham." Other toasts followed, including the University of Durham, the General Council of Medical Education, the President-elect, and the Medical Officers of the Durham County Hospital, coupled with the healths of Mr. Shaw and Mr. Stoker.

CAMBRIDGE AND HUNTINGDON BRANCH: ANNUAL MEETING.

THE annual meeting of this Branch was held in the Committee-room of the Corn Exchange, St. Neots, on Tuesday, June 26th; J. J. EVANS, Esq., in the chair. There were also present: D. B. Balding, Esq. (Royston); C. P. Daniell, Esq. (Swavesey); W. Few, Esq. (Ramsey); M. Foster, Esq. (Huntingdon); G. L. Girling, Esq. (St. Ives); J. H. Hemming, Esq. (Kimbolton); J. Jenkins, Esq. (Bassingbourne); T. Lucas, Esq. (Cambridge); P. W. Latham, M.D. (Cambridge); L. Newton, Esq. (Alconbury); B. Pinchard, M.D. (Cottenham); W. G. Porter, Esq. (Peterborough); T. Walker, M.D. (Peterborough); T. J. Walker, M.D. (Peterborough); G. Wallis, Esq. (Cambridge); W. Ward, M.D. (Huntingdon); J. Watson, Esq. (Hemingford Grey); S. Wright, Esq. (St. Neots).

In the absence of Mr. Muriel of Ely, the Retiring President, Mr. PORTER of Peterborough took the chair, and called upon Mr. Evans to preside over the meeting.

President's Address. The PRESIDENT then delivered a very interesting and able address; after which Dr. WALKER proposed, and Mr. FOSTER seconded, a vote of thanks for the address, with a request that the President would allow it to appear in the JOURNAL.

Resolutions. The following resolutions were carried unanimously.

1. "That this Branch is desirous of a combined meeting with the members of the East Anglian Branch in 1867; and authorise the President and Secretary to make arrangements with the East Anglian Branch for that purpose."

2. "That G. L. Girling, Esq., of St. Ives, be re-elected, and that J. Lucas, Esq., of Cambridge, be elected a Director of the Medical Provident Society."

3. "That M. Foster, Esq., of Huntingdon, and J. J. Evans, Esq., of St. Neots, be elected members of the General Council of the Association."

4. "That P. W. Latham, M.D., of Cambridge, be appointed Honorary Secretary of the Branch."

5. A communication was read from Dr. Fawcett of Cambridge, in which he called the attention of the meeting to the rating of hospitals and other charitable institutions, and suggested that the General Secretary of the Association should cause to be drawn up a form of petition to the Houses of Parliament, praying that charitable institutions should be exempted from rates; and that a copy of this form should be sent to every hospital in the kingdom, with a request that the board of governors would at once ask their Parliamentary representative to present it. By simultaneous action of the different hospitals in this matter, a decided effect would be produced, and probably the rating would be done away with.

After discussion, it was moved by Dr. WALKER of Peterborough, seconded by Dr. LATHAM of Cambridge, and carried unanimously—

"That Dr. Fawcett's proposition be adopted."

Papers. The following papers were then read.

1. Notes on the Treatment of Angular Curvature of the Spine. By Thomas James Walker, M.D., Peterborough.

2. Case of Imperforate Anus. By J. B. Balding, Esq., Royston.

3. Case of Spontaneous Cure of Cancer. By J. Hughes Hemming, Esq., Kimbolton.

4. Cases of Paraplegia successfully treated at Addenbrooke's Hospital. By P. W. Latham, M.D., Cambridge.

5. An interesting Case of Ovarian Disease was brought under the notice of the meeting by J. Hughes Hemming, Esq., Kimbolton.

6. A piece of the Pectoralis Minor, containing Trichinæ, was exhibited by J. J. Evans, Esq., St. Neots.

The Sphygmograph, exhibited by Dr. P. W. Latham, excited great interest, and tracings were taken from several members at the meeting. A large collection of tracings, showing the variations dependent upon aortic and mitral defects, the various stages of fever, etc., was shown, having been kindly lent for the occasion by W. A. Bell, Esq., of Trinity Hall.

Dinner. The members of the Branch afterwards dined together at the Cross Keys; the President occupying the chair, and the Secretary the vice-chair. Several speeches were made, the President's health being proposed by Mr. Porter of Peterborough; and, after spending a very pleasant evening, the members left with the feeling that the meeting had been most agreeable and successful.

MIDLAND BRANCH: ANNUAL MEETING.

THE fifteenth annual meeting was held in the Guildhall, Lincoln, on Thursday, June 21st, under the presidency of SEPTIMUS LOWE, Esq. The following members were present: M. S. Barton, Esq. (Market Rasen); E. F. Broadbent, Esq. (Lincoln); C. Brook, Esq. (Lincoln); D. J. Garnham, Esq. (Lincoln); C. Harrison, M.D. (Lincoln); O. Johnson, Esq. (Bassingham); M. Leach, Esq. (Lincoln); D. Mackinder, M.D. (Gainsborough); G. Mitchinson, L.K.C.P. (Lincoln); T. Sympson, Esq. (Lincoln); F. D. Walsh, Esq. (Lincoln). Messrs. Mills, Branthwaite, and Quin, were present as visitors. A telegram was received from Dr. Barclay, ex-President, regretting his unavoidable absence.

Mr. Lowe having taken the chair, a vote of thanks to the Retiring President was proposed by Mr. BARTON and seconded by the PRESIDENT.

New Members. Messrs. Branthwaite and Mills were elected members of the Association and of the Midland Branch.

The Representatives in the General Council were re-elected, and Dr. Mitchinson, the Secretary, added to the number.

Medical Provident Society. Dr. Noble and Mr. Paget of Leicester were re-appointed on the Committee of the Medical Provident Society.

Next Annual Meeting. It was proposed by the PRESIDENT, seconded by Mr. BROADBENT, and resolved—

"That the next annual meeting be held at Derby, and that the members of the Derby Branch be requested to nominate a President."

President's Address. Mr. LOWE gave a most able address; which, on the motion of Mr. SYMPSON, seconded by Dr. MACKINDER, he was requested to publish in the JOURNAL.

Papers. The following papers were read.

1. A Case of Ruptured Bladder; with Remarks. By D. Mackinder, M.D.

2. Case of Fibrocellular Tumour of the Right Buttock and Labium. By T. Sympson, Esq.

3. Case of Death, Fourteen Hours after Immersion. By Charles Brook, Esq.

4. Case of Epilepsy successfully treated by Bromide of Potassium. By G. Mitchinson, L.K.Q.C.P.

Votes of Thanks. A vote of thanks to the readers of papers was proposed by Mr. BARTON and seconded by Mr. BROADBENT, with a request that the papers be published in the JOURNAL.

A vote of thanks to the President was proposed by Dr. MACKINDER, seconded by Mr. WALSH, and carried unanimously.

Dinner. The members and several friends, after the meeting, dined at the Saracen's Head.

Medical News.

APOTHECARIES' HALL. On June 28th, 1866, the following Licentiates were admitted:—

Chatterton, Percy, Edgware Road
Couch, James, Swansea
Melhado, Alfred Courtnay Bailie, Princes Square, Bayswater
Trimnell, Edward Alfred, Lewisham Road

At the same Court, the following passed the first examination:—

Anderson, Tempest, University College, London
Gill, Henry Clifford, University College, London
Powell, William, Charing Cross Hospital

APPOINTMENTS.

CLEATON, J. D., Esq., late Superintendent of the West Riding Asylum, appointed a Commissioner in Lunacy, in the room of S. Gaskell, Esq., resigned.

*WALTON, Haynes, Esq., elected Surgeon of St. Mary's Hospital, in the place of the late A. Ure, Esq.

ARMY.

BOURKE, Assistant-Surgeon J., Royal Artillery, to be Assistant-Surgeon 3rd Foot, *vice* W. H. Harris.

FITZPATRICK, Assistant-Surgeon J. A., M.D., Supernumerary 1st Dragoon Guards, to be Staff-Assistant-Surgeon, *vice* E. Brock.

HARRIS, Assistant-Surgeon W. H., 32nd Foot, to be Assistant-Surgeon Royal Artillery, *vice* J. Bourke.

MANIFOLD, Surgeon M. T., 34th Foot, to be Surgeon-Major, having completed twenty years' full-pay service.

ROBERTSON, Assistant-Surgeon A. C., M.D., from half-pay, to be Assistant-Surgeon Royal Artillery.

ROYAL NAVY.

BIRD, Robert George, Esq., Acting Assistant-Surgeon (additional), to the *Victory*, for Haslar Hospital.

BURKE, John R., M.D., Assistant-Surgeon, to the *Asia*.

DAVIDSON, S., M.D., Assistant-Surgeon, to the *Greyhound*.

DIGAN, Patrick, Esq., Surgeon, to the *Royal George*.

DOMVILLE, W. T., M.D., to be Deputy Inspector-General of Hospitals and Fleets.

HENRY, James, M.D., Surgeon, to the *Hector*.

LEWIS, John S., M.D., Acting Assistant-Surgeon, to the *Antelope*.

M'IVER, Donald, M.D., Assistant-Surgeon (additional), to the *Cumberland*.

MACLEOD, W., M.D., Staff-Surgeon, to be Deputy Inspector-General of Hospitals and Fleets.

ROSS, William (*b*), Esq., Surgeon, to the *Winchester*.

VOLUNTEERS, (A.V. = Artillery Volunteers; R.V. = Rifle Volunteers):—

CAMERON, A. R., Esq., to be Assistant-Surgeon 2nd Kincardineshire R.V.

HUSSEY, E. L., Esq., to be Surgeon 1st Administrative Battalion Oxfordshire R.V.

BIRTHS.

DAVIS. On June 27th, at St. George's, near Wellington, Salop, the wife of *William Davis, Esq., of a daughter.

GARMAN. On July 1st, at Kent House, Bow Road, the wife of Henry V. Garman, Esq., Surgeon, of a daughter.

GWYNN. On June 29th, at Wem, the wife of *S. B. Gwynn, Esq., of a son.

MITCHINSON. On June 25th, at Lincoln, the wife of *George Mitchinson, M.D., of a daughter.

PERRY. On July 1st, at Evesham, the wife of *Marten Perry, M.D., of a son.

WRENCH. On June 20th, at Baslow, near Chatsworth, the wife of E. M. Wrench, Esq., Surgeon, late 12th Royal Lancers, of a son.

MARRIAGES.

ELLERY, H. J., M.D., of Wearde House, St. Stephen's-by-Saltash, to Ellen Augusta, eldest daughter of Colonel G. S. BROWN, Bombay Army, of Stoke, Devonport, at Stoke Damerel Church, on June 27.

JONES, Edward, B.A., M.D., of Sydenham, to Caroline Jane, widow of William A. MORSE, Esq., of Kennington, on June 28.

SWAN, John W., M.D., of Ballyragget, county Kilkenny, to Henrietta Lucy, second daughter of the late Lieut. William H. GODDARD, R.N., at Winchester, on June 26.

DEATHS.

AGNIS, John C., Esq., Assistant-Surgeon Royal Horse Guards, at 25, Harewood Square, aged 36, on June 28.

*DAVIS, William, Esq., at St. George's, near Wellington, Salop, aged 53, on June 29.

DUKES. On July 2nd, aged 14, Jessie Isabel, fifth daughter of E. Dukes, Esq., Surgeon, of Douglas Road, Canonbury.

*INGRAM, William, Esq., Surgeon, at Midhurst, Sussex, aged 67, on June 29.

BEQUEST. Mr. St. George Kilbee has left by will £200 to the Glasgow Royal Infirmary.

DEATH OF THE BARONESS DUPUYTREN. The French journals announce the death, at a very advanced age, of the Baroness Dupuytren, widow of the illustrious surgeon.

ROYAL NAVY. The following deaths of medical officers have been reported during the past quarter. Surgeons B. Crabbe, J. M. Brydone, J. Mosgrove, W. M'Dowell, R. Stevenson, J. O. Goodridge, and A. E. Elliott; Assistant-Surgeons A. Murphy, J. Farrelly, F. Egan, M. J. Rahilly, and F. H. Browne. Commissions have been resigned during the same period by Assistant-Surgeons W. P. J. Purcell and T. A. Roe, and Acting Assistant-Surgeon H. Brietzeke. There are only three other resignations—those of an acting-lieutenant and of two assistant-paymasters.

SOCIETY OF ARTS. Two of the silver medals of this society have been awarded to Mr. J. C. Morton, for a paper on "London Milk"; and Dr. Thudichum, for a paper on "Diseases of Meat as affecting the Health of the People". The Albert Gold Medal, for merit in promoting arts, manufactures, and commerce, has been awarded to Professor Faraday. A medal for the introduction into commercial use, at a moderate price, of the essential oils of Australia, has been awarded to Mr. J. Bosisto, for the importation of the essential oil of the Eucalyptus. The prize offered by Sir W. Trevelyan for the preservation of meat in a raw state, has not been awarded, although various processes have been submitted.

ADDENBROOKE'S HOSPITAL. At the last Quarterly Court of Addenbrooke's Hospital, Cambridge, Dr. Fawcett called attention to a recent change in the law, by which charitable institutions were to be taxed to the parish rates. The governors of the metropolitan hospitals were petitioning Parliament that their hospitals might be exempted from the rate. He, therefore, proposed that the Weekly Board be empowered to have presented a petition to Parliament, praying that Addenbrooke's Hospital, and all hospitals for the treatment of the sick poor, be exempted from contributing to the poor-rates. Dr. Latham seconded the motion. It was very hard that an institution, struggling for existence, and supported by voluntary subscriptions, should be taxed to the poor-rate. Many of the patients, if there were no hospital to receive them, would have to go to the union, and thus become chargeable to the parish; so that, in fact, the hospital, in addition to ministering to the sick poor, caused a considerable saving to the poor-rates. The motion was carried.—Mr. Lestourgeon said the hospital was in possession of a very fine collection of vesical calculi, which would prove a handsome present to the Human Anatomy Museum of the University. He proposed, after some remarks, that the collection of calculi be presented to the University, with a view to its being placed in the Human Anatomy Collection. The Regius Professor of Physic seconded the motion, which was carried.

A Dispensary for Women and Children has been opened in London under the superintendence of Miss Garrett, L.S.A.

Decline of the Cattle-Plague. The cattle-plague continues to decline in a satisfactory manner since the adoption of a policy of isolation and slaughter. The number of cases reported in the week ending June 23rd was 467. The cattle-plague has now entered upon its second year.

Visitation of Examinations. Dr. Storrar and Dr. Sharpey have been appointed by the English Branch of the Medical Council visitors to the Durham University Examinations. Mr. Rumsey declines to assist further in these visitations. Dr. Alderson was therefore appointed in his stead to visit the examinations of the Society of Apothecaries.

The Queen's Visit to Balmoral. It does not appear to be generally known, but is, we understand, a fact nevertheless, that the cause of Her Majesty's recent visit to Balmoral was an attack of whooping-cough, caught from the royal children, and which rendered immediate change of air necessary. (*Pall Mall Gazette.*)

Courtesy. M. Husson, Director-General of the Hospitals of Paris, is at present studying the medical institutions of the metropolis. He presented himself on the 3rd instant at the Whitechapel Union (three wards in which establishment were recently described by Mr. Ernest Hart), provided with an official letter of introduction from the Poor-law Board—and was refused admission.

Presentation to a Surgeon. On Tuesday last, the 3rd instant, at the annual festival of the members of the Loyal Hovingham Lodge of Odd Fellows, M.U., the members presented R. Gillard, Esq. (who has been surgeon to the lodge for seven years), with a handsome silver teapot, bearing the following inscription:—"Presented by the members of the Loyal Hovingham Lodge of Odd Fellows, M.U., to Richard Gillard, Esquire, as a mark of esteem for professional services, July 3rd, 1866."

The Carlow Lunatic Asylum. In the House of Commons, on Monday, Mr. Bruen asked whether Dr. White, the Resident Superintendent of the Carlow Lunatic Asylum, had tendered his resignation; when that resignation was received by the Government; and whether a new superintendent had been appointed, and the date of the appointment. Mr. Fortescue replied, that the resident superintendent of the lunatic asylum referred to by the honourable gentleman did not resign, but died about a week ago. The Government accordingly had to consider the claims of a gentleman who was strongly recommended as his successor; and, if that gentleman's qualifications had proved to be satisfactory, there could be no doubt that the appointment had been already made by the Lord-Lieutenant.

Diagnosis of Typhoid Fever. At a trial last week at Guildhall, concerning a railway injury, the question was raised as to whether the plaintiff's illness had been or not caused by typhoid fever, and not by the railway accident. Dr. Barlow and Dr. Barker, as well as Mr. Cooke and Dr. Elam of Sheffield, agreed that the plaintiff's symptoms were inconsistent with fever, and tended to show that it was the result of the accident. They also stated that the treatment to which they subjected the plaintiff would have been most dangerous, had he been suffering from fever. On behalf of the defendants, Dr. Fletcher, Dr. Edwin Smith, and Dr. Tweedie were called, and also agreed as positively that the symptoms as described pointed clearly to typhoid fever.

Fifteen Persons Poisoned by Diseased Meat. Several persons in the neighbourhood of Newtownards, County Down, lately bought veal from a butcher at Newtownards, and every person who partook of it became ill, having violent retching, coldness in the extremities, purging, and bluish appearance of the skin. In one family, the meat was eaten by six, two of whom have since died, and others are almost beyond recovery. It is supposed that the animal was not killed, but died from distemper; and that the owner gave the flesh a healthy-looking appearance by coating it with some poisonous substance.

Nuisances in Liverpool. In the House of Commons, on Thursday week, Mr. Samuelson asked the Vice-President of the Privy Council whether he was aware that, in spite of the outbreak of cholera in Liverpool, the local authorities had permitted a large space of waste ground to be covered with night-soil, the consequence of which was that the neighbourhood was never free from typhus-fever. Mr. H. Bruce had received no official information on the subject. Though the Privy Council had power of instituting inquiries into the outbreak of any disease, they had no power to compel the local authorities to do their duty in taking proper precautionary measures. A bill to give the power was now before the house.

Effects of Lightning. At an inquest held a few days ago, on a young man, who was killed by lightning. Evidence was given as follows: A flash of lightning struck down the witness (the father of the deceased) and his three sons, and also a retriever dog. He first crawled to his eldest son, and found him quite insensible. He thought he was dying or dead. He then went to his other son, and found him with his hat cut up. He was lying on his face. He turned his head round and saw he was dead. The lightning struck his head, tearing his cap, and went down under his clothes, tearing his left boot. It also killed the dog. It did not burn his clothes, except his neckerchief. Henry Howard said that a terrific crash of thunder came; he saw fire, and then a vapour rose up, preventing him seeing anything for a time; when that cleared off, the last witness, his two sons, and a man named Upton, were lying on the ground. The witness was himself struck by something which he took to be spent shot. One person complained of being touched on the side of the face, indeed several persons felt something strike them. The witness noticed that the dog was kicking its hind legs when the vapour cleared up. The coroner remarked that the vapour was no doubt steam. George Rowe said that the deceased's hair was singed at the right side of the head; blood flowed from the mouth and nose when the head was moved; the face and hands were discoloured. Upton recovered in an hour. All but the deceased completely recovered. The Coroner having briefly remarked upon the case, the jury returned a verdict "That the deceased was killed by lightning." The deceased's felt hat, silk neckerchief, and boots were shown to the jury; the hat appeared to have part of the right side torn away, the neckerchief was singed, and the boots torn.

Alleged Fraudulent Registration. At Marlborough Street Police Court, John Potter Sergeant, otherwise Crowther Smith, of Glasgow, described as a surgeon, and John Sutton, commonly called Dr. Sutton, of No. 36, Bloomsbury Street, dentist, were charged—Sergeant with procuring himself to be registered under the Medical Registration Act by false representations; and Sutton with aiding and abetting. Mr. Trimmer, secretary of the Royal College of Surgeons of England, produced the certificate of birth

and the certificates of John Potter Sergeant, to whom a diploma was granted in May 1836. No other diploma had been granted to any one so named. The witness said the College of Surgeons were not the prosecutors in the case. He was aware there was a *mandamus* applied for against the Medical Council on the part of the prisoner Sergeant. The baptismal register of John Potter Sergeant, born in 1812, was put in and proved in the usual way. Mr. Roope, clerk to the Medical Council, said it was his duty to assist at the registration of persons under the Medical Act. The prisoner Sergeant brought him a document on July 6th, 1862. He could not swear that the prisoner filled it up. The prisoner said he had heard his name had been removed from the registry in consequence of his connexion with the "Sutton gang." Mr. John Turner said he served both prisoners with notices to produce the diplomas, and they declined to do so. Mr. Roope, recalled, said when Sergeant handed in the document, he said he was John Potter Sergeant, and he applied for re-registration. The prisoner pointed to the boy, and said, "There are my diplomas." The prisoner tendered the fee of £2. In January 1860, in consequence of a notice, he altered the address from 45, King Street, Long Acre, to No. 8, Store Street. On April 19th, 1861, a letter was sent by direction of Dr. Hawkins to the prisoner Sergeant, to know if John Potter Sergeant still carried on business. There was no answer to that letter. He produced the registry to prove that in 1859 the prisoner Sergeant was registered as living at King Street, Long Acre, and in 1861 at Store Street. Sarah Smith said she knew John Potter Sergeant when in Leicester. He was articled to Messrs. Needham and Paget, surgeons to the Leicester Infirmary. She had seen his diploma from the College of Surgeons. He received the diploma in 1836. She also saw his diploma from the Apothecaries' Hall. She was present at his death. He did not practise; he gave private instruction to medical students. After his death she went back to Leicester, and took the diplomas of the deceased with her. She had the diplomas at Swindon, after she was married. In 1856 she missed the diplomas and a tin case in which they were kept. Neither of the two prisoners is the John Potter Sergeant she had known. Mr. Ouvry, solicitor to the Medical Council, said a person who stated his name was John Potter Sergeant called at his office in November 1865. He believed that person was the prisoner Sergeant. Two applications for a *mandamus* against the Council were made. The prisoner asked why the Council refused to put his name on the register. He told him he believed the Council had reason to think he was connected with the Sutton gang. When the *mandamus* was applied for the Council were not aware of the death of the real John Potter Sergeant. Mr. Radford, reporter, knew Sutton well, and also his handwriting. He believed the signature and the affidavit produced to be in Sutton's handwriting. The letter produced he also believed was in Sutton's handwriting. Samuel Halley, in the service of Messrs. Clarke and Co., clothiers, knew Sergeant. About six years ago, Sergeant went by the name of Crowther Smith, and carried on the business of a clothier in the Hackney Road. Mr. Oppenheim intimated that he would not carry the case further for the present. Mr. Knox said, as far as the case against Sergeant was concerned, it was clearly one for the Central Criminal Court. He should, therefore, remand him without bail. The complicity of Sutton had not been fully proved, and he would remand him on bail with twenty-fours' notice. Sutton was admitted to bail on Tuesday last.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....Metropolitan Free, 2 P.M.—St. Mark's for Fistula and other Diseases of the Rectum, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TUESDAY. .... Guy's, 1½ P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.

WEDNESDAY... St. Mary's, 1 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.

THURSDAY.....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Great Northern, 2 P.M.—London Surgical Home, 2 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.

FRIDAY..... Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

SATURDAY..... St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1·30 P.M.—Charing Cross, 2 P.M.—Lock, Clinical Demonstration and Operations, 1 P.M.—Royal Free, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TO CORRESPONDENTS.

*** *All letters and communications for the* JOURNAL, *to be addressed to the* EDITOR, 37, *Great Queen St., Lincoln's Inn Fields, W.C.*

COMMUNICATIONS.—To prevent a not uncommon misconception, we beg to inform our correspondents that, as a rule, all communications which are not returned to their authors, are retained for publication.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

ACTIONS FOR MALAPRAXIS.—It is perhaps well we should record the fact, in connection with the Armstrong Fund, that very general approval was felt at the suggestion that such subscriptions should be limited to 5s. We mention this in case the profession may be again called upon to assist any of their brethren thus persecuted. By limiting the subscription to this sum, two great advantages are gained: the opinion of the profession is much more strongly expressed than if only a few men had subscribed the required fund; and, in addition, very many members of the profession who would wish to show their sympathy on such an occasion are not excluded from doing so by the amount of the subscription.

METROPOLITAN WORKHOUSE WORK AND PAY.—SIR: The paper reports say, that a medical man undertakes to do the work of a metropolitan workhouse for £35 a year; that out of this he pays £12 or £15 a year for drugs; and that he visits the workhouse every day, and sometimes two or three times in a day. I ask, what right have we to complain of the public if members of our profession will take in hand such a business as this?

I am, etc., QUERY.

CLITORIDOTOMY.—SIR: Mr. I. B. Brown, speaking of the case of clitoridotomy which was discharged cured from the "Home", but which was found not to be cured at all when she got back to her friends, says: "The case was discharged as 'cured', it is true, but it has never been published as such, nor would it ever have been until a much longer interval had elapsed." Now, I cannot reconcile this statement of Mr. Brown's with the facts which stare me in the face in his famous little book. I see there very many cases which were discharged "cured" a few weeks after their admission into the "Home"; and I find nothing said of their having been seen at any "much longer interval" afterwards, or, in fact, having ever been seen at all afterwards. I see, indeed, cases which were operated on, and discharged as cured, only a few months before Mr. Brown published his book. Case 41, for example, was operated on on December 12, 1865, and, after "passing two menstrual epochs", was "discharged perfectly cured". Now, as Mr. Brown's book was published in March 1866, it is difficult to see how this fact can be reconciled with his statement, as above given.

I am, etc., QUERY.

COMMUNICATIONS have been received from:—Dr. E. HEADLAM GREENHOW; Dr. G. H. PHILIPSON; Dr. J. BULLAR; Dr. ROBERT FOWLER; Mr. G. MAY, JUN.; Dr. A. T. H. WATERS; Dr. EADE; Dr. J. WALTERS; Dr. E. LUDLOW; Mr. R. H. M'KEAND; Dr. J. B. PITT; Dr. C. R. DRYSDALE; Mr. R. M. FAWCETT; Mr. J. Z. LAURENCE; Dr. HOLMAN; Mr. SQUIRE; A PHYSICIAN; Mr. HAYNES WALTON; Dr. MITCHINSON; Dr. M. PERRY; Mr. TRUSTRAM; Dr. W. G. BARKER; Mr. S. B. GWYNN; Mr. R. GILLARD; Dr. THOMAS SKINNER; Dr. LEARED; and Mr. STONE.

Clinical Lecture

ON

ADDISON'S DISEASE.

BY

EDWARD HEADLAM GREENHOW, M.D.,

FELLOW OF THE ROYAL COLLEGE OF PHYSICIANS; CONSULTING PHYSICIAN TO THE WESTERN GENERAL DISPENSARY; ASSISTANT PHYSICIAN TO THE MIDDLESEX HOSPITAL; ETC.

Part II.

As the case upon which I have dwelt in the former part of this lecture is still under observation, and I can therefore only speak of it as Addison's disease on the assumption (of the truth of which, however, I entertain no doubt) that the diagnosis is correct, I must now, in order to place the subject fully before you, give you the details of Dr. Thompson's fatal case, which he has kindly placed at my disposal, and of which Dr. Cayley has made a thorough *post mortem* examination.

M. D., aged 55, labourer, was admitted into Hertford Ward, under Dr. Thompson's care, on the 6th of last month. He had been strong and hearty until about three months before his admission. His illness began without any definite symptoms beyond gradual loss of strength, to such an extent that he could scarcely stand, and was compelled to give up work, and about Christmas to leave off going out, even for a short walk in front of his house. Besides the great debility, he by this time suffered also from breathlessness on exertion, nausea, frequent vomiting, and pain at the epigastrium.

On admission, his complexion was dark, but less so than that of the patient whose case I have already described. His body generally had only a faint brownish tinge; but the penis and scrotum were of a very dark blackish-brown hue, as were likewise the cicatrices of some burns received in early life upon the left arm and upon the inner aspect of the right elbow. I should mention, however, that the discoloration was limited to the less deeply injured parts, and that, in the midst of the dark patch on the inside of the right elbow, was a small, well defined, glistening, perfectly white cicatrix, about the size of a pea, where the burn had destroyed the deeper layers of the skin. On the back, also, were several cicatrices, some of which were discolored, while the deeper ones remained of normal hue. The cicatrices of buboes in each groin were stained of a deep brown colour. On the upper surface of the tongue, near its edge on both sides, were several brownish-purple stains, with well defined margins, perfectly smooth, and neither elevated above the surrounding parts nor differing from them in hardness. The lips and buccal mucous membrane also presented distinct brown stains.

As regards constitutional symptoms, the pulse was almost steadily 60, very feeble and compressible, and, for the first week, the heart-sounds were free from roughness. The respiration was feeble; and slight rhonchus and sibilus, with a few moist sounds, were heard on both sides of the chest. The percussion-resonance was slightly deficient in the upper part of the chest, particularly below the right clavicle; but there was nothing to indicate active disease in the lungs.

Whilst in the hospital, the patient suffered much from retching and sickness; and complained of pain in the loins and epigastrium, frequently accompanied by tenderness on pressure over the latter region. He had frequent cramps in the muscles of the abdomen and legs, especially when he retched; and found it easier to lie with the knees drawn up, the cramps becoming worse when his legs were stretched out. A few days after his admission, the matter vomited became of a greenish colour and had a bitter taste. On February 14th, for the first time, a faint systolic murmur was heard at the apex of the heart, and the pulse fell to 52, and became extraordinarily weak; but a day or two afterwards rose again to 60. On the 19th, he was so weak that he fell when he attempted to get out of bed; and on that day the matter vomited consisted of mucus streaked with blood. He now slept badly; and by the 22nd had entirely lost his appetite. The retching continued; and there was a distinct cadaverous odour about his person. On being raised up in bed for examination of the chest, he became very faint and sick. On this day, fine crepitation was found below the left clavicle, and rhonchus and sibilus were heard all over the posterior part of the thorax. There was also marked dulness over the upper part of the chest posteriorly. He had raised a few thick dark green sputa, several of them tinged with blood; and he complained of sharp pain in the region of the diaphragm near the margin of the right ribs when he breathed hard. From this time he gradually sank, and expired on the 2nd instant; death being preceded by great restlessness, retention of urine, wandering of mind, and groaning as if from pain.

At the *post mortem* examination, the lungs were found firmly attached to the ribs by fibrous adhesions. Deposits of yellow cheesy matter were found in the apices of both lungs; and these deposits were surrounded by dark consolidated tissue intersected by fibrous bands. The lungs were everywhere else perfectly crepitant. There was recent pericarditis; and the right cavities of the heart were filled with firm masses of yellow semi-transparent fibrine adherent to the musculi pectinati and chordæ tendineæ, and passing into the pulmonary artery as far as the second division. A similar but smaller coagulum was found also in the left ventricle, passing for a short distance into the aorta. The great omentum was firmly adherent to the diaphragm and the gall-bladder to the small intestine. The under surface of the diaphragm, the surface of the mesentery, and of the peritoneum in front of the spine, were studded with patches of grey tubercular granules surrounded by deposits of black pigment. Peyer's glands were normal; the kidneys were slightly granular.

Both suprarenal capsules were enlarged and nodulated, the right being much the larger. The fibrous envelopes were much thickened; and that of the right capsule firmly adherent to the diaphragm. On section, no traces of cortex or medulla were discoverable; but the whole of both organs had been converted into material which to the naked eye had precisely the appearance of tubercle.

Under the microscope, a section of one of the discolored patches from the tongue shewed deposits of brown pigment arranged in irregular masses in the papillæ; the superficial layers of epithelium covering them being quite free from discoloration. I may here observe that the deposit of pigment in the skin giving rise to the discoloration of Addison's disease is situated, as a rule, entirely in the rete mucosum, the epidermis and the true skin remaining generally unchanged.

You will have observed that this case presents the same general features as the former one; namely, gradually progressive asthenia and gastric irritability, attended by discoloration of the skin and of the mucous membrane of the mouth. In both cases, also, old tubercular deposits in a quiescent state were found in the lungs. This is quite in accordance with general experience; for tubercle in the lungs or other organs has been found associated with Addison's disease in a majority of all the genuine cases published. To the black discoloration round the patches of tubercle on the peritoneum in the last case, I attach no importance beyond that of their affording proof of the very chronic character of the tubercle in these situations; for the same appearances have often been observed in chronic tubercular affections of the peritoneum, in cases in which the suprarenal capsules have been found quite healthy. Indeed, several foreign writers are of opinion that the discoloration found in Addison's disease is due, not to the peculiar morbid change in the capsules, but to the general tubercular disease which is frequently associated with it. It is quite true that, in very chronic phthisis, there is occasionally a dusky hue of skin; and I have lately pointed out to many of you two such cases under my care; but this discoloration in phthisis is comparatively rare, and, when it does exist, is wanting in all the characteristic features of the discoloration peculiar to Addison's disease. Moreover, it is just those cases of Addison's disease which are complicated with advanced phthisis in which the discoloration of skin is most frequently absent; whereas, if the theory to which I have referred were correct, those are precisely the cases in which we ought to find it the most invariable and most strongly marked. The adhesion of the right capsule to the diaphragm and the thickening of the connective tissue round both capsules in Dr. Thompson's case afford conclusive evidence of there having been inflammation in those parts, although the *post mortem* examination has revealed no obvious cause for it, such as the caries of the spine, which I feel assured will be found in the case of C. S., the patient now in Founder Ward. Doubtless, some of the symptoms presented by Dr. Thompson's patient were due to the other diseases under which he was also labouring; but this in no way invalidates the correctness of the diagnosis as regards Addison's disease, which was made on the day of the patient's admission, and was proved to be correct a month afterwards by *post mortem* examination. A few days before death an unpleasant cadaverous odour was observed about this patient's person. This peculiar symptom has been noticed before in Addison's disease, both by myself and by other observers. In my experience, it is a sign of the approach of death, which has invariably taken place in the course of a few days after its appearance.

The discoloration is quite characteristic in both the cases I have related; though it is most intense in Dr. Stewart's case, which you can still see for yourselves. Sometimes, however, the discoloration of skin is faint, and insufficient to suggest the nature of the disease from which the patient is suffering. It has happened to me on two occasions to be led to diagnose Addison's disease by the constitutional symptoms alone, aided by the circumstance that there was no other discernible disease to account for them; and I have then had to look closely for the slight discoloration of skin in order to confirm my diagnosis. This occurred, in fact, with regard to the case which I mentioned, at the beginning of this lecture, as having been recently in the hospital under my own care; and, as it seems to show the at least temporary efficacy of treatment in this disease, I shall devote a few minutes to giving you some particulars of it.

J. D., aged 43, park-keeper, became an out-patient under my care on the 17th of last November. He had had ague some years before coming under observation; but had been otherwise healthy until about five months since. He had suffered much during that period from pain in the loins, especially on the right side, and from pain and tightness in the epigastrium, for the relief of which he had applied a small blister to the part three months before his admission. He had also suffered from vertigo, and latterly from nausea, retching, and vomiting.

On admission, he had a languid, exhausted aspect; his pulse was extremely feeble; he was short of breath, and manifestly very ill; but there was no emaciation, nor any obvious evidence of local or constitutional disease. He had a troublesome catarrhal cough, but without any physical signs of pulmonary disease; his tongue was clean; bowels confined; and urine normal.

From the absence of any other cause for his peculiar symptoms, I was at once led to suspect the existence of Addison's disease, and to seek for discoloration of skin in corroboration of my suspicion. I then observed that the face and back of the neck were slightly dusky, as were also the hands and arms as high as the elbows. The part on the epigastrium where the blister had been applied three months before was deeply discolored; and on the left clavicle there was a yellow-brown stain, about an inch in length, evidently corresponding to the cicatrix of some slight wound. These last features of the discoloration decided me in the opinion that the case was one of Addison's disease. With these exceptions, however, the skin was still fair, and free from pigmentary deposits. The buccal mucous membrane presented several brown stains in places which had apparently been irritated by the teeth; but the margins of the lips were unaffected.

J. D. continued an out-patient until December 29th, when he was admitted into Hertford Ward. His cough had abated, and he had lost the sickness for some time; but on the 20th of December he had been attacked with severe pain in the epigastrium, together with loss of appetite, nausea, and breathlessness. These all continued at the time of his admission. His hands were cold; his pulse thready and compressible; respiration hurried; and he had a constant inclination to yawn and stretch. His face, hands, and nipples were manifestly darker; and several dark specks, of the size of freckles, had appeared since he was first examined, but all on the previously discolored parts of the skin. While in the hospital, he had slight cough, raising a thick, dark, scanty mucus. His pulse remained feeble; and he still had pain in the left hypochondrium, but was better in both respects while in the recumbent posture. He left rather suddenly in consequence of the shock occasioned by the deaths of the patients in beds on either side of him on two successive days; but he has continued under treatment up to the present time. He is now decidedly stronger, and has been able to resume his occupation; but he still presents, though in a mitigated degree, the same constitutional symptoms and the discoloration of skin is

becoming gradually more general and its characteristic features more strongly marked.

These circumstances leave no doubt whatever on my mind as to the existence of Addison's disease of the suprarenal capsules; and, although the patient may, with great care and suitable treatment, be propped up for an indefinite time, he must always be considered as in imminent danger of a breaking down under any powerful depressing influence. Even an unusually severe day's work, or a slight attack of diarrhœa, might suffice to upset the balance and lead to a speedily fatal issue of the case. Nevertheless, he has unquestionably benefited much from the means used; for when he came into the hospital he was becoming so rapidly worse, that it seemed probable he would die in a few days; and he not only improved much before he went out, but continued to do so afterwards at home, and has not yet relapsed.

The other case which I mentioned as having been in the hospital under Dr. Thompson's care, and which has remained under my observation ever since, has followed so very similar a course, that I shall read you a brief history of it, before proceeding to point out the mode of management which I have hitherto found most successful in delaying the progress of the malady.

E. B., aged 26, needlewoman, was admitted into Northumberland Ward in March 1865. Dr. Thompson asked me to examine her on the day of admission. Ten years before, she had hurt her hip, and had been cupped; but she had been in generally good health, and had worked hard until November 1864. She then began to fall asleep over her work, to have frequent attacks of vomiting, and to suffer from gastralgia, and from breathlessness and palpitation on exertion. About Christmas, her friends noticed that her complexion was becoming darker. On admission, her pulse was exceedingly small; and she complained much of lassitude and of vertigo when she moved about, or even raised herself suddenly in bed. She had no appetite, but constant thirst and craving for cold water. Her respiration was quick and shallow, with a tendency to yawning. There was slight dulness on percussion immediately below the right clavicle, and considerable tenderness on pressure in the right hypochondrium. Her face was generally dusky, with ill-defined patches of a darker brown on the forehead and cheeks; the conjunctivæ, as usual in this disease, remaining white. The chest was dusky; the nipples and areola intensely brown; and the mammæ atrophied—a circumstance I have observed in other females suffering from this disease. The cicatrices of the cupping-marks on the hip, and of a burn on the right elbow, were stained brown; and there was a dark line nearly round the abdomen, corresponding to the line of pressure of a string belonging to her dress. Here you will recognise the same train of symptoms and the same characteristic features of discoloration of skin which I have described in the other cases. This patient improved very much in the hospital, and left it, at the end of some weeks, for the Convalescent Institution at Walton-on-Thames. On her return home, she discontinued the treatment, and resumed her work, but fell off again in a month or two; and, on being sent for in haste, I found her one night lying exhausted, cold, almost pulseless, sighing and yawning, retching at every movement, and complaining of intense pain in the hypochondrium. In fact, she seemed almost dying; and I brought her at once to the hospital, where, however, she again rallied, and was again discharged at the end of a few weeks, in a greatly improved condition. Soon after leaving the hospital, she married, and continued tolerably well for some months, but is now once more under my care as an out-patient, suffering, though in a less intense degree, from her former symptoms; and the discoloration of her skin has certainly become deeper during the interval. Her hair, originally of a dark brown colour, has also gradually changed to black, and has become very coarse.

It seems to be unquestionable, from the history especially of this last case, that Addison's disease, although incapable of cure, is yet in some degree amenable to treatment in respect of delaying its progress, unless the illness have already arrived at its later stages. Owing, no doubt, greatly to our still imperfect knowledge of the nature and causes of the disease, the means of treatment at our disposal are as yet unfortunately scanty. The remarkable asthenia, however, by which the disease is characterised, the constant tendency of the patients to succumb under any powerful depressing influence, and the strong evidence as to the disease being frequently a result of surrounding irritation, are facts which clearly indicate the necessity for tonic treatment and nutritive diet, the avoidance of all causes of depression, and the great value of rest and of such therapeutic agents as may relieve the vomiting and other exhausting symptoms and tend to invigorate the general health. Prolonged rest in bed, and subsequent avoidance of fatigue, or indeed of much bodily exertion or mental strain of any kind, have formed essential parts of the management in all the cases which have improved for a time under my observation. The use of drastic purgatives should also be scrupulously avoided in these cases. Constipation is more common than otherwise in Addison's disease; but, unless it be very extreme, I think it better to abstain from interference than to risk the dangerous depression which often follows the administration of aperient medicines. Many of you will recollect the case of E. W., a young girl who died under my care in Murray Ward of Addison's disease somewhat more than a year ago, and whose fatal seizure appeared to have been brought on by the effects of a dose of calomel and jalap given her by her mother.

As regards diet, the only plan is to give nourishing food of whatever kind the patient's stomach can best bear, and this will probably vary more or less in every case; substituting milk, eggs, jellies, oysters, and the like, for the stronger diet of meat or soups, when the stomach cannot tolerate these latter.

For the relief of the nausea and vomiting, ice, soda-water and brandy, chloroform or creasote, bismuth and effervescing medicines, with citrate of iron, have each in turn proved useful in my hands; and, again, each at times has failed to effect any good purpose. After the sickness has abated, decided benefit sometimes attends the administration of chalybeates and cod-liver oil or glycerine. In the last two cases I have related to you, cod-liver oil disagreed with the patients; but glycerine, in doses of two drachms, combined with fifteen or twenty minims each of spirit of chloroform and of the tincture of sesquichloride of iron of the *London Pharmacopœia*, has been of great service. I speak positively on this point, because in each case the patients on several occasions have discontinued the medicine as

soon as they felt better for it, have then fallen off, and, on applying to me and resuming its use, have in a week or ten days begun to improve again without any other simultaneous change in their treatment or circumstances.

Little as this is, it is yet all that I can tell you from my own practical experience on the subject of treatment; and I shall now only detain you for one concluding remark. You may be surprised that I have chosen to base my lecture on four cases of Addison's disease, of which only one has passed the crucial test of a *post mortem* examination; but I have done so purposely, because I have little doubt that in one at least of the other three cases we shall soon have the opportunity of verifying the diagnosis and of thereby proving the reality of the relation between the symptoms I have described and Addison's disease of the suprarenal capsules—a relation of which I am myself as firmly convinced as I am of the relation between the physical signs of a cavity in the lungs or of incompetency of the mitral valve and the diseases which they respectively indicate.

Illustrations
OF
HOSPITAL PRACTICE:
METROPOLITAN AND PROVINCIAL.

KENSINGTON DISPENSARY.

CASE OF ERYTHEMA NODOSUM.

By J. H. Bartlett, Esq.

The chief interest in the following case is in the exceptional position in which the eruption made its appearance.

Richard H., aged 13, was admitted as a home-patient at the Kensington Dispensary on June 13th, 1866. He had measles, and scarlet fever with dropsy, when three years old; and had an attack of erythema nodosum in June 1865.

The patient was taken ill on June 9th. He was very feverish; and on the 10th several red blotches were seen on both shins, which became swollen and painful to the touch. This eruption also made its appearance on both thighs, especially about the hips; and over each tuber ischii was a large, red, painful swelling, very hard to the touch.

June 17th. The eruption appeared on the left arm, on the ulnar aspect. One or two blotches appeared on the right elbow, and one on the tip of the left ear.

June 18th. The patient was thin and pale. On the legs, hips, and buttocks, were seen the remains of the eruption, which was now of a greenish yellow colour; they were desquamating in minute scales, and still felt somewhat hard. On the left arm, over the ulna, were seen three or four swellings of a purplish red colour, hard to the touch, and very tender. There was a large swelling on the outer side of the elbow, extending about an inch and a half up the arm. There were three blotches on the right elbow, but not so well marked as on the left. On the tip of the left ear there was a swelling exactly similar to those already described. There was no pain in the joints, nor profuse sweating. The heart-sounds were normal; no friction was heard. The patient took bicarbonate of potash and liquor cinchonæ (Battley's).

June 20th. With the exception of slight remains of eruption, and feeling weak, the patient was now convalescent. He was ordered to take cod-liver oil.

Remarks. Dr. Tilbury Fox, in his work on *Diseases of the Skin*, says that the eruption of erythema nodosum is situated on the anterior aspect of the leg, rarely on the arm or above the knee. Mr. Erasmus Wilson mentions the leg and arm only. But in this case it not only appeared on the legs and arms, but also on the buttocks and on the tip of the left ear.

Erythema nodosum has a very close connexion with rheumatism; but there seems to have been but little in this case; for, with the exception of one sister having suffered from rheumatic fever, there was no history of that disease in the patient's family.

Original Communications.

ON THE VALUE OF TONICS IN SOME LOCAL LESIONS.

By James R. Greenway, L.R.C.P.Ed., Sandy, Bedfordshire.

The practice of stimulation, so common in the present day in innumerable varieties of disease, has not appeared to me entitled to all the merits which its votaries claim for it, nor, in many cases, to favour so fair a restoration to health as we are entitled to expect from the employment of rational means. I have full faith in the value of stimulants in disease, and have met with very few cases which I believed general depletion could benefit; still I am fully convinced that stimulation may be, and have seen instances in which it has been, as injurious in one way as it is possible for depletion to be in another. There are local lesions which speedily improve upon good diet and a liberal allowance of malt liquors or stronger stimulants; but the many others which require something more in their treatment for it to yield successful results, must prevent every thinking mind from believing or trusting in the virtues of stimulants to the extent which some would desire, in all cases manifesting depressed power.

There is a class of diseases, in which debility with some local lesion is a prominent symptom, which I have frequently found not to improve upon stimulants and liberal diet till tonics were given, and these in a form calculated to improve the blood-condition, and thereby the general nutrition of the body, and the local nutrition of the part affected. In the cases referred to, in addition to depressed power, we have to deal with vitiated plasma in the circulating fluid. This may not be always evident to the surgeon at first; still, I think, if the fact be borne in mind, there are few such cases which can escape due consideration. The history of preexisting debility or disease, past excesses, residence in unfavourable climates, poisoned wounds, the aspect of the patient, etc., will generally indicate blood-tonics to be required, however valuable stimulants in such cases may be.

Quinine is beneficial where nervous prostration exists, and other bitters where the digestive powers are impaired; but in cases in which the digestive functions are fair, and yet the local lesion tardily repaired, or manifesting a sloughing or ulcerative character, the tincture of the sesquichloride of iron would seem to beneficially influence the local disease and general health. If there be nausea, or gastric uneasiness, chloric ether is an useful and agreeable addition. The local application of a lotion contain-

ıg nitric acid, in the proportion of two to five ıinims to the ounce of water, exercises a tonic influnce over unhealthy and sloughing sores, which clean nd heal kindly under its use. The following cases ill afford examples of the effect of the treatment xplained.

Case I. T. G., aged 28, sustained at his work acture of the lower third of the humerus. He had een under his club-surgeon, who, to all appearance, ıd treated the case in every way that was proper. he man lived well, and took freely of stimulants. t the end of nine weeks, the bones not having ıited, he was admitted into a neighbouring in-ırmary, where he underwent an operation involving ıwing off the fractured ends of the bones. Still they d not unite. Phosphate of lime, cod-liver oil, ıinine, and a liberal stimulating diet, were taken, ıt with no good results. The man became dispi-ted, and returned to his home, loth to sacrifice ıe limb, as he had been advised. At the end of the venteenth week from the time of the injury, he nsulted me, complaining of great weakness. I dered the tincture of the sesquichloride of iron and loric ether, and continuance of his usual diet. The an improved in health; the limb gained flesh; and, the end of five weeks from commencing the mix-re, union of the bones had taken place, and the e of the limb was gradually restored.

Case II. Mrs. H., aged 31, a very weakly woman, e mother of four children, had suffered for some ne with a badly ulcerated leg. For the past few eks, she had been ordered to take brandy every w hours, and to apply linseed-meal poultices to e sore frequently. On my first visit, the inner and iddle third of the left leg presented a deep slough-g ulcer of about four inches diameter. The patient mplained of great pain, faintness, and frequent tching and vomiting. She was ordered a mixture ntaining tincture of opium, chloric ether, and ses-icarbonate of soda; and food containing corn-flour d a little brandy. On the following day, on cessa-n of the sickness, a pint of porter daily and nou-hing food were ordered, and the following mixture scribed.

℞ Tinct. ferri sesquichlor. ʒi; tincturæ opii ɱxxx; ætheris chlorici ʒi; aquæ ℥vj. M. Fiat mis-tura, cujus sumat cochlearia magna ij 4tis horis.

tric acid lotion was ordered to be constantly ap-ed to the ulcer. The pain gradually diminished; d in a few days the sore improved in appearance, d presented clean and healthy granulations; and patient's health began to improve. As she was ighly nervous woman, after about ten days' con-uance of the above treatment, quinine was added the mixture; and under this treatment, at the d of six weeks, the sore had healed up kindly, and patient's health was perfectly restored.

Case III. Joseph B., aged 43, a gas-fitter, had nt some years in the army, and was of dissipated bits. He said that of late he had been unequal to ch exertion, and presented a hand much swollen, d complained of great pain. The pain and swell-; had been increasing for two or three weeks. er a few days, I made a free incision at the back the hand, which afforded an exit to a good deal of s. The thumb still continued very much swollen d painful; and, on suppuration taking place, I ned it at the apex, and a few days afterwards ex-cted the terminal phalanx through the opening viously made. The cavity remaining in the mb was filled with cotton wool steeped in nitric d lotion, and changed daily; and a mixture con-ıing tincture of sesquichloride of iron and tinc-e of opium was prescribed. The patient was ordered two pints of porter daily, with usual food. All other stimulants were forbidden. The man soon improved in health; the swelling of the hand considerably diminished; the thumb granulated and healed kindly; the nail was renewed, and the only relics of the local disease were a scar at the apex, and the thumb a little shortened, but perfectly flexible, and remaining so useful as to enable the man to freely follow his employment as well as formerly.

Case IV. T. B., æt. 38, a farmer, stated his general health to be good, and that he was a free liver. He had for years suffered from a badly ulcerated leg. Nitric acid lotion was prescribed, but the leg did not much improve till the patient was ordered the tincture of sesquichloride of iron. Soon afterwards, healthy granulations sprung up, and the sore soon healed; the leg became strong, and enabled him to follow his usual vocation with freedom and ease.

Case V. C. S., a butcher, who said he took a fair allowance of stimulants and lived well, but felt weak, consulted me regarding a chancre of the glans penis. Mild mercurial doses and lotio nigra were prescribed. The sore increased. Five grains of compound soap pill three times a-day in addition, and a liberal diet were then ordered. A week afterwards the sore had much increased, and involved the corona and prepuce. The tincture of sesquichloride of iron combined with tincture of opium was then given, and nitric acid lotion prescribed; under which treatment the sore granulated and healed kindly, and the patient's health materially improved.

Case VI. N. R., æt. 26, suffering from a large ulcerative sore around a portion of the lower jaw affected with caries, had not been accustomed to live well, but had freely taken cod-liver oil, quinine, iodide of potassium and other remedies previously to soliciting my advice. Under the local application of nitric acid lotion and the internal administration of the tincture of steel, gradual and perfect recovery resulted.

Case VII. E. G., a young lady, had enjoyed good health till she had spent some time with friends in a damp locality. During this time the general health became impaired, and she complained of great debility and loss of flesh. She had taken quinine and cod-liver oil freely, but did not gain strength; and on her return home, when I saw her, she was suffering much pain from a bad whitlow, and the cornea of the right eye was hazy and ulcerated. Weak nitric acid lotion and the tincture of sesquichloride of iron in ten minim doses were prescribed. Under this treatment the lady's health and sight were perfectly restored.

The above cases illustrate a type of debility not unfrequently met with in which depressed power is not so much evidence of predisposition to disease as a consequent of a dyscrasic blood-condition, probably brought about by defective or perverted assimilation of the ordinary pabulum, or exposure to obnoxious influences. In such cases stimulants may aid, but themselves unaided will generally fail to restore those vital processes necessary to the well-being of the economy. Their use, even in moderate doses, sometimes causes much uneasiness symptomatic of a deranging influence over the nervous system, inducing feelings of weakness rather than of improving strength. In such instances, it is to tonics we can alone appeal with benefit, and those of such a nature as are capable of improving the blood-condition by direct influence over its constitution. Debility, like most diseases, is seen associated with innumerable complications, and like those presents greater difficulties in the practice of medicine than we are disposed to suspect; for we are too apt to be looking for pure types of disease, and to be trusting in spe-

cifics for the same; while a due insight into its complications, and a careful search after the precedents and tendencies thereof, would induce us to adopt rational means rather than be over-confident in any theory.

Debility would appear to me to be far less frequently a primary than a secondary condition. By the term primary debility, I would be understood to infer a condition of simply depressed constitutional power, and by the term secondary debility to represent a state in which debility is the most characteristic symptom, and the one chiefly complained of by the sufferer, yet has been really induced by some perverted condition of the assimilative or nutritive functions, or the poison of some disease. In primary debility we have a condition predisposing to innumerable diseases which may be generally averted, and the constitutional state corrected by stimulants, nutritious food and fresh air. In secondary debility we have invariably more than lost tone to restore; some blood-derangement to attend to, perverted functions to correct and complications to remove. Hence we oftentimes find that stimulants, when trusted to alone, prove irritants, in influencing a quicker circulation of the vital fluid through a system in a hyperæsthetic condition; while the blood in its depraved condition is incapable of affording a sufficiency of nutritive elements, or of sustaining the vital processes to a healthy standard.

CASE OF RUPTURE OF THE AORTA WITHIN THE PERICARDIUM; WITH REMARKS.

By Arthur Bracey, Esq., Surgeon to the Birmingham and Midland Eye Hospital.

The subject of this accident was an unmarried woman, occupying a comfortable position as lady's maid, and 29 years of age.

She went in a cab, on the morning of April 4th, 1866, to see my father, as she was suffering from pain in her chest, and general uneasiness. She did not, however, meet with him, and returned home, where she had not long been, before she fell down in a kind of fit, at the same time giving a piercing shriek. I was then hastily called to her, and found her lying upon a couch, extremely pale, cold, and pulseless, but apparently sensible. After I had remained with her half an hour, she said she wished to go upstairs, and she walked up without much difficulty. She was placed in bed, and became warmer and less pale. In the evening she was more comfortable, but complained very much of pain in her chest, shoulders, and back of her neck; she did not refer any of her sensations to the immediate position of her heart.

At half-past three the following morning, fifteen hours after the first attack, I was again called to see her, and found her dead. I was told she had been, within three minutes of her death, quite calm, and talking rationally to her friends; there had been nothing noticed in her manner to indicate approaching dissolution. She had suddenly given three or four short and painful cries, thrown her arms wildly about, fallen backwards, and expired.

Sectio Cadaveris, thirty-six hours after death. On opening the chest, the pericardium was seen to be greatly distended, and, when divided, was found to contain a large quantity of bloody serum, and a firm clot which surrounded and embraced the heart. The amount of the contents was as nearly as possible one pint by measure.

On the external surface of the aorta, posteriorly, and about half an inch from its commencement, was a small and unevenly margined aperture, rather less than an eighth of an inch in diameter, communicating with the interior of the vessel. The areolar tissue in its neighbourhood was much infiltrated with blood, but there were no signs of any inflammatory products. There was no external wound of the heart. The interior of the aorta presented a remarkable appearance. Just above the semilunar valves was a rent extending through the internal and middle coats, completely following the circumference of the vessel in a spiral manner. The edges of the rent were widely separated, leaving only the external coat to complete the wall of the artery, and in this space was the aperture previously described.

A peculiarity existed in the semilunar valves themselves. One valve appeared complete, but the other two had no perfect division between them, and were thrown into one large fold; a rudimentary loop was present, but the arrangement was practically bivalvular instead of being trivalvular. The aorta was wider at its arch than normal, and its left margin formed a larger curve. My friend Mr. Furneaux Jordan has kindly examined a portion of the artery microscopically, and has found that the inner and middle coats contained a large number of small (young) nucleated cells; there were also elongated cells, with two or three nuclei, many of which were swollen, cloudy, and more or less opaque. The centres of cell-activity seemed very numerous and appeared to separate, or lie between, bands of fibrous and elastic tissue, in which the tissue-elements were only slightly, or not at all, changed. Fat-granules of various sizes were present in every part of the field.

The patient was a most abstemious person; she had spent an easy existence; but her health had never been very good, and, for some months, she had been in a desponding state of mind, so much so, that a fortnight previously to her death she attempted to commit suicide in rather a novel manner. She tied a tape tightly around her neck when she went to bed at night, allowing it to remain until the morning, when it was cut away by her friends. A very considerable effusion of blood under the conjunctivæ of both eyes, resulted from this compression.

The following remarks have suggested themselves to me. There was evidently an interval of time between the rupture of the inner arterial coats and the formation of the aperture in the outer coat. I am inclined to believe that the former took place in the morning at the time of the fainting fit; the accompanying shock to the system then prevented the stream of blood from passing with its usual force, and thus a further lesion was delayed. Fifteen hours after, however, when reaction was established, the areolar coat of the artery, which alone remained, yielded, blood escaped rapidly into the pericardial sac, and, exerting its pressure upon the walls of the heart, arrested its action, and death quickly ensued. It may be suggested that the earliest splitting of the inner coats took place at the time of the strangulation, but then I think there would have been some effusion of reparative material; most probably also a dissecting aneurism would have been formed, and perhaps considerably advanced.

The absence of any sudden mental emotion or violent bodily action makes a difficulty in determining the exact cause of the rupture, yet the microscopical examination has shown that which the unassisted eye could never have demonstrated; viz., that the vessel, though apparently diseased to a limited extent only, was nevertheless much altered in its minute structural arrangement, and liable at any time to such an accident as befel it. The peculiar arrangement of the valves, too, must have thrown

considerable strain on the left side of the vessel, and it was here probably that the rent commenced.

The specimen is preserved in the museum at Sydenham College, Birmingham.

REMARKS ON SYPHILISATION.

By George Gaskoin, Esq., Surgeon, Chevalier of the Order of Christ, Portugal; Surgeon to the Artists' Benevolent Fund; formerly House-Surgeon and House-Pupil, St. George's Hospital.

[*Continued from* p. 518 *of* vol. i *for* 1866.]

In our last we had to consider that argument of Henry Lee, in which he rests his point wholly on the character of induration in the chancre, which is better described by Ricord as characteristic and complementary, not as a feature essential to the course of infection. We are surprised that a man who makes pretensions to philosophy should fix on a single sign or character as bringing about results which occur commonly enough without its presence or precedence; and this is what Mr. Lee does when he makes this induration a "potential" as well as an "essential" sign of syphilitic infection. The temptation which physicians are under to mistake effects for causes, is favoured by our habit of clinical study, which directs itself exclusively to the manifestations of the disease, apart from the consideration of cause; the natural bias of our minds leading us ever to contemplate one or more prominent symptoms as governing the rest; especially when priority in order of sequence gives a plea for power. But what need we seek for more in the present case than the virus, as a complete and sufficient cause for all the phenomena? The thing itself is well enough understood by its effects. We need not be squeamish about naming it, like some pseudo-philosophers who would narrow the field of human thought till a man believed in nothing but the food between his teeth. We say fearlessly, then, that there is no stronger proof of the existence of a thing than the multiplied and long evidence we have of its action or of its being acted on; and in this we believe not to err against the laws of ancient or modern thought; and that is the case in the instance before us; and where the cause is one, its manifestations will vary according to the inconstant conditions of the matter subject to its operation.

As to this contagion of syphilis, we know of it by its persistency and generative power; and we cannot but recognise its modifications no less than its integrity. There is syphilitic matter which is like a searing iron in its action on the tissues; and sometimes we have ulceration and loss of tissue in its mildest forms; not seldom there is an excessive destruction and shedding of cell-formations which escape in the form of pus; and perhaps such cell-death is not, then, the single and exclusive effect of the virus on the economy. At other times, there is matter which enters the human frame with scarce a blot or stain of discoloration on the surface, yet it taints the blood and torments the body for years; and there is also that well recognised form, occurring chiefly in the male sex, which is capped by induration, such as is described by Mr. Lee. All these are primary manifestations; and the same may be said of those which are secondary—that induration, of whatever kind, is not a necessary complication in them.

But, if generally in the course and train of contagion like produces like—just as mumps from malaria produces mumps by contagion, and not an intermittent fever—we are not driven on that account to accept duality or a plurality of causes. We take into consideration that both the virus and its field of operation vary much; and especially do we hesitate when we see that the very men who dogmatise upon this subject, and offer us the conclusions of their narrow experience in a path confessedly difficult, shun and avoid a wider arena of experiment which is thrown open to them, and would fain bar and lock the doors. When a man has practised syphilisation, he may be allowed to have an opinion of his own on these questions, and may be excused from accepting theories which are no longer reconcileable with his everyday experience. And when Daniellsen, the Norwegian professor, says that he has seen thousands of artificial ulcers, and that (with one exception) they were all chancroids, we know that he means no more but that they were all of them non-indurated sores; and, being such, he concludes that they can in no way affect the system, or, at least, ought not to affect it. We understand that very well. "The long established axiom" of M. Clerc, that the chancroid does not infect, holds him fast; and he has bent his mind to these established axioms. In five lepers on whom he inoculated from the soft chancre, he did not get the result he thought himself entitled to expect, according to his interpretation of unity; viz., secondary syphilis; and because he did not get these particular forms of disturbed function, therefore he falls in, it would seem, with the extreme opinion, that the direct operation of such chancres is exclusively local and limited to the spot on which they grow; if neither one, nor two, nor three, nor thirty-six, nor a hundred and thirty-six, induce secondary syphilis, then he feels justified in asserting that no number will do so. Failing the manifestations of secondary syphilis on the subjects of experiment, he negatives the possibility of all or any other influence upon the frame whatever as impossible, and in this he does not, as it would seem to us, betray the philosopher; but, in preferring the "long established axiom", he brings the professor into view.*

Much has been said of his sixth case, where, after 287 inoculations on a leper made with the secretion of soft sores, accidental inoculation from an indurated sore produced a hard chancre, after which constitutional syphilis ensued; showing that, at the time this happened, no immunity was acquired. Now, although immunity commonly follows at the end of 350 inoculations or so, yet the range is wide and uncertain; and in this case the patient had not reached that point of immunity, and what followed from inoculation of the hard chancre was a matter of course.

Boeck, on the other hand, syphilised a woman who had obstinate chronic eczema; and, even as late as five years after, on repeated trials, she could not be inoculated from the hard chancre, nor were there any secondaries in her case. Since that time, or thereabouts, Boeck has inoculated only with the secretion of the hard chancre and its product in direct linear series. This is a saying hard to be borne by those who blindly follow the *dictamina* of Messrs. Ricord, Fournier, and Rollet; and then it becomes a question what liberty we are allowed in departing from their ideas in England and in Norway, and what amount of "initiative" is forbidden in Europe by these "French swells", who think all linen dirty that is not washed in French waters.

In producing immunity, it is necessary not to stop

* We are far from judging that this criticism applies with correctness to the opinions of M. Daniellsen; it is only meant for the interpretation or misinterpretation of them given in our manuals. (See Bumstead *On Syphilis.*)

half way in syphilisation; but to let the patient, so to speak, have the sword up to the hilt. There is a near limit which Nature has with certainty assigned to the inoculation of chancres, and which cannot be overpassed. If immunity have been produced by the soft sore, we look upon it as impossible that a hard chancre and secondaries can be communicated. What is very certain is that, when immunity is produced through the medium of the secretion from the hard sore, the inoculation of that biting pus from the soft sore has, when inoculated, no more effect than a drop of water on the skin. Let the dualists explain this, and they will hereafter find more to explain.

The opinion has been circulated, and industriously maintained, that, when syphilisation was first introduced and Dr. Boeck adopted these ideas, the world was yet in darkness as to the distinction between the two kinds of sores, and as to the subsequent infection of the individual more or less in correspondence to their anatomical character; the egg of this discovery is supposed to have been hatched in the years 1852-54. This is not the case; for practically the thing was well understood, as now, by Ricord and Auzias-Turenne, as men of the time (not to speak of the light afforded by older sources of study), though not pushed to the extreme of dogma, as has occurred since; for those young men, Bassereau and Clerc, whose works are referred to, only worked out with industry ideas which they picked up in the schools of Paris. To show that this was the case, we need only quote the language of the noble Malgaigne, in his fruitless defence of syphilisation, in the debate at the Academy, August 10th, 1852. He says: "All the best discoveries of M. Ricord drove us forward in this direction. First, there is that capital distinction between the simple chancre which does not give the pox and the indurated chancre which gives it with fatality — a fact which seems to constitute this chancre as the real syphilitic sore. Next, have we not received as doctrine, that a bubo secreting specific pus preserves the patient from constitutional syphilis? And thirdly, we have the law that syphilis only attacks the constitution once; out of which observation Ricord drew the inference that a man once refractory to the virus might convey the immunity to his offspring. How was it possible, where Nature has displayed so many paths of escape from a terrible malady, not to hope that art might go hand in hand with her at some not distant time? Thus you see, gentlemen, syphilisation came quite naturally out of this school of ours." And then he mentions that Castelnau and Parent-Duchâtelet had observed immunity against the chancre in certain individuals; and that Ricord had, time without end, not only prophesied that syphilis would find its vaccine, but had till then ever spread his sail in that direction.

Henry Lee says that no evidence has ever been adduced to show that any animal was ever inoculated from an infecting sore. Certainly, yes; there is such a thing as evidence, and there are also laws of evidence which exist for all mankind. Mr. Lee appeals to evidence, when it would have been fitter for his purpose to have kept its very existence out of sight. He has indeed so long asserted the proposition before us, that he must believe it strongly; yet has he no argument on his side but what is founded on the alleged incompetence of men like Auzias-Turenne, Malgaigne, Langlebert, and Cazenave, in Paris, and, in Vienna, the celebrated Sigmund. In truth, as regards syphilisation, evidence has been strangled in its birth, and the laws of evidence have been thrown to the winds, in the eagerness of its opponents to keep it out of the field, for fear of interference with their views. The common sense which finds place in all besides, is put to the ban and wholly disallowed when syphilisation is in question. In no other argument has such enormous capital been made out of the prejudices of the vulgar. So far from no evidence having been adduced, it is a notorious fact, that this point of the communicability of syphilis to animals, as tested by the presence of secondary symptoms, has been thoroughly entered upon, and passionately discussed, from the first time when these questions were in agitation. When, therefore, Mr. Lee says there was no evidence, he would seem to mean that, on the side of Auzias-Turenne, it was discussed without evidence of facts, and on purely theoretical grounds; and that all the evidence of facts was on the other side. The contrary was the case. The arguments against the communicability of syphilis to animals were negative and theoretical; those in proof of communicability were of a positive and demonstrable nature.

Whether the baboons of M. Auzias-Turenne and M. Langlebert, or the cats afflicted with exostosis brought forward by M. Malgaigne, or that interesting brood of kittens which were so much in print, had really secondary syphilis or not, need not occupy us now; it is sufficient to say they were *en evidence*. M. Auzias-Turenne's calm reply to much passionate logic deserves to be quoted. "When one writes", he says, "with a cat upon one's knees having multiple exostosis and an abundant psoriasis, it is impossible to yield to such beautiful arguments." The whole question at issue was, Can syphilis, or, if you will, the right pox, be communicated to animals; can it be inoculated into brutes? All analogy is in favour of such communicability; and, we may fairly add, such a degree of belief as can be drawn from the laws of evidence, or, at the very least, of human testimony.

Was M. Auzias-Turenne an unskilful experimenter or an uncandid exponent of his views? After passing through the fire of persecution, has he turned out to be the impostor and visionary that he was proclaimed to be by certain men in power, upholders of the *status quo*? On the contrary, has he not risen, have not they somewhat declined, in public esteem? We never heard anything against M. Auzias-Turenne, except that he showed that common foible of his countrymen of being a little too much a system-maker. Let us look at the fifty-third proposition in his original communication to the Academy, delivered in the year 1850. "It is seldom that an ape is subjected to a succession of chancres without one or two of them becoming indurated; but when this induration has shown itself on one or two chancres, *it does not occur in those which follow*." It may be suggested that in those days the difference between the hard and soft sore was not appreciated; but familiarity with writings of the period will show that practically as regards their connection with secondaries the difference was as well understood as now. That all may not rest on one pair of shoulders, let us say that, as regards the occurrence of consecutive syphilis in animals, Sigmund of Vienna has confirmed all the conclusions of M. Auzias-Turenne; and, if Mr. Lee tell us that there is a gentleman in Lyons (M. Basset) who has tried to produce such a result and failed, we will tell him that there is a gentleman in London who might have succeeded if he had tried it and had he been minded so to do—that is, supposing him to bring a fair amount of skilfulness to the task. It is a little too much to say of experiments conducted with painstaking and laborious industry that they are nought, when it would be sufficient to mention the names of their impugners to show that these gentlemen were of one school, specialists rather than surgeons, clumsy experimenters, and the general course of their doctrines not walking hand in

and with the truth. Such, indeed, denied not this point of the occurrence of secondaries alone, but they went on headlong, and at that time they denied everything. The inoculation on animals of the soft chancre they no longer deny. And, if it were necessary to say more on the subject, we might mention the name of one who stands highly eminent in syphilography, who had inoculated himself on a delicate part of his person from a chancre in a cat. Under a strong feeling of alarm, the ensuing chancre was removed by incision; and when examined microscopically *ad hoc* by curious and competent observers, it was found to contain all those fibro-plastic and particular elements declared by Robin and others to characterise the indurated syphilitic sore.

[*To be continued.*]

Reviews and Notices.

Defects of Sight and Hearing; their Nature, Causes, Prevention, and Management. By T. Wharton Jones, F.R.S., F.R.C.S., Professor of Ophthalmic Medicine and Surgery in University College, London; etc. Second Edition of Defects of Sight. Pp. 168. London: 1866.

Mr. Wharton Jones has revised the former edition of this little book, and has added some remarks on Defects of Hearing. The book appears intended for popular as much as, or rather more than, for professional use. For the latter purpose, indeed, it is not so valuable as several other well known treatises; but, while the author sometimes gives the public a little more information regarding treatment than is necessary for them to know, the book contains information which may be usefully and safely imparted.

On the Use of the Sphygmograph in the Investigation of Disease. By B. W. Foster, M.D. Pp. 42. London: 1866.

Our readers are already well acquainted with the contents of this little volume, which contains, in a separate form, the papers which have recently appeared in this Journal. For publishing them now Dr. Foster has been seriously called to account by one of our contemporaries. He has been told that he ought not to have published this pamphlet, because two other physicians, who have been much longer than he engaged in experimenting with the sphygmograph, were upon the point of publishing their researches in the *Lancet*; that his pamphlet is little more than a "collection of cuttings" from Marey's work; and that he is unduly appropriating credit which belongs to others. To these accusations Dr. Foster gives a formal denial. That he never attempted to appropriate the credit of introducing the instrument into England is proved, he says, by the fact that, in his pamphlet, he thanks Dr. Anstie for "his first acquaintance" with it, and for having introduced it into this country. His answer to its being a "collection of cuttings" is, that "it contains an account of a few of the many experiments made by Dr. Foster in confirmation of the French authors; that it contains twenty-one engravings of pulse-traces taken by himself from cases of diseases, and selected from some two hundred observations made at the Queen's Hospital"; that "every pulse-trace in the pamphlet is original"; and that "sentences translated from Marey's work are marked by inverted commas." Dr. Foster adds, that M. Marey, in a complimentary letter, asks permission to publish Dr. Foster's results. Dr. Foster adds that, when "the stethoscope, the ophthalmoscope, and the laryngoscope, were invented, he is not aware that any one claimed a monopoly in their application or in the discussion of their merits."

Photographs (coloured from Life) of the Diseases of the Skin. Second Series. By Alex. Balmanno Squire, M.B.Lond., Surgeon to the West London Dispensary for Diseases of the Skin; Lecturer at St. Mary's Hospital Medical School. No. iii. London: 1866.

The number before us of Mr. Balmanno Squire's photographs of skin-diseases represents a case of Prurigo Senilis. In the letter-press which accompanies the plate, the author states that the views which he entertains regarding the disease vary from those of other writers on the subject. He holds that the essential cause of the disease is the *Pediculus Corporis*.

"This parasite is, however, not always easy to find. Its presence is often unsuspected by the patient, and when known to him is as often denied; hence its invariable co-existence with this form of eruption has, until very recently, escaped the notice of observers. This constant relation of the parasite to the disease, as cause to effect, was first pointed out by the author in 1864."

Prurigo senilis, Mr. Squire observes, is—as one would expect if its cause be universally such as he describes it—contagious. As its name denotes, it is most common in old persons; but is sometimes met with in the middle-aged, and even in children. Cachexia and debility are favourable to its production; but it is not absolutely confined to the poor and ill fed; for Mr. Squire refers to the case of a nobleman long since dead, who had the disease to the end of his life, and in whom the affection was associated with the presence of pediculi.

It is evident, that Mr. Squire has investigated with much care the very troublesome disease of which he has given a representation in the present number of his instructive series.

The Chemistry of Common Things. By Stevenson Macadam, Ph.D., F.R.S.E., F.C.S., Lecturer on Chemistry in the Medical School, Surgeons' Hall, and to the School of Arts, Edinburgh; etc. Pp. 184. London: 1866.

This little treatise is intended for use in schools; and contains, in plain and simple language, an exposition of common facts in chemistry.

The arrangement followed by the author is the following: Chapter 1, The Chemistry of the World around us; 2, Constituents of the Atmosphere; 3, The Plant and what it feeds on; 4 and 5, The Plant and what it yields us; 6 and 7, The Animal and what it feeds on; 8, Importance of Saline Food; 9, The Saline Food of Plants and Animals; 10, The Decay of Plants and Animals; 11, The Circulation of Matter.

Dr. Macadam has not aimed at giving even an outline of the details of chemical notation and nomenclature, or chemical combination; but has

given a series of simple facts, in such a form as will readily give to the youthful and previously uninstructed student a very fair general outline of the *Chemistry of Common Things.*

We are requested to remind members of the Association that the Annual Subscriptions became due on the 1st of January. They can be paid either to the Secretaries of the Branches; or to the General Secretary, T. Watkin Williams, Esq., 13, *Newhall Street, Birmingham.*

British Medical Journal.

SATURDAY, JULY 14TH, 1866.

THE APPENDIX TO THE THIRD REPORT OF THE CATTLE-PLAGUE COMMISSION.*

WHEN the Commissioners appointed to inquire into the origin, nature, etc., of the Cattle-Plague, undertook their arduous duties, in addition to collecting the evidence of those best informed in the country on points relating to the history of the disease and the measures to be adopted to prevent its spread, they had recourse to the admirable expedient of appointing some of our leading scientific men to investigate in a thorough manner those points on which it appeared likely that science would throw some light. It is obvious that, unless the Commissioners had subdivided the subject, and requested different observers to investigate separate points, the mass of facts presented in the large blue-book before us could never have been collected. To Dr. Burdon Sanderson was allotted the task of writing on the nature, progress, and symptoms of the disease; Dr. Marcet studied the chemical pathology; whilst the morbid anatomy of Cattle-Plague occupied the attention of Dr. Bristowe. Dr. Lionel Beale was specially asked to conduct microscopical researches; Messrs. Angus Smith and Crookes inquired into the subjects which are so important in connexion with the spread of zymotic diseases—viz., disinfection and ventilation; whilst Messrs. Varnell and Pritchard, of the Royal Veterinary College, investigated the effects of various modes of treatment which had been suggested for the cure of the disease.

The Report is of remarkable interest. It contains the results of conscientious and successful work, and shews how great are the resources of modern science, and how remarkable an increase to our knowledge of diseases generally we may expect when all have been investigated in as thorough a manner as has been the present fatal epizootic. For, in truth, we know of no disease affecting man, whose characters have been better studied than those of Cattle-Plague; and perhaps in no case has the morbid anatomy of a disease been so minutely and satisfactorily investigated.

Although different subjects were allotted to different observers, in many cases the same facts necessarily fell under the notice of several; and we have thus the best guarantee for the accuracy of the most important facts in the Report—viz., their having been independently ascertained by several competent authorities. In placing before our readers an account of the more remarkable results obtained, we shall specially draw attention to any discrepancies, either in facts or opinions, which may exist in the statements of the different observers.

Dr. Sanderson's Report is, perhaps, the most general in its scope; and it is assuredly surpassed by none either in accuracy or extent of observation, in originality of thought, or in the successful results obtained by its author. The first part of the Report is devoted to a consideration of the "Phenomena of the Cattle-Plague during Life"; and it is some points in this which chiefly merit attention. In an article in which we reviewed Professor Gamgee's recently published work on the *Cattle-Plague*, we drew attention to the interesting results of this observer, which seemed to shew that the earliest of all the recognisable signs of Cattle-Plague consisted in a rise of the animal temperature. This very remarkable statement is fully corroborated by Dr. Sanderson. As a result of a very large number of observations made on two heifers and two bullocks, Dr. Sanderson obtained 102.25° as the mean normal temperature in these animals; whilst in cows it appeared to be rather lower. In the first stage of Cattle-Plague, which comprises the first and second days of the disease, the only abnormal condition to be detected is an elevation of temperature; for it is only on the third day that there is any visible alteration of the mucous surfaces, and it is not until the fifth day that the animal is obviously ill. The temperature appears to rise on the first day to about 104°, and gradually increases until the sixth day, when it may reach 107.2°, after which a gradual decline commences. Sudden falls occurring between the fifth and sixth days indicate with tolerable certainty the approach of death. It is strange that the absolute increase of the temperature—*i. e.*, the number of degrees by which the healthy standard is exceeded—has but little relation to the severity of the disease; that, indeed, the highest readings of the thermometer were obtained in cases of the disease induced by inoculation, and all of which, being mild, recovered. Thus the highest readings of the thermometer were obtained in four inoculated animals, on the sixth day, when the highest temperature was

* Third Report of the Commissioners appointed to inquire into the Origin, Nature, etc., of the Cattle-Plague; with an Appendix. London: 1866.

107.2°; whilst the highest temperature recorded in the case of seven non-inoculated animals, all of which died, was 106.8° (fourth day).

A disease accompanied by so great a rise in the animal temperature must be one in which tissue-metamorphosis is rapidly going on; and we are, therefore, not surprised at the results of Drs. Sanderson and Marcet's observations, which shew that a large excretion of urea is one of the features of the disease. In fatal cases, the percentage of urea is nearly doubled; the total quantity excreted in the twenty-four hours being also largely in excess of the healthy average.

The pulse is little affected in Cattle-Plague. In the early stages, there is usually, though not invariably, a slight increase in the number of pulsations, arterial tension being apparently high; whilst, in the stage of collapse, the pulse is decidedly rapid, and, as would be expected, the arterial tension extremely low.

The changes occurring in respiration are very interesting, and have been accurately studied by Dr. Sanderson. The number of respirations per minute is not materially altered—at any rate, in its earliest stages. The mode of respiration is, however, remarkably affected after the fifth day. The first perceptible change is a slight irregularity. At a later stage, the chest is seen, during inspiration, to dilate suddenly; and inspiration is followed by closure of the glottis, accompanied by a violent action of the expiratory muscles. The sudden closure of the glottis is accompanied by an audible noise; it remains closed from one and a half to two and a half seconds; after which time, the air gradually, and with a perceptible noise, begins to escape. Dr. Sanderson points out that we here have precisely the conditions supposed to be necessary to the occurrence of emphysema in healthy lungs; viz., great distension of the air-cells at the commencement of expiration, and expirations of a forcible character. It is, indeed, to this altered mode of respiration that Dr. Sanderson refers the production of the interlobular emphysema which so frequently occurs in Cattle-Plague, and which has hitherto been left unexplained by writers on the subject. But what is the cause of this altered mode of respiration?

"We may easily understand," says Dr. Sanderson, "that in the hyperæmic and tumid larynx of the Cattle-Plague, the expiratory narrowing of the glottis becomes complete, whilst even during inspiration the opening is insufficient to allow of the free egress of air. Hence the permanent dilatation of the chest, the enfeebled action of the diaphragm arising from permanent depression of its central tendon, the laborious but relatively fruitless action of the other inspiratory muscles in expanding the thoracic walls, the fixation of the chest during the prolonged closure of the glottis, and the noisy expulsion of the imprisoned air through the narrow chink, the moment that the vocal chords separate from each other for inspiration."

This explanation of the puzzling interlobular emphysema is the one adopted by Dr. Bristowe, who, in his Report, shews that the larynx and trachea are almost constantly seriously affected; whilst the only lesion observed in the lung-texture, in most cases, is emphysema. Dr. Bristowe also shews that the anatomical structure of the ox's lung, which contains much interlobular cellular tissue, explains the ready production of interlobular emphysema. In man, whose lung is almost devoid of interlobular cellular tissue, this form of emphysema does not occur.

Dr. Beale touches upon this question of interlobular emphysema; but his explanation does not appear as satisfactory as that of Drs. Sanderson and Bristowe.

"An extremely emphysematous condition of the lungs," says Dr. Beale, "is one of the most constantly observed in Cattle-Plague. I am unable to give a satisfactory explanation of this change; but it seems probable that it may depend upon impediment to the progress of the air from the cells of the lungs, resulting from the congested state of the capillaries of the smallest bronchial tubes, the tumid condition of the mucous membrane, and the accumulated secretion upon its surface. The altered blood would also exert a deleterious action upon the afferent nerves concerned in exciting the reflex respiratory movements which, as is well known, soon become exceedingly feeble, and remain so until death occurs." (P. 139.)

Dr. Sanderson's description of the alterations of the visible mucous membranes, and of the skin, are admirably clear.

Dr. Marcet's Report on the Chemical Pathology of the Cattle-Plague includes the results of observations on the alterations which the blood, muscular tissue, urine, milk, and bile undergo in Cattle-Plague. By far the most satisfactory of Dr. Marcet's observations are those on the muscular tissue and urine. He has made out that, whilst the amount of soluble albumen in the muscular tissue in Cattle-Plague is increased, its diffusibility from the muscular tissue into water is decidedly impaired—a result which tends to shew that the properties of the albumen are altered. The result is altogether new and highly suggestive, and will doubtless stimulate inquiries into the changes which occur in the muscular tissue in other fevers.

Dr. Marcet made nine analyses to determine the changes which the blood undergoes in Cattle-Plague. Like Dr. Gamgee, who had previously investigated the subject, he made analyses of the blood of the same animal in health, and when suffering from disease. It is obvious that in this way far more satis-

factory results are obtained than by comparing the analyses of diseased blood with standard analyses of healthy blood. In his analyses, Dr. Marcet has followed a method which, whilst it has the advantage of not being based on any hypothetical views as to the constitution of the blood, and gives results which are merely the statement of certain facts, is objectionable in that it does not enable us to compare his results with those of other observers. Dr. Marcet does not attempt to determine the weight of the corpuscles, either directly or indirectly; but, having determined the water, solids, and salts in one portion of blood, and the fibrine in a second, he determines the total amount of coagulable matter in another portion of defibrinated blood, to which he has added chloride of ammonium; and, having made a correction for the amount of adhering hæmatine, and deducted the amount of salts in the coagulum, he obtains the amount of what he calls albumen, but which includes, in addition to the albumen of the serum, the coagulable portion of the blood-cells. By far the largest number of analyses of blood have been made by Becquerel and Rodier, and Andral and Gavarret, who adopted methods based upon another principle. Becquerel and Rodier assumed that the water in the blood-corpuscles exists as water of the serum; and the hypothesis has been admitted by a great many chemists. Now, although we are not prepared to state that the hypothesis is a correct one, it is curious that the average amount of corpuscles obtained by those chemists who used the direct methods of analysis is very nearly identical with that obtained by Becquerel and Rodier, and others who made use of an indirect method. The method of analysis of the French authors was made use of by Dr. Arthur Gamgee in his blood-analyses. By it, besides arriving at the conclusion that the water of the blood was diminished in Cattle-Plague, and the fibrine decidedly, often remarkably increased, he ascertained that the amount of corpuscles was invariably increased, and the total solid matters of the serum in 1000 parts of blood diminished. Dr. Marcet corroborates Dr. Gamgee's results as to the water being diminished and the fibrine increased; but, as he has estimated the corpuscles and albumen of the serum together, he has not found a material alteration in the amount of albumen. We require a few experiments to shew how near the truth is Becquerel and Rodier's hypothesis as to the relation existing between the water and solid matters of the cells. If it be shewn (by comparing the results obtained by their method and by those of Scherer, Schmidt, and Figuier and Dumas) that it is very near the truth, then analyses made by Becquerel and Rodier's method will be far more useful in giving us an insight into the actual constitution of the blood than others conducted according to Dr. Marcet's plan. It is to be regretted that some of Dr. Marcet's or Dr. Gamgee's analyses were not made according to Scherer's method, which we believe to be the best at our disposal.

The two facts which appear to have been certainly made out are, the diminution of the water of the blood, and the increase of fibrine. We cannot see the force of Dr. Marcet's observation, that this increase in the amount of fibrine would shew some analogy between Cattle-Plague and erysipelas, in which disease the amount of fibrine is also largely increased, seeing that there is no more common alteration in the blood than an increase of fibrine; inflammations, as a general rule, being accompanied by an increase of fibrine.

On the changes in the milk, Dr. Marcet gives us the results of a series of observations made upon one cow, whilst in a healthy condition, and after the disease had been induced by inoculation. It is unfortunate that his observations were restricted to one case, and that this should have happened not to be a severe one. He found that "the quantity of milk secreted diminishes rapidly under the influence of the disease; its specific gravity falls; it becomes richer in fatty matters, while the proportion of casein undergoes no change; the mineral constituents are slightly reduced." Dr. Gamgee published, some time since, the results of analyses of the milk of five cows suffering seriously, in which the secretion had almost entirely been arrested. From these he was led to the conclusions with regard to the milk in Cattle-Plague, that—1. The amount of sugar is remarkably diminished; 2. The amount of butter (except, perhaps, at the commencement) is enormously increased; 3. The salts are slightly increased; 4. The casein appears to be generally increased. Fortunately, Dr. Beale's Report contains a third series of nine analyses of milk, made at his request, by Mr. Nettleship. These analyses bear out in a very striking manner the first, second, and fourth of Dr. Gamgee's conclusions, which probably correctly represent the changes which take place in the milk when its secretion is almost entirely arrested; whilst Dr. Marcet's results shew the changes which are noticeable in the milder cases of the disease, in which the secretion of milk is only diminished, but not arrested.

Dr. Marcet's observations on the increased elimination of urea in Cattle-Plague are new and highly interesting. The observations have been admirably conducted. He substantiates Dr. Gamgee's statements as to the very frequent presence of albumen in the urine.

We shall, in a future number, draw attention to the more important points in the other Reports, and very specially those of Dr. Murchison, Dr. Beale, and Mr. Crookes.

Dr. J. B. Thomson, Surgeon to the General Prison for Scotland, has investigated the dietaries of prisons. His conclusions are of much importance. He is satisfied that the Scotch dietary is both more substantial and economical than the English. In Scotland, 172 oz. of nutrition, he says, cost 1s. $11\frac{5}{12}$d.; in England, 134 oz. cost 1s. $10\frac{8}{12}$d. The reason of this is, that in Scotland the large use of milk does away almost entirely with meat.

"Our Scottish local prison dietaries, indeed, contain no meat, except in small quantities in broth; but milk, which contains largely the nutriment of animal food, is our substitute for meat, and is found nutritious enough for all prisoners whose sentences do not extend beyond twenty-four months.

"Upon the whole, our comparison of the English dietaries with the Scotch, satisfies us that, in the plain and substantial articles of food and in their economic value, our dietary system is the better, and that the amounts allowed to the short-sentenced prisoners, although by no means so low, are put upon more safe scientific bases.

"*Conclusions.* 1. That the lowest dietaries, I and II Classes, in English county and borough prisons, are so low as to be considered punitive and unfit to sustain health.

"2. That our adoption of milk and oatmeal, without the expensive article of meat, makes our dietaries cheaper than and equally nutritive with the English." (*Edinburgh Medical Journal*, July 1866.)

A motion made at the College of Physicians by Dr. Copland, to the effect that no one shall be made a Fellow who has not been a Member of the College for at least seven years, has been sent to the Council for consideration. At present, men can become Fellows after four years' membership.

Under the heading, "The Progress of our Ideas," a homœopathic journal gives an account of some of the proceedings of the Medical General Council. On May 17th, "the General Council of Medical Education contemplated the first step of the same ladder by which Hahnemann reached homœopathy." The Council, it appears, only took a look at the first round of the ladder, but did not put their foot on it. The first step was Dr. Acland's motion, that money should be granted to try the action of remedies. Dr. Acland will be surprised to find himself all at once the pet of the homœopaths. They recommend him to "investigate with attention the works on materia medica so abundant among our literature." "A man of his acumen will soon be convinced, that much of the work he proposed had been already well done by many physicians during the past seventy years." It will be very satisfactory to Dr. Acland to learn that, "for a tenth part of the £250 a year named, the Council may obtain nearly all the knowledge they seek at the nearest homœopathic publishers."

"Of the existence of this literature the members of the Medical Council are probably ignorant, for the Medical Societies have closed their doors against the only men who have followed out the study of the 'physiological action of medicines.' The British allopathic journals not only shut their pages against all knowledge on this momentous subject, but malign and misrepresent the labourers in this field of medicine; nay, so mad are they in their absurd opposition that they even exclude from their pages all advertisements of the works on this department of therapeutics. Dr. Acland's motion must create a spirit of inquiry, which, we trust, will effectually break down the allopathic blockade."

The College of Physicians has accepted the charge of the very valuable original drawings of the pathological and other conditions of Cattle-Plague made by the scientific gentlemen engaged, under the Cattle-Plague Commissioners, in the investigation of that disease. As Dr. Watson remarked, probably no disease, either of man or of animals, has ever undergone so thorough an investigation in all its details as has the Cattle-Plague. Let us hope that the Government may be brought to see that it would be worth their while to give men of science an equal opportunity of investigating the pathology of some human diseases. It is certain, that no isolated efforts can ever produce such results as are to be obtained when Government lends its powerful aid and places at the disposal of men of science unlimited means for carrying out their investigations. Happily, in the present instance, the right men were appointed for the work which was to be done.

Dr. Owen Rees has no faith in the treatment of diabetic patients by a restricted dieting (*Lancet*). They do better, he says, on a natural diet. Saccharine and amylaceous food is as necessary to them as it is to the healthy. More than this, abstinence from these foods is injurious to the diabetic. The circulation of sugar in the blood does not produce bad symptoms. It is true that diabetics have lived many years, and comfortably, on restricted diet; but there is no proof that they had to thank the diet for this. "I have now," he adds, "had long experience in diabetes, and have resolved never again to countenance the strict dieting, which has been so vaunted as necessary to the well-being of diabetics."

Dr. Norman Chevers (*Indian Med. Annals*, 1865) describes a fatal case of hydrophobia, the first in which tracheotomy, as proposed by Marshall Hall and others, has been practised. "It is valuable," Dr. Chevers says, "as proving that, in a case where the horror of liquids was most intense, *opening the trachea enabled the patient to drink*; and that, where death by spasm of the glottis is rendered impossible, the patient may still sink by asthenia from the violence of the spasms." Dr. Chevers would always, in future, perform tracheotomy in cases of hydrophobia, when death from glottis-spasm was threatened.

Dr. Demarquay has published a volume of 861 pages, entitled *Essai de Pneumatologie Médicale*, consisting of physiological, clinical, and therapeutical researches concerning gases. Injections into the cellular tissue or abdomen of air, of nitrogen, of oxygen, of carbonic acid, and of hydrogen, produced no injurious effects, although the gases took three or four weeks to disappear. He also found that, in cases of tenotomy, the daily injections of air around the cut tendon in no way impeded the reparative process. As regards the inhalation of oxygen, he observed that dogs could inhale for a length of time thirty to forty *litres;* the only results noticed being increase of appetite and great liveliness. Rabbits lived from fourteen to seventeen hours in oxygen. Dr. Legrand says that he has himself inhaled oxygen, and that there is nothing disagreeable in the inhalation. It has a tonic and revivifying effect, and produces a passing feeling of excitement, as if produced by wine.

The sad news will reach Professor Pitha, who is with the army in Italy (says *Wiener Medizinische Wochenschrift*), that his only son, a youth of 19, was killed at Skalitz. Of Professor Dumreicher, nothing has been heard for ten days; it is feared that he is shut up in Josephstadt. Diermel and Katholitzky, his two assistants, have returned to Vienna. They got separated from their army and chief; wandered about; were arrested as spies, and at length set free. The number of wounded daily brought to Vienna is immense. All the hospitals, etc., are already full. Professor Pitha writes from Verona, that there are upwards of 6000 wounded there under treatment, amongst whom are 2000 Piedmontese. Most of the churches contain from 200 to 300 wounded. Since the battle of Custozza, the surgeons have been daily at work from six in the morning until nine at night, allowing one hour in the middle of the day for rest.

The cholera is decreasing at Amiens. The *Pall Mall Gazette* says that the Empress Eugénie replied to some one there who praised her devotion to the cholera-patients, "This is woman's battle-field!" The cholera is also decreasing at Dunkirk. At Rouen, there were 16 deaths in five days. It has broken out at Paimbœuf and Pornia. At Bordeaux, also, deaths have occurred from it; and at Antwerp, on the 3rd instant, 40 to 50 deaths took place. On the 7th, at Berlin, 148 cholera cases were reported, 71 of which terminated fatally. The total of cases in Berlin since the outbreak is 526; total of deaths, 316.

Cholera. The cholera has broken out in St. Petersburgh. The number of cholera cases which occurred at Stettin, on the 2nd inst., was one hundred and sixty, deaths eighty-nine. In Berlin, too, the malady has rapidly increased the last few days.

THE LATE JOSEPH TOYNBEE, F.R.S.

On Saturday last, the 8th instant, died at his residence in Savile Row, Joseph Toynbee, long known as an aural surgeon of extensive practice. His death was sudden; and the circumstances thereof have been made known through the report of the inquest which was held on his body on Tuesday last.

At the inquest, Mr. Toynbee's man-servant, George Power, said that he was last in conversation with his master at ten minutes to four on Saturday afternoon, owing to a patient wishing to see him. He was lying on the couch. He usually took a sleep after luncheon. When witness knocked at the door, he was answered, "Come in"; and, on entering, his master had apparently awakened from a sleep. There were papers on the chairs, and deceased's watch on the table. Before the patient was admitted, deceased removed the papers, and seated himself in his consulting-chair. The interview did not occupy more than a couple of minutes; and, on the exit of the patient, he said he was coming again on Monday. Another patient called; and, on witness reentering the room, he found his master again lying on the couch, with a piece of cotton-wool over his nose and mouth. He thought deceased was asleep, as he did not answer; and he thereupon removed the cotton-wool; but, from the appearance presented, he became frightened, and thought something was wrong. He then ran for medical assistance. The witness was not aware that the deceased made experiments on himself. On the previous Thursday, he (Mr. Toynbee) did something which caused him to vomit a good deal; but the witness could not say whether it was connected with chloroform.

Dr. Markham said that he was called to Mr. Toynbee, and found him on the sofa perfectly dead. There was some cotton-wool on the table close by, and a smell of chloroform in the room. The cotton-wool smelt strongly of chloroform. Dr. Leared happened to come in at the time, and they both tried artificial respiration for half an hour, without the least hope of restoring life. There was not the slightest sign. Dr. Markham produced papers which he found on chairs in the room, relating evidently to experiments which were in progress of being performed on himself by Mr. Toynbee. The papers were as follows. "The effect of the vapour of chloroform (when injected into the tympanic cavity) upon *tinnitus aurium*. 1. *The effect upon a healthy ear. Experiments.* Vapour (breathed from a towel) which produces a pungency in the larynx, when blown into the tympanum causes a feeling of warmth. 2. *Experiments continued.* Vapour (breathed from a sponge or cotton-wool) kept applied to the tympanum for ten minutes. Continued sensation of warmth." These were the notes on one slip of paper; on another were merely the words, "*Experiments: The effect of chloroform combined with hydrocyanic acid.*" This paper was not filled up, a result apparently not having been obtained. Close to the hand of the deceased, on the chair, were two bottles, which had been obtained at Bell's that afternoon. One contained rectified ether, which had not been opened. The second was a little more than half full of hydrocyanic acid. Dr. Markham did not detect any smell of hydrocyanic acid, for that acid would evaporate very quickly. There was also a machine made of India-rubber lying on the chair, used for injecting ether or other vapours; and afterwards was found underneath the

sofa, just as his hand—that of a dead man—would fall, a six-ounce bottle, completely empty, which had contained chloroform, but was dry, and free from smell. The stopper was not in. From his experience, he should say the appearances were quite consistent with death from the effects of chloroform; but it was not possible to say whether there was a combination of hydrocyanic acid with the chloroform, owing to the advanced state of decomposition of the body, both being so volatile that they speedily evaporated in an ordinary temperature. In answer to further inquiries, he said he had made a *post mortem* examination, but not an analysis, as he did not consider it necessary. In fact, there were no contents in the stomach to analyse, and not the remotest smell of the acid, which must have been present had it been taken in quantity into the system. He believed that the death was due to the chloroform; but what effect the prussic acid would produce in combination with chloroform in vapour he could not tell. In an experiment on the effect of mixing chloroform and hydrocyanic acid, he (Dr. Markham) had found that the smell of chloroform entirely overshadowed that of the hydrocyanic acid; but the latter could be tasted, though not smelt. The witness also produced a letter written by deceased on the 6th inst., in which was expressed an opinion that, by Clover's apparatus for inhaling, the vapour of hydrocyanic acid could be safely applied to the tympanum. The vapour was inhaled to the back of the throat, and, by holding the mouth and nostrils, was forced into the cavities of the ears, thus removing the singing and other nervous sensibility. In answer to a question from the Coroner, Dr. Markham said that the deceased must have been so deeply absorbed in studying the effect of the vapour on the ear, that he forgot that he had lungs or heart.

John Barnard, managing superintendent to John Bell and Co., chemists, of Oxford Street, said that deceased had ordered six ounces of chloroform, also of ether, and one ounce of hydrocyanic acid. He (witness) went to deceased on Saturday morning, at eleven o'clock, to describe Clover's instrument. Mr. Toynbee said it would not suit him, for it was too complicated. Deceased said he wished to try the effect of mixed vapours for curing nervous affection of the ears. Deceased asked the strength of the hydrocyanic acid which had been sent, when witness replied, "The dilute form." Deceased said, "That will not suit me; it is not strong enough. Give me immediately some of Scheele's strength." Witness accordingly supplied some acid of Scheele's strength. Deceased was not in the habit of having hydrocyanic acid, but frequently was supplied with chloroform.

Mr. Valpy, Captain Toynbee (brother of the deceased), Mr. Gowan, and other gentlemen, testified to the high intellectual and moral character of the deceased; and that, being in a prosperous condition, surrounded by a loving family, he had given himself up to scientific pursuits, experimenting upon himself, and leaving nothing undone for the promotion and welfare of his fellow-creatures and the advancement of social science.

Mr. Valpy stated that he had looked into Mr. Toynbee's pecuniary affairs since his death, and had been surprised to find the amount of safe investments which (for a professional man) he had made. There was a large balance at his bankers; and insurance policies on his life to the amount of £12,000.

The jury returned a verdict—"That the deceased met with his death accidentally, while prosecuting his experiments, by inhaling a combination of chloroform and prussic acid; and the jury desire to express their deep sympathy with the family of the unfortunate deceased gentleman."

We subjoin a few facts connected with Mr. Toynbee's life.

He was born at Heckington in Lincolnshire; and was 51 years of age at the time of his death. His early education was conducted at home by a private tutor; but afterwards he went to school at King's Lynn. At the age of 17, he was apprenticed to Mr. Wade, at the Soho Dispensary; and afterwards became a pupil at St. George's Hospital, where he early distinguished himself by his proficiency in anatomy. Having become a member (in 1838) of the Royal College of Surgeons of England, he was appointed one of the staff of the Hunterian Museum, under the superintendence of Professor Owen.

On commencing practice, he resided at first at 12, Argyll Place; but subsequently removed to the house in Savile Row, which, at the time of his death, he had many years occupied. He had also a residence at Wimbledon. In 1843, he was elected Surgeon to the St. George's and St. James's Dispensary, and held the appointment till about the year 1852. While there, he exerted himself in the formation of a Samaritan Fund, which still exists, in connection with the Dispensary.

For more than twenty years before his death Mr. Toynbee had applied himself specially to the study and treatment of diseases of the ear, and had long won for himself an extensive reputation in this branch of practice, his patients sometimes amounting to more than one hundred in the course of a day. The visitations which he made of his patients at their own houses were frequent; and he was always very careful in insisting on their being well supplied with medicines.

In 1851, when the staff of St. Mary's Hospital was organised, he was appointed Aural Surgeon, and retained the appointment till two or three years ago, when he resigned. He was also Aural Surgeon to the Asylum for Idiots, and Consulting Aural Surgeon to the Asylum for the Deaf and Dumb. His contributions to the literature of the pathology and surgery of the ear were numerous. He was the author of a work on the *Diseases of the Ear, and their Nature, Pathology, and Treatment*; of a *Descriptive Catalogue* of the preparations, nearly two thousand in number, illustrative of Diseases of the Ear, contained in his museum; and of various lectures and essays on the pathology and treatment of diseases of the ear, in the *Medico-Chirurgical Transactions*, the *Lancet*, the *Medical Times and Gazette*, the *Edinburgh Medical Journal*, etc.

Mr. Toynbee at an early period gained himself a reputation as a scientific observer. In 1841 was published in the *Philosophical Transactions* a paper by him on the non-vascularity of cartilage. His researches on the subject, of which he greatly increased our knowledge, gained for him the Fellowship of the Royal Society.

Not so deeply engaged—though he met his death in an experiment—was Mr. Toynbee in practical and scientific pursuits, but that he could find opportunity for devising and aiding plans for the welfare of his fellow men. It was the knowledge, probably, of this feature of his character that led to his being appointed, in 1857, treasurer of the Medical Benevolent Fund. We soon afterwards find his name on the list as a donor of 500 guineas; and we believe that to his able management and liberality the Fund is beyond this much indebted. He also took much interest in the health of towns question, and was one of the first to give evidence on the subject before the parliamentary committee. He was also instrumental in the formation of local museums, and in other plans of general benefit.

Mr. Toynbee's membership of the Association lasted

during many years. When the Metropolitan Counties Branch was formed, he was elected treasurer, and was re-appointed yearly until 1859, when he resigned the office. He was also a member of several learned and scientific societies at home and abroad.

CHOLERA IN MERCHANT-VESSELS.

The Committee—viz., Dr. Gull, Dr. George Johnson, Dr. Jenner, Dr. Milroy, Dr. Parkes, and Dr. Sanderson—appointed by the College of Physicians to consider a letter addressed by the Privy Council to the College, relating to the expediency of issuing instructions to captains of merchant-vessels, "how to provide for the health of their crews against attacks of cholera," have sent in a report. Their report will be distributed amongst the Fellows, and be discussed at the next meeting of the College.

The Privy Council ask "the opinion of the College with regard to the drugs which should be given, or treatment adopted, in attacks of cholera, and especially in the beginning of the disease, when proper medical attendance cannot be procured."

The Committee recommends—

1. That, for the paragraph headed "Purgative Medicines" (in the instructions issued by the Privy Council on previous occasions), the following words should be substituted: When opening medicine is required, the mildest should be selected, as castor-oil or rhubarb. Glauber's salts and Epsom salts are objectionable. The common belief that prolonged costiveness should not be interfered with during the prevalence of cholera is erroneous.

2. That, in the second section of the Instructions, the last sentence of the first paragraph should stand as follows: The master should ascertain by inquiry, morning and evening, whether any of the crew are labouring under such looseness; and, if so, the following recommendations are subjoined for his guidance, until he may be able to obtain medical assistance.

If a man be attacked with looseness of the bowels, some aromatic and astringent medicine, containing a small quantity of opium, should be given to him at once, and should be repeated every hour or two, according to the severity of the purging. It is suggested that ten grains of the aromatic powder of chalk and opium (*Pharm. Brit.*) should be so given in half a glass of peppermint water, or weak brandy and water. Should this medicine not be at hand, five drops of laudanum may be substituted for each dose of the powder. Large doses of opium or ardent spirits should be avoided. The diet should consist mainly of broth, gruel, or rice. If the looseness should result from bad or obviously indigestible food, or if the discharges are unnaturally offensive and attended with griping pain, it would be desirable to give a dose of either of the gentle laxatives above named before administering the opiates. If the stools become colourless and watery (the purging being of the kind commonly called "rice-water purging"), and be accompanied with vomiting and coldness, the opiates should no longer be persisted in, and spirituous liquors should be avoided. The patient should be strictly kept in the recumbent position; he should be allowed to drink water freely, and should be abundantly supplied with fresh air. Warm applications should be used to the feet and legs, and a mustard poultice should be applied to the pit of the stomach. Cramps may be treated by rubbing the affected parts with the warm hand.

The Committee would further suggest that, during the first twenty days after leaving an infected port, careful attention should be given to the disposal of excreta, the disinfection of closets, etc. On entering an infected port, the crew and passengers should be cautioned against entering low public houses, and against excesses of all kinds.

The Committee would also suggest that rules should be framed referring to the separation of the sick, the disinfection of the discharges, and the disposal of soiled linen, when diarrhœa or cholera has broken out on board.

It is not improbable that these recommendations may lead to an interesting discussion at the College. The unanimous adoption of a method of dealing with cholera by a large body of physicians will be something novel; but is a thing hardly to be expected. It is, however, much to be hoped that the proverbial differences of doctors will not prevent the College from sending in some plain rules for the guidance of mariners asked for by the Privy Council.

A Scene. On a recent market day, at the quiet town of Callington, an amusing scene occurred. It appears that one of the gentry who vend worm lozenges was expatiating on the virtues of his nostrums, and, in relating instances of their curative powers, he mentioned with no small delight a case in which he had been the means of saving the life of a patient of the greatest physician in the West of England, Dr. ———, who had dismissed the patient as incurable. Unfortunately for the quack, "the greatest physician in the West of England" was passing near his stall at the time, and hearing his name mentioned was naturally arrested at the sound, and listened. The doctor's temper was roused, and, just saying "Let me get at him," he then and there administered sundry kicks on the nethermost person of the unfortunate quack, which had the effect of putting him *hors de combat*. Roars of laughter greeted the onset of the valiant doctor, in the midst of which the vendor beat a hasty retreat. The doctor enjoyed the scene as much as the bystanders, and related the circumstance with much gusto many times during the day. (*Western Mercury.*)

King's College. The distribution of prizes took place on the 6th inst. The ceremony was presided over by the Bishop of Lichfield. The following were the prizes in the medical department. *Scholarships:* W. A. Richards, senior scholar; A. H. Garrod, second year scholar; A. Cotterill, C. E. Hoar, and G. E. Torry, Junior scholar, A. T. Gibbings (elected for three years), W. B. Whitmore (ditto), and C. E. Hoar (elected for two years) Warneford Scholars, Class I.; S. L. Herbert, Warneford Scholar, Class II. Winter Session, 1865-6. *Warneford Prizes:* G. H. R. Dabbs, first prize; W. A. Richards, second prize; S. L. Herbert, extra prize. *Leathes Prize:* G. R. Miles. *Divinity Prizes:* S. L. Herbert, third year; J. Curnow, second year; A. A. Kidger, first year. *Anatomy:* D. King. *Physiology:* E. B. Baxter. *Chemistry:* J. Curnow. *Medicine:* W. O. Withers. *Surgery:* C. S. Blythman. *Clinical Medicine:* W. O. Withers. *Clinical Surgery:* C. S. Blythman. Summer Session, 1865. *Practical Chemistry:* G. R. Milles. *Forensic Medicine:* R. H. Robinson. *Botany:* M. A. Lawson, B.A. *Obstetric Medicine:* F. W. Parsons. *Materia Medica:* A. P. Fiddian. *Comparative Anatomy:* M. A. Wood. *Clinical Medicine:* G. H. R. Dabbs. *Clinical Surgery:* J. H. Bell. *Todd Clinical Medicine:* C. Kelly. The following were recommended by the Principal and Professor for election as Associates of King's College: W. Bell, M. Beverley, T. Bond, P. Bradshawe, G. A. Brown, F. J. Burge, D. Curme, W. Eddowes, E. L. Fenn, R. Gooding, T. Howells, C. Kelly, H. Nankivell, T. R. Pearson, C. W. Philpot, W. A. Richards, and H. Trimen.

Association Intelligence.

BRITISH MEDICAL ASSOCIATION: ANNUAL MEETING.

The Thirty-fourth Annual Meeting of the British Medical Association will be held at Chester, on Tuesday, Wednesday, Thursday, and Friday, the 7th, 8th, 9th, and 10th days of August next.

President—S. J. Jeaffreson, M.D.Cantab.

President-elect—Edward Waters, M.D.Edin.

Tuesday, *August 7th.*

2 p.m. Meeting of Directors of Medical Provident Society.

4 p.m. Meeting of Committee of Council.

5 p.m. Meeting of General Council.

8 p.m. First General Meeting.

The retiring President (Dr. Jeaffreson) will resign his office.

The new President (Dr. Waters) will deliver his Inaugural Address.

The Council's Report will be read, and discussion taken thereon.

Election of General Secretary.

Report of Medical Provident Society will be presented.

Election of Chairman and Vice-Chairman of the Medical Provident Society.

Wednesday, *August 8th.*

8.30 a.m. Public Breakfast. Tickets, 2*s.* 6*d.* each.

10 a.m. Meeting of New Council.

11 a.m. Second General Meeting.

Dr. Sibson, F.R.S., and Mr. Holmes. What is the influence of Hospitals on Health and Mortality? with discussion thereon.

Papers and Cases on *Medical* subjects.

Adjourn at One o'clock for Luncheon.

2 p.m. Third General Meeting.

Presentation of Hastings Medal.

Address in Medicine by Professor Bennett, M.D.

Papers and Cases on *Medical* subjects.

Adjourn at 5 p.m.

Thursday, *August 9th.*

9 a.m. Meeting of New Directors of Medical Provident Society.

10 a.m. Fourth General Meeting.

Report of Medical Benevolent Fund will be presented.

Dr. Stewart: Is the Expectant Treatment to be relied upon in any form of Acute Disease? with discussion thereon.

Mr. Alfred Baker: Are there any trustworthy Facts as to the Origin of Pyæmia? with discussion thereon.

Adjourn at One o'clock for Luncheon.

2 p.m. Fifth General Meeting.

Report from Medical Witnesses Committee will be presented.

Address in Surgery by William Bowman, Esq., F.R.S.

Papers and Cases on *Surgical* subjects.

Adjourn at 5 p.m.

Friday, *August 10th.*

10 a.m. Sixth General Meeting.

Professor Christison, M.D.: Observations on the Register of Deaths in Scotland; with discussion thereon.

Papers on *Medical, Surgical,* and *Obstetric* subjects.

Adjourn at One o'clock for Luncheon.

2 p.m. Seventh General Meeting.

Papers on *Medical, Surgical,* and *Obstetric* subjects.

6 p.m. Public Dinner at the Grosvenor Hotel. Tickets, One Guinea each. Gentleman intending to be present at the Dinner are requested to give notice to the Hon. Local Secretary, John Harrison, Esq., 55, Nicholas Street, Chester.

Members are requested, immediately on their arrival, to enter their names and addresses in the Reception-Room, when cards will be supplied which will secure admission to all the proceedings.

A Clerk will be in attendance at the Reception-Room, and will give information respecting Private Lodgings, Hotels, etc.

To facilitate Excursions in the neighbourhood, the Clerk in attendance will be prepared to receive the names of gentlemen wishing to make such Excursions, and to arrange for the same.

Members who may wish for information previous to the meeting, may communicate with John Harrison, Esq., the Honorary Local Secretary.

The public will be admitted, on application to the President, to attend the discussion on Scientific and State Medicine.

Notices of Motion. Mr. Watkin Williams: To alter Law viii, by inserting the word "Treasurer" after the words "President of the Council."

Papers have been promised by

A. B. Steele, Esq. (Liverpool): On the Present State of Public Vaccination in England.

B. W. Foster, M.D. (Birmingham): Illustrations of the Use of the Sphygmograph.

John Birkett, Esq. (London): The Results attending the Removal of the First Growth of Cancer.

J. Z. Laurence, Esq. (London): On Removal of the Lacrymal Gland—a Radical Cure of Inveterate Cases of Lacrymal Abscess.

Thomas Nunneley, Esq. (Leeds): On Reduction of Dislocations by Manipulation; On Removal of the Entire Tongue.

Thomas Skinner, M.D. (Liverpool): The Philosophy of the Algide Condition in Cholera.

Thomas Hillier, M.D. (London): An Account of Cases of Pyogenic Fever cured by Large Doses of Quinine; Account of Cases of Pleurisy requiring Thoracentesis.

Balmanno Squire, M.B. (London): The Treatment of Lichenous Disease of the Skin.

W. Camps, M.D. (London): Is there any Evidence to show that the Par Vagum—the Pneumogastric Nerve—is concerned in the production of the Epileptic Paroxysm?

James Rhodes, Esq. (Glossop): The Relationship of Forces as they exist in the healthy Human Being, and the Pathological Conditions induced by their imperfect development.

T. T. Griffith, Esq. (Wrexham): Three Cases of Compound Dislocation of the Astragalus, with Removal of the Bones.

W. H. Broadbent, M.D. (London): Cancer—a New Method of Treatment, by which Malignant Tumours may be Removed with little Pain or Constitutional Disturbance.

I. Baker Brown, Esq. (London): On the Use of the Actual Cautery in Ovariotomy.

In order to facilitate the business of the meeting, it is particularly requested that all Papers be sent to the General Secretary on or before the 1st of August, if possible.

T. Watkin Williams, *General Secretary.*

13, Newhall Street, Birmingham, July 11th, 1866.

BRANCH MEETINGS TO BE HELD.

NAME OF BRANCH.	PLACE OF MEETING.	DATE.
METROPOL. COUNTIES. [Annual.]	Crystal Palace, Sydenham.	Wednesday, July 18, 3.15 P.M.
BATH AND BRISTOL. [Annual.]	Mineral Water Hospital, Bath.	Thurs., July 19th, 4.30 P.M.
READING. [Annual.]	Council Chamber, Reading.	Wednesday, July 25th, 4 P.M.

METROPOLITAN COUNTIES BRANCH.

THE fourteenth annual meeting of the Metropolitan Counties Branch will be held at the Crystal Palace, Sydenham, on Wednesday, July 18th, at 3.15 P.M. *President* for 1865-66, EDWARD H. SIEVEKING, M.D.; *President-elect* for 1866-67, HENRY LEE, Esq., F.R.C.S.

At 5.30 P.M., the members will dine together; HENRY LEE, Esq., in the chair.

A. P. STEWART, M.D.
ALEXANDER HENRY, M.D. } *Hon. Secs.*

London, June 4th, 1866.

BATH AND BRISTOL BRANCH.

THE annual meeting of the Bath and Bristol Branch will be held at the Mineral Water Hospital, Bath, on Thursday, July 19th, at 4.30 P.M. Dinner at the York House, at 6.30 P.M.

R. S. FOWLER, *Hon. Secretary.*

READING BRANCH.

THE annual meeting of the Reading Branch will be held at the Council Chamber, Reading, on Wednesday, July 25th, at 4 P.M.

GEORGE MAY, JUN., *Hon. Secretary.*

Reading, July 2nd, 1866.

REPORT OF MEETING OF COMMITTEE OF COUNCIL:

Held at Birmingham, July 5th, 1866.

PRESENT—Dr. Jeaffreson (in the Chair); Mr. Clayton; Dr. Falconer; Mr. Husband; Dr. Richardson; Dr. Stewart; Dr. E. Waters; Dr. Westall; Dr. Wilkinson; and Mr. T. Watkin Williams (General Secretary).

Resolved—That the President be requested, in the name of the Committee of Council, to communicate to Sir Charles Hastings their sincere regret that he is compelled by the state of his health to tender his resignation of the office of Treasurer, which he has so long held to the benefit of the Association; and to assure him of their continued esteem and regard; and earnestly hope that he may be enabled to continue his less onerous but important duties as President of the Council.

The Report was considered and agreed to.

The Charter Subcommittee was requested to continue their labours, and to publish the Draft Charter in the JOURNAL previous to the annual meeting.

T. WATKIN WILLIAMS, *Gen. Sec.*

Birmingham, July 11th, 1866.

NORTH WALES BRANCH: ANNUAL MEETING.

THE seventeenth annual meeting of this Branch of the British Medical Association was held at Westbury Mount, Menai Bridge, the residence of R. Thomas, Esq., on Tuesday, July 3rd, 1866, at 12 noon, under the presidency of J. C. DAVIES, M.D., of Holywell. The following members were also present; viz.: E. G. Clarke, Esq. (Mold); T. F. Edwards, Esq. (Denbigh); T. T. Griffith, Esq. (Wrexham); J. R. Hughes, M.D. (Denbigh); B. Jones, Esq. (Llangefni); D. K. Jones, Esq. (Beaumaris); R. Jones, Esq. (Carnarvon); T. E. Jones, Esq. (Wrexham); W. Maugham, M.D. (Carnarvon); H. A. Roberts, Esq. (Bethesda); O. Roberts, M.D. (St. Asaph); R. Thomas, Esq. (Menai Bridge); C. Williams, Esq. (Northwich); and E. Williams, M.D. (Wrexham).

Letters were received from Dr. Hughes, of Mold; Dr. Williams, of Mold; Dr. Turner Jones, of Denbigh; Dr. Turnour, of Denbigh; Dr. Harvey Williams, of Rhyl; etc.; regretting their inability to attend the meeting.

Luncheon. The members and friends were entertained at an elegant champagne luncheon by R. Thomas, Esq.; after which the general business of the meeting was proceeded with by the retiring President, J. R. Hughes, M.D., of Denbigh, addressing a few words expressive of the pleasure he had derived in presiding over the proceedings of the Branch during his year of office. He thanked the members for the kindness and courtesy extended to him, and, in conclusion, introduced the President-elect, J. C. Davies, M.D., of Holywell.

President's Address. The PRESIDENT delivered a long and interesting address on a subject known as the "Miners' Asthma".

Vote of Thanks to the President. Mr. GRIFFITH moved, Dr. WILLIAMS (Wrexham) seconded, and it was unanimously agreed—

"That the best thanks of this meeting be tendered to the President for his excellent address, and that he be good enough to allow it to be published in the JOURNAL."

Report of Council. Dr. WILLIAMS (for Mr. Kent Jones, Secretary) then read the Report of Council.

"The recurrence of another annual meeting of the North Wales Branch of the British Medical Association recalls to mind that it has now existed for seventeen years. It may be well to reiterate the sentiments which arise from the establishment of such an Association. Through its influence, the Government brought forward and carried the Medical Act of 1858; and, imperfect as it undoubtedly is, it has laid the foundation for an extended and improved measure of medical reform, one that should be really representative of the progress of medical science, and the high tone and cultivated intelligence of the medical profession. Probably no amended Medical Act will be introduced into Parliament this session; but it would be well if the profession agreed to a good and comprehensive Bill, and obtained for it the sanction and approval of the Government, with a promise that they will give it their active support, and deal effectually with the subject next year.

"Your Council think the present a favourable opportunity for the discussion (if time permit) of general measures affecting the Sanitary Laws of the country, with the view of obtaining from Parliament an Act or Bill for the improvement of the same. Whilst upon this subject, a portion of the time of this meeting might be profitably occupied in discussing the Treatment of Cholera, the advent of which on our shores is too likely to occur.

"Knowing how great an interest is always manifested for the success and prosperity of the various Branches of the Association by its noble and worthy founder, Sir Charles Hastings, your Council feel extremely sorry to learn that he has been visited with heavy domestic affliction by the death of Lady Hastings; and they, on behalf of the members of this Branch, beg to convey to him and family their sincere condolence and heartfelt sympathy.

"Your Council cannot avoid expressing satisfaction at the spirited and talented manner in which the British Medical Journal is conducted by its editor, Dr. Markham; and consider that the thanks of this meeting are eminently due to him for his excellent services in connexion therewith, as well as for the influence and zeal displayed by him as one of the members of the Commission recently appointed by the joint authority of the Admiralty and War Office to inquire into the grievances of the medical officers of those respective branches of public service; and trust that justice will be speedily done to their brethren.

"The Intermediate Meeting of this Branch, which was held on the 23rd of February last at Denbigh, was in every respect a successful and agreeable one; and your Council feel sure they do but express the unanimous feeling of their fellow-associates that they are greatly indebted to Dr. Turnour for the very hospitable and courteous manner in which they were received and entertained by him and Mrs. Turnour, for which they beg to express to them their sincere and cordial acknowledgments.

"At the meeting just alluded to, the Treasurer and Secretary's accounts were examined and passed, exhibiting a balance in hand of (up to the end of December 1865) £1 : 10 : 7, which, with the annual Branch half-crown subscriptions paid by the members who were present, make the funds available for the expenses of the current year amount to £5 : 0 : 7."

Dr. Roberts (St. Asaph) moved—

"That the Report of Council now read be adopted and entered in the minutes of the Branch."

The resolution was seconded by Mr. Charles Williams, and unanimously agreed to.

Vote of Thanks to the Council of the Branch. Upon the motion of Dr. Williams, it was cordially assented—

"That the thanks of this meeting be given to the Council of the Branch for the past year, for their unremitting attention and valuable services."

President-elect for 1867, and Place of Meeting for that Year. Mr. Griffith moved, Mr. Jones (Carnarvon) seconded, and it was carried—

"That Thomas Eyton Jones, Esq., of Wrexham, be the President-elect for 1867; and that Llandudno be the place of annual meeting for that year."

Council of the Branch for next Year. It was moved by Mr. Jones (Carnarvon), seconded by Mr. Thomas (Menai Bridge), and carried—

"That the following members constitute the Council of this Branch for next year; viz.: Thomas Taylor Griffith, Esq. (Wrexham); Edward Williams, M.D. (Wrexham); Frederick Theed, Esq. (Rhyl); George Harvey Williams, M.D. (Rhyl); William Maugham, M.D. (Carnarvon); and James Williams, Esq. (Holywell)."

Representatives in the General Council. The following members were duly proposed, seconded, and elected to represent this Branch on the General Council of the Association; viz.: Thomas Taylor Griffith, Esq. (Wrexham); and Jesse Conway Davies, M.D. (Holywell).

Medical Provident Society. Upon the motion of Mr. Hamilton Roberts, seconded by Mr. Kent Jones, it was unanimously resolved—

"That the sincere thanks of this meeting be tendered to Thomas Taylor Griffith, Esq., of Wrexham, for his kind services in the Directorate of the Medical Provident Society; and that he be requested to continue in that office for the next year."

Secretary and Treasurer. It was moved by Mr. Hamilton Roberts, and unanimously agreed—

"That D. Kent Jones, Esq., be Secretary and Treasurer for next year."

New Members. The following gentlemen were elected members of this Branch and of the British Medical Association; viz.: Charles Williams, Esq., of Northwich, Cheshire, proposed by Mr. Jones, of Carnarvon, and seconded by Mr. Eyton Jones, of Wrexham; Alfred Eyton, Esq., of Overton, near Wrexham, proposed by Mr. Griffith, and seconded by Dr. Williams; Robert Edward Owen, Esq., of Beaumaris, proposed by Mr. Kent Jones, and seconded by Mr. Thomas; Thomas John Jones, Esq., of Bethel, Anglesey, proposed by Mr. Thomas, and seconded by Mr. Kent Jones; Benjamin Jones, Esq., of Llangefni, Anglesey, proposed by Mr. Kent Jones, and seconded by Mr. Thomas; Owen Jones Williams, Esq., of Beddgelert, Carnarvonshire, proposed by Mr. Kent Jones, and seconded by Mr. Jones of Carnarvon.

Papers and Cases. The following were read.

1. Treatment of Cholera. By T. T. Griffith, Esq., Wrexham. Mr. Hamilton Roberts, Mr. Jones (Carnarvon), Dr. Roberts (St. Asaph), Dr. Williams (Wrexham), and others, took part in the discussion that ensued.

2. Case of Excessive Diuresis, simulating Diabetes Mellitus. By T. F. Edwards, Esq., Denbigh.

Dr. Turnour, of Denbigh, forwarded, through Mr. Edwards, some interesting Morbid Preparations; but want of time prevented their being inspected. Other papers and cases were, for the same reason, not brought before the notice of the meeting.

Dinner. All the members who were present in the morning, along with D. Evans, Esq., of Liverpool, Hon. Captain Fitzmaurice, R.N., Bangor, and Rev. H. Roberts, of Mold, as guests, partook of an excellent dinner at the George Hotel, at 4 P.M., and enjoyed a pleasurable evening.

Testa. "Among those who left last week for the scene of action is to be honourably mentioned Signor Testa, a man of European reputation, and enjoying perhaps the largest practice as surgeon of any in Naples. He has left all to join the camp in order to superintend and direct the host of young practitioners who have already joined. Great activity prevails here in collecting money, lint, and bandages for the combatants and their families; and, as usual, the ladies are foremost in these deeds of mercy."

Change of Type. Dr. Flint, in his *Treatise on the Principles and Practice of Medicine*, has the following remarks on the question of the change of type in disease: "The opinion is held by some, that diseases and the human constitution have undergone a notable change during the last quarter of a century, and that bloodletting and other antiphlogistic measures are less appropriate now than formerly, on this account. This opinion seems to me not well founded. After a professional experience extending beyond the period just named, I do not hesitate to express a conviction that acute inflammations at the present day are essentially the same as they were twenty-five years ago, and that antiphlogistic measures were no more appropriate then than now. Were it true that such changes have occurred, the fact would strike at the root of medical experience. If changes requiring a revolution in therapeutics are liable to occur with each successive generation, it is evident there can be no such thing as permanent principles of practice in medicine; the fruits of experience in our day, which so many are striving to develope, will be of no utility to those who are to come after us."

Correspondence.

"HOW SHALL WE TREAT CHOLERA?"

LETTER FROM THOMAS SKINNER, M.D.

SIR,—I still adhere to Dr. Jones's simple question, because, before it can be at all satisfactorily answered we must know clearly all that we do know respecting the facts of cholera, and their relations, and we must have removed from our theoretical insight, all that is doubtful or false.

I stated in my last letter, that I should endeavour to show that the phenomena of collapse, and of emeto-catharsis, are not to so causally related to one another, as is generally thought and believed, and I now proceed to do so.

At the very outset of the argument I am met by a difficulty; the eliminators have begun to split among themselves. Dr. Johnson informs us, (JOURNAL 1866, p. 271) that the premonitory choleraic diarrhœa is probably essentially of the same nature as cholera with collapse; the difference being one only of degree. In the JOURNAL of June 16th, p. 634-5, we are told, by Dr. Markham I presume,—"That purging and vomiting are not essentials of cholera."* Where then, let me ask, has the *cholera-cathartine* blood-poison gone to? If this is a sample of "zealous and able" advocacy, Dr. Johnson may well exclaim, "Preserve me from my friends!"

This is not the first time in the history of cholera, that, in order to suit a favourite theory, the profession have been asked to adopt the view, that vomiting and purging are non-essentials of cholera, that they are merely accidental accompaniments of the epidemic. The term cholera, which literally means "a flow from the intestines," must no longer mean so. I only wish that all our pathological terms were as simple and unobjectionable, that they involved as little of theory, and that they were as clearly appreciable by all concerned, as is the term expressed by the simple word cholera. We are now gravely informed that one of the principal characteristic symptoms of the disease, the symptom from which, *par excellence*, it first derived its name, no longer forms a part of the disease, and consequently must be ignored in all future reasoning on the subject. Let us look at it for one moment practically! Take, for instance, the practice of one physician in the epidemic of 1849, Dr. Ayre, of Hull. He informs us that during that epidemic he had under his care, 3764 cases of choleraic diarrhœa and collapse, 725 of which were in full collapse when first seen, and the remainder were suffering from every degree of the premonitory stage. Are we to look upon four-fifths of Dr. Ayre's cases, about 3039 in all, as outside the epidemic, and not necessarily choleraic, or essentially cholera? Besides, is it not certain that in more than nine-tenths of the 725 cases of collapse, rice-water diarrhœa (cholera) prevailed. Again, take Appendix (B) to the Report of the General Board of Health, on the epidemic cholera of 1849. It states: "The total mortality from cholera (in the metropolis) for the 62 weeks ending November 24th, 1849, was 14,601. The total mortality in the same time from diarrhœa was 3857, which, deducting the average mortality from this disease for a similar period, during the ten years 1838-47 (namely 1063), leaves 2794 deaths in excess, a large proportion of which must be attributed to the epidemic influence of cholera." Let me ask, are these 2794 deaths from diarrhœa to be considered as outside the epidemic of cholera of 1849? But if Dr. Ayre's statistics are true, which I do not doubt, then, as he had only 6 deaths in 3706 cases of premonitory diarrhœa, the above 2794 deaths in the metropolis represent considerably above a million (call it even half a million) cases of persons attacked with diarrhœa within fifteen months and a half, and all of which amount of diseased action, we are told, must not be considered as essential to cholera. Dr. Sutherland, speaking of the identity of premonitory diarrhœa with true cholera, says: "Indeed I can scarcely recall a single instance among the numerous medical officers, whom I had occasion to consult on this point, where a different opinion was expressed."

"So thoroughly has the unity of cholera through all its stages, been impressed on the minds of many eminent practitioners, that I have occasionally experienced considerable difficulty in obtaining statistical data, in consequence of its being found impossible to draw any line between the most severe cases of cholera, and the ordinary diarrhœa prevailing, warranted by any pathological distinction."

In the report of the Board of Health, of 1848-49, it is stated: "Diarrhœa suddenly sweeps over the entire area of a city, or a district. This happens, perhaps, in the depth of winter, when diarrhœa is usually extremely rare; it is preceded and accompanied by violent and fatal outbursts of cholera; if it be not part of the epidemic, what is it? By what external sign, or internal pathological character can it be distinguished?"

I have no doubt in my own mind whatever, that the diarrhœa which attends an epidemic of cholera is arising from the same specific cause, and whether or not it militates against this or that favourite, or prevailing theory, we have no alternative but to accept it as a fact. Of 500 cases of undoubted cholera, in this country, which were minutely investigated, almost without exception, they were found to have been preceded by premonitory diarrhœa of from ten to twelve days' duration; and in some cases even beyond this period. (*op. cit.*, p. 92.)

For the purpose of registering cases of cholera, so far as the mortality is concerned, the supervention of collapse, the algide stage, is a most useful line of demarcation; but in the scientific discussion of the pathological nature of the disease, such a division is most dangerous to true inquiry.

If there is one point clearer to my mind than another, it is this, that both in the East and in the West, there never was an epidemic of cholera without its essential and characteristic feature, namely, *emeto-catharsis*. Collapse is a most important essential, so far as the fatality only of an epidemic of cholera is concerned; but I cannot help thinking that we could not have the amount, the fatal amount of algide cholera, which we do have, in this country at least, without more or less of the premonitory stage of *emeto-catharsis*.

I have dwelt upon this point, simply because it is most essential to the investigation of the true philosophy of cholera, that we should be able to recognise the epidemic influence in all its features, phases, and stages, and that we should not rob it of one.

We proceed then with the argument in the full belief that *emeto-catharsis*, cramps, collapse, reaction, consecutive fever, and all the phenomena of an epidemic of cholera occurring within the human body, are all of them characteristic, not of cholera in the individual, but of an epidemic of cholera among a people! It would indeed be very difficult for me to bring my mind to believe otherwise, than, that every

* The words are not ours. They are the words of one whom Dr. Skinner rightly calls a "sound philosopher"—of Dr. Parkes. "The vomiting, purging, and cramps," says that author, "must be considered as usual but *non-essential* symptoms of cholera, etc." ED.

symptom traceable to the same epidemic influence is not essentially part and parcel of the diseased action induced thereby.

We have to make it as evident as possible that the phenomena of collapse, and of *emeto-catharsis*, are not necessarily so dependent the one upon the other, or so causally related, as is generally, if not almost universally accepted.

To Dr. Johnson great credit is due for having been the foremost pioneer in clearing the way to the reception of the great fact that the algide condition, or collapse, in cholera does not necessarily arise out of a drain or loss of liquid from the blood or system, such as pertains to the generally accepted premonitory stage of *emeto-catharsis*. Dr. Johnson has taken a great deal of trouble to prove this point, and he has done so most successfully; but he has been so anxious to prove his own peculiar doctrine of elimination to be true also, that he has missed or passed over a great fact, the mere mention of which would have saved him much time and labour, namely, that very commonly in the East, and now and again in this country, we have the most genuine, and the most fatal form of collapse without a trace of vomiting and purging, without the loss of a single drop of liquid from the system!

At the request of my excellent friend, Dr. Nottingham, of this town, Dr. Patterson, of Cairo, communicated to the Medical Institution here, lately, some observations of his experience during the recent and fearfully fatal outbreak of cholera in Cairo and Alexandria. He then informed us that in a great number of cases, "death was positively the first symptom"; in another set of cases, "collapse, followed by death in two or three hours, without any vomiting or purging whatsoever, was frequently observed." The names of such eminent men as Drs. Gull, Parkes, Scott, Twining, George Hamilton Bell, Charles Bell, and many others, may be cited, who have testified to the same great fact; namely, that collapse, algide cholera, in its most virulent and fatal form, does occur without the loss of a drop of liquid from the system; or, to say the least, with so small a quantity that it could not account for the supervention of collapse by a draining of the liquid constituents of the blood.

The evidence on this point is so plentiful, and so substantiated, and admitted by Dr. Johnson himself, that I content myself with putting it down as proved that:

I. *Loss of liquid is not essential to the production of collapse!*

The next proposition we have to examine is: Does the loss of liquid, as a rule, prevent the development of collapse? This question is equally easily disposed of, as, like the first, the facts in the natural history of the disease speak for themselves. In discussing the question whether choleraic diarrhœa was an essential element of cholera, and in concluding as we did, we answered this question in the negative. In fact, as a rule, in this country we rarely meet with a case of collapse which has not been preceded by diarrhœa, and in very many cases we have collapse supervening upon any amount of loss of liquid by *emeto-catharsis*; any quantity from ounces to pints, quarts, and even gallons, and this holds true in all countries, and in all epidemics of cholera. It is quite the exception to have collapse without a considerable amount of loss of liquid by *emeto-catharsis*. I have already cited, and let me now repeat, that "in one instance no fewer than 500 cases of cholera were minutely investigated, and were, almost without exception, found to have been preceded by diarrhœa of this kind, (choleraic) from ten to twelve days' duration; and in some cases even beyond this period." Dr. Macloughlin, in his "Inquiry," in 1832, reports: "Consequently, I am justified in concluding that I have not found in 3092 cases of cholera, which occurred in the nine unions" (inspected by him) "one case of cholera without premonitory diarrhœa." Such facts as these require no argument to strengthen them, they carry conviction along with them, and leave us no alternative, but to adopt the proposition, that—

II. *As a rule, the loss of liquid by emeto-catharsis does not prevent the development of collapse.*

If the loss of liquid does not prevent, does it directly or indirectly encourage the development of collapse? As I cannot solve this question without divulging my own theory before my readers are ripe to receive it, I must defer *discussing* this question until my views are further advanced. I have no hesitation, however, in stating my belief, that the loss of liquid, if it act at all in inducing the state of collapse, it does so only indirectly or secondarily. I allude here only to the loss of liquid which precedes the state of collapse. Until our argument is further advanced, we may hold it as settled, that—

III. *The loss of liquid in the first stage, if it act at all in the induction of collapse, it does so only indirectly or secondarily.**

Lastly—Is the emeto-catharsis of the algide stage causally related to collapse; and is it to be regarded as the disease or the cure?

We now come to "the tug of war": to the very *pons asinorum* of algide cholera. There are few men who have paid more particular attention to the pathology of cholera in India, and whose observations are more truly sound and philosophic, than Dr. Edmund Parkes, now of Southampton. Dr. Parkes candidly confesses the great difficulties surrounding the inquiry, as to the relationship existing between the quantity of liquid lost by rice-water diarrhœa during the algide stage and the fatality of the condition. One great difficulty being, he says, the estimating the factual quantity passed at each stool by the patient, as it frequently passes from the patient involuntarily and even sometimes unconsciously. I acknowledge this to be a difficulty; but it is not the greatest in my mind. The great difficulty is to estimate the part played by the treatment. Not a thought is cast by Dr. Parkes upon the medicines administered to the patients. The rule was three grains and a half of sugar of lead and half a grain of opium (Dr. Graves's pill) every half-hour or hour, according to circumstances. In fact, a patient in collapse is made to take, in the short space of three days (and, in a military hospital, we know with

* It will be observed that in my present argument I have strictly avoided all facts developed by the administration of remedies. In this note, however, I may be allowed to deviate from my self-imposed rule; because I may justly be asked, if the premonitory diarrhœa does not directly or primarily induce collapse, how does the checking of the emeto-catharsis of the first stage prevent it, which must necessarily stop the drain of liquid from the system? A very natural and proper question, indeed, and worthy of a better man to reply to it. There can be no doubt whatever, that by checking the premonitory diarrhœa of the first stage, we decidedly lessen the loss of liquid from the system, and seemingly thereby greatly lessen the chances of collapse. I say *seemingly*, because, although astringents, antacids, sedatives, and alteratives, and, according to Dr. Johnson's account, even castor oil and emetics, really and actually do lessen and stop the loss of liquid—they also, in a very large majority of instances, so alter the morbid changes begun in the system, or, as Dr. Handfield Jones expresses it, of the gastro-enteric mucous membrane, as entirely to throw off the disease. In some cases, again, in spite of every remedial means, collapse will supervene. So that the remedy—the checking the emeto-catharsis, even by castor oil—is in reality in most cases the cure as well as the remedy.

The lessening of the liquid is therefore only seemingly the cause of the prevention of the collapse—the real cause being the action of the remedy breaking the chain of morbid action begun to be forged within the system; or, as differently expressed by my friend Dr. Thorburn of Manchester, "if simple choleraic diarrhœa can be stopped, something takes place in the system which enables it to throw off the tendency to the more violent symptoms."

what precision) at least 140 grains of sugar of lead and 20 grains of opium. Dr. Parkes might have settled the question *or the patient* (I do not pretend to say which), if he had simply omitted the lead and opium. On this point, it is evident that I cannot look for anything *final* from so distinguished an observer.

In Dr. Gull's Report, we have the subject touched upon; but the data are anything but satisfactory or sufficient. He concludes by stating, and I heartily concur with him, that "a further elucidation of this subject is yet a desideratum."

Our excellent editor, or one of his staff, puts it down as established, "that during collapse, the purging and vomiting are diminished or arrested, and more or less in accordance with the degree of impeded pulmonary circulation." Granted that they are diminished, or even arrested, is not the fact of collapse, of the slowly moving blood-current, from the more or less enfeebled or paralysed action of the heart, more than enough to account for the diminution? Hence, *when the collapse comes first*, the greater the paralysed action, not of the pulmonary circuit only, but of the entire circulation, the less there must be of loss of liquid. If this be the true relation, which I doubt not, then is the diminution or arrestment of the emeto-catharsis the effect and not the cause of the collapse. What is collapse but "a complete prostration of the vital powers, as occurs in Asiatic cholera?" (*Mayne.*) An arrestment, primarily of the heart, and, secondarily, of all the functions necessary to the maintenance of life—and which may be partial or complete, even unto death. That Dr. Parkes does not believe that the arrestment or diminution of the emeto-catharsis is the cause of the collapse, or that it confirms it, we have the fact that his treatment is directed to *the further arrestment of the emeto-catharsis*, by the administration of lead and opium.

If, then, the diminution or the arrestment of the emeto-catharsis in the algide condition is the effect of the collapse, it is as clear as light itself that the only *rational* way to increase the flow is *to remove the cause—the collapse*—which can never be done by vainly endeavouring *to increase the effect—the diminished emeto-catharsis*—by emeto-cathartics,* which Dr. Johnson confesses reach no further than the *prima via.*

Here we have a curious specimen of a blood-poison at war with itself. Dr. Johnson holds that in cholera there is an irritant blood poison—cholera-cathartine, which sets up some tonic spasm of a portion of the pulmonary circulatory apparatus, thus inducing collapse, and that the same poison sets up an eliminative action—emeto-catharsis, in the form of a cure; that is, by way of getting rid of itself (or the patient?). We have already shown that collapse is opposed to, and really diminishes this eliminative action; therefore, this curious blood-poison is self-eliminative and non-self-eliminative, as well as self-multiplying and self-reducing, and all at one and the same time. Really, the more that I study this nondescript cathartic, the more am I convinced that it is "neither fish, nor flesh, nor good red herring."

I have said that Dr. Johnson holds that emeto-catharsis is "*the cure and not the disease;*" possibly it may be, but certainly not by the elimination of a rapidly multiplying purgative, which Dr. Markham informs us undergoes a process of reduction rather than of multiplication at this stage. By way of frightening those who differ from him, Dr. Johnson challenges them, and says mildly, "I defy you to show me a single case of recovery from collapse in which the intestinal discharges have not continued, in a greater or less degree, while the symptoms of collapse were passing off." I beg most cordially to accept the challenge, or rather to return it with interest, and I venture to ask Dr. Johnson if, in his great experience, he ever saw a case of acute dysentery that ever recovered without more or less of purging of bloody stools? or of acute bronchitis without dyspnœa, cough, and expectoration? or of any known disease, without, "in a greater or less degree", some manifestation of its most characteristic symptoms? So much for the capital; now for the interest. I firmly believe that such cases as Dr. Johnson alludes to will be found, if looked for, in every epidemic of genuine Asiatic cholera, particularly in the East. I beg to refer Dr. Johnson for an answer to his challenge to his own writings in the JOURNAL for 1865, pp. 527 and 607, where, in speaking of cases of *cholera sicca*, he says, in quoting Twining: in such cases, where if "not fatal"....."the progress of recovery is almost as rapid as the accession of cholera.....*In these instances recovery seems almost as sudden and complete as in cases of patients who are resuscitated after suspension of animation from submersion in water*" (*et sequitur*). The italics are Dr. Johnson's own. Again, in treating of the effects of venesection on the symptoms of collapse, Dr. Johnson writes: "Bell makes the following statement (*Treatise on Cholera Asphyxia*, p. 118, should be 'p. 119.') 'The effect of bloodletting would indeed sometimes appear *almost miraculous.* A patient will be brought in in a cot, unable to move a limb, and, but that he can speak and breathe, having the character both to touch and sight of a corpse, yet will he, by free venesection alone, be rendered, *in the course of half an hour*, able to walk home with his friends,' etc." The italics are my own. It is to be presumed that in these, the most fatal form of cases, *cured in half an hour*, there could not, at all events, be a great amount of emeto-catharsis. But what does the last distinguished observer, the late Dr. George Hamilton Bell, say of the effects of venesection upon the emeto-catharsis, as well as upon the collapse. He says (p. 118): "In fact, the removal of blood, to the necessary extent, has invariably, so far as the author's experience goes, *put an immediate stop* not only to spasms and oppression, *but to vomiting and purging*, and has relieved the prostration of strength. And in no situation has the physician more reason to be proud of his art, than when, *in the course of a few minutes*, a patient, from the agonies of cholera, and from the jaws of death, is placed in safety, and not only restored to a sensation of health, but to one of positive bliss. A very common expression on such an occasion is, 'Oh, sir, I am in heaven!'"

It is to be hoped that Dr. Johnson is now satisfied that collapse is not only spontaneously recoverable from, but that recovery may also be brought about by timely and judicious interference, without affecting the intestinal discharges, other than by *stopping them!*

Where, let me ask, is the cholera-cathartine now, "*which must and will purge itself away?*" Doubtless, in Dr. Johnson's eyes, it was the disease as well as the cure. In mercy, I now hope he will see that it is neither; or, if either, that it is the disease, and that it has passed into a state of *fatal, irrecoverable collapse!*

We may then conclude:

IV. *That the emeto-catharsis of the algide stage, al-*

* By emeto-cathartics, I allude chiefly to evacuation by purgatives, because we know that emesis *artificially* induced is a very powerful means of driving the blood to the surface, and thereby relieving the heart's action and the internal congestion—besides, it has an alterant power of rousing the system in collapse, however induced; which therapeutic actions, let me observe, are perfectly independent of any eliminative, I should rather say of any *evacuant*, property pertaining to the action of emetics.

though diminished thereby, yet is neither the cause nor the effect of the collapse; and that it is not the cure, but an independent phase or symptom of the disease proceeding from the same primary cause.

I shall sum up my argument in the expressive language of a sound philosopher—I mean Professor Parkes—when he says: "THE ONE DOES NOT INDUCE THE OTHER; THEY ARE INDEPENDENT EFFECTS OF THE COMMON CAUSE."

In my next I shall consider the question, Does cholera in all, or in any of its stages or forms, consist in, or depend upon a blood-poison for its manifestation?

Apologising for the great length of this epistle,

I am, etc., THO. SKINNER.

1, St. James Road, Liverpool, June 23rd, 1866.

LETTER FROM W. F. MORGAN, F.R.C.S.

SIR,—So much attention has lately been given in our own and other medical journals to the subject of cholera, that I am rather surprised little or no special mention has been made (so far as I am aware) of a remedy for the premonitory diarrhœa, which, in former epidemics, was so extensively used, and found to be so valuable. I allude to the dilute sulphuric acid.

If it be a fact, of which I believe there is no doubt, that of a given number of cases of diarrhœa in cholera times, *cæteris paribus*, a much larger proportion run on to cholera of those let alone than of those whose diarrhœa is stopped, it must be desirable to select that remedy which combines the *maximum* of benefit with the *minimum* of injury. Does not experience point to the dilute sulphuric acid as fulfilling that condition? Its astringent power in diarrhœa is very considerable and certain; and it is grateful to the palate and the stomach, and therefore less liable to be rejected by vomiting; neither does it, like opium, tend to check the action of the liver and kidneys. I have repeatedly used it with success in ordinary diarrhœa, when chalk mixture, opium, catechu, and other astringents, have failed; and I have never found it to gripe or disagree. It is more especially applicable to serous discharge, such as would be the nature of premonitory choleraic diarrhœa. My usual formula is: ℞ Acidi sulphurici diluti (P. L.) ʒij; tinct. card. co. ʒvj; syrup. simpl. vel papaveris albi ʒvj; aquæ destill. ℥viij ad ℥xij. M. A sixth part to be taken for a dose, and repeated every four hours, or more frequently, according to the urgency of the attack. The only precautions necessary are to protect the teeth and sufficiently dilute the acid.

Even when the graver symptoms of cholera supervene, I see no reason why the sulphuric acid may not be continued, and why it may not still do good.

The ingenious theory of elimination, emanating as it does from such high authority, and supported as it is by others of kindred talent, is entitled to great respect, and will no doubt be on that account extensively tested, should cholera unhappily visit us again as an epidemic. But, if I read aright the history of past visitations, the stern reality of facts is opposed to it; and, if such should be the case again, as I have little doubt, "so much the worse for the facts" will not, I am sure, be the reasoning of Dr. Johnson and his supporters.

With the prospect before us of an outbreak of cholera, allow me, in conclusion, to invite the attention of your readers to the admirable remarks of Sir Thomas Watson in the appendix to the chapter on Cholera, in the fourth edition of his excellent Lectures. It would be well if the salient points therein contained were printed separately in a cheap form, and widely circulated.

I am, etc., W. F. MORGAN, F.R.C.S.,
Consulting Surgeon to the Bristol Royal Infirmary.

Bristol, July 5th, 1866.

LETTER FROM J. STEAVENSON, M.R.C.P.

SIR,—At a time when it may please God again to visit this country with deadly disease, I think that all medical men who have a knowledge of cholera ought to draw the attention of their brethren to any facts which may induce them to read such books as those published by Dr. George Johnson upon that awful disease.

For my own part, I have read them with pleasure, and, I trust, with profit. Having done so, I am induced to address you upon the subject; and more especially so, because I can place at your disposal facts bearing upon his doctrines; and, although the cases to which I am about to refer occurred in 1825, they are not, I think, unworthy of your attention, if they be not worth publishing.

In May 1825, I treated three cases of what was then known as spasmodic cholera. I was then serving as assistant-surgeon on board His Majesty's sloop *Ferret*, lying at anchor off the sandy island of Sacrificios (the naval anchorage for ships at Vera Cruz); and Dr. Small, our surgeon, being ill, I was ordered by the late Captain Hobson to visit three men belonging to one of the ships chartered by the Real del Monte Mining Company, which were at anchor near us.

I found them in standing bed-places—three very powerful young Cornishmen. They were then in what has been called the algide stage of cholera; having shrunken features, with blueness of the skin, small rapid pulses, sunken eyes, great depression of spirits, laborious breathing, and tumid abdomen. They had all suffered from diarrhœa; but, as the stools had been thrown overboard, I did not see any.

Now, I will take no credit to myself for the successful treatment of those cases, because my friend Dr. Small had just returned from India, where he had witnessed cholera in its most deadly form on board Her Majesty's ship *Liffy*, and I had learned a lesson from him never to be forgotten.

I bled all of them freely; after which they became warmer than they had been, and their spirits rose. Before I left the ship, I placed upon the tongue of each a large dose of calomel, which was washed down with a draught containing twenty minims of laudanum in water. In the evening, two of them were much better, having passed copious bilious evacuations, and they eventually recovered; the third died during the night.

On my return to Jamaica (from which island we had sailed early in May), I saw a great many cases of cholera, at the Royal Naval Hospital, all of which occurred amongst the black servants. They were treated with the warm bath and two drachm doses of laudanum; and, I believe, all died.

Forty years ago we believed in blood-letting as our sheet-anchor. As Dr. Billing says, in his excellent work on the *Principles of Medicine*, it relieved the choked lungs, as pumping does a water-logged ship; and I, for one, often rejoiced that I had a lancet, and knew how to use it.

I am, etc.,
JOHN STEAVENSON.

22, College Green, Bristol, June 26th, 1866.

LETTER FROM T. M. GREENHOW, M.D.

SIR,—Your JOURNAL abounds weekly with communications on the subject of cholera, and especially as regards the treatment of that not yet very well understood disease. The first question (as it appears to me) to be settled, relates to its efficient cause; secondly, to the mode in which that cause acts upon the human system; and thirdly, the series of symptoms by which that action is indicated.

Whatever produces morbid effects, with a tendency to death, must be considered as a poison; therefore we may properly call the cause of cholera a poison. But what is its true nature? I shall at present waive alto-

gether the question of contagion. Is it, according to Dr. Johnson, a germ of fermentation which, entering into the blood, pollutes it, or changes its condition, so as to render it unfit for the purposes of life? and is it confined to certain constituents of the blood, which admit of being separated by elimination, so as to leave the remainder in a healthy condition? I cannot convince myself that this theory satisfies the conditions of the case.

It has been truly observed that, in some cases, the poison acts so powerfully and rapidly as to plunge the patient into collapse, without any previous effort of Nature, by vomiting and diarrhœa, to eliminate the poisonous portions of the blood. Does not this fact, of which I have seen many instances, prove that the poison has not had time to enter into the circulation, and to set up either the supposed fermenting or eliminating process? And, if so, must we not look for some other method in which the poison affects the system?

All the processes of life depend upon the healthy action of the nervous system. We know how instantaneously it may be affected by other deadly poisons; and is it not in accordance with analogy, and in agreement with the subsequent train of symptoms—namely, the suspension of secretion in the most important organs—to conclude that interrupted nervous energy, and not a depraved condition of the blood, is the immediate effect of the poison of cholera.

It appears to me very important that this question should be settled before we can establish any sound principles of treatment—whether those principles will depend on the confirmation of Dr. Johnson's theory of elimination, or, as appears to me more probable, will tend to rational attempts, if not to neutralise, which, in the present state of knowledge, we can hardly hope to do, in some degree to counteract, as in the case of syphilis, the effect of the poison, and to restore the organic functions which have been suspended.

I am, etc., T. M. Greenhow.

Leeds, June 25th, 1866.

Letter from Samuel Wilks, M.D.

Sir,—In your last week's Journal, you allude to a case of cholera which was reported in the *Lancet*, with remarks appended thereto as if these had been mine. You will find these were written by the editorial "we", and that they were quite unknown to me until I saw them with yourself in print. My clinical clerk, it appears, gave the case to the reporter, and he commented on the case as he pleased. It so happens, however, that I perfectly agree with the remarks made on the case, especially those which you have wrongly interpreted.* You quote the line, "They exert no influence, good or bad, on the disease," making it allude to drugs generally, whereas it applies to astringents only. I take it that the meaning of the writer is, that astringent medicines do neither good nor harm. It may be very true that they do no good; and it may be also true, according to Dr. Johnson's theory, that they are contra-indicated; but, as a matter of simple experience, I should agree with the writer that they do no harm; for, in fact, no astringents have been found for cholera. I think it probable that any one who was not conversant with the facts of the case might, on the perusal of Dr. Johnson's book, not only perceive that astringents were improper medicines, but he would conclude that they had, in former epidemics, done positive harm, by locking up the secretions, and preventing the elimination of the poisonous matters from the system. Now, my own experience is that of the *Lancet* reporter: that, if they did no good, they did no harm, seeing that the patients were never "astringed" by them. His opinion that "astringents exert no influence, good or bad, on the disease," is confirmed by a much higher authority than our own, Sir Thomas Watson, who says: "If the balance could be fairly struck, and the exact truth ascertained, I question whether we should find that the aggregate mortality from cholera in this country was in any way disturbed by our craft."

To advert to another subject, I should much like to ascertain the prevailing opinion of the profession as to what constitutes a case of cholera, and more especially whether an *epidemic* character is essential to its nature. In the very case which called forth these remarks, no single symptom of cholera was absent. But are we on this account to frighten the public into the notion of the existence of cholera, unless it be epidemic? Not a summer passes but I see patients with every symptom of the disease, and in such a complete state of collapse, that the only hope I rest upon is that the disease is not epidemic. Herein lies the great difficulty which saps the foundation of any theory of cholera. We have, for example, in the outbreak at Liverpool, a clear proof of the specific nature of the disease. Its introduction into the town was clear; and the attendants, as the parson, doctor, and nurse, fell victims to the disease. I do not see what can be urged against the conclusion of its being due to a specific external cause. Yet, on the other hand, the ordinary circumstances attending our summer months are sufficient to produce symptoms exactly like these, and, indeed, in an aggravated form, not to be distinguished from the Eastern type of the disease. In the one case, the chances are against recovery; in the other, immeasurably in favour of it. Are the diseases distinct? I am, etc.,

Samuel Wilks.

11, St. Thomas Street, Southwark, July 9th, 1866.

Letter from George Bottomley, Esq., F.R.C.S.E.

Sir,—Dr. H. Jones, in his communication to the British Medical Journal of June 23rd, 1866, says upon the above subject: "I do hope that a good many of those who saw much of former epidemics will give us their experience. To get this information is my principal object."

In the cholera epidemic of 1853, many medical men were appointed medical cholera inspectors — myself among the rest. My appointment extended over a whole union of parishes, containing many thousand inhabitants; consequently, my experience was great, and I will endeavour to give the results. Many of the leading members of the medical profession have gone into the pathology and physiology of cholera, which treat only of its theory, and not its practice, but it is necessary that practical information should be given, to shew how the two harmonise. In the Journal, 29 Sept. 1854, will be found the following letter:

"Sir,—In the Association Journal of the 25th August 1854, in the leading article, appears the following: What are characteristic symptoms of the epidemic, and of other diseases now prevailing? Under the above head appear some very trite observations in the following words:

"'The unsatisfactory and almost chaotic character of the literature of cholera is chiefly dependent upon the majority of authors giving no definition of what they mean by the term "cholera," and omitting all reference to other prevailing maladies, which, for reasons that *may* or may *not* be valid, they do not include. Without an exact understanding as to what is really the subject of discussion, there can obviously be no advance towards

* We cannot admit any wrong interpretation. If Dr. Wilks accepts, as he says he does, the following words of the reporter, surely he admits the correctness of our remark. "This order is observed, whatever mode of treatment, whether by calomel, sulphuric acid, castor oil, catechu, or opium is adopted, and with equal certainty when no drugs are employed at all. It is surely better that the fact should be openly acknowledged, that we are acquainted with no drug which is capable of checking the course of cholera." Ed.

truth. I beg to offer a few observations, with a view (if possible) of drawing distinct lines between the different forms of the prevailing epidemic; for according to the present system, all forms of the epidemic come under one head, viz., "cholera"—a term most unsatisfactory to the profession, and one likely to mislead the public, and give the press an opportunity of giving insertion to absurd nostrums, which act as advertisements to second-rate practitioners. My practical experience has led me to divide the prevailing epidemic into three heads:

"'1. Simple diarrhœa, accompanied with bilious vomiting and purging, easily controlled by a mild mercurial treatment, accompanied by astringents administered according to symptoms, age and constitution.

"'2. Malignant diarrhœa, commencing with bilious vomiting and purging, but speedily assuming an alarming form, viz., rice-water evacuations, suppression of urine, small thready pulse, lividity of skin, violent cramps, and shortly sinking into a state of extreme collapse, which terminates fatally in a few hours. I have found the following treatment most successful: calomel and opium in small and frequent doses, with sulphuric acid and capsicum.

"'3. Cholera. This word may be used in the absence of a better term. It commences at once (without any previous action on the stomach and bowels), with an extreme state of collapse; the body immediately becomes of a marble coldness, the skin almost black, and a total suppression of the secretions. It terminates fatally in six, eight, ten, or twelve hours, and resists in almost every case every attempt that medical skill could devise. I believe the first two forms of the epidemic to arise from the heat of the sun upon decayed vegetable and animal matter, and its most malignant form to appear in low, dirty, overcrowded, and badly ventilated localities. I have found it assuming a very severe form on the top of a hill in a rural district, which I attribute to the emptying the refuse from the cottagers' houses into a hole within a few yards of their back doors, opened, and exposed, and easily acted upon by the heat of the sun. Their privies in the same neighbourhood emitting a most loathsome smell, and which is at times removed to their gardens; and although living apparently in a healthy locality are continually inhaling the poison that is most likely to produce the fatal consequences above narrated. The third and last form of the epidemic, called Asiatic cholera, I believe to arise purely from atmospheric causes; being a condition of atmosphere which immediately deprives the blood (of those who happen to come within the influence) of its vital property, converting the blood from an arterialised and fluid state to a black and pitch-like condition, which gradually but quickly puts a stop to the circulation, which readily accounts for the removal of warmth from the body, the dark skin, and the suppression of the secretions, and which terminates so speedily in death. Now, assuming that I am correct in my premises, would it not be a most important step to analyse the condition of the atmosphere wherever genuine cholera presents itself; for unless we, by scientific research, ascertain the real cause, we may be for ever theorising, and unable to render that assistance to our fellow-creatures that we as a body profess to be able to do.

"The cases of common diarrhœa have been frequent, but seldom fatal. Cases of malignant diarrhœa less frequent, but the mortality has been great in proportion. Cases of cholera *very few*, and in almost all instances proved fatal. I offer the foregoing observations as an instalment, more to elicit the opinions of the members of the medical profession.

"I am, etc., "GEORGE BOTTOMLEY.

"Croydon, 10 Sept. 1854."

The year 1860 will long be remembered for its remarkable immunity from all diseases. The temperature was very low, and the rain fell almost daily; the result was that the rain swept away most of the impurities from the surface, and what did remain was not affected by the heat of the sun, that being constantly obscured by clouds; and when by chance it made its appearance, it gave out no warmth. That year we were exempt from cholera and diarrhœa, and such was the freedom from disease, that many medical men were much depressed, fearing that their practice (from some unknown cause) had fallen off, not taking into consideration the real cause. In that year, nature was the best sanitary board that ever existed.

When members of the medical profession take up the subject of contagion and infection, and those also who deny the one and the other, are in my opinion both wrong; when those subjects are discussed, the opinions entertained by either party is so determined, that each still continues to hold his own opinion.

I will venture to mention a few instances of my experience in the epidemic of 1853 as regards Asiatic cholera or cholera asphyxia. The first case was a woman, in a crowded lodging-house. I was called in at 11 P.M. I found her in the top room of the house, in which were fifteen others in bed, and most of them asleep. She had not been long in bed, when the landlady of the house was informed that a woman was dying. I visited her immediately. She was in a complete state of collapse, pulseless, icy cold, almost black, and could only speak in a whisper. She died in a few hours, the rest of the occupants of the beds still remaining in them. In the morning, the parish undertaker placed her in a coffin, screwed it down, and the next day she was buried, the inmates of the room remaining there the whole time, and were perfectly free from disease of all kind. The next case was that of an Irishman, seized in the fields, and removed to a room in the workhouse, his wife and family with him the whole time; he was placed in a warm water bath, and various other remedies had recourse to. I was with him the whole time, from the seizure to his death, which lasted about six hours; no one took the disease from him. The next case was a young unmarried woman, living with her mother and father, brothers and sisters; she was in the top room of the house, in a thickly populated neighbourhood. When I first saw her, she was in a state of extreme collapse, almost pulseless, cold, and very livid, and a total cessation of all secretions; no previous diarrhœa. I ordered all the doors and windows to be thrown open. There was no fireplace in the room, and though the weather was hot, I should have ordered a fire to be lighted. I loaded her tongue with calomel and opium, gave her capsicum and ammonia, brandy, etc., and constant frictions over her body; she gradually recovered, and afterwards went out to her usual employment. No other case occurred in the house or neighbourhood. Soon after, I had to visit a young man at a public house; the case was precisely like the last, except the symptoms were more urgent; though the same mode of treatment was adopted, he died in six hours, and no other case occurred in the vicinity. In a few days I had to visit a woman and two men, cottagers, the cottages situated at the foot of a hill, no other house within half a mile. In the case of the woman, the symptoms were as urgent as those before described; the thermometer was 72. I had a large fire lighted in her bed-room, and gave her calomel, opium, with stimulants. I opened a vein in the arm, and found the blood solid and pitch-like; I pulled it out of the vein. At last, sufficient amount of reaction took place to cause the blood to trickle from the vein, and in about an hour it came away more freely, and was improved in its colour; in a few hours, she was so far recovered as to speak, and the next day she seemed recovered from the cholera attack, lived a week, but ultimately died of consecutive fever; the two neighbouring cottagers, whose attack was less severe, recovered. Treatment the same. No one else

took the complaint, although they had frequent visitors; and in no one instance could I trace anything like contagion or infection. It may be asked *why* I ordered windows and doors to be opened, and a fire lighted? The impression on my mind was, that the epidemic arose from a deficiency of oxygen in the atmosphere, and that view I took from the black pitch-like condition of the blood, and the icy coldness of the body, arising from the blood not receiving a sufficient amount of oxygen from the atmosphere; consequently, all who came into contact with such a condition of the air may be said to be blood-poisoned. That it does arise from the air is conclusive, for cases can be traced that have occurred in the track of the wind, and after travelling a certain distance is lost; just as several people may meet their death in a thunderstorm, and others close by escape. And why should there not be changes going on in the atmosphere in the various gases of which it is composed? In a healthy condition of the atmosphere, 1000 parts are composed of 210 oxygen, 787 nitrogen, 3 carbon. Supposing a very great change takes place in those gases, that of oxygen being nearly absent, the cause of which we are unable to account for, accordingly the cases of cholera will be more or less fatal, or less frequent, according to the state of the atmosphere. Certain it is, that some change, during the prevalence of cholera, takes place which causes the blood to be poisoned. Myriads of small black flies were observed, which were not seen at any other time, which I leave to others to account for. Another case happened in one of the parishes under my jurisdiction. I was requested to visit a row of cottages in a field (unconnected with any other house), seven in number, a long garden in front of each, confined premises behind, beyond that a meadow. I was told there had been five deaths, and every inhabitant was suffering from the epidemic. Upon inspection, I found a drain running at the backs of the cottages; this drain was broken in several parts, and the solid refuse matter being prevented from passing the outlet, was consequently exposed to the action of the sun. At one end of the row were two privies for the use of seven cottages, the contents of which, finding their way under a fence into the meadow behind, a *swamp*, exposed to the heat of the sun, gave rise to poisonous gases, which readily accounted for the disease and death, and which proved to be English malignant cholera.

In the same parish were many similar causes for the disease, and houses having their privies over open ditches, ponds containing stagnant water, and the general supply of water scanty and of bad quality. The parish being under the district of the Metropolitan Board of Works, I wrote them a minute description. It was attended to immediately, and the evil remedied. The endemic (not epidemic) ceased, and health soon restored. All the deaths arising from that cause were reported to have arisen from epidemic Asiatic cholera, but this I hope to have clearly proved was not the case. I could enumerate a vast number of similar cases, but they would be too numerous for a paper of this description. In every case, as soon as the cause was removed, the disease ended; but I fear that sufficient inquiry as to the cause in similar cases has not been made, and several cases in a row of houses proving fatal have been set down to the score of contagion and infection, while those deaths have arisen from some local removable cause.

Ships consigned to take emigrants are not generally of the best class. The ship-owners are obliged to take such persons out at the least possible expense. The emigrants are mostly poor, and dirty in their persons. Such ships have probably a large amount of bilge-water, which, combined with the dirty condition of the emigrant, gives rise to a poisoned state of the atmosphere in the vessel. No wonder, then, that diarrhœa and English cholera shew themselves from the same cause as English cholera, and every one going aboard such a vessel will be likely to be attacked with such a disease; but that does not prove it to be either contagious or infectious.

I am, etc.,

GEORGE BOTTOMLEY, F.R.C.S.E.

Croydon, July 2nd, 1866.

P.S. I hope all who, like myself, were appointed medical inspectors during the prevalence of cholera, will give us their experience.

LETTER FROM THOMAS MAYO, M.D.

SIR,—We must, I think, all of us sympathise with the philosophical desire of Dr. Handfield Jones to remove or explain the seeming difference of opinion as to the expediency of castor-oil viewed as an eliminant in cholera by Dr. Johnson from that of Dr. Acland and many others who would avoid its use in that character, by suggesting that in Dr. Johnson's cases it benefits, not as an eliminant, but as an alterative. This view might give us a group of cases truly benefited by Dr. Johnson, but not on his theory; and at the same time justify the large number of practitioners who disagree with a theory which makes its eliminant virtue the source of the benefit.

About the year 1852, I was dining at the house of a gentleman, who sat down in apparent perfect health, but whose face in the course of the dinner altered to a remarkable contraction, and blueness of hue; he left the table, and was at once attacked with extreme violence by the characteristic symptoms of cholera. A dose of twenty minims of laudanum and a drachm of compound spirits of ammonia sent him rapidly to sleep, which continued with no interruption till the next morning, when he woke free from all disease. The same rapid cure has been realised by many besides myself on the same principles, and with similarly *arrested* excretions.

Now, Dr. Jones's method of reasoning is that on which alone our apparently irreconcileable differences in speculative thought on medical subjects can be obviated without contradiction in *facts*. Many years ago, a gentleman under my care was attacked under the influence of cold, being salivated at the time by very severe mercurial diarrhœa; in the height of it he was effectually relieved by a few doses of Epsom salts in water gruel. Was this an eliminant or an alterative in its mode of cure? Probably the latter.

I am, etc., THOS. MAYO.

July 9th, 1866.

BROMIDES OF POTASSIUM AND OF AMMONIUM AS THERAPEUTIC AGENTS.

LETTER FROM C. R. DRYSDALE, M.D.

SIR,—There are some therapeutic agents about which there is no dispute. Every one admits that castor-oil purges; that sulphuric acid, on the contrary, astringes; that opium is a hypnotic. But bromine is, like many other remedies, at one time an object of great interest, at another time in danger of falling into complete oblivion. As far back as the year 1838, M. Barthez in Paris instituted some experiments with regard to the properties of bromine as a therapeutic agent. Bromide of potassium was at first considered to be an alterative useful in scrofula or secondary syphilis; and it was asserted that, whilst iodine acted by causing a catarrhal inflammation of the pituitary membrane and salivary glands, the bromide, on the contrary, dried up the membranes and tended to paralyse the velum palati. It was also asserted that it possessed the property of deadening all venereal excitement. The value of bromine in scrofula and syphilis has now universally been called in question, both by Graf and other inquirers. As to its action as a paralyser of the muscles of the velum palati, it does not now appear that those who make a speciality of the laryngoscope are at all enthusiastic as to its power in rendering the use of the

instrument available in difficult cases. In the case of four epileptic patients to whom I administered twenty grains of the bromide of potassium three times a day, there was not the slightest appearance, that I could detect, of paralysis of the muscles of the palate. As to the anaphrodisiac qualities of this drug, if it possessed such virtues, it would doubtless be a most valuable remedy in some cases of insanity; but there is not the slightest confirmation of the assertions which have been made with regard to this property of the drug. Of one thing I am certain; namely, it is not of the slightest value in chordee, in so far as I have tried it in that affection. Bromide of potassium may be given in doses of from ten grains to a drachm three times a day, without producing any well marked physiological effects. It is less unpleasant to the taste when administered in small doses, such as ten grains three times a day.

Of late, it has been much the fashion to extol the powers of bromide of potassium as a curative agent in epilepsy. Dr. Locock seems to have been the first (*Lancet* 1857) to attribute anti-epileptic virtues to the drug. He and Dr. Robert McDonnell of Dublin found it especially useful in the epilepsy of females, in whom some uterine disorder accompanied the fits. On the other hand, Dr. Williams, of the Northampton Hospital for Lunatics, seems to have found the drug most useful in male epileptics. Dr. Sieveking considers bromide of potassium decidedly beneficial in epilepsy. Now these are facts which are very remarkable, even though not clearly explained by the eminent physicians who have made the observations. I can only say that the hopes I had entertained of benefiting cases of idiopathic epilepsy by the use of bromide of potassium, some years ago, on reading Dr. McDonnell's essay in the *Dublin Quarterly Journal of Medicine*, have not been fulfilled. I have notes of many cases of epilepsy treated by the drug in doses from ten up to twenty grains three times a day; and I cannot say that I am at all convinced that the drug has ever been decidedly beneficial in this disease. And, unfortunately, cases of idiopathic epilepsy, or cases where no evident cause for the attacks can be traced, are, in my experience, the great majority. At the present time I am still using the remedy in two cases of epilepsy, without the slightest benefit, as far as I can find, to the poor sufferers; and, in epilepsy, it is impossible to deceive ourselves or our patients, since the phenomena are so easily observed by the patient, or by their anxious relatives.

Bromide of ammonium has been much praised by Dr. Gibb, and also by Dr. Harley, as a remedy for whooping-cough; but other observers have not been able to verify completely these effects of the bromide. This is the more unfortunate, because the malady has lately been a very fatal one in London. Bromide of potassium has also been much praised in cases of sleeplessness, as an excellent remedy. We know that insomnia may arise from all kinds of causes; and thus it will not be remarkable that this drug, or crystallised sugar, or any other inert substance, when seconded either by favourable circumstances, or by change of air, etc., may occasionally produce a sedative effect, and thus produce the much longed-for sleep. But, with the exception of opium and hyoscyamus, and the family of the solanaceæ, it is very questionable whether any other medicine possesses the power of inducing sleep; and even these fail occasionally, and are rather baneful in peculiar states of the nervous system. In two cases of sleeplessness from delirium tremens, in which I tried the drug, sleep was induced in the one, and not in the other; whilst, in other cases of sleeplessness, I have not seen any result follow from bromide of potassium, that could fairly be attributed to the substance.

As to the therapeutic effects of bromide of potassium in hysteria, they seem not to be well made out. It does not produce much effect upon the hysterical cough, at any rate; and, if it should apparently prove serviceable in other cases of hysteria, we shall not, I believe, hasten to attribute any very great influence to the remedy alone in that Protean and often hopeless form of female nervous disorder.

Summing up the question of the therapeutic value of bromine and its compounds in epilepsy, etc., I am inclined to believe that there is no really accurately ascertained utility in these remedies; and that, moreover, there is no great probability that we shall ever be more fortunate in finding out the virtue of bromine as a therapeutic agent. I do not think that we as yet fully realise the extreme difficulty which exists in ascertaining the virtues of a substance which seems not to have the very slightest physiological action on the human body. There is scarcely any substance which can now keep up its remedial reputation for more than four or five years, unless it be well known, like castor-oil, opium, Epsom salts, etc., to produce well marked effects upon every person at all times. This is the reason why there is so much disbelief in the assertions of the empirical school; and it seems to me that bromine and its compounds are already sharing the fate of many of their predecessors, and falling gradually into the sere and yellow leaf of fashion, as a prelude to their being entirely consigned to oblivion. The treatment of epilepsy and other diseases is gradually, too, beginning to be based upon the observation of the natural history and causation of the disease, to which points the attention of the illustrious Brown-Séquard and others have been, most justly, chiefly directed.

I should be glad, sir, to hear something on the other side, in *favour* of bromide of potassium, about whose virtues I have heard so much, and have experienced so little. I am, etc.,

CHARLES R. DRYSDALE.

99, Southampton Row, W.C., June 30th, 1866.

DR. BOWDITCH, of Boston, who, a year ago, marked in caustic the letter D upon J. Mulcahey, under the impression that he was a deserter, has been mulcted in the sum of one thousand dollars.

SISTERHOODS IN ASYLUMS. Mr. A. F. Browne, Commissioner of Lunacy in Scotland, has reprinted from the *Journal of Mental Science* a paper entitled "Sisterhoods in Asylums," which is of interest at the present moment, and is well worthy perusal. His views may be gathered from the following. "There is a demand for work for women. Here is a labour, a mission open to, and worthy of the humblest capacity and loftiest aspiration; duties so sad and servile as to deserve the name of penance, if it please the labourer so to regard them; and others so refined and elevated, in nature and range, as to exercise the wisdom of the serpent as well as the gentleness of the dove. For such as have no home, or no suitable home, here is a retreat; for such as crave a wider field for exercising sympathy than what their natural vocation affords, are offered a life of cares and anxieties, duties and rewards; for such as desire to emancipate themselves from the conventionalities of society, from the luxurious or frivolous or do nothing habits of their class or training, or who court work for its own sake, for the mental health and complacency which it brings, or even for the retirement, the protection from the world, the pride of life, etc., and for the independence which is its price, an asylum provides real, substantial, Christian exertion, so varied and yet so constantly appealing to the better part of human nature, and exacting so much of thoughtfulness, reticence, and self-possession, as to realise, in great measure, what religious associations profess to have as special objects, and to desire to undertake."

Medical News.

ROYAL COLLEGE OF PHYSICIANS OF LONDON. At a general meeting of the Fellows, held on Monday, July 9th, 1866, the following members of the College were duly admitted Fellows of the same :—

Andrew, James, M.D Oxon., 59, Russell Square
Buchanan, George, M.D.Lond., 63, Harley Street
Chadwick, Charles, M.D.Edin., Leeds
Falconer, Randle Wilbraham, M.D.Edin., Bath
Fox, Wilson, M.D.Lond., 22B, Cavendish Square
Hewitt, William Morse Graily, M.D.Lond., 36, Berkeley Square
Ogle, William, M.D.Oxon., 37, Clarges Street, Piccadilly
Southey, Reginald, M.D.Oxon., 32, Montague Place, Russell Sq.

APOTHECARIES' HALL. On July 5th, 1866, the following Licentiates were admitted :—

Lloyd, Evan, Llanelly
Low, Alexander James, St. Brelade's, Jersey
Needham, Frederick, York
Place, Thomas Lloyd, Wickham Market
Taylor, Isaac, York
Underhill, Francis William, Tipton, Staffordshire

At the same Court, the following passed the first examination :—

Amaden, George, King's College Hospital
Bennett, William James, Guy's Hospital
Walker, Benjamin, Guy's Hospital
Winckworth, Charles Trew, Westminster Hospital

BIRTHS.

BRODHURST. On July 1st, at 20, Grosvenor Street, the wife of *B. E. Brodhurst, Esq., of a son.
FOX. On July 7th, at Kendal, the wife of *Wilson Fox, M.D., of Cavendish Square, of a son.
HUTTON. On July 5th, at 26, Lowndes Street, the wife of Charles Hutton, M.D., of a daughter.
PATTISSON. On July 2nd, at Kingsland Road, the wife of Joseph T. Pattisson, Esq., L.R.C.P.L., prematurely, of a son.
WALTERS. On July 4th, at Reigate, the wife of *John Walters, M.B., of a son.

MARRIAGES.

CORDNER, Major J. E., Royal Artillery, to Lucy Harriette, eldest daughter of Alfred CHEKE, Esq., Deputy Inspector-General of Hospitals, at Dinapore, on May 18.
HUMPHREYS, Matthew Hale, Esq., Surgeon, of Thame, Oxon, to Anne Emily, only daughter of Henry Wills Reynolds, Esq., Surgeon, of the same place.
*JAMES, Alfred, M.D., of Forest Hill, to Mary, eldest daughter of John MORRIS, Esq., of the same place, on July 5.
LITTLE, John G., Esq., son of the late Daniel Little, Esq., of Devonport, to Mary Elizabeth, eldest daughter of *R. W. P. KERSWILL, Esq., St. Germans, Cornwall, on July 10.
STANFORD, William H. N., A.B., M.D., to Merelina Frances, eldest daughter of the late Rev. Nicolas TINDAL, of Sandhurst, Gloucestershire, at Donnybrook, on July 3.
STEWART, Captain N., Peninsular and Oriental Company's Service, to Emma, widow of Sir James PITCAIRN, M.D., Inspector-General of Hospitals, at Cuddalore, India, on May 30.

DEATHS.

KINGSLEY, Eugene Albert, Esq., Surgeon, at Wootton-under-Edge, aged 33, on July 8.
MACKINLAY, John, M.D., formerly Surgeon H.E.I.C.S., at Isleworth, aged 62, on July 8.
MACKNIGHT. On July 7th, at Hackney, Elizabeth, widow of William George Macknight, M.D., late of Jamaica.
SUTHERIN, Henry, Esq., Surgeon, on June 27.
*TOYNBEE, Joseph, Esq., F.R.S., at Savile Row, aged 50, on July 7.
WARDER, Alfred W., M.D., at Brighton, aged 45, on July 10th; and on July 1st, at Brighton, aged 36, Ellen Vivian, wife of Alfred W. Warder, M.D.
WEST. On July 4th, at Alford, Lincolnshire, aged 57, Mary, wife of R. Uvedale West, M.D.
WRIGHT, John Kenyon, Esq., Surgeon, at Wigan, Lancashire, aged 38, on July 10.
YOUNG, N. L., M.D., of Barbadoes, at St. Leonard's-on-Sea, aged 75, on July 11.

DONATION. Mrs. Raper has given £500 to the Buckinghamshire Infirmary.

DR. GULL has resigned the physicianship of Guy's Hospital.

THE MEDICINA, a Naples journal, threatens to publish the names of all its subscribers who are in arrear.

MR. QUAIN has resigned the Surgeoncy of University College Hospital, and also the Professorship of Clinical Surgery at University College.

THE MARQUIS OF WESTMINSTER has given £500 towards the endowment fund of Yeatman Hospital, at Sherborne, in Dorsetshire.

UNIVERSITY OF ATHENS. In this University there were, during the last session, two hundred and fifteen students of medicine.

GLASGOW MEDICAL SOCIETIES. The Medical and Medico-Chirurgical Societies of Glasgow have wisely undergone the process of amalgamation.

CHILDREN'S HOSPITAL IN GLASGOW. A revived attempt has been made to establish a children's hospital in Glasgow; but the proposal has not as yet succeeded.

SIR JAMES CLARK. The Queen has appointed Sir James Clark, Bart., M.D., to be an Ordinary Member of the Civil Division of the Second Class, or Knight Commander of the Order of the Bath.

THE MORISON LECTURES. The six annual lectures on Mental Diseases, established in Edinburgh by the late Sir Alexander Morison, have been delivered this year by Dr. Seller, who was specially appointed by Sir Alexander Morison to be the first lecturer. His first lecture gave a sketch of the life of the late Sir A. Morison.

PROSECUTION UNDER THE MEDICAL ACT. John Potter Sergeant, otherwise Crowther Smith, described as a surgeon, of No. 2, Pavement, Glasgow, and John Sutton, otherwise Dr. Sutton, of No. 36, Bloomsbury Street, dentist, were brought up at Marlborough Street on Friday week, charged with unlawfully procuring himself to be registered as a medical man under the Medical Act, and the latter with aiding and abetting in the fraud. Mr. Knox said that, with reference to Sergeant, the case for the prosecution appeared to him to be made out. The real John Potter Sergeant had been proved to be dead, and it had been also proved that the prisoner Sergeant, identified as Crowther Smith, had been assuming the name of Mr. John Potter Sergeant. It had been urged that no sufficient proof that Crowther Smith was not Sergeant, as he stated he was. He apprehended it was not necessary to follow a man through all the zigzag courses of his life, but that it was enough for his identification if found acting under, and bearing another name for years. Witnesses had proved that Sergeant for years acted as a lawyer's clerk, then as a clothier. There could be no doubt, therefore, that the prisoner, holding himself out as John Potter Sergeant, was the Crowther Smith identified by witnesses. With regard to the complicity of Sutton, overt acts had been proved between Sutton and Sergeant. The prisoners lived together in the same house, Sergeant acting in a menial capacity. In 1858 the diplomas of the deceased John Potter Sergeant were stolen. In 1859 Sergeant's name was placed on the *Medical Register*. In 1862, after the name was removed, Sutton was found acting with, and aiding Sergeant to accomplish that object. No one who had listened to the history of this astonishing fraud could doubt that Crowther Smith had by some means possessed himself of the late John Potter Sergeant's diplomas, that Sutton had acted with him for years, and had assisted in the offence for which he was at that bar, and for which both must answer to a jury. The offence was bailable, but he should require heavy and substantial bail.

Mr. Frankland has been elected by the French Academy of Sciences corresponding member of the chemical section.

Metropolitan Poor Law Medical Officers' Association. The first general meeting will be held at 7 P.M. on Monday, July 16th, at the rooms of the Medical Benevolent College, Soho Square.

Dr. Frerichs, a native of Hanover, and one of the most famous physicians in this capital, has been despatched to Langensalza with numerous assistants, to relieve the sufferings of his compatriots.

Dr. A. P. Stewart has resigned his office of Physician to the Middlesex Hospital. He has held office there for about twenty years. His natural succcessor is Dr. Murchison; and candidates Drs. Tatham, Liveing, and Fenwick, are in the field for the vacancy which will be made by Dr. Murchison's promotion.

Sanitary Legislation. A deputation from the Metropolitan Sanitary Association waited upon the Duke of Buckingham (President of the Privy Council), on the 11th inst., for the purpose of urging the government not to abandon a measure introduced under the late government to give increased powers to the authorities for putting down fever dens, and preventing the overcrowding of houses. Amongst others were present Mr. Randle, Dr. Sanderson, Dr. Hardwicke, and Dr. Bentley. The Duke of Buckingham said—"With regard to the Public Health Bill, every endeavour will be made to pass it through parliament. I should not like a single day's delay in this bill. The other bill, "The Artisans' Dwellings Improvement Bill," is of very great importance, and a decidedly necessary supplement to the Public Health Bill. I shall be very happy to see the Artisans' Dwellings Bill passed, as a very important supplement to the other, but I cannot say more than that it is our wish for it to pass.

Suicide of Dr. Warder. Last week was opened an inquiry into the death of a Mrs. Warder, the wife of Dr. Warder, a physician, who has been staying at Brighton for some time. Mrs. Warder, whose brother is a surgeon practising at Brighton, was taken ill some weeks ago, and her brother called in Dr. Taaffe to attend her. Dr. Taaffe administered various remedies without success, and finding that he could not account for the disease by any natural cause, he communicated this fact to Mr. Branwell. It was then agreed that if on Sunday morning they could not come to a more decided conclusion as to the diagnosis of the case, another medical man should be called in. On the Sunday morning, however, Mrs. Warder died. Dr. Warder on the suggestion being made to him, assented to a *post mortem* examination. This was made by Dr. Taaffe and two other medical men. They all agreed that death was not to be accounted for on natural causes. The viscera were sent to Professor Taylor for analysis, and the inquest was adjourned for ten days. On the 10th inst., and before the resumption of the inquiry, the papers announce the suicide by prussic acid of Dr. Warder. Dr. Warder was for some years Lecturer on Medical Jurisprudence at the School of Anatomy and Medicine adjoining St. George's Hospital, London, and medical officer of St. Luke's, Chelsea. In 1858 he lived at Uxbridge, in 1859 at Ottery St. Mary, Devonshire, and in 1860 at Ethell, Wooton-under-edge, Gloucestershire. His residences are not further given in the *Medical Directory;* but his second wife died at Campbeltown, Scotland. It is said she had been married to him for only eight months, and the unfortunate lady whose death is now being inquired into was his wife for but five months.

The Statue of Laennec is finished; and is now to be seen in the study of M. Lequesne, the artist.

M. Moleschott, who has lately been made an Italian citizen, is a native of Holland.

Medical Baronets. No ministry, the *Saturday Review* says, ever made so many medical men baronets as Earl Russell's.

Polarisation of Light by Oxalate of Lime. Dr. Balfour, of Edinburgh, lately read before the Medico-Chirurgical Society of that city a paper on the polarisation of light by the octohedral crystals of oxalate of lime. He says: It occurred to me to employ glycerine as the fluid in which to float the octahedra. The results were most admirable; the octahedra turned so slowly as to exhibit all the phenomena of polarisation in perfection, and that even in the faintest light, natural or artificial, by which they could be seen. From the distinctness of the phenomena and the ease with which the experiment can be performed, it is obvious that henceforth no argument in favour of dumb-bell crystals being composed of oxalurate, and not of oxalate of lime, can be based on the statement that the octahedra do not polarise."

Female Medical Society. The annual meeting of this society was held on the 25th ult. Dr. Edmunds read the report. It stated that the objects of the society were,—1. To promote the employment of educated women in the practice of midwifery and the treatment of the diseases of women and children; 2. To provide for women facilities for learning midwifery, etc., like those which have long been in the possession of men; and, 3, To establish a publicly recognised board of examiners, so that women who have pursued an appropriate course of study and passed an adequate examination may be distinguished from others. The progress of the society's college has been thoroughly satisfactory; the number of students had increased to twenty. Several students have already commenced practice, and many lady patients have been referred to their care. Miss Fletcher, to whom a clergyman's wife was referred in this way, had since the attendance been offered a douceur of £50 in order to induce her to settle in the neighbourhood of this lady. The addresses of accoucheuses settling in various parts of London may be obtained on application at the office. The following resolutions were passed: "That midwifery, as an important branch of medical practice, constitutes a lucrative profession for which women ought to have proper means of instruction, and in which it is highly desirable that women should be employed;" "that no sufficient system of instruction in midwifery and the accessory branches of medical science has hitherto been accessible to women in England, that the present utterly unregulated state of female practitioners in midwifery is repulsive to educated women and degrading to this important vocation; that great public inconvenience and frequent loss of life now occur for want of a properly qualified and sufficiently numerous class of midwives." Dr. Murphy said that he could bear testimony to the fact that those women who had attended the Medical College had proved themselves competent to undertake any duty in which a sound practical knowledge of midwifery was required. The object of the society was no novelty. The duties of midwifery were formerly discharged by women, and it was a well-known fact Queen Charlotte, the consort of George III, was always attended by a woman at the births of her children. It was simply owing to the ignorance and want of skill on the part of the midwives that the members of the medical profession took upon themselves the duties of midwifery.

Mr. Jefferson Davis. A book has been published in America, giving an account of the prison-life of Jefferson Davis, and written by Dr. Craven, who was for some time the surgeon at Fortress Monroe.

Dr. H. C. Perkins, of Massachusetts, stands at the head of his profession, and is a gentleman of varied accomplishments. Like the celebrated Dr. Olbers, the discoverer of the planets Pallas and Vesta, he blends with his profession the cultivation of astronomy, in which he is deeply versed.

The Prussian Medical Service. The moveable ambulances of the Prussian army contain 22,000 beds; by degrees as the cure advances the patients are transferred to the stationary hospitals, of which a dozen have already been established, containing 6,000 beds. The principle in the Prussian military service is to avoid the crowding which produces the hospital epidemics. An appeal has been published by the war minister to surgeons, even if not Prussians, to report themselves for voluntary service upon the medical staff, in order that provision may be made for the care of the enemy's wounded. The Queen has had the surgeons leaving for the army presented to her at the railway station.

Miss Garrett. At the late inauguration of a dispensary for women and children, in Seymour Place, Bryanston Square, under the management of Miss Garrett, Dr. Billing said—"Not only is the management mainly in the hands of ladies, but in Miss Garrett we have the first legally qualified female practitioner which England can boast. In America, where they move faster than we do, I am assured that women doctors are establishing themselves fairly in the good opinion of the public; that during the late war there were even women who acted with skill and efficiency as army surgeons. In France and many parts of the continent the practice of midwifery is as a rule in the hands of women. I consider it very important that women who enter the profession should not profess to take medical supervision unless they have had a complete medical examination and training. And this is what Miss Garrett has had. She is not only a licentiate of the Apothecaries' Society, but would undoubtedly have obtained the degree of M.D. had she been allowed to present herself for examination at the London University. We cannot call Miss Garrett a physician-accoucheur, because the College of Physicians also refuses to admit her, but she has the diploma which nine-tenths of the general practitioners hold, the licence of the Society of Apothecaries, and, what is of more consequence, she has the knowledge which will qualify her to practise with skill and success."

OPERATION DAYS AT THE HOSPITALS.

Monday.....Metropolitan Free, 2 P.M.—St. Mark's for Fistula and other Diseases of the Rectum, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

Tuesday. .... Guy's, 1½ P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.

Wednesday... St. Mary's, 1 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.

Thursday.....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Great Northern, 2 P.M.—London Surgical Home, 2 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.

Friday..... Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

Saturday..... St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1·30 P.M.—Charing Cross, 2 P.M.—Lock, Clinical Demonstration and Operations, 1 P.M.—Royal Free, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TO CORRESPONDENTS.

*** *All letters and communications for the* Journal, *to be addressed to the* Editor, 37, *Great Queen St., Lincoln's Inn Fields, W.C.*

Communications.—To prevent a not uncommon misconception, we beg to inform our correspondents that, as a rule, all communications which are not returned to their authors, are retained for publication.

Correspondents, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

Erratum.—In the memoir of the late Mr. Henry Jackson of Sheffield, at p. 20 of last week's Journal, for "aneurism of the right *parietal* region", read "aneurism of the right *popliteal* region."

Typhoid Fever.—The usual treatment of typhoid fever in France is by purgatives and tonics—at first by purgatives, then by tonics. We do not know if the astringent treatment is practised in any other country besides Great Britain. Certainly, it is not universally practised even here. Dr. Todd has been quoted as an authority who recommended that the bowels should be astringed, and when bound kept so. The results of his practice, however, in typhoid fever were, we believe, far from satisfactory. Dr. Murchison, some years ago, showed (if we remember rightly) a large mortality of his cases. We are quite aware that this mortality might be ascribed to the large amount of spirituous drinks which were also administered by him. Be this as it may, the results of his practice do not appear to recommend it; and certainly it is not proved that his astringing and opiate injections in typhoid fever might not have operated injuriously.

A Medical Club.—Sir: About a year ago, some of my professional friends and myself entertained the idea of inaugurating a medical club. To Dr. Lory Marsh is due the credit not only of proposing such a club, but, what is more, of putting his proposal into a tangible form. He has, I see, from your to-day's impression, mentioned my name as one of those who approve of his scheme. I do so most heartily. Nothing, I think, would be better calculated to knit us together in one united brotherhood. In such a club, anything approaching to "medical society" element, should be most carefully excluded. It should be a club for social, not for professional, intercourse. I wish Dr. Marsh complete success; and shall only be too happy to forward his views, as I am sure the majority of the profession will. I am, etc.,

London, June 30th, 1866. J. Z. Laurence.

Dr. Richardson.—Sir: Your columns are always so willingly and widely opened to receive any communication which may have for its object the recognition of real merit, that I feel no hesitation whatever in asking for the insertion of this letter in an early issue of the Journal.

You, sir, have been, and, indeed, I may say the whole medical profession has been, so warm and earnest in a just appreciation of the great, the incalculable benefits that have already been, and that will still continue to be conferred upon the whole community (lay as well as professional), by the introduction of local anæsthesia as practised by Dr. Richardson, that I feel persuaded you will not be indisposed to lend your aid in forwarding any well devised plan for presenting to that gentleman a substantial proof, in the shape of a "testimonial", of how highly his successful efforts on this, as well as on numerous other occasions, are esteemed.

It would not be proper for me to occupy your space by referring, in detail, to all the ways in which Dr. Richardson has assiduously and laboriously worked for the good, and to the benefit, both of the profession and the public; a mere reference to the practical effects which have resulted from his attention to sanitary measures, and this too without at all compromising that profession of which he is so bright an ornament—to his ever ready, kind, and energetic support, of any medical brother who may have had the misfortune to be unjustly persecuted—to his European reputation as a physiologist—to his extremely useful additions to our materia medica, in the shape of medicinal combinations possessing properties alike powerful and peculiar—will be sufficient to remind the profession of what he has done; whilst his method of producing local anæsthesia stands before us at this present time as a demonstrative proof that to him is due the credit of perfecting a means by which the dangers of chloroform may be efficiently and effectually avoided.

This great gift, sir, has been Dr. Richardson's; and I have heard, and I still continue to hear, from both medical men and their patients, a wish—nay, a desire—that some acknowledgment of such a boon, so ably and benevolently made, should, without loss of time, be offered to him.

For myself, I can only say that it will afford me infinite gratification to assist in any way towards the accomplishment of such an object; and, as soon as steps can be taken in the matter, I shall be happy to subscribe five guineas as a sort of "nucleus". I enclose my card; and am, etc., A Physician.

July 2nd, 1866.

Rules

FOR THE

TREATMENT OF EPIDEMIC DIARRHŒA AND CHOLERA.

BY

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PHYSICIAN TO KING'S COLLEGE HOSPITAL; PROFESSOR OF MEDICINE IN KING'S COLLEGE; ETC.

THE following directions for the treatment of diarrhœa and cholera are given in compliance with the wish, which has frequently been expressed, that I would set forth somewhat more in detail than I have hitherto done what, in my opinion, it is right to do, and what to avoid doing, in the treatment of these diseases. In giving these directions, I shall carefully endeavour to act upon the golden rule which should always guide us in the treatment of disease—*Ne quid nimis.*

Diarrhœa during an epidemic season is in many, but not in all instances, an early stage or a mild form of cholera; and in the great majority of cases of actual cholera, an attack of bilious diarrhœa marks the onset of the disease. A diarrhœa, when it is not the actual beginning of cholera, will weaken the patient, and so may predispose him to suffer from the more serious form of disease. *Diarrhœa, therefore, ought not to be neglected even for an hour.* That plan of treatment for diarrhœa is obviously the best which most speedily and completely puts a stop to the disease, without subsequent ill effects.

It may be stated as a general proposition, that the immediate cause of diarrhœa or looseness of the bowels is the presence of offending materials in the alimentary canal. These offending materials are of various kinds in different classes of cases. In one case, unwholesome and undigested food is the exciting cause of the purging; in another case, a large and unnatural accumulation of the fæculent contents of the bowel; while, in another class of cases, offending materials are poured from the blood into the bowel, in consequence of the action of a morbid poison upon some of the ingredients of the blood. To this last class of cases belongs what is called *choleraic diarrhœa.*

The most rational theory of choleraic diarrhœa is, that a morbid poison enters the blood either with the air through the lungs, or with the food and drink through the alimentary canal; and that this poison excites certain changes in the blood, in consequence of which some blood-materials are spoiled, and thus rendered not only useless, but noxious. These morbidly changed blood-materials are then discharged from the blood-vessels through the mucous membrane of the stomach and bowels, and are ultimately ejected by vomiting and purging.

Various as are the remote and primary causes of diarrhœa, this one condition is common to all classes of cases; viz., that the contents of the bowel are unnatural and offensive. These offending materials are the immediate cause of the purging; and they must be expelled from the bowel before the diarrhœa can come to an end.*

From the above considerations we deduce one important and guiding rule of treatment, which is this—*not to attempt by opiates, or by other directly repressive means, to arrest a diarrhœa while there is reason to believe that the bowel contains a considerable amount of morbid and offensive materials.* It is certain that these offending materials must be cast out from the bowel before the diarrhœa can permanently cease. The effect of an opiate at this stage is to prolong the disease, and to increase the risk of mischief from the retention and reabsorption of the morbid contents of the bowel. If the opiate have the effect of retaining within the blood-vessels some of the morbidly changed blood-constituents, this astringent action will probably be more injurious and even deadly than the retention of morbid secretions within the bowel.

The purging is the natural way of getting rid of the irritant cause. We may *favour* the recovery by directing the patient to drink copiously any simple diluent liquid—water cold or tepid, toast-water, barley-water, or weak tea; and we may often *accelerate* the recovery by sweeping out the alimentary canal by some safe purgative, and then, if necessary, soothing it by an opiate. Castor-oil, notwithstanding its unpleasant taste, is, on the whole, the safest and the best purgative for this purpose. It has the advantage of being very mild and unirritating, yet withal very quick in its action. A tablespoonful of the oil may be taken, floating on cold water or any other simple liquid which may be preferred by the patient. A mixture of orange-juice or of lemon-juice with water forms an agreeable vehicle for the oil. If the dose be vomited, it should be repeated immediately; and the patient should lie still, and take no more liquid for half an hour, by which time the oil will have passed from the stomach into the bowels. Within an hour or two, the oil will usually have acted freely. Then a tablespoonful of brandy may be taken in some thin arrowroot or gruel; and, if there be much feeling of irritation, with a sense of sinking, from five to ten drops of laudanum may be given in cold water. These means will suffice for the speedy cure of most cases of choleraic diarrhœa. If the patient have an insuperable objection to castor-oil, or if the oil cannot be retained on the stomach, ten or fifteen grains of powdered rhubarb, or a tablespoonful of the tincture of rhubarb, or a teaspoonful of Gregory's powder, may be substituted for the oil.

If the diarrhœa have continued for some hours, the stools having been copious and liquid; if there be no griping pain in the bowels, no feeling or appearance of distension of the intestines; the abdomen being flaccid and empty, and the tongue clean—we may conclude that the morbid agent has already purged itself away. There will, therefore, be no need for the castor-oil or other laxative, and we may immediately give the brandy in arrowroot, and the laudanum, as before directed. The rule in all cases is, *not to give the opiate until the morbid poison and its products have for the most part escaped; not to close the door until "the enemy" has been expelled.* While there are some cases in which the

* We need not here take into consideration those cases of diarrhœa which result from ulceration or other local disease of the bowel itself.

evacuant dose is not required even at the commencement of the attack, there are many more in which the opiate is unnecessary in the later stage. In some cases of severe and prolonged diarrhœa, it may be necessary to repeat the oil and the laudanum alternately more than once, at intervals of three or four hours. Practical skill and tact are required to discriminate these cases.

If the diarrhœa be associated with vomiting, this should be encouraged and assisted by copious draughts of tepid water. The vomiting affords relief partly by the stimulus which it gives to the circulation, but mainly by the speedy ejection of morbid secretions.

Thirst may be allayed by drinking cold water, which may be acidulated by the addition of lemon-juice or a few drops of dilute sulphuric acid. *Care should be taken that the water for drinking is pure.* Organic impurities, such as result from the admixture of sewage, are especially to be dreaded. If the water be of doubtful purity, it should be carefully filtered through sand and charcoal, and then boiled. Impure water is a common exciting cause of cholera.

While the diarrhœa continues, the diet should consist mainly of rice or arrowroot, gruel or broth.

In all cases of severe diarrhœa, the patient should remain in bed.

If the purging continue, if the stools become colourless and watery (the purging being of the kind commonly called rice-water purging), and if the surface of the body become cold and blue, the disease is now passing, or has actually passed, into the stage of collapse.

This state of choleraic collapse results from a peculiar arrest of the flow of blood through the lungs, occasioned by a morbid poison. It is not a condition of mere exhaustion. It is not relieved by the remedies for exhaustion; and it is made worse by opiates and by spirituous stimulants, which must, therefore, be avoided. The patient should be strictly kept in the recumbent position; he should be allowed to drink pure water freely; and should be abundantly supplied with fresh air. Hot flannels, or bottles, or bags of sand, should be applied to the feet and legs.

Cramps may be relieved by rubbing the affected parts with the warm hand.

Hot baths, whether of water or of air, have been found to be, on the whole, more distressing and exhausting than beneficial.

Five grains of sesquicarbonate of ammonia, or a teaspoonful of spirit of sal volatile, may be given in an ounce of camphor mixture every two or three hours as a diffusible stimulant.

The discharges from the bowels, and the condition of the abdomen, should be carefully observed. The discharges always continue, more or less, during the stage of collapse and until reaction has set in. One of the earliest and surest signs of reaction is the reappearance of bile in the vomited matters and in the stools. When vomiting and purging entirely cease during the stage of collapse, the disease is nearly always fatal.

One of the main objects of treatment during this stage is to facilitate the escape of the morbid secretions from the alimentary canal. This may be done partly by the copious use of diluent drinks, and partly by an occasional dose of castor-oil. If we carefully observe the condition of a patient in collapse, we shall often find that the intestines are more or less distended with liquid, and this, too, while perhaps there is general torpor and little or no effort at expulsion. Again, it has often been found that, although there has been copious watery purging during life, the small intestines contain after death a large amount of a peculiar viscid dirty white material, having a very offensive odour. An occasional dose of castor-oil—a tablespoonful every three or four hours during the stage of collapse—may be useful in removing both these conditions; namely, over-distension of the bowel by liquid, and accumulation and retention of offensive viscid semi-solid secretions.

The object and the effect of this treatment is not to increase the amount of liquid which is poured from the blood into the stomach and bowels, but simply to assist and to quicken the expulsion of the morbid secretions from the alimentary canal.

After reaction has occurred, an occasional laxative dose is required—about once in the twenty-four hours during the first two or three days.

It is worse than useless to attempt to *feed* a patient during collapse. The secretions of the stomach are utterly deranged; and the power of digestion is suspended. The mildest nourishment administered at this time only adds to the feeling of oppression and general distress, from which the act of vomiting often gives immediate relief.

After reaction has occurred, and when the normal secretions are restored, the mildest nourishment should be given frequently, but in small quantities—such as milk, gruel, or rice, or arrow-root with a small quantity of brandy, soup or beef-tea or chicken-broth. After an attack of cholera, the stomach is sometimes long in recovering its tone and the power to digest solid food. When this is the case, a grain of quinine, with ten or fifteen drops of dilute hydrochloric or sulphuric acid and an equal quantity of chloric ether, may be taken with each meal. The same combination, too, often relieves that distressing sense of uneasiness, with flatulence in the stomach and bowels, experienced by many persons who are not otherwise ill during an epidemic of cholera.

Venesection has often afforded great relief during the stage of collapse. The symptom which appears especially to call for this remedy is rapid breathing, with a feeling of impending suffocation. When, with these symptoms, there is a cessation of vomiting and purging, which is probably a result of the almost entire arrest of the circulation through the lungs, I believe that venesection affords the only hope of saving life. It is difficult to obtain a stream of blood in these cases; not, as many suppose, because the blood is too thick to flow, but because, in consequence of the block in the lungs, the blood in the veins is nearly stagnant. The bleeding appears to be beneficial, partly by relaxing spasm and partly by lessening the distension of the right cavities of the heart, and so increasing their contractile power. Repeated doses of ammonia may help to quicken the circulation.

Consecutive Fever. Reaction from collapse is sometimes followed by a febrile condition—a hot skin, quick pulse, coated tongue, hurried breathing, often a scanty secretion or even a complete suppression of urine, with drowsiness tending to pass into coma. These unfavourable symptoms are more common when, during the earlier stages of the disease, opium and alcoholic stimulants have been freely given; but

they may occur when no such means have been employed.

The best treatment consists in a scanty diet without alcohol, copious diluent drinks, with saline effervescing draughts, an occasional aperient, castor-oil, or sulphate of magnesia or a Seidlitz powder; counterirritation over the lungs and kidneys, and sometimes local bleeding to relieve congestion of those organs.

In some cases, there is complaint of pain in the region of the stomach during convalescence. This may be relieved by the application of a few leeches over the seat of pain. If, after reaction, the stomach remain irritable, with frequent vomiting, iced water is an agreeable and efficacious remedy.

Preventive Measures. The choleraic discharges from the bowels should be looked on as highly poisonous, and they should be disinfected and got rid of as soon as possible. Every vessel and article of clothing or bedding soiled by the discharges should be carefully cleansed and disinfected. The attendants on the sick should be warned of the necessity for extreme personal cleanliness. The hands should be frequently cleansed with the aid of disinfectants, and always immediately before taking food.

The chief disinfectants are—chloride of lime, Burnett's liquid, Condy's liquid, and a solution of carbolic acid. The medical attendant should give directions for the use of these agents. Condy's fluid is well adapted for cleansing the mouth and hands before taking food; and carbolic acid for cleansing bedding and clothing, which would be damaged by mineral disinfectants.

Great moderation both in food and in drink is essential for safety during an epidemic of cholera. A single act of indiscretion has been followed by a severe attack. Intemperance at such a time is fraught with extreme danger.

Unwholesome articles of food, more especially tainted meat and fish and decayed vegetables, are to be carefully avoided. Ripe fruit and fresh vegetables may be taken in moderation with safety and advantage.

Especial attention should be paid to ensure the cleanliness and thorough ventilation of dwelling-houses. All vegetable and animal refuse should be removed as speedily as possible. Care should be taken to prevent the escape of sewer gases into the interior of dwellings.

The purity of the water employed for drinking and cooking should be most carefully provided for. A few drops of Condy's fluid may be used as a test for the purity of water. Organic impurities soon decolorise the fluid; which is not only a test, but also a purifying agent by oxidising the organic impurities.

No unnecessary medicines of any kind should be taken. When opening medicine is required, the mildest should be selected, such as castor-oil or rhubarb. Saline purgatives, such as Glauber's salts and Epsom salts, are objectionable, on account of their tendency to cause profuse watery purging. The common belief that prolonged costiveness should not be interfered with during the prevalence of cholera is an error. An accumulation of offensive materials within the bowel may be itself a source of irritation and of danger. I repeat, however, that *no unnecessary medicine of any kind should be taken, and, as a rule, none without medical advice.*

Illustrations
OF
HOSPITAL PRACTICE:
METROPOLITAN AND PROVINCIAL.

BIRMINGHAM GENERAL HOSPITAL.

EPILEPTIFORM ATTACKS APPARENTLY INVOLVING THE MEDULLA OBLONGATA ONLY.

Under the care of JAMES RUSSELL, M.D.

THE following case is of interest in connexion with the general subject of epilepsy. The analogy of the attacks is plainly with the epileptic group; but the symptoms differ from those usually understood to be included under the term epilepsy, and seem to connect themselves with the medulla oblongata exclusively, the cerebral lobes being unaffected. We are thus led to question the grounds upon which our classification of epilepsies is based.

If, in the present state of our knowledge, we found our classification upon a particular group of symptoms alone, we not only neglect the analogies of cases such as the present, but are forced to draw an arbitrary line between the numerous diversities we observe among admitted cases of epilepsy, and other modifications, which, however, cannot be proved to possess specific differences. The want of certain information respecting the tissue-changes on which the epileptic paroxysm depends is, of course, at the root of the difficulty. Where groups of symptoms are not based upon recognised morbid changes, it is very difficult to assign to them their appropriate significance. There is great danger, on the one hand, of grouping diverse disorders too indiscriminately; and, on the other, of forming arbitrary distinctions between disorders specifically allied. Of the former, the use of the term asthma down to a late period is an instance; of the latter, the arrangement of the so-called apoplexies.

Hence Dr. Brown-Séquard rejects the distinction between idiopathic and symptomatic epilepsies altogether; and Dr. Hughlings Jackson has more recently (*Medical Times and Gazette*, April 28) proposed to use the term epilepsy to designate certain tissue-changes acknowledged at present to be imperfectly understood pathologically, but indicated clinically by sudden and temporary loss of nerve-function. Thus, by adding Dr. Jackson's highly important suggestion of the existence in the brain of definite arterial regions, we are enabled to bring into connexion with each other various forms of nervous derangement, all alike characterised by sudden and temporary loss of nerve-function, which appear to differ from each other in no other respect than in the region of the brain which is the seat of the morbid action. It is sufficient to cite various forms of defect of vision, smell, or taste; certain paralyses and disorders of common sensation, and mental derangements; these occurring singly or variously combined, sometimes in close alliance with the epileptic paroxysm, sometimes alternating with such paroxysm; sometimes, again, presenting themselves alone, but under circumstances which are a direct copy of those attending the epileptic attack. Nor is any argument needed to prove the importance of recognising the pathological and clinical connexion between these different disorders, should such connexion exist.

As regards my own case, I will only further remark on the combination which it exhibits between paralysis and spasmodic action—a combination certainly in favour of an alliance between the two conditions of nerve-tissue in which they respectively originate. It will be observed, on the one hand, that the conducting power of motion and sensation had "run down" in the fibres of the medulla oblongata; whilst, on the other hand, the spasm of the glottis, the deranged deglutition, the fits of aphonia, and the drawing of the arms, indicated exalted reflex excitability in the nerves supplying the parts in question.

S. B., aged 56, was sent to me by my friend Mr. Manley of West Bromwich. He has been subject for fifteen years to attacks of the following character, each one lasting three weeks, and generally occurring about Christmas. The intervening periods have been passed in perfect health. His present attack has been much more severe than former ones. Never before has the weakness of his legs "made him bedfast".

The most prominent feature of each illness has been frequently recurring paroxysms of a strangling feeling in his throat, with great distress in breathing. He is described as flushing in the face, throwing out his arms, and fighting for his breath in the greatest anxiety. These paroxysms are often preceded by pain in the back of the head and in the nape. Laryngeal spasm is often brought on by drinking liquids; and he describes a sense of stiffness at the root of the tongue in swallowing, and his jaw "gets set" when he begins to eat. He has, besides, sudden fits of complete aphonia, often stopping him in the midst of a sentence. Intense thirst has always accompanied each illness, and he "makes a sight of water". Whilst in the hospital, his thirst was excessive; he drank fluids very copiously, and at one time passed 124 ounces of urine, specific gravity 1007. His urine was quite free from albumen and sugar. The interior of the throat was injected; the palate was otherwise healthy.

Another symptom always present is very considerable impairment of vision (he could just read No. 18 Jäger). This was proved to depend solely on defective accommodation by my friend Mr. W. A. Bracey, who examined him with the ophthalmoscope, and tested him with a glass. His pupils were of normal size and contractility. In each illness, his lower extremities have been much enfeebled, and he has had numbness and formication in his feet. His hands are apt to be contracted and benumbed, and his arms to ache, as if he had been doing unaccustomed work.

On the present occasion, however, the muscular weakness amounted to paralysis; he was quite unable to walk, and his grasp was very feeble. There was, besides, considerable anæsthesia to contact of the entire body and limbs; but he was alive to the sensation of heat. The other nervous functions were healthily performed (smell and taste were not tested). His mental faculties have always been unaffected. On the present occasion, however, there was a little dulness.

He has "greatly fallen away this time", far more than usual; and he drew my attention to a curious circumstance, that all the finger-nails are falling off, and are being replaced by new ones.

All the organs of his body were healthy. He could not assign any cause for his illness. He has been temperate and regular in habits, and has never had venereal disease.

His present illness was of unusual duration—nearly two months; but his recovery, as on former occasions, was complete in every particular.

Original Communications.

ON THE TREATMENT OF STRABISMUS WITHOUT OPERATION.

By C. Holthouse, Esq., Surgeon to the Westminster Hospital, and to the Surrey Ophthalmic Hospital, etc.

[*Continued from* p. 463 *of* vol. i *for* 1866.]

Before I pass to the consideration of the non-paralytic varieties of strabismus, a few words may be necessary on the local treatment of the paralytic forms. In all the examples hitherto narrated the treatment was general; but, in two of the cases, there was combined with this the local application of galvanism to the peripheral branches of the 5th nerve in the neighbourhood of the affected eye. There are two other local measures which call for some remark, viz., the exclusion of the affected eye from vision, and the employment of prismatic glasses. As regards the first, the patient usually finds out before long that by closing his bad eye he can avoid the confusion of vision and giddiness that accompany these paralyses; he resorts therefore instinctively to this expedient, and I think that in this matter the surgeon cannot do better than be guided by the practice of his patient; hence I have been in the habit of systematically binding up the diseased eye, not only to avoid diplopia, but to counteract the tendency to a secondary strabismus in the sound eye. This is more especially necessary, if the vision of the paralysed eye happen to be better than that of the other, and if the amount of the distortion be not great; under these circumstances the patient still employs, by preference, the paralysed but better seeing eye, and this entails such an effort to keep it straight, that the unparalysed eye becomes affected with a squint in the same direction as its fellow, but in a much higher degree (as illustrated and explained at p. 358), and this, if long persisted in, leads to permanent strabismus, even should the paralysis be recovered from. It is by no means necessary that the paralysed eye should be constantly bound up; about four hours a day I believe to be quite sufficient to counteract the tendency to structural changes in the muscle of the unaffected eye, and the practice has besides this further advantage, that the worse seeing eye, being brought more into use, not unfrequently undergoes considerable improvement in its vision. It is not essential that occlusion should be practised for four hours continuously; on the contrary, it is equally efficacious if divided into periods of one hour at a time, and for his own safety and comfort, the patient should always cover the eye when he walks out alone.

The employment of prisms in the treatment of these paralyses is a comparatively modern invention, the object aimed at being to utilise the diplopia and render it subservient to the cure of the disease. This is effected, or attempted to be effected, by the double images being brought so near together by means of a prism, that a slight effort on the part of the weakened muscle causes them to coalesce. Theoretically, this is no doubt a very elegant and scientific method of proceeding; but unfortunately there are so many conditions required to render it available, that its practical application becomes extremely limited, and its utility proportionately diminished. For instance, among these conditions must be reckoned in the first place the degree of strabismus, which must be very slight, the deviation not exceeding a line or a line

and a half linear measurement; then again, the patient is required to possess the power of uniting the double images by the isolated action of the weakened muscle; and lastly, he ought to possess a considerable amount of intelligence and perseverance, or the intention of these prisms will not be complied with. Let us examine this question a little more closely. It is assumed that when, by the action of a prism, say of 14, the double images can be made to coalesce, then, by supplying the patient with one of 10 or 12, the images will be brought so near together that the patient will, either by a voluntary or reflex action of the weakened muscle, unite them. Now, if such coalescence were really brought about by a reflex act, the advantage of this over other plans of treatment would be obvious; but from careful trials I have satisfied myself that in many cases the supposed reflex contraction is altogether illusory, and that if contraction does take place it is voluntary, accompanied therefore by a still greater contraction of its associated muscle, and a further separation of the double images. What really happens when a patient is supplied with such a prism is not a movement of the eye but of the head, as any one may readily convince himself of by first fixing the head before he makes trial of the prism. This treatment, therefore, requires, as I said before, many conditions to ensure success; the use and intention of the prism should be fairly explained to the patient, and he must be made perfectly to understand what he has to guard against, or he will certainly deceive himself, by substituting an easy and almost imperceptible movement of the head for an irksome one of the eye. For the reasons above given, then, I rarely employ prisms, except with the object of procuring complete fusion of the images, and thus counteracting the tendency to secondary strabismus in the unparalysed eye.

To pass now to the consideration of the *non-paralytic or muscular strabismus*, commonly called concomitant squint. This differs from the paralytic variety in almost every particular; it differs from it in its immediate and remote causes; in its phenomena, objective and subjective; in its course and tendency; and it differs from it, lastly, in the treatment required. But though the differences are thus marked in what may be termed the fully developed forms of the two affections, there is a small group of cases occasionally met with in which the two forms appear to be blended—a result due partly to imperfect recovery from a paralysis, and partly to secondary changes which it has induced in certain of the muscles during its continuance. But to proceed to the differences of the fully developed cases. First, there is the immediate cause of the distortion—muscular shortening—active, frequently intermittent and spasmodic at the commencement, and terminating in hypertrophy of the shortened muscle in the one form; altogether passive and continuous, and terminating not unfrequently in atrophy of the shortened muscle in the other. These muscular changes are brought about most frequently by some optical defect, as hypermetropia, in the first case; by some intra-cranial or intra-orbital mischief in the second. Then, as regards the phenomena, without going into all the differences, it may suffice to remark that the movements of the affected eye in concomitant strabismus are free in every direction and generally excessive in one, whereas in the paralytic form they are diminished, or entirely wanting, on the side opposed to the squint. Not less striking are the differences in the subjective phenomena. The vision of the squinting eye in ordinary strabismus is nearly always more or less defective; it takes no cognisance of external objects, consequently there is no diplopia, and the patient is in fact monocular. In paralytic strabismus all these conditions are reversed. The course and tendency of ordinary strabismus is generally to get worse; first, perhaps slight and intermittent, and affecting only one eye; then increasing in frequency and degree, and becoming continuous; then implicating the other eye; and with this gradual increase of the deformity, there is not unfrequently a corresponding deterioration of vision. In the paralytic variety, on the contrary, a considerable proportion of the cases either completely or partially recover, the vision of the affected eye does not undergo deterioration, nor does the patient become monocular. Lastly, the treatment of the two forms is altogether dissimilar.

In my next communication, I shall proceed to offer some observations on the treatment of concomitant squint.

[*To be continued.*]

Transactions of Branches.

SOUTH-EASTERN BRANCH.

PRESIDENT'S ADDRESS.

By Charles Trustram, Esq., Senior Surgeon of the Tunbridge Wells Infirmary.

[*Delivered at Tunbridge Wells, June 14th, 1866.*]

Gentlemen,—In bidding you welcome, in the name of my professional brethren, to this town, I must first thank you for the honour you have conferred upon me by placing me in my present position; for, when I consider the little attention I have been able to give to the interests of our Association, I can but feel that there are many members of the Branch in this neighbourhood who have far greater claims for the post. And, if I were to describe my feelings on hearing the fact of election, I should say they were much of that character which Pope uses when he speaks of flies in amber—

> "The things themselves are neither rich nor rare;
> We wonder how the devil they got there."

But here I am, and must redeem the mistake you made in the best way I can.

I shall, in the first place, take the liberty of troubling you with a short history of the rise and progress of this now large and fashionable watering place; and I am sure I cannot better engage your interest or bespeak your indulgence than by telling you that it was here that the much esteemed and venerable founder of our Branch, Mr. Martin, in the year 1798, broke his first lance against disease and death; the recollection of which, though sixty-eight summers have since marked their course on his well known brow, is still fresh in his memory; he still claims to be considered as the oldest practitioner of this place. Some of you will remember that it is now nearly twenty years ago since he, as our Secretary, read, in this place, and on this spot, one of the ablest reports (and many an able one we have had) of our proceedings, that ever came from his pen. That he is not able, from increasing infirmities, to be present at our meeting this day, is a matter which I am sure we all regret.

The town of Tunbridge Wells, of which I am about to attempt a short description, is situated in three parishes and two counties. Before you entered this room, which, as you see, is in the centre of this building, you were in the parish of Speldhurst, and in the county of Kent. When you had passed its threshold you were in the parish of Frant, and

county of Sussex. I need hardly add that, as its name implies, the larger part of the town is in the parish of Tunbridge. Its early history is purely a medical one. Whether the spring which has rendered it famous was known in the neighbourhood before it attracted the attention of the nobleman whose cure it effected, does not appear; but one at Tunbridge, called St. Margaret's Well, had long been used for its medicinal qualities. It was at the beginning of the seventeenth century that this nobleman, Lord North, who belonged to the court of that day, and who had ruined his health by dissipation, recognising the cause, and resolving to break off his habits, came for retirement to Eridge, the now well known seat of the Earl of Abergavenny. Whilst rambling in the woods of the neighbourhood he was struck by the peculiar deposit at some of the springs; and, luckily for himself, thought that this water might prove advantageous to him in his then state. He took the opportunity, on his return to town, to consult his medical advisers on the subject; and, finding they not only offered no objection to the use of them, but rather encouraged him in trying their effects; he returned early in the following summer, and, having drank them perseveringly for a time, he not only regained his health, but lived to his eighty-fifth year; and, as in duty bound, made them known by a small publication, so early as 1637.

Though the position of Lord North, and the fact of his having quite regained his health by their use, gave these springs great notoriety, it was a long time before Tunbridge Wells assumed anything of the character of a watering place.

The times did not permit, nor had even the great world begun, those habits of change in which every class can now indulge. For more than half a century the place was, and could have been, frequented only by those who came from a strong conviction of the medicinal effects of the spring, seeing that they were obliged to reside in the town of Tunbridge, a distance of more than four miles. This, it is said, gave the spring its name; but it is situated in the parish of Speldhurst. So great, in the course of a short time, became the repute of the spring, that persons of dstinction, as well as invalids, began to visit the spot. Supply soon followed demand; and houses were erected at Southborough, only two miles (then looked upon as a short distance) from the spring, and others at Rusthall, not more than a mile from its site.

This state of things, inconvenient as it now seems, continued for some time; the world then thought, probably more than it does now, that their limbs were made for use.

The spring at this time was flowing at the bottom of a dell, surrounded by forest trees and underwood, (the last remaining hawthorn of which died but three years ago) and was approached by a circuitous path of more than a mile. Even a long time afterwards two small houses only stood near the spring, one of which was a coffee house for the ladies, and the other, which stood where we are now assembled, was called the Gentlemen's Pipe-House. Though the ladies and gentlemen of both parties managed somehow to meet at these two houses as on common ground, the partisans of the court invariably resided at Southborough; whilst the opposite party in politics invariably resided at Rusthall, where the first hotel of any size was built, the cellars of which now remain to mark the spot. This was about the middle of the seventeenth century.

It was not before the close of the second Charles's reign that any houses were erected where the town now stands; and even then division still marked their character. The Presbyterians and Independents located themselves on Mount Sion, the Baptists on Mount Ephraim, where they each had their places of worship, long before any such was erected for the members of the Church of England. This was accomplished in 1688, when, curiously enough, the building now known as the Old Chapel was erected on a spot so near to the borders of the parish of Tunbridge, that its enlargement has placed a part of it in the parish of Speldhurst. Soon after this, about one hundred and seventy years ago, the ground now known as the Old Parade was cleared and planted; and buildings for temporary occupation were erected for the traders who came for the season. These were in a short time supplanted by more substantial ones, all of which were consumed by a fire soon after their erection. These were succeeded by a row of the quaintest looking buildings possible to conceive, on the same site, a few of which retained their character till within a few years. Did time permit, I might attempt some little description of the times and manners of the place, when visited by Charles the Second and his dissipated court, some of which are not a little interesting, and have been well depicted by a lively French writer.

Thus did the accident of a visit from Lord North determine the site of a town, which has now a population of 15,000; for, beautiful as the spot and scenery are, there are many others in the county equally beautiful, with chalybeate springs equally good. The soil of the neighbourhood abounds with iron, and, but for the want of coal, would doubtless have been another Birmingham.

Foundries, before the woods were cleared, and whilst charcoal was chiefly used for smelting, were common among us. In proof of this, I need only mention that the rails which enclose St. Paul's were cast at Lamberhurst, only six miles from where we are now sitting, and are said to be of a quality not equalled by the best Swedish iron of the present day. Perhaps it is not known to all of you that we are within twelve miles of the spot where the first cannon England possessed was cast. The caster's name was Hogg. His house is still standing, and an iron plate records the fact in two graphic lines:

"I, John Hogg, and my man John,
Did here cast the first cannon."

To this short history of the town itself I should have liked, had time and the object of the meeting permitted, to add some description of the numerous places which surround it, many of which are intimately associated with the history of our country, and demonstrate the manners of those who lived two centuries ago; for we have around us the ruins of many castles and mansions that were calculated to do justice to the customs which then prevailed—places whose extensive demesnes shewed the power of their holders, and gave signs of a lingering remnant of feudal times. Forests well stocked with game, and waters with fish were the attractions of the holders, much of whose wealth must have been derived from other places; for it was only here and there that cultivated spots, which provided only the more substantial necessaries of life and gave subsistence to their dependents, were to be seen. That soil which now supports a thriving population and yields to its owners princely incomes, was mainly devoted to the chase. Many of the ruins of those once stately buildings which witnessed the revelries of a bygone age are now doing duty as farm homesteads; whilst some of them, renovated and modernised in part, are the residences of their owners, who kindly permit the public and the visitors to this place to gratify a laudable curiosity, and wonder how the necessities of such grand hospitalities as the dimensions of the buildings indicate could have ever been provided for. As, in later

times, we read that one of them, Knole, required a household of 108 persons to dispense its every-day hospitality, we may have some little idea of the retinue that these castles formerly possessed.

I will now say a few words of that spring without which Tunbridge Wells would never have been. The site of it, as I dare say some of you saw on coming here, is under a colonnade in front of a large China shop. I have no doubt many of you felt on passing it, as hundreds have done before, that it receives no very great attention at our hands. The fact is, the spring scorns all adventitious aid. Some years ago, the liberal-minded owner of the manor laid out £7,000 in building and fitting up a suitable pump-room and two large baths; but as the spring was a public one, the old dispensers of the water, who are called dippers, could not be dispossessed. War to the knife began between them and the more juvenile ones inside. The outsiders represented to the drinkers that the water lost half its virtue in passing through the pipes and pumps, and was not equal to that which they caught the moment it came from the earth in all its freshness; and as they had some truth on their side, they very soon gained the day. The pump-room was deserted and turned into a shop, and the baths forgotten. The water, as I dare say you all know, is a pure chalybeate, a protocarbonate of iron held in solution by carbonic acid, and can only be taken with advantage on the spot. Attempts have been made from time to time to bottle it, but have all failed; the iron invariably becomes oxydised in about a week and falls to the bottom.

The spring enjoyed a century ago a greater repute than it does at the present day. The present easy access to continental springs of the same character, and an improvement in the preparations of iron, now stand in its way. It formerly stood unrivalled for its effects in all forms of debility, and persons were sent by their medical advisers from far and near. Ladies have at all times been its chief patrons, and certainly not without reason, for it has had the credit of giving an heir to many of the large estates of England. Surgical corrections of the uterine organs were then unknown.

There is a tradition as to the origin of this spring, which, as it has rather a curious connection with its virtues in female disease, I will briefly relate. That noted saint, St. Dunstan, who was residing at Mayfield, one day whilst working at his anvil (in those days it seems that saints did not consider a little manual employment *infra dig.*), received a visit from a well-dressed and good-looking woman. Naturally surprised at the appearance of a lady in a monastic building, he became very cautious in his conversation (and it was well for his character in after times that he did so). His fidgettiness and awkwardness very soon required the good lady to withdraw from the position which she had taken up; in doing which she betrayed a cloven foot. The wary saint was too good a tactician to make immediate use of his discovery. He continued at his work, but took care to heat his tongs to a white heat; this done, he seized the lady by the nose. This unexpected proceeding, and the pain it caused, sent his Satanic majesty howling across the woods and forests; coming to a spring, he descended and dipped his nose; continuing his flight, with returning pain, he again descended at the spring about which we are speaking, and there deliberately cooled his burnt nose, and gave that character and virtue to the spring which its waters have ever since possessed. This explanation suited the age in which it was introduced well enough, and doubtless gave confidence to the early patrons of the spring.

And now, gentlemen, having I fear tired your patience with the history of this town and its spring, I will say a few words about our Association.

Though association, ever since the day when the greatest of fabulists propounded his story of the bundle of sticks (and I dare say the notion was not original even then), had had its beneficial effect on almost every other calling, it was a long time in the history of medicine before its members knew the benefit of it, at all events on a scale commensurate with their wants. The establishment of this association by Dr., now Sir Charles Hastings, is shewn by its results to have been one of the grandest ideas that have ever been propounded in the interest of medical practitioners. Our licensing bodies had given us a name, but no local habitation. This Association has supplied us with that great want; our voice is now heard by the legislature and the world at large. All honour, I say, to the founder of our Association.

The good effects of this Association, which was established more especially for the benefit of the provinces, soon became so manifest that an almost universal desire was expressed that it might be made a British institution—the one common ground of the medical profession of the country, the rallying point of the professional power and professional interests of the masses of its members.

Scarcely had the Association begun its work, ere a wish was felt, here and in many other places, that its benefits might be more immediately localised. Branches, under the control of the Parent Association, were soon established through the length and breadth of the land, among which this Branch takes no unimportant place.

Our principles are before the world, and our voice is now heard when matters affecting the public health are subjects of consideration. Professional brotherhood, and that sympathy which binds man to man, are already among the good results of its existence.

However isolated any member of our profession may be, he now, if a member of this Association, has a tribunal for the redress of his grievances, and a Journal in which he can make them known; and an opportunity brought in turn to his door of meeting his professional brethren. No small advantages these. Then, let me ask, have we done, and are we doing, that which becomes us as members of such an institution? Are we working for the benefit of our profession and the common good of mankind? Are we all of us in our own localities lending that aid which the nature of our education enables us to do, towards those sanitary improvements on which the well being of the poorer classes so much depends? Are we seeking to develope that good fellowship which should exist among our professional neighbours and the profession at large. I hope we can all say that we have done all this.

But if we have done all this, there is still something wanted. It is wanted that each of us should act as if the character and well being of the Association rested on his individual shoulders. We, who have felt the good of the Association, should take care that every worthy medical brother be added to its ranks; and when we have done this, we should feel that one duty still remains to each of us—that that undying motto on its portals, *esto perpetua*, shall have had one touch from our chisel.

One more word as to the Journal. Some have thought that this was a superfluity; I do not. The medical press has viewed it as an intruder; but I see no justice in this view. It was never intended to supplant the regular independent medical press, but to fill a void which that could never have filled. It has done its duty, and I trust it is destined to do so for all time.

Death during the last year has been busy, alas! too

busy, with our ranks. He has taken the aged from us; and, as if to show here, as elsewhere, his equal step, he has cut down the young in the outset of life. One of our Vice-Presidents has been among that number, Sisson of Reigate, a man whose retiring disposition and genuine worth secured the friendship and respect of all who knew him. Another, whose presence all must miss (at all events those who are in the habit of attending these meetings will) was the well known Sankey of Dover. He, as we all well know, had come to that time appointed for all men; he had, his medical brethren have a right to say, run a good course, and fought a good fight. It is but a few years since, as President of this Branch, he secured for us a most interesting and pleasant meeting at Dover, when his kindness and attention were felt by all. Those who had the benefit of his personal acquaintance (and I for one had) will feel that they have lost a kind and estimable friend. He is gone, but he has left us that best of all legacies, a good example. May we imitate it! I am sure I shall best express your feelings and my own when I say, "*O si sic omnes.*" The youngest member that has been taken from us was one who lived in this immediate neighbourhood, Alfred Monckton; and, though but three short summers had passed over his head as a medical practitioner when he fell a victim to a too close attendance on some cases of fever, he had during that short career so secured the affection of the village in which he lived, that the inhabitants, one and all, laying aside their vocations, assembled to pay the last tribute of respect to one who had so early earned it. A longer life could have done no more. Would that we all may do as much!

Of the others I cannot speak from personal knowledge; but I am quite sure that, had my post been occupied by those to whom they had been known, you would have heard the same tribute to their worth and memories.

Medicine. I propose, on the present occasion, to depart from the course pursued by my predecessors, and instead of confining myself to that stale subject, medical reform, and that everyday recurring matter of medical ethics, to take a cursory glance of the progress that medicine has made since our last meeting.

With the exception of those improvements that the treatment of diseases of the nervous centres has derived from the researches of Brown-Séquard and Lockhart Clarke, and the introduction of that new instrument for testing the character of the circulation (which, by the kindness of one of our members, Dr. Clapton, is now on the table, and which I have no doubt he will kindly explain to us), medicine proper seems to have made no very important advance. Pathology, physiology, and vital chemistry, have been pursuing the usual course of verifying, correcting, or rejecting the discoveries of past days. Chemistry, in its more extended sense, has been investigating the condition of the atmosphere, and trying to determine how far its constitution, as to that condition of its oxygen called ozone, determines the spread of epidemics and the character of disease; but as yet with no great practical result. But the question must some day arise, if it have not already done so, whether there is not another constituent which is exerting an influence on the animal economy; I mean an increase, at present inappreciable, of its carbonic acid gas. You are all aware that the subject of the possible exhaustion of our coal-fields, and its relation to the future of our country, which has often been hinted at by the philosopher, has just now seriously engaged the attention of our senate, not as a matter of public health, but as one of political economy. A new senator, but an old philosopher, feeling that the consideration of the subject of the taxation of his country was one, and not the least important one, of his duties, and yet too honest to regard taxes as one of the many means of spending without regard to repaying, suggested that we should try to repay some portion at least of our national debt before we had exhausted that mine of wealth which our coal-beds give us. A new feature most certainly in politics, but one that speaks well for the coming times of legislation, and one from which I hope medicine may soon derive some advantage. "Sufficient for the day is the evil thereof," and "After us the Deluge," has been too long the ruling creed of Governments, at all events in matters of finance.

But, I think, had he consulted the two sciences of physiology and chemistry, he need hardly have troubled himself about the matter. They would, I think, have told him that, when our coal-beds (at all events, if there be the quantity presumed) were gone, there would be nobody left to claim or to pay; for, before even the half of the coal of the world is consumed (and I do not suppose our national energy will before that time have exhausted the stock of our own country), the atmosphere will have again assumed a condition fatal to animal life—nearly that condition which a Book, in which I trust we all believe, describes it to have had, when its density, nearly three times that of the present atmosphere, held up and divided the firmament of water that was above it from that which was below it; when the very matter of these coal-beds floated in a gaseous form round earth's surface, waiting to be fixed and solidified by the action of a gigantic flora, and stored for the use of coming man.

From the sublime to the ridiculous is said to be but one step; and from our gigantic national debt to our own fireside, and domestic expenditure in this matter, is but a short one, and to us an equally interesting and important one. What would be our feelings, if told one snowy morning in December that we had come to our last bushel of coal? We who live near the woods of Sussex might hope to get through the winter with their aid; but we should certainly feel a strong disposition to move off to a warmer climate ere the next winter began, and leave our houses and lands to settle our debt; for, in this free country, whilst coal does last, the manufacturer will take care to have his wants supplied in spite of all forebodings.

To return to that medical point at which I hinted. Let me ask this question, Is the atmosphere suffering from the extraordinary evolution of carbonic acid gas which is now going on? Is the pigmy and stunted flora of the present age equal to its decomposition, to the absorption of the carbon which combustion is now daily producing? and if so, will it continue to be so, seeing that the spread of the human family is daily diminishing the forest growths? Must there not some day be a perceptible increase of the present proportion of carbon in the atmosphere? and may not some already inappreciable increase be the cause of the present type of disease, as distinguished from that which prevailed at the beginning of this century, and which I myself have lived long enough to witness?

May not the altered type of disease have been produced rather from the presence of a depressing agent in the shape of carbonic acid gas, than from a less vivifying condition of the oxygen or its compounds of ozone?

We all, I am sure, regret to find that that dire and fatal malady, the cholera, has again reached our shores. Though it is now nearly fifty years since this malady

first shewed itself in our dependencies, where it has pretty constantly been under the eyes of our professional brethren, and more than thirty years since it came among us, it must be confessed that, beyond treating the symptoms and succouring the powers of life, we have learned but little about it. Various plans of cure have been tried, and each has had its advocates; but as yet there has not been one that has been admitted to be the best by the general voice of the profession. I have ventured to bring this subject to your notice, because I hold that it will, should this malady again spread in this country as it did in 1832, be the duty of every one of us to try to add his mite to the elucidation of the disease or verification of any plan of treatment that may come before him. The last plan of treatment propounded, which its author calls the eliminative one, is founded on the assumption, undoubtedly a true one, that the disease is a blood-poison, and that, therefore, it is desirable to assist Nature in the efforts she makes to rid herself of the poison by mild purgatives, and not by the opiates and stimulants that have been hitherto used. It is asserted that the one rids the system of the poison, which the other locks up. Before we place implicit confidence in this view, it must, I think, be shewn that the diarrhœa that generally prevails at the same time as the cholera is not choleraic, or connected with that disease, but only an accompaniment, under the influence of which the poison of cholera has a better chance of exerting its power; for most assuredly hitherto it has been set down as a fact, that the cholera has generally attacked those in whom this condition has been neglected. Now, if elimination is to be the plan, it surely ought to be applied before that storm of symptoms begins, which, however curative they may be, so frequently prove fatal by their own severity. There is unquestionably a stage of incubation, even in those cases which die ere Nature sets up this eliminative action. The poison cannot well begin its action the moment it is taken into the system. Is there, then, no symptom by which this period can be distinguished? and is there no mode by which the poison can be neutralised, ere it makes itself an integral part of the blood? Can inhalation and hypodermic injection offer us no ready means of making a quick impression on the system? Certainly, if we are to look upon spasm of the smaller pulmonary arteries as the chief of the pathological conditions, inhalation would seem to offer us the readiest mode of reaching it. There is another plan of treatment which has been suggested in our JOURNAL; namely, that of transfusion of defibrinated blood. But I think the proposers of this would have done well to have taken a leaf out of the book of that sagacious cook who advised her readers to catch the hare before deciding how it was to be dressed; for, however good this plan, it would be only the rich who could hope to get it in any extensive epidemic.

Whilst doing all we can to treat this disease, we surely should not neglect to ask why and whence it comes, and what are the conditions that favour its spread? However convinced we might have been that the first epidemic was an imported one, we have lately had unmistakable evidence that it can arise in our own country. Then whence comes the poison, and what is it? Is it gaseous or molecular? Abounding, as the sunbeam shews us our atmosphere does, with matter, we can hardly regard it, however much it may assist the propagation of the disease by the deportation of its poisonous molecules, as the source of the poison. The mode of the progress of the disease forbids that. Dirt and bad water seem its almost invariable associates; but we had these for years without cholera. May we come to a conclusion that Nature occasionally loses her power of re-combining the poisonous results of decomposition? or do some intensified electro-magnetic currents occasionally revivify some dormant changes and so evolve this poison? or does this agent occasionally act electrically on some older source which was locked up in the earth's crust ages past. The fitfulness of the disease favours the idea, either that the poison is not always present, or not liable to be evoked by every day recurring agency. On the other hand, if we are to believe what we hear of its origin among the Arabian Pilgrims, and look at what has lately occurred on board some emigrant ships, it would almost seem, that this poison, like that of typhus, may be produced by overcrowding and bad diet. What if in the end we should find it to be a modified typhus, which, instead of attacking the brain, tries conclusions with the sympathetic? If so, spasm of artery and engorgement of veins may be more dependent on the sympathetic than the direct action of a morbid agent.

Surgery, which owes a great debt to the indefatigable Dr. Richardson, for that valuable addition to its resources, the ether-spray, has, I believe, nothing new to boast of. New ways of doing old things have been plentiful enough. Acupressure, which was to supersede the ligature, has found little or no favour at the hands of practical men. Amputation of the hip-joint, itself no new thing, has lately brought under our notice an instrument which will be found a very useful one to the obstetric practitioner; I allude to that invented by Mr. Tufnell of Dublin, for compressing the abdominal aorta. Who is there among those who practise obstetricity, that does not now and then witness an appalling case of *post partum* hæmorrhage, the only right and safe way to my mind, of treating which is compression of this vessel? It is true that this can be acccomplished by the fingers, a tiring process, and one which occupies the entire time of the practitioner; whilst an instrument of this kind permits him to attend to other matters. I can call to mind many cases where I have been obliged for an hour or more to perform this tedious and fatiguing duty, where I am sure nothing else would have saved the patient. If we reflect for a moment on the cause and nature of this hæmorrhage, we shall see why aortal pressure is the best plan of arresting it. Two large arteries which have become doubled in size, and trebled in length, are to be suddenly stopped by the action of what that ablest of obstetric professors, Dr. J. Blundell, called living ligatures. These will sometimes fail; and, in spite of our efforts to stimulate them to their duty continue to fail, and we know the trouble and anxiety which this entails. But, under any circumstances, I contend that, in any serious case of *post partum* hæmorrhage, this mode of arresting it, is the readiest, safest, and best for the patient.

I will now call your attention to those two surgical novelties, which, dirty as they are, are just now attracting a good deal of attention. I mean syphilisation and extirpation of the clitoris.

It has been discovered by some of our continental brethren, and one of its professors has lately been here to teach us the fact, that constitutional syphilis is best cured by again introducing the disease in its primary form into the system. Surely some homœopathic wag must have been at the bottom of this; for, although the plan of dilution is not followed, it must be admitted that the principle of "*similia similibus curantur*" is in full force. What a pity it is for the homœopaths that the subject is not one more fitted for its talkative patrons! Surely, if the high-born dames of the religious world can placidly con-

emplate the advantages of the extirpation of the clitoris, they will soon be able to contemplate and talk about syphilis; the connection is so natural.

It certainly will be a burning shame that so strong a pillar as that which the cure of syphilis by syphilisation would give their principles, should not at once be added to their building.

This proposal, though not without its advocates, has, I hear, met with no sanction at the hands of reflecting men. The sooner it is forgotten the better; for common sense and decency alike repudiate it. Fancy the feelings of our patients at being told that they must resort to the shrine of syphilis to be cured of its early consequences. Science cannot believe in anything so opposed to every law of nature. If we are to believe in this dictum of syphilisation, syphilis seems to hold the same relation to the body as learning does to the mind. A great author has said—

> "A little learning is a dangerous thing;
> Drink deep, or taste not the Pierian spring.
> Those shallow draughts intoxicate the brain;
> But drinking deep doth sober it again."

A parody of these lines is easy enough. Your own imaginations will readily make one.

If this doctrine of immunity by syphilisation be good, the Commander-in-chief's difficulties are half over; for we only need to make a corps of immunitied victims to save the army from one of the greatest losses it now sustains.

We are also told by a continental brother (and I only wish that the specialists of our country were equally candid and honest), that we have fallen on a day when a secret unnatural use of the sexual organs is a matter of every day occurrence; and that the extirpation of the clitoris is the best, if not the only cure for its sad effects. (Some people, pitying this infirmity, have given this, which we used to call masturbation, the more delicate name of female delectation—a very proper thing, certainly, if we are to see it made, as we are now doing, a subject of remark in non-professional pages.) Now, without at all admitting this as a fact, let us discuss it as if so.

It certainly may be asked, what wonder it should be that that body, which was made for the wear and tear of earning its bread by the sweat of its brow, should, under the manners of the present day, when its muscular development is almost entirely neglected, and its nervous system worked to its highest pitch, when female education consists of accomplishments and dress, and when the female mind is fed on sensation and sentiment, and idleness and *ennui* are the portion of its days, should fall under the power of evil? Can we expect to sow the wind of folly, without reaping the whirlwind of some debasing result? We are now told that we are come to that; and that surgery must come to the rescue, and cure what morals should have prevented.

We are told that mutilation of that body which the Creator made is necessary for its preservation from the effects of its own wickedness; that the knife of the surgeon is a better cure than the precepts of religion and morality. At least, so it is said both abroad and at home; and one of the spiritual organs of the day already claims its assistance.

Now, from all this I for one most fully dissent. I have not time to discuss this matter on pathological or physiological grounds, but will ask a few questions on the grounds of common sense.

What, I will ask, is to be the social position of those on whom this operation is done? The world will place them, and their own reflections, when they awake to the fact, must place them, out of the pale of every social position; the sisterhood of respectability must and will eschew them; their position must be one of shamefacedness. View this matter as dispassionately as we may, I am sure we shall all feel that this moral disease should be left to that cure which religion and morals provide, and which our science, properly directed, can aid and assist. Remove the local excitement as you may, the disease will still remain. The brain is the *fons et origo mali*. Trace its history, and you will find it began with voluptuous dreams, and will, in spite of all mutilation, go on till its cerebral connexion is removed and destroyed. Have we not abundant evidence that it is a cerebral disease, from the fact that we every day see it in those in whom advanced age tells us that it can be no local matter, and where its presence can only be accounted for by the existence of hyperæmia in worn-out cerebral matter, and its necessary result, unbalanced function?

Has medicine no other resource, the world will ask, than the knife? It would indeed be a disgrace, if it had not. This operation, which, I am glad to see, is called abroad by its right name, may, if generally adopted, fill the pockets of its doers for a time, but must end in disgrace to our calling. The old classical proverb, which says, "Cœlum non animum mutant, qui trans mare currunt," applies here. You may cut off the pudic nerve to its very root; but, till you have destroyed the root itself, the disease will return.

Then, I say, let us at once denounce it as unnecessary and uncalled for. Though the English nation may have lost much of that masculinity of mind which formerly distinguished it, I do not believe that it is prepared to allow this stigma of mutilation to be fixed upon its daughters; nor will it consent that their characters shall be sacrificed to an experimental surgery which delights to crawl about the female pudendum. In spite of the approval of a portion of the clerical press and its confederates, I say, let morals cure morals; but let the knife of the surgeon be still unstained by this unnatural perversion.

If, indeed, these proceedings be necessary, and if we must regard clitoridotomy as a thing as essential to female morals as circumcision once was to cleanliness, let us institute a ceremony that will make it respectable, rather than brand those for whom we prescribe it with a stain that a life cannot wipe out.

What is to be the value in the matrimonial market, let me ask, of those whose organs have been mutilated by the knife of the surgeon? Nothing, positively nothing! Every young woman must wear a badge of warranty from this stigma. "Warranted entire" must be printed on her brow.

I shall not pursue this, to my mind, filthy subject, further, but express a hope that it may have been consigned to oblivion ere we meet again.

If, in discussing these subjects, I have used strong language, my excuse must be, that no other words would suit them. No other words sufficiently express my own, and, I have reason to believe, your feelings. Uncompromising language is the only means of meeting those heresies by which our profession, which ought to be a high and honourable one, is fast drifting to a low estate, and with which, to my mind, our licensing bodies, on whom the power, if not the onus, of protecting our body, belongs, have too long dallied. Our fathers had but a coarse and vulgar quackery to deal with. It came in our day to see an attempt made to submit the discoveries of ages of mental labour to the judgment of half-witted clairvoyants; and it has now come when the mysterious phenomena of life and disease are brought to the most moderate comprehensions by the slipshod slaverings of homœopathic symptomatology. Some of our profession, I regret to say, instead of manfully denouncing these heresies, are found every day bending our science to catch the popular gale. Oh!

that the day may soon come when the heresies of medicine may have shared the fate of astrology and necromancy—be things of the past. At all events, let us do our best to this end. If it does not fall to the lot of every one of us to advance our science, we all have the duty of upholding its honour and integrity.

There are some other matters on which I should, had time permitted, have liked to have touched. I have now to thank you for your patience and attention.

SOUTH-WESTERN BRANCH.

PRESIDENT'S ADDRESS.

By David Thompson, Esq., Launceston.

[*Delivered June 20th*, 1866.]

After alluding to the history and objects of interest connected with Launceston, and thanking the members for electing him the President of the Branch, he said—

It is not, gentlemen, my intention to read you a scientific essay on any one subject, but just to glance at some points in connection with the position of our profession with which we are most interested. Our Association has for one of its main objects the promotion of friendly intercourse and free communication among its members, and the establishing among them the harmony and good feeling which ought ever to characterise a liberal profession; and we shall all, I think, readily admit, that it has done, and is doing, much towards so desirable an object. Especially valuable do I think the Association is to those whose lot it is to live far away from the neighbourhood of large towns, and who have not the opportunities for ready access both to their brethren and information on the topics of the day. A hard life too often the country surgeon has; he has his joys and his sorrows, but too often more of the latter than the former. Hardened by habit, he becomes accustomed to the life, and can say with the Duke in *As You Like It*.

> "Now my co-mates and brothers in exile,
> Hath not old customs made this life more sweet
> Than that of painted pomp? Are not these woods
> More free from peril than the envious court?
> Here feel we but the penalty of Adam,
> The season's difference; as the icy fang
> And churlish chiding of the winter's wind,
> Which when it bites, and blows upon my body,
> Even till I shrink with cold: I smile and say,
> This is no flattery; these are counsellors,
> That feelingly persuade me what I am.
> And this our life, exempt from public haunt,
> Finds tongues in trees, books in the running brooks,
> Sermons in stones, and good in everything."

In years gone by we were as sheep without a shepherd, each taking his own course, unacquainted with the feelings or wishes of his brethren, and having no means by which he could arrive at such knowledge; but now, thanks to our Association, through its Journal, every member has an opportunity of vindicating his wrongs, if he have any; obtaining the advice and support of his brethren; and enlisting the aid of our talented and energetic editor, who is ever ready to do battle in a just cause.

It has been the fashion of late years with some to abuse the Journal and all connected with it; but to country members there cannot be a question that the Journal, especially when conducted, as now, with ability and honesty, forms one of the most valuable agents of the Association. I should, as an individual member, be very sorry to see its publication discontinued.

You will, I feel assured, pardon my feeling some degree of timidity and hesitation in addressing you, in the position I have now the honour to fill. Not having yet arrived at a period of life to be enabled to look around, like the fathers of the profession who have preceded me, and give useful and valued instruction and advice, it would be presumption on my part to map out the course of duty to be followed by those whose long period of honourable practice of a most honoured profession has placed them in the front as guiding stars to those who are younger in the journey of life. If we look around, a long list might be made of worthy names—worthy alike for the high professional standard of their conduct and their brilliant talents. We not unfrequently meet with dejected characters, who are always lamenting the falling off in the times, and declaring that "the profession is going to the dogs"; but we assuredly may look forward to a more hopeful future. The foundation has been well laid by our examining boards, who, by an improvement in the preliminary education, almost necessarily require that a young man shall be specially trained for the course he is afterwards to follow. It will be well if the preliminary standard is thoroughly maintained.

It has occurred to me and to many others, that much valuable time is wasted at College, by the desire which some teachers have to cram a student full—unnecessarily full—of their pet subjects, associated with collections of scientific terms enough in themselves almost to occupy the period allowed for the study of that particular branch. Doubtless, each lecturer thinks his own course the most important, and endeavours to impart as much as possible of it; but it is usually to the exclusion of others to the man who is intended for general practice of much greater importance; his mind is prevented from being stored with the most useful of all knowledge to him, a practical acquaintance with diseases, and the best methods of treatment. The multiplication of hard words and long scientific terms must always be to the student a source of annoyance. They will be of no use at the bedside; in fact, nowhere, except to the writer on medical subjects; and very few of our most practical writers, men who thoroughly understand what they write about, draw largely on them even for that purpose. It is nothing unusual, now that the old apprenticeship system is almost extinct, for men—fully fledged doctors—to be sent from college perfectly unacquainted with the practical rudiments of the profession, crammed with scientific terms and theoretical knowledge of rare diseases—hobbies perhaps of their respective teachers—but never having performed or seen many of the most simple operations connected with the ordinary practice of their profession. To see that every student has the opportunity of becoming practically acquainted with the methods of treatment of most value, is, I believe, one of the most valuable and efficient aids in improving the standard of general practitioners. I say the methods of treatment of most value—for, in the present day, when almost every man has his hobby in treatment, and writes about it too, it is a very difficult matter for the young surgeon to determine what course to adopt, so that he may do the greatest amount of justice to his patient and credit to himself. It is an easy matter to bring two men into the witness-box; the one, a great authority, will swear that the plan adopted by a sincere and well informed surgeon has been the best possible; the other, perhaps also a star of some magnitude but belonging to another school in treatment, is ready to affirm, and does it too, that the treatment has been very wrong. We are bound to give each credit for honesty of purpose and truth in believing himself correct in his opinion. Sad though is its effect. Its influence is felt only in lessening the respect felt for the profession generally.

In giving evidence in courts of law, due allowance is not made for the very difficult position in which a

medical witness is placed. He has no time for reflection or reference in forming his opinion on questions put to him; and is expected to give it, as though not from the result of reasoning on evidence presented to him, but as of things he had seen or heard. From such uncertain data, it is not peculiar that men with minds differently constituted should sometimes differ in their conclusions. We have not, like the lawyers, Acts of Parliament to guide us; or, like our clerical brethren, canons and rubrics by which to steer our course; or known and unvarying laws, as the engineer has to work by; but we must be guided by judgment and experience, based on uncertain rules, rendered still more varying by seasons, habits, and constitutions. Is it, then, to be wondered at, that men should differ as regards the value they place on evidence presented? or that when expected to have the knowledge of supernatural beings, and found only to be mortal, they are abused, because they cannot reduce the million variations of constitution to one definite rule, or the thousand points of observation to one general focus? Most readily can we make full and generous allowance for the man who, in a court of justice, unwillingly opposes the opinions of his brother from a conscientious belief that such is a true course; but we must condemn with the true feeling of honest indignation the man who rushes into opposition or lends himself to injure another for the sake of advertisement, popularity, or gain; and those who have recently aided in visiting such conduct with the punishment it so richly deserved, merit our warmest praises.

The spirit of freemasonry, unhappily, does not obtain among us to the extent it should do. I do not for one moment advocate the shielding a man in culpable negligence or want of skill; but condemn the want of that generous allowance to the value of the opinions of others, when those opinions are founded on uncertain rules. Lower your neighbour, if you can, and raise yourself on his foundation, is, though we must with pain allow it, the course followed by some who should set a brighter example.

There are various kinds of quackery. Even in the profession, it is seen under various guises, clothed in a variety of garments, garbled in high-flown words and glowing English. Still we may say, that even here quackery is rampant. Specialities, and books upon them; hospitals for the cure of this or that disease, with long lists of patrons, and wonderful accounts of extraordinary cures advertised in pamphlets, periodicals and papers, to attract the attention of suffering humanity from that special disease towards the benevolent author or founder; testimonials to this drug or that preparation, with the intimation from the grateful recipient that the eminent man who gives it has largely used the drug in particular diseases,—all these things savour strongly of quackery—a desire to push into notice faster than can be done by force of ability or steady perseverance. Tools they become in the hands of interested vendors, who, in return, repay the favour by holding up their friends as eminent persons to the gaze of a wondering public.

Another matter it is time for us to consider is the extent and abuse of medical charities. To the poor, in the proper sense of the term, I trust we shall always have our hearts and hands open, ready at all times to relieve their sufferings, and administer to their necessities; but it is the use made of such charity by persons often as well able to pay as we are to give. The editor of our JOURNAL has repeatedly called the attention of the members to this circumstance, and has shown the abuse and its effects, as instanced in Brighton. When relief is *given* at one time, it is often not valued at another; and when received by one person without consideration, the other who has to pay for it often thinks himself an ill-used individual. Why should we so lavishly distribute that which we have dearly to acquire, and which is often unthankfully received?

We are requested to remind members of the Association that the Annual Subscriptions became due on the 1st of January. They can be paid either to the Secretaries of the Branches; or to the General Secretary, T. Watkin Williams, Esq., 13, Newhall Street, Birmingham.

British Medical Journal.

SATURDAY, JULY 21ST, 1866.

THE BRIGHTON TRAGEDY.

OUR readers will have seen all the details of the strange tragedy lately enacted at Brighton. All the facts tend to show that Dr. Warder was the murderer of his wife. Some few incidents of the inquiry, however, are worthy of note.

We may remark, that it is nowhere said the urine was examined; and yet we read that Mrs. Warder passed large quantities of urine; that she drank much liquid; and we think one witness said that she had a ravenous appetite. If we are right in these particulars, it would have been satisfactory to know that there was no sugar in the urine. The other symptoms, it is true, did not tally with the idea of diabetes; but all doubt of such a suspicion would have been removed by an examination. The unqualified verdict of the jury was scarcely warranted by the facts; viz., that Mrs. Warder died from the administration of aconite.

Dr. Taylor's analysis was entirely negative; and he rested his opinion as to the cause of death wholly upon the description of the symptoms observed during life, and said that these symptoms were such as might have been produced by aconite. One or two remarks of Dr. Taylor require comment. He tells us that "he was much struck with the appearance of the contents of the stomach and bowels, which were coloured with blood, showing that there had been a great source of irritation." Now this statement seems scarcely warranted by the facts on which they were founded. Dr. Taylor says, in his detail of the analysis, that he received, amongst other matters, "a bottle with the contents of the stomach, containing a brown liquid slightly reddened by the presence of a small quantity of blood." Now, surely Dr. Taylor should have had positive evidence that no drop of blood had accidentally mingled with the contents of the stomach before he accepted the blood-colouring of the stomach-contents as proof

that this organ had been highly irritated. What more probable, than that a few drops of blood had entered the stomach in opening that organ? We say this, because, if we read the account rightly, notwithstanding the constant vomiting, Mrs. Warder never brought up any blood. Dr. Taylor's evidence, therefore, of irritation of the stomach, as founded upon the presence of blood, seems to us somewhat strained. Again, Dr. Taylor says:

"The last case of poisoning by aconite which he had the opportunity of observing, took place in November 1863, and the symptoms during life as well as after death were similar to those in the present case, except that they were in a much more severe form, as the person died in two hours from the effect of a large dose."

But surely it is not possible to make any just comparison between the train of symptoms produced by poison which carried off a patient in two hours, and those which occurred in this long lingering case. We think that Dr. Taylor, if pressed to give such a clinical resemblance of the symptoms in the two cases as a scientific inquiry would require, would be hard set to find an answer to justify his comparison. Indeed, he himself, though he asserts the similarity, feels the difficulty; for he adds—

"Some of the symptoms of poisoning by aconite were not observable in this case—such as numbness, tingling, and loss of sensibility; but the spasmodic vomitings, as well as the feebleness of the heart's action, impressed him with the opinion that the effect of aconite was the only reasonable cause that would account for death. Aconite, when given in small doses, acted particularly upon the heart, lowering its action, and rendering the person weaker and weaker till he would die of syncope, and that appeared to agree with the account given by Dr. Warder of the death of his wife. The person would die of pure exhaustion."

Dr. Wilks gave a very guarded opinion as to the cause of death. He said—

"He was quite unable to connect the illness of deceased with any known disease. He could not, therefore, avoid the inference that they were due to the administration of some vegetable poison. That opinion was confirmed by the frequent remissions of the symptoms. He would not like to speak positively as to the nature of the poison, or whether there were not several combined. He was, however, inclined to agree with Dr. Taylor, that the symptoms were mainly due to aconite. He would not like to speak more positively, as he had seen but two cases of aconite poisoning, and in those the patients recovered."

Dr. Taylor, again, is reported to have made a remark, which we cannot pass by without saying that it was not only uncalled for, but exhibited, to say the least of it, very bad taste.

"Dr. Taylor remarked that he knew Warder to have been a lecturer on Medical Jurisprudence. He lectured at the Grosvenor Place School on poisons, and perhaps no other man knew how to administer aconite either for good or mischief better than he. At the time of the trial of the poisoner Palmer, Warder was one of the 'school' who came forward to defend him.'

The allusion, moreover, was not fortunate; for, if we remember well, Dr. Taylor himself did not shine over much in the trial of Palmer, to which he alludes; and we believe it was a scientific gentleman of that very school to which he refers who pointed out an error of Dr. Taylor's on that occasion. One other remark occurs to us in this case, and it is the *post mortem* examination made of the brain of Dr. Warder. It would be a pity if anything said by any of our medical brethren in this case should lead the public to imagine that "insanity" is a thing which can be appreciated by the eye or the touch, which is represented to us in organic change of structure. The public should not be led to think that the absence of all physical appearance of cerebral disease is any proof or indication of sanity. We surely know, as yet, almost nothing of the "pathological appearances" of insanity, so far as the brain is concerned.

THE COLLEGE OF PHYSICIANS AND THE TREATMENT OF CHOLERA IN MERCHANT VESSELS.

In our last number, we gave the substance of the Report of the Committee appointed by the President of the College of Physicians to consider what instructions might be issued to captains of merchant vessels, so as to provide for the health of their crews against attacks of cholera. The Privy Council had requested to be informed "whether, in the opinion of the College of Physicians, any, and if so, what suggestions might be issued, as representing the present state of medical knowledge and experience with regard to the drugs which should be given, or other treatment which should be adopted, in attacks of cholera, and especially in the beginning of the disease, when proper medical attendance cannot be procured." On the 18th instant, after a full discussion, the Report of the Committee was adopted by the College, with only a few verbal alterations. For instance, the Committee had reported that, "when opening medicine is required, the mildest should be selected, as castor-oil or rhubarb. Glauber's salts and Epsom salts are objectionable." At the suggestion of some of the Fellows, the word "dangerous" was substituted for "objectionable".

The recommendations of the Committee as to the drugs which should be given and avoided were adopted without any modification. It was thought by some of the Fellows present, that larger doses of opium than were recommended by the Committee might be given in cases of diarrhœa; but the more cautious practice of the Committee had the approval of a large majority of the College; and the following important suggestions were adopted unanimously.

"If the looseness should result from bad or obviously indigestible food, or if the discharges are un-

naturally offensive, and attended with griping pain, it would be desirable to give a dose of either of the gentle laxatives above named [*i. e.*, castor-oil or rhubarb] before administering the opiates.

"Large doses of opium or of ardent spirits should be avoided.

"If the stools become colourless and watery (the purging being of the kind commonly called 'rice-water purging'), and be accompanied with vomiting and coldness, the opiates should be no longer persisted in, and spirituous liquors should be avoided."

This Report, which has now received the sanction of the College of Physicians, has been spoken of as a compromise; and there is, perhaps, some truth in this remark. The Committee had a delicate and a difficult task to perform. It was obviously necessary that each member, however decided might be his own convictions, should so far defer to the opinions of his colleagues as to enable them to agree upon a Report such as would be likely to be adopted by the College. The Committee, we are informed, were entirely in accord as to the terms of their Report. The result is, that the College of Physicians, while it sanctions the use of small doses of opium in the early stages of cholera, advises that, under certain conditions before mentioned, one or other of which will assuredly be present in the majority of cases of diarrhœa, a dose of castor-oil or rhubarb should be given before administering the opiate. The College condemns large doses of opium or of ardent spirits in any stage of the disease; and during the stage of collapse it entirely forbids the employment of opiates and spirituous liquors. This surely is an important step in the right direction. These suggestions cannot fail to have great weight with the profession; and there is reason to hope that they will do much to prevent that mischievous abuse of opium and alcoholic stimulants which has hitherto been too prevalent.

John Sutton and Crowther Smith have been convicted, the former for procuring himself to be registered under the Medical Act by fraudulent misrepresentations, and the other for assisting him therein; and they have been sentenced to twelve months' imprisonment and hard labour. This conviction must not be regarded as a thing of any benefit to the profession, nor as a matter of credit to the Medical Council. It simply shows that a man was silly enough to get his name fraudulently put on the *Register*, when he might have carried on his practice equally well unregistered. Any man or woman in this country may practise medicine or surgery. The qualified and the unqualified, the registered and the unregistered, in the eye of the law stand on an equal footing. If an unqualified quack maltreat his patient, he is dealt with by the law precisely on the same terms as is the qualified medical man; the only difference being, that judges and juries usually deal more mercifully with the failings of the quack than with those of the qualified practitioner. Neither, as we have said, are any thanks due to the Medical Council in the matter. It was not that body which prosecuted, but some gentleman who felt himself aggrieved by the prisoners on account of his having been involved in law by them. The Council no doubt lent their assistance, and so did the College of Surgeons; but they did no more. They initiated no proceedings. Quackery and irregular practitioners will flourish just as well after as they did before this trial; their position is not in the smallest degree affected by the results. The *Medical Register* is no protection either to the public or to the profession against the onslaughts of quackery and irregular practisers; but to many of the irregular Bashi-Bazouks of medicine, registration is a great boon. This tribe use the fact of their being registered as an advertisement; and many an honest man is forced to see his name classified in the *Register* side by side with individuals of a well known tribe, who live and thrive after a fashion which may be mildly called dishonest. This very week's papers contain a specimen of the consideration shown both by judge and jury towards an irregular, a bone-setter, who, by ignorance and the use of brutal force, had clearly been instrumental in destroying the life of his patient.

"At the Norfolk Assizes, a bone-setter named Bennett was indicted for the manslaughter of James Squires. The deceased, sixty-six years of age, put his shoulder out, and went to the prisoner to have it set. The latter employed several men to pull at the arm; and these did their work so vigorously, that muscles were torn asunder and blood-vessels ruptured. The man died the same evening. His lordship, in summing up, pointed out that the fact was, that more force had been used than was necessary or intended; and that, while on the one hand it appeared that the prisoner was grossly ignorant on surgical matters, on the other there was no imputation of negligence against him. The jury returned a verdict of Guilty; and the prisoner was ordered to pay a fine of £50, or to go to prison for six months if the fine was not paid before the next gaol delivery for the county."

We very much doubt if a qualified medical man would have got out of such a business on so easy terms. No negligence, the judge said, was imputed to the bone-setter. But what is negligence? Is it not the perfection of negligence to undertake a serious business of this kind, by which a man's life is destroyed, and solely through the gross ignorance of the operator? If we are to carry out the judge's definition of negligence, we ought to give the bone-setter thanks for his remarkable energy and the amount of active attention he bestowed upon the case. However, this much is certain: an unqualified man, "grossly ignorant of surgery," may undertake any surgical operation on the same terms as the qualified man; the sole difference being, that the qualified man can make a legal claim for payment of his services.

Several correspondents have expressed to us a feeling, which we have reason to believe, is widely spread amongst members of our profession. It is that some fitting acknowledgment should be made by medical men to our distinguished associate, Dr. Richardson, for his devotion to physiological and pathological studies; and especially for the very great boon which he has bestowed upon humanity by his practical application of local anæsthesia. Justice requires that something of this kind should be done, if only for the purpose of definitely awarding to him the rights which he possesses to the claim of rendering local anæsthesia a practical fact. Already some feeble efforts have been made to take from him the merit which is solely his. A public professional acknowledgment of the fact would be a lasting record of his claim, such as could not be hereafter successfully attacked. We have long felt that this is what is due to Dr. Richardson; but, instead of saying so, we have preferred that our professional brethren should themselves take the lead in bringing it about. The suggestion will, doubtless, meet with a wide response from the profession at large. We are not sure that the occasion would not justify the eliciting of a much wider than merely professional response.

Dr. Mackesy, in his address at the annual meeting of the Medical Association of Ireland, in Dublin, in June last, made the following excellent remarks in reference to the representation of the profession in Parliament.

"We ask to send a few distinguished members of our body to Parliament, in order that their knowledge of the laws of health, their professional experience of the sanitary defects of our large cities, and their practical skill in providing against the spread of epidemics, may be placed at the disposal of the legislature, rendering practical and efficient the sanitary legislation of the empire, and thus adding to the health and longevity of the community at large. I do not hesitate to state that, if the House of Commons had the advantage of the presence of a few medical representatives of experience and standing, to suggest and to advise on sanitary legislation, the lives of thousands might be annually saved—lives which are now sacrificed from the want of proper hygienic enactments, and the absence of practical sanitary legislation. It may be objected that the few members of our profession who, by some rare chance, have forced their way into Parliament, have not conspicuously distinguished themselves in connexion with subjects affecting the public health. This, it appears to me, is an argument in favour of the principle of medical representation. The few medical members of the House of Commons to whom the objection may be applied were elected for political objects or for local interests. Their medical qualification was an accidental circumstance that had no influence in their election. I think it must be obvious that the medical practitioners of the United Kingdom are the men who should form the constituencies (*quoad* medical representation) and be entrusted with the selection of medical members of Parliament. It has also been objected that medical representation would be a class representation. It has, however, in the recent debates on the Reform Bill, been put forward that all classes should be adequately represented in the British House of Commons; and it is now universally admitted that intellect and education possess the strongest claims to representation. The present unrepresented state of the medical profession becomes the more conspicuous when contrasted with the other learned professions. The Church has for its support in the House of Commons the representatives of the Universities, and in the House of Lords the bench of bishops. The legal profession sends a large number of its members into the legislature. The representatives of the legal profession may be said to be the skilled advisers of the legislature upon all questions which either directly or indirectly come within the sphere of their special attainments. The medical profession, on the contrary, is almost totally unrepresented in Parliament; and yet how often do questions affecting the health of towns, the mortality of our infant population, the legislative regulation of trades injurious to the health of our factory operatives, the pollution of public streams, the poisonous effects of gaseous exhalations incidental to several branches of our manufacturing industry, the sale of poisons, and several other social subjects, come under the consideration of Parliament, on all of which it would be difficult to exaggerate the value and importance of practical advice and guidance in committee on the part of medical practitioners of experience and sound scientific attainments. The presence of such men in the House of Commons would render unnecessary the circuitous and expensive resort to Royal Commissions of Inquiry. I think it would not be difficult for our profession to send to the House of Commons representatives whose attainments and reputation would shed additional lustre upon the muster-roll of that distinguished assembly. In England, Ireland, and Scotland, there is a medical constituency of about 19,000 men. No cumbrous machinery would be required for recording the votes of our profession for special representatives. The *Medical Register* gives the registry of voters; and it would only remain to issue voting-papers, the same as the universities."

The interest shown in the Poor-law Infirmary Reform by the present ministers is very satisfactory. Mr. Disraeli alluded to the subject in addressing his constituents at his recent re-election.

"The revelations which have taken place respecting the infirmaries of our union poor-houses in London have called forth a feeling of universal horror; but, gentleman, that is only part of a large subject. It will be necessary for us to consider how far we can improve not only the general administration of that branch, but also how we can improve other branches of the government of the great metropolis."

We have much pleasure in stating that the following announcement, which has gone the round of the papers for the last few days, is true.

"We believe we can safely announce that, at the Council held at Windsor yesterday week, Her Majesty the Queen signed the Order confirming the suggestions made by Sir Alexander Milne's Committee for improving the pay and position of the medical officers of the two services. (*Army and Navy Gazette.*)"

No alterations have, as we understand, been made in the recommendations of the Admiralty Committee. The Naval Medical Service, notwithstanding Dr. Gibson's protest, gets the extra pay recommended; and, if we are rightly informed, the Army Medical Service gets even more than was recommended. We may, therefore, safely congratulate our army and navy medical brethren on the change of ministry. General Peel and Sir John Pakington have made very short work of what the last men have been playing with for many past months. As regards the period when the new warrants will come into operation, we may say that it is probable they will take effect from January 1867.

Mr. Gathorne Hardy's explanation of his intentions respecting Poor-law Medical Reform is a complete inculpation of his predecessors. He says that he believes the Poor-law Board has at present powers sufficient to bring about the reforms needed; and he means to try those powers. He asks for no special legislation on the subject during the present Parliament.

A pamphlet, entitled *The True and False Sciences—a Letter on Homœopathy*, has just appeared. It is well written and well-intentioned, but, we fear, will have little avail in its object. Those who believe in homœopathy are not led to the belief by reason, but by credulity; and, as in all similar cases, whenever belief in the unreasonable has possession of a man, the more absurd the thing believed, the more firmly is it held to. To attempt to argue the credulous out of their error is a pure waste of time, and worse; for such attempts generally end by confirming them deeper in the error. The best thing to do is to leave them alone—to time, and to the possible opening of their eyes by the light of science. In the meantime, medical science may learn, and has learnt, much from this homœopathic delusion. It has been taught to distinguish more narrowly between the *post* and the *propter* in the matter of remedies. Moreover, we must not forget that we have yet a large battle to fight against the yearnings of our own beliefs in the effects of remedies. True, medical science is happily trammeled by no dogmatic or manufactured laws of the Hahnemannic calibre. We are free to believe whatever a reasonable belief may lead us to accept. We can renounce unhesitatingly to-day what we accepted yesterday, if a better knowledge tells us to do so. We admit that our guiding-strings are as yet mainly empirical, and every day we are learning more clearly to appreciate the real value of our empirical methods. All systems of medicine, as they are called, such as the homœopathic delusion, in the present state of our knowledge, are necessarily delusive. They are not founded on facts, but on imagined facts; *i. e.*, they rest on sand-banks. Before we can even think of raising a systematic building, we must disencumber the basis on which it is to rest from the manifold errors and faults which pervade it. The progress of medicine, unless we are much mistaken, which has marked the present generation, consists mainly in the removal of error.

The fourteenth annual meeting of the Metropolitan Counties Branch was held on Wednesday last at the Crystal Palace. The meeting was well attended; and several new members were added to the Branch, which now numbers nearly 250, and is, we believe, the largest Branch in the Association. Dr. Sieveking, the president for the past year, resigned the chair to his successor, Mr. Henry Lee; who delivered an able address, which, by request of the Branch, will appear in the Journal. After the meeting, the members and visitors, to the number of forty-nine (including Mr. Watkin Williams, General Secretary of the Association), dined together; Mr. Lee occupying the chair. The meeting was throughout highly satisfactory; and the continued prosperity of the Branch gave universal gratification.

Dr. Turner, Demonstrator of Anatomy in the University of Edinburgh, has published a lecture on the Convolutions of the Human Cerebrum, topographically considered. Late investigations, he says, have revived in Paris "discussions in which the doctrine of Gall and his disciples has been supported by new arguments; and the opinion has been expressed, that the primary convolutions, at least, are both morphologically and physiologically distinct organs."

Dr. M. Prosser James gives us a pamphlet entitled "A Visit to Vichy, comprising a Sketch of its Mineral Springs and Thermal Establishment, with a Notice of the Medicinal Uses of the Vichy Waters, Salts, and Lozenges." His object is to furnish special information on the French spa, such as may be useful to the English practitioner. The pamphlet contains a good deal of useful information.

Dr. Peacock (*Medical Times and Gazette*, 1865) describes a case in which the chordæ tendineæ of a diseased mitral valve were ruptured during a violent fit of vomiting. The young woman, the subject of heart-disease, but not suffering at all seriously, was on her way to the hospital. In the cab, she began to vomit, then was seized with short breath, and died shortly after reaching the hospital.

Mr. Milton, in a pamphlet on the *Treatment of Lupus*, says that there is good reason to believe that lupus "may always be relieved, and generally if not always cured," by a plan of treatment which he proposes. His remedies are the same as others use, but he gives them differently. Arsenic should always be given in pure simple solution, without mercury or iodide of potassium, and immediately after or with

food. It must be given in large doses, until it "produces disorder of the stomach". Calomel also is to be taken, but as a purgative—a grain or so twice a week. The best caustics are those which exclude the air and produce the least pain: a solution of nitrate of silver, for example, or the acid nitrate of mercury. Only hot (never cold) water should be used to the part. After washing, nitrate of mercury should be used to exclude the air from the surface.

M. de Candolle tells the French Academy of Sciences that, at the late meeting of botanists in London, he was astonished to hear of the marvellous results obtained by cultivation of the cinchonas in India. The Indian cinchonas contain, he says, more of the precious alkaloid than the American; viz., 10 per cent against 6 per cent.

"It is not easy," says *L'Union Méd.*, "to speak of the cholera without making some one dissatisfied. It is hard to believe how many interests and feelings lie concealed under this apparently purely scientific question. Whoever deals with it walks on live coals."

On the 4th of June last, the Vienna Medical Faculty celebrated their sixtieth annual meeting. Dr. Moritz Frey delivered an address "On the Life and Writings of Leopold Auenbrugger of Auenburg." The progress of modern medicine, he said, was in part due to Auenbrugger, whose discovery of percussion gave it a physical direction. Auenbrugger was an Austrian of whom we may well be proud, and a member of this Society; but sad is it to say that no memorial graces his last resting-place; and in the Hall of the Medical Faculty, neither monument, picture, nor inscription. *Nemo propheta in patriâ* is nowhere truer than in Germany; and Auenbrugger lived to see that his immortal discovery was first recognised in France. He was born at Gratz, in November 1722, the son of a flourishing innkeeper there. He studied medicine in Vienna, and was received into the Faculty in 1757. He then became physician to the Spanish hospital erected there by Charles VI for poor sick Spaniards, etc. There he laboured hard. According to Stoll, he had great experience in paracentesis thoracis. He died in 1809. None of his cotemporaries, with the exception of Stoll, paid any attention to his discovery. After Stoll, it was forgotten in Germany, and remained so for thirty years, until Corvisart, in 1808, again brought it into notice. The *Inventum Novum* was translated for the first time into German in 1843, by Skoda. The best accounts of Auenbrugger's life have been given by Professors Olan of Gratz, and Lebert of Breslau.

The Academy of Sciences has elected M. Van Beneden Corresponding Member in the Section of Anatomy and Zoology.

THE LATE WILLIAM SAMWAYS OKE, M.D.

We have to record the death, at Southampton, of Dr. Oke, one of the early members of our Association, and a frequent contributor to the Journal during a long series of years. He was born May 19th, 1785, and died July 14th, 1866; so that he was in his eighty-second year. He was educated at King's School, Sherborne, Dorset, and at St. George' Hospital. He entered general practice at Farnham in 1810, and practised there for eighteen years. H came to Southampton to practise as a physician in 1828, and resided there until his death.

No man took a more thorough interest in his calling, and in everything which belonged to it. It thoroughly occupied his mind, and throughout his life was its chief object, especially as a practical art. He was always a student. He had a clear head, quick perceptions, sound judgment, decision and promptness in applying remedies, with a thorough faith in them, which was grounded on a practical knowledge of his tools. During his early life in extensive general practice in Farnham, and during the latter half a physician in Southampton, much consulted by the public and called in by his medical brethren, with a large field of varied practice; also as physician to the Infirmary and Dispensary, to which institutions for thirty years he devoted himself—he had ample opportunities of becoming what he was, a sound practical physician. Nine years ago, he had an attack of hemiplegia, since which, although he no longer practised, he yet kept up his interest in his profession and his habits of mental industry as far as shattered health permitted, but giving himself more completely to that contemplative life, which in the natural course should follow the active life, and quietly lead to the grave. Throughout life he was a serious and religious-minded man; and in the interval between his busy general practice and getting into full work as a physician, he wrote a poem on the "Atonement". Besides his numerous contributions to our Journal, he published *Practical Examinations on the Immediate Treatment of the Principal Emergencies in Surgery and Midwifery; The Stomach and its Ailments; Various Diseases of the Human Body, and Practical Remedies.*

The profession itself is benefited by those of our body like Dr. Oke. The entire respectability and solidity of his character throughout a long life; his public spirit in supporting with his time, his energies, and his purse, all local plans of public usefulfulness, and especially attempts for the relief of the distressed; his constant attendance upon, and active benevolence to, the sick poor—are qualities which are sure to be, in the long run, fully recognised; and the high character of the individual is reflected on and illuminates the profession to which he belongs. It will be not inappropriate to quote here from a sermon preached before Oxford students by the Rev. H. Liddon. "I venture to hope, nay, to believe, that, as public opinion becomes more Christian, a higher, nay, the very highest, social consideration will be every where assigned to the members of that noble profession of medicine, which ministers with one hand to the progress of advancing science, while with the other it daily lavishes its countless deeds of unknown, unacknowledged generosity and kindness on the sick and suffering poor."

Association Intelligence.

BRANCH MEETINGS TO BE HELD.

NAME OF BRANCH.	PLACE OF MEETING.	DATE.
READING. [Annual.]	Council Chamber, Reading.	Wednesday, July 25th, 4 P.M.
YORKSHIRE. [Annual.]	Museum of the Philosophical Society, York.	Thursday, July 26th, 3 P.M.

READING BRANCH.

THE annual meeting of the Reading Branch will be held at the Council Chamber, Reading, on Wednesday, July 25th, at 4 P.M.

GEORGE MAY, JUN., *Hon. Secretary.*

Reading, July 2nd, 1866.

YORKSHIRE BRANCH.

THE annual meeting of the Yorkshire Branch will be held in the Museum of the Yorkshire Philosophical Society, at York, on Thursday, July 26th, at 3 P.M.

The members and visitors will dine together at the Royal Station Hotel after the meeting.

S. W. NORTH, *Secretary, pro tem.*

31, Castlegate, York, July 17th, 1866.

SOUTH-WESTERN BRANCH: ANNUAL MEETING.

THE annual meeting of this Branch was held at Launceston on June 20th. Present: D. THOMPSON, Esq. (Launceston), President; T. Linnington Ash, Esq. (Holsworthy); R. H. Clay, M.D. (Launceston); J. Doidge, Esq. (Lifton); S. Felce, L.R.C.P.Ed. (Launceston); Rev. J. Meryick Field (Ashwater); T. Good, Esq. (Launceston); R. Kerswill, Esq. (St. Germans); P. W. Swain, Esq. (Devonport); W. P. Swain, Esq. (Devonport); J. Thompson, Esq. (Bideford); E. L. West, L.R.C.P.Ed. (Launceston).

A letter was read from T. L. Pridham, Esq., of Bideford, expressing his regret at being unable to attend the meeting.

President's Address. The PRESIDENT delivered an address, which is published at p. 73.

Votes of Thanks. Mr. SWAIN, sen., proposed a vote of thanks to the late President for his services to the Association.

Mr. KERSWILL seconded the resolution, which was carried unanimously.

Mr. ASH proposed a vote of thanks to Mr. Thompson, the new President, for his able and interesting address.

Mr. SWAIN, jun., in seconding the resolution, mentioned a case similar to one of those alluded to by Mr. Thompson. He would like to see the two grouped together and published.

Next Meeting: President-elect. On the motion of Dr. J. THOMPSON, seconded by Dr. FELCE, it was resolved to hold the next meeting in Exeter.

Mr. SWAIN, sen., proposed that Mr. De la Garde be President for the ensuing year. He was one of those fine old practical surgeons whom all must respect. The paper he had read on surgery was quaint, but full of cleverness, and showed his ability, and a long and valuable career of practice.

Mr. KERSWILL seconded the resolution, which was carried unanimously.

Branch Council. The following gentlemen were then unanimously elected members of the Branch Council for the ensuing year: A. Baker, M.D. (Dawlish; S. Budd, M.D. (Exeter); W. H. Elliot, M.D. (Exeter); J. W. Harris, Esq. (Exeter); A. Kempe, Esq. (Exeter); G. W. Lillies, M.D. (Chudleigh); and F. Mackenzie, Esq. (Tiverton).

Secretary. The PRESIDENT said their next duty was to elect a Secretary in the place of Mr. Roper. He had discharged the duties of the office for many years, with great credit to himself and benefit to the Branch. Although they would be deprived of his services in directing and guiding, he would still be present with them in spirit.

The SECRETARY said the duties which he had had to discharge entailed much labour; and, as he was becoming more busy every year, he found he could not continue to hold the office. He thanked the members for the kindness and courtesy he had received. His friend Mr. Stonard Edye was well qualified for the office, which to a young man was beneficial, by bringing him into contact with members of the profession.

Mr. SWAIN proposed, and Mr. KERSWILL seconded, the election of Mr. Stonard Edye as Secretary; which was carried unanimously.

On the motion of Dr. J. THOMPSON, seconded by Mr. SWAIN, a cordial vote of thanks was proposed to the late Secretary for his efficient services to the Association.

Mr. ROPER, in acknowledging the vote, expressed the pleasure and satisfaction he had experienced in his official connexion with the Society.

The BRITISH MEDICAL JOURNAL. Dr. FELCE proposed the following vote of thanks to the editor of the BRITISH MEDICAL JOURNAL.

"That the JOURNAL is, in the opinion of this Branch, essential for maintaining the unity and increasing the influence of the British Medical Association; and that the editor deserves the best thanks of the Branch for his unwearied efforts to uphold the honour and promote the interests of the medical profession."

Dr. FELCE said there had been a great outcry once; but it was chiefly from outside the Association, and by persons who never saw the JOURNAL at all. Those who read it felt it their duty and pleasure to uphold the hands of the editor.

Mr. ROPER, in seconding the resolution, bore testimony to the ability of the editor, and the generally advanced position of the JOURNAL.

The resolution was carried unanimously.

New Members. The following gentlemen were elected new members of the Branch: J. Doidge, Esq. (Lifton); Rev. J. Meryick Field (Ashwater); T. Good, Esq., Coroner for East Cornwall (Launceston); H. E. Sargent, M.D. (Launceston); E. L. West, L.R.C.P.Ed. (Launceston).

Medical Provident Society. Dr. Cookworthy of Plymouth, and Dr. Felce of Launceston, were elected to represent the Branch at the Board of Directors of the Medical Provident Society.

Representatives in the General Council. The following gentlemen were elected members of the General Council of the Association: C. Barham, M.D. (Truro); J. C. Cookworthy, M.D. (Plymouth); C. R. Hall, M.D. (Torquay); T. L. Pridham, Esq. (Bideford); W. P. Swain, Esq. (Devonport).

Addresses. Interesting addresses were then read, by Dr. Ash on the Progress of Medicine, and by Mr. W. P. Swain on the Progress of Surgery, during the past year. A lively and interesting discussion followed each, and hearty votes of thanks were presented to the readers at the close.

Dinner. The members present then dined together at the White Hart Hotel.

Correspondence.

THE GRIFFIN TESTIMONIAL FUND.

LETTER FROM ROBERT FOWLER, M.D.

SIR,—I beg now to submit my balance-sheet in connection with the above. The fund was started "for the object of—firstly, defraying the outstanding expenses pertainable to Mr. Griffin's Poor Law Medical Reform Fund; and subsequently enabling our whole body to present him with such a testimonial as might be determined upon."

The first part of the object has been provided for by debiting the fund with £15 : 5 : 6. In a letter addressed, June 29, 1864, to the subscribers of the Poor Law Medical Reform Association, it appears that this balance was then due to Mr. Griffin. The second part was consummated on the 5th inst. at the Freemasons' Tavern.

I have only to add that, in addition to the above £15 : 5 : 6, there was a further balance in hand of £48 : 8 : 0, which I have also forwarded by cheque to Weymouth.

An engraving of the epergne will, I trust, be in the *Illustrated London News* of Saturday the 28th inst.

I hope you will now allow me a short space to state that I feel that the time has come for me to resign the post, which for the last seven years and a half I have held, as secretary to the metropolitan poor law medical officers. Public and private avocations alone compel me to this. The fulfilment of the undertaking of presenting a testimonial to Mr. Griffin I have long intended should be the termination of my active clerical labours. It is therefore but right to those brother medical officers, who for some years have looked upon me as their representative, that I should give an account of my past stewardship.

For many years the medical officers of the three city unions had been in the habit of holding monthly meetings to compare their experiences, and determine upon a common course of conduct in matters parochial, sanitary, and sanatory, affecting their several appointments.

Dr. Lobb, late of the East London Union, was for many years the honororary secretary. Circumstances necessitated the dissolution of the association, when, very shortly afterwards, the then President of the Poor Law Board (the Hon. Sotheron Estcourt), in honourable fulfilment of his promise, promulgated his "Heads of a Scheme for a suggested New Arrangement of Medical Relief." On Jan. 3, 1859, by the united wishes of a preliminary committee, subsequently ratified by the unanimous vote of a general meeting of metropolitan poor law medical officers, I assumed and have ever since retained my representative position. The resolutions submitted by the committee to this meeting were unanimously adopted.

After four subsequent committee meetings the course of action eventuated in a numerous deputation, which was introduced to the poor law president by Earl (then Lord John) Russell, accompanied by many other members of Parliament. The deputation clearly shewed the president that, through the alterations suggested, not only would our independence of action have been very vitally threatened, but our professional honour and honesty would have been sorely tempted by the intended rivalry and competition. The president was convinced of the inacceptability of his scheme, and withdrew it. Two other committee meetings were held that year.

In 1860 five committee meetings were held to watch the progress of Mr. Pigott's bill, which, by reason of the opposition of the guardians, he was compelled to withdraw.

In 1861 ten committee and subcommittee meetings were held, to devise a course of action in reference to the Select Committtee moved for by Mr. Villiers to inquire into the administration of the poor law.

At a general meeting held May 10, 1861, the statement (vide BRITISH MEDICAL JOURNAL, May 18, 1861) of the committee was adopted, as the embodiment of the collective opinions of the metropolitan poor law medical officers; and Mr. Villiers was respectfully solicited that certain members of the latter body be called before the said (Parliamentary) committee, in order that they might be examined on the several points contained in such statement. Of the six names forwarded, the Select Committee called upon two only, Dr. Rogers and myself, to give evidence during the last half-hour of the last day on which the committee sat. Our evidence appears in the Fifth Report on Poor Relief (England) 1861; and in the Appendix to the same appears also a Memorandum delivered in by myself, and which, though incorrectly and imperfectly transcribed, goes more into detail than did my evidence in chief, by reason of the very short time allowed me to speak.

In 1862 I was again examined by the Select Committee. Of this examination it now only becomes me to say that, at the very first of our last two committee meetings in 1862, I stated that, as I could no longer conscientiously advocate the per-case system of payment, and on which I was of opinion the committee had pledged itself in the statement delivered in to the Parliamentary committee, I tendered my resignation. I added that "as my strongly expressed convictions may tend to fetter your future actions, and may conduce to the damage of the good cause, I feel that I ought no longer to hold office, and am not fit to be your representative." Nevertheless the following resolution was carried unanimously:—

"That the thanks of this committee be given to Dr. Fowler for his energetic exertions in behalf of the cause of the Metropolitan Poor Law Medical Officers, and that he be requested to continue the duties of the office of Honorary Secretary, which he has so ably fulfilled."

I must now, however, again most firmly tender my resignation. The "good cause" will most assuredly suffer if it remain longer in my hands. I have no time to devote to the active duties of its metropolitan secretaryship.

I hope ever to take a lively interest in the question, and shall be at all times delighted to aid in any way that my now little leisure will admit of. It would be presumptuous to assume that the committee of the metropolitan men must necessarily collapse by my resignation. Should an occasion arise, I know that they who have so ably worked with me during the last seven years and a half would not hesitate to follow a well trusted leader.

It is right that it should be known, that during the whole period of its existence, the expenses incidental to the proceedings of the committee have been entirely met by contributions from the metropolitan men alone, without in any one instance trenching upon the funds of Mr. Griffin's Reform Association.

Now, in conclusion, let me first, as treasurer and honorary secretary to the Griffin Testimonial Fund, most cordially thank the committee, and especially the excellent chairman, Henry Blenkarne, Esq., City of London, for the time they have given me during half-a-dozen successive meetings; and especially let me express my most grateful obligations to the 400 subscribers, who have so liberally enabled me to successfully prosecute what I two years ago undertook.

Secondly, as honorary secretary to the metropolitan poor law medical officers, permit me to say, that for the attention shewn to my suggestions, for the invariable kindness always and universally displayed towards me, I sincerely and most cordially thank them all, collectively and individually; and hoping ever to remain in

their very good remembrances, I subscribe myself ever their truly obliged, ROBERT FOWLER.

145, Bishopsgate Street Without, July 16th, 1866.

Robert Fowler, Treasurer, in account with the Griffin Testimonial Fund.

DR.

June 24th, 1864, to July 10th, 1865.

Per 393 Subscriptions forwarded to the Treasurer	202	9	3
Per 22 Subscriptions forwarded to *Lancet* office	13	11	6
To interest on £100 deposit at London and County Bank	6	8	9
	£222	9	6

CR.

Mappin, Webb, and Co.	117	3	0
London Stereoscopic and Photographic Co.	10	7	6
Postage	18	9	0
Stationery and printing	7	1	6
Advertisements	4	7	0
Carriage, porterage, and cab-hire	0	7	0
Freemasons' Tavern Co.	1	1	0
Balance due to Mr. Griffin June 29th, 1864, from the Poor-law Medical Reform Association	15	5	6
Balance	48	8	0
	222	9	6

THE GRIFFIN TESTIMONIAL AND POOR-LAW MEDICAL REFORM.

LETTER FROM RICHARD GRIFFIN, ESQ.

SIR,—Allow me space to offer my warmest thanks to the subscribers to the testimonial presented to me on the 5th instant. To have four hundred gentlemen, scattered over the length and breadth of the land, thus coming forward, is an honour which I highly prize, as it proves to me that the course I have hitherto pursued is one that is approved of by a large body of my medical brethren. To those gentlemen who are not Poor-law medical officers, I am especially indebted. To those that are, my thanks will be best proved by my devotion to the cause of Poor-law medical reform; the accomplishment of which will, I feel confident, be not only beneficial to them, but to the nation at large. To Dr. Fowler, the Honorary Treasurer and Secretary to the Testimonial Fund, I know not how sufficiently to express my thanks for all the trouble he has taken in the affair. I can only say I thank him very sincerely. To the medical press, my acknowledgments must ever be due; for without their aid I could never have been placed in a position to merit the testimonial I have received. The subject of the testimonial (the Good Samaritan) is one which must ever make me feel it to be a religious duty to relieve suffering humanity. As a work of art, the testimonial is nearly perfection; the expression of the countenances of the figures cannot be better. The album of photographs of my medical friends I greatly prize, and yet hope the few gaps in the volume will be speedily filled. To all and every one my thanks are due.

I shall feel obliged by your insertion of the annexed letter to the President of the Poor-law Board.

I am, etc., RICHARD GRIFFIN.

The following gentlemen have forwarded their subscriptions to the funds of the Association: J. M. Greensill (Martley), 5s.; R. N. Robson (Durham), 10s.; Jas. Hughes (Northwich), 10s.; T. T. Jones (Chesterfield), 5s.; H. M. Simmond (Newington St. Mary), 10s.; E. G. Verenne (Witham), 10s.; Arthur Pearse (Hartismere), 5s.; T. L. Price (Wigan), 5s.; J. A. Freeman, (Hartley Wintney), 10s. 6d.; W. A. Peacock (Halifax), 10s.; John Robinson (Halifax), 10s.; T. L. P. Pugh (Halifax), 10s.

"12, Royal Terrace, Weymouth, July 9th, 1866.

"SIR,—I have the honour to inform you I have in my possession a petition from a meeting of Poor-law medical officers held at the Freemasons' Tavern on July 5th, which I shall be glad to present to you, as President of the Poor-law Board, whenever it will be convenient for you to receive it. It is signed by the chairman only, on behalf of the meeting; but if you desire other signatures, I will quickly procure them. In order that you may at once know its contents, I send you a printed copy.

"I beg to forward you a summary of the proceedings of the Poor-law Medical Reform Association, of which I have the honour to be chairman, in order that you may know what has occurred during the last eleven years, and thus enable you at a glance to understand the question.

"I also send you a copy of a pamphlet, which has been delivered to the Poor-law Board, but which has not been, as yet, forwarded to the individual members of the House of Commons, owing to the Reform Bill obstructing almost all other business. At page 12 of the pamphlet, you will perceive a proposed Bill, which I sincerely trust the Poor-law Board will bring into Parliament. It is not a Bill for a class, although urged upon the country by medical men; it is a Bill that will benefit the entire nation. The Right Hon. T. Sotheron Estcourt, when President of the Poor-law Board, said, 'I freely and at once admit that I am of opinion that the system of medical relief throughout the country requires alteration.' The papers have of late teemed with the abuses of the present system. I respectfully urge upon you to lose no time in taking this subject into your serious consideration. I believe a Poor-law Board Continuance Bill must be brought into the House this session. I pray you to take powers in that Bill to carry out the necessary reforms. I will attend any day you may name, either alone, with three or four other medical men, or with a large deputation; but, in the latter case, I shall require ten days' notice to inform my medical brethren of it. At any rate, I trust you will allow me to ask some members of Parliament to accompany me. "I have the honour to be, sir,

"Your most obedient servant,

"RICHARD GRIFFIN.

"The Right Hon. Gathorne Hardy, M.P., President of the Poor-law Board."

MEDICAL MISSIONS.

LETTER FROM R. HIBBERT TAYLOR, M.D.

SIR,—The subject of medical missions has of late years acquired considerable prominence, and has engaged the attention of many persons both in and out of our profession. Having for some time past acted as secretary to a medical missionary society in Liverpool, and more recently taken part along with others in establishing a dispensary in connection with this society, I have seen a good deal of the practical working of the system, and feel persuaded that is both feasible and useful. Influenced by this conviction, I am anxious to bring the subject under the notice of the members of the British Medical Association at their annual meeting, to be held in Chester next month.

As medical missions do not belong to the range of subjects recognised by the Association, and cannot therefore be included in the programme of its proceedings, I propose to give a short address, entitled, "Medical Missions in their Foreign and Home Aspects," at which

the members of the Association will be respectfully invited to be present.

The address will be delivered on an early day of the meetings, and in some convenient locality, of which due notice will be given at the time.

I am, etc., R. Hibbert Taylor, M.D.

Liverpool, July 12th, 1866.

THE TRIAL OF WIGHT *versus* FIELD.

Letter from John C. Langmore, M.B.

Sir,—I beg to enclose a copy of a letter which has been addressed to Mr. Octavius Field by some of his medical friends, expressing their sympathy with him in regard to the proceedings in the recent trial of Wight *v.* Field. I hope that you will find space for it in your columns this week. Had time permitted, the number of signatures thereto would have been much greater.

I am, etc., John C. Langmore.

48, Sussex Gardens, W., July 18th, 1866.

"Dear Sir,—We desire to offer to you the expression of our earnest sympathy in the annoyance which must have been occasioned to you by the proceedings in the recent case in which your name was made to appear in a law-court under very unpleasant circumstances. We, who have had the opportunity of knowing your blameless life and honourable career, appreciate highly the excellent qualities which you have displayed both in your professional and social relations; and we feel it a duty to say that we are fully assured that the imputations made in the course of the proceedings are really groundless, and that your conduct throughout was marked by kindness and rectitude. We hold that they leave your character stainless, and we are happy to assure you of our undiminished friendship and esteem.

(Signed)

"F. Sibson, M.D., F.R.S.; C. Handfield Jones, M.D., F.R.S.; W. H. Broadbent, M.D.; S. A. Lane; Haynes Walton; J. R. Lane; Ernest Hart; Geo. G. Gascoyen; Cundell Juler, M.D.; J. C. Langmore, M.B.; W. B. Owen; J. G. Forbes; J. Rushforth; C. A. Aikin; A. Collinson, M.D.; C. Malton; T. H. Hill; W. Smith; F. Danford; C. Miles; W. H. Gardner; J. B. Curgenven; J. Taylor; F. Cock; C. Royston; G. Gaskoin; R. D. Harling, M.D.Lond.; A. Billing, M.D.; H. Bence Jones, M.D.; Thos. Watson, M.D., Bart.; Erasmus Wilson, F.R.S.; E. H. Sieveking, M.D.; John Morgan; James Copland, M.D., F.R.S.; W. O. Markham, M.D.

"Octavius A. Field, Esq.

Letter from Francis Sibson, M.D.

Sir,—As the witnesses for the defence in the case of Wight *v.* Wight and Field were not called, although it was Mr. Field's expressed wish that they should appear, I feel desirous to state through your columns what I was prepared to say in court in Mr. Field's favour.

In October 1861, I saw Mrs. Wight several times in consultation with Mr. Field, when she was affected with insanity. Dr. Wight, the brother-in-law of Mrs. Wight, and the uncle of her husband, took part in some of our deliberations; and he it was who placed her in an asylum, on the certificate of myself and Mr. Hill.

During my attendance, Mr. Field treated his patient with the most perfect delicacy and propriety; and the conduct of Mrs. Wight towards him was marked by confidence and esteem, and that at a time when, owing to her disease, all restraints of deception were impossible. That lady's cousin, Mrs. Field, was in attendance upon her night and day during her illness; and I need scarcely suggest that, if there had been any reason on Mr. Field's part to conceal from Mrs. Field the character of his intercourse with Mrs. Wight, he would not have placed his own wife so unreservedly in contact with that lady. To those who, like myself and the whole profession in his immediate neighbourhood, have acquired a knowledge of the high and gentlemanlike tone of Mr. Field, the evidence in his favour which I am able to afford is not needed; but I am happy to give it through your channel to others who have not had the opportunity of marking the honourable tenour of his whole life. I am, etc.,

Francis Sibson.

40, Brook Street, Grosvenor Square, July 18th, 1866.

THE TREATMENT OF CHOLERA.

Letter from John Firth, Esq.

Sir,—I send you my mite in aid of the inquiry, "How shall we treat cholera?" Until we know more of the nature of these zymotic poisons, I do not think we are in a position to treat cholera or choleraic diarrhœa otherwise than as practical experience shall direct us. No two cases can be safely dealt with alike. Idiosyncrasy, amount of poison taken, etc., must have their influence; and while one person may require opium and astringents alone, another may need castor oil or grey powder and rhubarb, followed by the former remedies. In those cases of algide cholera where neither sickness nor purging obtain, and where, according to the views of Drs. Johnson and Parkes, spasm of the pulmonary arteries exist, we should expect relief from those means which are known to be so valuable in asthma and spasm, such as chloroform, ether, opium, etc.

From my own experience in 1832 and in 1849, and when I saw a large amount of choleraic diarrhœa, and from the experience of other practitioners of whom I have made inquiries, I must say that chalk mixture with opium, sulphuric acid with opium, preceded or followed by occasional aperients, were the drugs the use of which appeared to give the greatest amount of satisfaction; while in dysentery, castor oil, or sulphate of magnesia and rhubarb, with opium, are almost specific (conjoined with diluents, warmth and counterirritation) in my own practice. I am, etc.,

Jno. Firth.

Macclesfield, July 1866.

PROFESSIONAL ETIQUETTE.

Letter from Henry Dick, M.D.

Sir,—On Friday, July 13th, one of my patients gave unmistakable signs of derangement of his brain, and I thought it prudent and necessary to put him under some gentle restraint. I called upon Dr. Forbes Winslow, but this gentleman was out of town. The friends of my patient were anxious to put him in some safe place, to prevent any accident. As the signatures of two medical men are required to do so, I suggested to the friends of my patient to call in Mr. Haffenden, their own medical man. Mr. Haffenden was willing to sign the paper; but, at his second visit to the house, he told me he would rather wait a day, and see a little more of the patient before signing the paper. I respected these scruples; and we agreed that Mr. Haffenden should let me know the next day the time we should meet again. I heard nothing the next day of my patient; but on the second day one of his friends called upon me, informing me that Mr. Haffenden had called in Dr. Tuke, and my patient was placed in his hands. *Où allons nous?* I am, etc.,

Henry Dick.

59, Wimpole Street, W., July 19th, 1866.

Medical News.

ROYAL COLLEGE OF PHYSICIANS OF LONDON. At a general meeting of the Fellows, held on Wednesday, July 18th, 1866, the following gentlemen, having undergone the necessary examination, and satisfied the College of their proficiency in the science and practice of medicine, surgery, and midwifery, were duly admitted to practise physic as Licentiates of the College:—

Bateman, Francis, Canterbury
Clothier, Henry, 2, Wilmington Square
Gill, John, Guy's Hospital
Grosjean, J. Keith Jeanneret, 11, Sheffield Gardens, Kensington
Horton, Henry James, Wrentham
Kenyon, George Arthur, 30, Soho Square
Leonard, Frederick Lewis, Royal Navy
Low, Alexander James, 137, St. John Street Road
Ransford, Gifford, St. George's Hospital
Stevens, George Jesse Barnabas, 9, Trigon Road, Clapham Road
Tayler, George Christopher, St. Bartholomew's Hospital

At the same meeting, it was reported by the examiners that the following had passed their *primary examination* for the Licence of the College:—

Amsden, George, King's College
Bennett, William James, Guy's Hospital
Havard, David, University College
Laking. Frank Henry, St. George's Hospital
Lewis, William Bevan, Guy's Hospital
Lloyd, John, University College
McConnell, James Frederick Parry, St. George's Hospital
Minter, Edward Withers, University College
Rootes, George, Guy's Hospital
Sells, Charles John, Guy's Hospital
Stokell, George, Guy's Hospital
Taylor, James Mare, Wednesbury
Walker, Benjamin, Guy's Hospital

APOTHECARIES' HALL. On July 12th, 1866, the following Licentiates were admitted:—

Read, Arthur Walter, Arden Lodge, Coventry
Simpson, John Henry, Fore Street, Cripplegate
Thomas, Owen Roberts, Liverpool

At the same Court, the following passed the first examination:—

Havard, David, University College
Kipling, William, University College
Lloyd, John, University College
Loy, Thomas Richardson, University College
Minter, Edward Withers, University College

APPOINTMENTS.

BAYLIS, C. O., M.D., appointed Medical Officer of Health for Birkenhead.
*HARRISON, Charles, M.D., appointed Medical Officer to the City of Lincoln Local Board of Health.

ARMY.

ANDREW, Staff-Assistant-Surgeon G., M.B., to be Assistant-Surgeon 6th Foot, *vice* C. Rattray, M.D.
BEALE, Assistant-Surgeon R. H., 53rd Foot, to be Assistant-Surgeon 1st Foot, *vice* W. S. Hedley, M.D.
BINDON, Staff-Surgeon H. V., M.D., to be Surgeon 25th Foot, *vice* D. W. Lawlor.
FERGUSON, Staff-Assistant-Surgeon J., to be Assistant-Surgeon 3rd Foot.
HOOPER, Staff-Assistant-Surgeon A., to be Staff-Surgeon, *vice* Staff-Surgeon-Major W. C. Seaman, M.D.
HEDLEY, Assistant-Surgeon W. S., 1st Foot, to be Assistant-Surgeon 53rd Foot, *vice* R. H. Beale.
HIFFERNAN, Assistant-Surgeon E. L., 5th Foot, to be Staff-Surgeon, *vice* D. Hanley, M.D.
HOPKINS, Assistant-Surgeon E., 71st Foot, to be Assistant-Surgeon 2nd Foot.
MCCARTHY, Staff-Assistant-Surgeon J. J., M.D., to be Assistant-Surgeon 5th Foot.
O'REILLY, Staff-Assistant-Surgeon J. J., to be Assistant-Surgeon 71st Foot, *vice* E. Hopkins.
POPE, Assistant-Surgeon J. J., Royal Artillery, to be Staff-Assistant-Surgeon, *vice* C. E. Smith, M.D.
POWELL, Staff-Assistant-Surgeon F., to be Assistant-Surg. 1st Foot.
RATTRAY, Assistant-Surgeon C., M.D., 6th Foot, to be Assistant-Surgeon 37th Foot.
RUTTLEDGE, Staff-Assistant-Surgeon W. F., to be Assistant-Surgeon 5th Foot, *vice* E. L. Hiffernan.
SEAMAN, Staff-Surgeon-Major W. C., M.D., retiring on half-pay, to have the honorary rank of Deputy Inspector-General of Hospitals.
SMITH, Staff-Assistant-Surgeon C. E., M.D., to be Surgeon 11th Hussars.
TARRANT, Assistant-Surgeon T., M.D., Royal Artillery, to be Staff-Surgeon, *vice* H. V. Bindon, M.D.

ROYAL NAVY.

DAVIDSON, J., M.D., to be Deputy Inspector-General of Hospitals and Fleets.
ORD, Christopher K., M.D., Surgeon, to the *Fisgard*.
PIERCY, Frederick, Esq., Surgeon, to the *Wivern*.
SECCOMBE, Thomas, M.D., Surgeon, to the *Pembroke*.

BIRTHS.

ADAMS. On July 6th, at Maidstone, the wife of *Matthew A. Adams, Esq., of a daughter.
WATERS. On July 15th, at 1, Southampton Street, Bloomsbury Square, the wife of John Waters, Esq., Surgeon, of a daughter.

MARRIAGES.

*DODGSON, Henry, M.D., of Cockermouth, to Frances, eldest daughter of the late Edward HUGHES, Esq., of the Royal Naval School, Greenwich, on July 17.
FOWLER, George, Esq., L.R.C.P., of Kennington Park, to Jane, youngest daughter of the late John CULLEN, Esq., of Dublin, at St. Pancras Church, on July 14.
GATCOMBE, Henry Ruscomb, Esq., of Ashfield, North Petherton, Somerset, to Emily Sophia, second surviving daughter of Joseph Myers JACKSON, Esq., Deputy Inspector-General of Hospitals, Bellary, Madras, at East Budleigh, Devon, on July 14.

DEATHS.

CLINTON-MARTIN, Henry, Esq., Staff-Surgeon H.M.S., half-pay, at Adelaide, South Australia, on May 14.
LUKE. On July 15th, at Southend, aged 8 months, Joseph Henry Ridsdale, only son of Joseph Luke, L.R.C.P.Ed., of Claremont Square, Pentonville.
M'KECHNIE, Alexander, M.D., Inspector-General of Hospitals and Fleets, at Southsea, aged 63, on July 12.
*OKE, William S., M.D., at Southampton, aged 81, on July 14.
PRESTON, David, M.D., half-pay 13th Dragoons, at The Grange, Michael's Grove, Brompton, aged 78, on July 14.
STIVEN, W. S., M.D., late Physician-General Bengal Army, at Pitlochrie, Perthshire, aged 79, on July 13.
STRONG. On July 11th, at Croydon, aged 3 years and 9 months, Oswald Henry Baber, only son of *Henry J. Strong, M.D.

DR. RUTHERFORD HALDANE has resigned his position as editor of the *Edinburgh Medical Journal*, and will be succeeded by Dr. Sanders.

DR. RICHARDSON'S ETHER-SPRAY APPARATUS, says the *Medical Record*, is in successful use in New York. Professor Gouley used it in the University Medical College, in two cases of tumours of the scalp.

AMERICAN MEDICO-BIOGRAPHICAL DICTIONARY. Dr. Toner of Washington proposes to issue a biographical dictionary of all deceased American physicians. The collection is to embrace some ten thousand names, so as to give a national character to the work.

THE MEDICAL ACTS. A deputation from the General Council of Medical Education and Registration, consisting of Dr. Burrows, president of the Council; Dr. Andrew Wood, of Edinburgh, and Dr. Aquilla Smith, of Dublin, members of the Council; and Dr. Francis Hawkins, registrar, had an interview with the Right Hon. S. H. Walpole, at the Home Office, on the 17th inst., on the subject of the bill for the amendment of the Medical Acts.

KIDNAPPING. The Austrians try to kidnap Prussian surgeons. Thus Dr. Friedländer, of Breslau, was carried off by them from the field of Oswiecim, when actually attending a wounded Austrian. Great efforts have been made to obtain his liberation, but all in vain. The Prussian military authorities offered to give Count Lippe, an Austrian officer, in exchange for Dr. Friedländer. The offer was rejected. Another surgeon, Dr. Zucker, has also been carried off under similar circumstances by the Austrians, with a grievous wound inflicted upon him in the neck by those who captured him.

The Brompton Hospital. The following are the results of the first year's operations of the Madeira Sanatorium. Of the 20 male patients sent out last year, 18 have returned, one being still under treatment in the island. Of the whole 20, 12 have improved considerably; six of them so much, as to be restored to their several occupations; four others may be considered as stationary; three are not so well as they were six months ago; and one died suddenly, after great improvement, from hæmoptysis.

Doctors for the Prussian Army. Applications having been made to the Prussian Embassy by English gentlemen wishing to enter the Prussian army, and by physicians, surgeons, and other medical men, offering their services for the duration of the present war, it is made known by the Prussian Embassy in London, that the admission of physicians, surgeons, and medical men in general, is a matter for the consideration of the General Staff Physician of the army, to whom applications are to be made at Berlin.

University College Hospital. The hospital has received from the executors of Mr. F. Goldsmid £1491 : 4 : 9 in payment of legacies, one of £50, and the other of such further sum as, with the gift in his lifetime for the like purpose, would be sufficient to purchase £2,000 Consols to be invested, the income to be applied permanently to the maintenance of one bed in the hospital. Donations of fifty guineas by Wm. Fowler, Esq., and £25 by Colonel Long, have been reported. Notice has also been received of a bequest of £300 Consols by the late Mr. William Bull.

Testimonial to Mr. E. Canton. The students of Charing Cross Hospital have just united to show their respect for the above distinguished member of the medical profession, by presenting him with a testimonial, on his retirement from the office of Lecturer on Anatomy. The testimonial consisted of one of Ross's best microscopes. Mr. Canton, in returning thanks for the gift, dwelt, amongst other things, upon the vast improvement in the manners, habits, and dress of medical students since the days when they were described by the late Albert Smith.

The Alkali Act. Dr. Angus Smith has a satisfactory report on the Alkali Act of 1863. The escape of muriatic acid gas averages only 1·0889 over the kingdom; five hundred tons of the gas are evolved per day, and five tons escape, above thirty tons of dry acid per week, equal to rather more than three times that weight of liquid acid as sold. In 1864 the amount of escape was forty-three tons per week. In many works the condensation is complete. There has been no prosecution under the Act. At Oldbury the gardens suffered, and an individual brought an action, but no unlawful escape of muriatic acid could be detected.

Hippophagic Banquet. A banquet in honour of the introduction of horseflesh in Paris as an article of food, took place last week, M. de Quatrefages in the chair. One hundred and eighty-two guests sat down, and declared the dinner, of which the principal dishes were formed of horse, excellent. The soup, made from bouillon de cheval, the saucisson de cheval, horseflesh à la mode, and lastly, the filet rôti, were all eaten with great gusto, and pronounced most palatable. A number of the ordinary meats produced at a choice dinner were also served up; but the company found the horseflesh so savoury and agreeable that they remained faithful to it. M. de La Bédollière sang two new songs composed for the occasion; one *C'est le cheval qu'est le bœuf*, and the other *Enfants, n'y touchez pas.*

The Queen's University in Ireland. A new Charter has been granted to this body, conferring similar powers to those of the London University—namely, that of admitting to Arts Degrees without study in Colleges; and to Medical Degrees, if lectures are attended in any recognised school. At the same time, the Senate is to be increased to twenty-four, one place to be filled by Convocation. Of the twenty-three present members, but three are medical men; while in the analogous body—London University—of the thirty-three members of Senate, fifteen belong to our profession.

The Cholera. A supplement to the *London Gazette* of Friday week, contains an Order in Council directing that the provisions contained in the "Diseases Prevention Act, 1855" (23rd and 24th of Victoria), for the prevention of diseases, shall, from and after the 14th instant, be put in force within the whole of England. Thirteen deaths have been reported from the cholera ward at the Liverpool workhouse. Nine cholera patients remain, and two at least cannot be expected to live. The select vestry have determined upon a house-to-house medical visitation of the poorer districts, and the isolation of families in which the cholera had appeared, as well as the removal of actual sufferers beyond the town. They have, with this purpose, renewed their occupation of the Bank Hall warehouses, which will hold from three hundred to four hundred persons. The preparations will be completed in a few days, and then all persons stricken by cholera, all members of families in which it has appeared, and all persons whose removal is rendered necessary by the want of new sanitary arrangements in their houses, can be removed to Bank Hall. We regret to hear that the cholera is rife at Southampton. Up to a few days ago forty deaths had occurred. We believe that injudicious attempts are made to keep the fact quiet.

The Social Evil. The system of licensing houses of ill-fame has frequently been urged on this side of the Atlantic, although it has as often been been severely denounced on grave moral grounds. The following will explain itself. "Headquarters, Charleston. In order to check the amount of venereal disease now so prevalent among the troops in this city, the following regulations will be at once established. A competent medical officer will be designated to attend to the following duties. 1. To register all houses of ill-fame in the city. 2. To enter in his record the exact location of such houses, the names of the keeper thereof, and the number of the inmates. 3. To establish a careful and minute inspection of each female inmate every three days, and to furnish no certificate of freedom from communicable disease, excepting to such as are absolutely free from such disease: this certificate must always be ready for presentation when called for. These are the duties of the inspecting officer; but, to carry out perfectly the design intended by this system of inspection, it is also ordered that, should any person contract venereal disease in a house regularly inspected, the keeper or recognised manager of such house, will be liable to a fine of $100.00, to be collected by the Provost Marshal. The licence to be paid monthly in advance by the keeper of a house of ill-fame will be $50.00. The fee to be paid by the inmates for the medical examination will be $2.00. And the fund so accruing will be accurately accounted for, and expended for the benefit of the military hospitals, and for such sanitary purposes as shall be designated by the Medical Director of the Department. By command of Major-General Sickles. A. K. Smith, Surgeon and Bvt. Lt.-Col. U.S.A., Medical Director." (*Philad. Med. Rep.*)

Royal College of Surgeons. Mr. Hancock has been re-elected Professor of Human Anatomy and Surgery, and Mr. Huxley, F.R.S., Hunterian Professor of Comparative Anatomy and Physiology.

The Healthfulness of Wet Seasons. The highest death-rate of twelve years, 23·9, occurred with the smallest rainfall of 16·7 inches, in 1864, and the lowest rate, 21.2, in 1860, with the heaviest rainfall, of 32 inches, in 1860. This may doubtless be accounted for principally by the cleansing influence of the rain. (*Builder.*)

Boston Milk. A Boston paper reports that the Assessors of Ward Seven recently examined a large milk establishment, and finding four large casks, investigated the contents of one of them. It was filled with refined whiting, and on taking a sample for experiment, they found that mixing it with water gave a very good imitation of milk.

Death from Eating Laburnum Seeds. An inquest was held a few days ago at Stonehouse, on a girl, aged 3. She complained of being sick, but her mother thought it was only a bilious attack. The next day, however, she was no better, and told her mother she had been eating "sweet peas," a name applied by children to laburnum seeds. On the following day she died. Mr. Pearse made a *post mortem* examination, and found in the stomach of the deceased a green fluid, such as would be produced by laburnum seeds. The jury returned a verdict in accordance with the evidence. (*Western Morning News.*)

Alcohol and the Doctors. The French physicians are running a furious tilt against tobacco. Meanwhile the English, and not a few American physicians, are recklessly carrying alcohol in the opposite direction, and reinstating it in the position of a universal preservative of health and remedy for disease, which it gained centuries ago as *aqua vitæ*. We say they are doing so; rather let us say, have been; for some are already on the back track, and we find in our medical journals, both domestic and foreign, proofs that the profession begin to regard with suspicion and alarm the universal alcoholic medication of the past decade. We hope to see some of our prominent leaders, particularly in Great Britain, opening their eyes to the weighty truth that they have sown the germs of a ghastly crop, when, under the authority of medical science, they restored intoxicating beverages to their fatal supremacy in social and domestic life. (*Pacific Medical and Surgical Journal.*)

Mr. Webber. An application was on Saturday last made in the Court of Bankruptcy, for the release from custody of Mr. William Webber, a surgeon practising at Tunbridge Wells. The detaining creditor was Mr. Charles Trustram, surgeon in the same town. Mr. Trustram had obtained an award against the bankrupt in an action for libel arising out of statements made by him in connexion with the sanitary condition of Tunbridge Wells, in which he charged Mr. Trustram with having made an improper use of his position of a member of the Tunbridge Local Board. The debts were returned at £577, of which a sum of £193 was due to the detaining creditor. It was contended that the Court had no power to grant the release of a person who was in custody for damages in action for libel. On behalf of the bankrupt it was said that further incarceration might endanger his life, and certificates of several medical gentlemen were produced to that effect. His Honour (Mr. Commissioner Goulburn) said that the bankrupt being in custody for damages in an action for libel, he had no power to interfere. The application was refused.

Mortality in the Metropolis. The return for the week shows an increase in deaths over the previous week of 248. The deaths in the metropolis from cholera in the last three weeks have been six, fourteen, and thirty-two, but of the latter, nearly one half are stated to have been choleraic diarrhœa or summer cholera, and only seventeen of the severer type.

A changed Flora. The Flora of Pennsylvania is found to have undergone remarkable changes, plants that were formerly rare being now quite abundant. This effect is attributed to the spread of railways. Some botanists think the "foreign" Flora will supplant the native. The valley of the Susquehanna has already been taken possession of by the invaders.

Medical Officers and Workhouse Schools (Ireland). Sir H. Bruce, a few days ago, asked the Chancellor of the Exchequer whether he proposed to relieve the Irish poor-rates from the payment of medical officers. The Chancellor of the Exchequer said that, having been in favour of the motion, he should certainly be ready to take all the steps that were necessary to afford the relief which appeared to be justly required.

Poor-Law Reform. In the House of Commons, on Tuesday last, Mr. G. Hardy said that Her Majesty's Government did not intend to propose during the present session any legislative measure on the subject. He admitted the present evil condition of the infirmaries throughout London. With these evils he proposed to deal under the powers, which he believed sufficient, now possessed by the Poor-law Board. He trusted that the Board would not be obliged to ask the legislature to confer powers which had not hitherto been used. It might be necessary that he should ask the House to give him power to compel the alteration and enlargement of workhouses when required. The Poor-law Board had the right to seek for sufficient accommodation, to regulate the numbers to be accommodated in the workhouses, to prescribe how many beds should be in a room, and what amount of space should be afforded for each bed. If the asylums of the poor should be filled up to the highest point, it was then necessary for the guardians to find additional accommodation, or to give relief to the persons for whom they had not accommodation out of doors upon a scale appropriate to the evils and sufferings of these poor people. It was in the power of the Poor-law Board to take care that there was efficient and sufficient medical superintendence, and that the salaries of the medical officers should be fixed at a proper sum. It was also in the power of the Poor-law Board to take care that there was sufficient nursing by providing that there should be a suitable number of nurses, and also that proper salaries should be given to them. He (Mr. Hardy) thought these powers had not been put in force, and that he ought not to ask the House to legislate until he had tried them. He looked forward to the future; and his endeavour would be to bring the sick-wards in the metropolitan workhouses into a proper condition. In the next session of Parliament, he would be prepared to state what course he might think proper to recommend with respect to any new legislation.

The Artisans' Dwellings and Public Health Bills. Last week Mr. Walpole received a deputation in reference to the above Bills, from the Vestry of St. Marylebone. Mr. Chubb observed that by some clauses the whole authority was vested in the Metropolitan Board of Works, while the vestries, who were called upon to incur the odium of raising the rates, were to have no authority. The medical

officer's report would enable the Metropolitan Board to erect dwellings and pay the expense by taxing the ratepayers another threepence in the pound. No time had been afforded the metropolis for considering the scheme. The Vestry regarded the Bill as subversive of the principles of local self-government, and as placing the power in a central Board. He asked that the measure might be postponed to next session. Dr. Richardson drew attention to the Public Health Bill, the general principles of which the vestry much approved, and stated there were several most beneficial clauses introduced in it, but there were two to which the vestry took very strong exception. The 20th gave authority to the police to take cognisance of nuisances as well as the local authorities. The vestry were of opinion that the conflict of jurisdiction which would arise, would be very detrimental to the public interest. The medical officers of health would be the most competent authorities in the metropolis to take cognisance of of nuisances. The 27th clause provided that local authorities might be subject to costs in case they neglected their duty by not attending to nuisances complained of. That he considered unnecessary, as it was already provided by the amended Nuisances' Removal Act, that any person complaining of a nuisance not attended to, might obtain an order from a magistrate for its removal. Mr. Taverner condemned the principle of admitting policemen to private houses without a previous warrant having been obtained. Mr. Walpole said that, however well the present system had worked in some places in the metropolis, there were instances in which the local authorities were unable to cope with nuisances. It might, therefore, require some remedy, so that nuisances might be dealt with where local authorities neglected to perform their duty. Mr. Greenwell, the vestry clerk, explained that in the metropolis, only the local authorities appointed medical officers of health, and it was proposed that one of the clauses of the Bill should be altered by substituting the officer of health in the metropolis for the chief officer of the police, but in other places where no medical officers were appointed, to leave a concurrent jurisdiction to the chief officer of the police. Mr. Harvey Lewis, M.P., said that at this late period of the session it would be hardly possible to pass the Artisans' Dwelling Bill. Mr. Walpole said he would not be prepared to give any decided opinion on the subject that had been brought before him, but it should receive his best attention.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....Metropolitan Free, 2 P.M.—St. Mark's for Fistula and other Diseases of the Rectum, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TUESDAY. .... Guy's, 1½ P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.

WEDNESDAY... St. Mary's, 1 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.

THURSDAY.....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Great Northern, 2 P.M.—London Surgical Home, 2 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.

FRIDAY..... Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

SATURDAY.....St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1·30 P.M.—Charing Cross, 2 P.M.—Lock, Clinical Demonstration and Operations, 1 P.M.—Royal Free, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TO CORRESPONDENTS.

*** *All letters and communications for the* JOURNAL, *to be addressed to the* EDITOR, 37, *Great Queen St., Lincoln's Inn Fields, W.C.*

COMMUNICATIONS.—To prevent a not uncommon misconception, we beg to inform our correspondents that, as a rule, all communications which are not returned to their authors, are retained for publication.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

MR. TRUSTRAM'S ADDRESS.—We have received letters from Mr. Trustram, Mr. Henning, and Mr. Blaxland, expressing more than surprise that Mr. Trustram's Presidential Address had not yet appeared in the JOURNAL. Authors of papers are apt to forget that there are other writers who have a claim upon the pages of the JOURNAL besides themselves; they forget also that all the doings of all the Branches in the country cannot appear in one number of the JOURNAL; and they also forget that this is a time of the year when many Branch meetings are held; and that papers are supplied at irregular intervals, whilst the JOURNAL appears regularly every week. If either of the above gentlemen would try his hand at managing the JOURNAL for a few weeks, he would find that, to do justice to all, it is impossible, as a rule, to publish lengthy papers until several weeks after their reception. In the present case, to meet the express wishes (as we understood) of the South-Eastern Branch, we arranged for an early publication of Mr. Trustram's address; and beg to say that it is entirely owing to Mr. Trustram and the nature of his paper that it was not published a fortnight ago. We found, on receiving his address from Dr. Holman, that it contained *first*, that, which in our opinion, might possibly have been treated as libelous; and *secondly*, that, however well it might have read in delivery, it had in it things which would not read well in print. We thereupon informed Dr. Holman that we could not publish it in its present form unless the Branch would assume the responsibility; and begged him to ask Mr. Trustram to alter it. Mr. Trustram eventually, in consequence of our request, adopted some, though not all, of the suggestions of alterations made by us. Of course, all this correspondence, etc., necessitated a delay, both in the printing and publishing of the address; for which, as every reasonable person will see, we are in no way responsible. We are responsible only for having done our editorial duty to the Association. It appears to us that Mr. Trustram, so far from having any cause of complaint, is, on the contrary, much indebted to us for the trouble we took in pointing out to him those parts of his address which seemed to us to require amendment or omission. Mr. Blaxland says inferentially, what no doubt he thoroughly believes, that the JOURNAL is not used for Association purposes. "I with other members, think that the ASSOCIATION JOURNAL should be used for Association purposes." But, inasmuch as almost every paper in the JOURNAL is written by associates, and as all the proceedings of the Association are recorded in its pages, his inferential assertion seems scarcely borne out by facts. His other statement, that "not a word of the address was mentioned" in the report of the meeting, leads us to think that Mr. Blaxland is rather a lax reader of the JOURNAL. Mr. Henning politely hopes that the address will appear in the present number. Thus, then, stands the matter. The address, as published to-day, appears as early as, *with justice to other members of the Association*, it should appear; but, in compliance with the wish of the Branch, expressed through their Secretary, it would have appeared, nevertheless, a fortnight ago, except for the causes above given—causes for which Mr. Trustram and his address, and not we, are accountable. EDITOR.

DEATH FROM SUNSTROKE.—SIR: We often see in the papers accounts like the following.

"*Deaths through Sunstroke.*—Two deaths through sunstroke occurred on Thursday and Friday last near Nottingham. A labouring man, named Eyre, aged 60, was making hay in a field at Codnor, on Thursday, when he was observed to fall, and died almost immediately. On Friday afternoon, a man, named Smith, while at work in the hayfield at Calverton, was sunstruck. He was conveyed home instantly, but died the same evening."

Will you let me ask those of my medical brethren, who have had to do with such cases, what is the exact pathological condition of the body under which death is produced?

I am, etc., F. P.

THE RICHARDSON TESTIMONIAL.—SIR: I have read with great pleasure in the current number of the JOURNAL the letter of a Physician, on the subject of presenting a substantial testimonial to Dr. Richardson, in proof of our estimation of his valuable services to medical science.

Dr. Richardson's claims are of no ordinary character. They are very briefly but clearly indicated in the letter to which I have alluded; and, I feel assured, the proposal therein suggested is one that will be highly approved, and, when once set in motion, will be widely supported by the profession at large. I shall be glad, to the best of my ability, to assist in its accomplishment. In the hope that the Council, or other members of the Metropolitan Counties Branch of the British Medical Association, with the author of the letter, will forthwith form themselves into a committee on the subject. I am, etc.,

31, Norfolk Street, July 16th, 1866. R. DUNN.

SIR: I was very much pleased on reading a letter signed "Physician", in the last number of our JOURNAL, suggesting the propriety of presenting to Dr. Richardson some testimonial from the members of our profession, as a token of their appreciation of his generous and indefatigable labours to promote the advancement and uphold the honour of our profession. We must be aware that, in conducting his multiplied experiments, he must have expended a considerable sum of money; and this not for himself, but for the good of the practitioner, and of the public at large.

Dr. Richardson has on all occasions been most kind and courteous in explaining how and in what cases his local anæsthesia may be employed. I shall be most happy to subscribe £2:2 for the above object, and to forward it to any gentleman who may be appointed as Treasurer. I am, etc,

Rochester, July 17, 1866. ADAM MARTIN, M.D.

SIR: It was with much satisfaction that I read the letter of "A Physician" in your last number, from agreeing fully with him that we owe to Dr. Richardson a substantial testimonial for the means he has supplied us with for producing local anæsthesia, which, since the discovery of inhalation of ether and chloroform, is the most valuable addition to practical medicine and surgery. To the physician, Dr. Richardson's spray-producer affords a ready and safe means of immediately allaying neuralgic pains from numerous diseases; whilst it enables the surgeon immediately to operate in a host of minor surgical complaints, the chief hindrances having often been, on the patient's part, the fear of pain; whilst it relieves the operator himself from doubt as to possible danger, which he must always feel in giving chloroform. And to those who have to undergo operations (universally as it will be used when all fully understand its marvellous effects), it will relieve an incalculable amount of misery. And Dr. Richardson has thrown open his instrument to all without a patent.

Such original and inventive minds are rare. We reap immediately the benefit of their hard mental toil, of their time, and care, and anxiety lavished in experiments, of the large expense which these entail; and it is simply a just debt we owe them, to testify in this way our gratitude. I am, etc.,

Southampton, July 18, 1866. JOSEPH BULLAR, M.D.

SIR: In the JOURNAL of the 14th, I perceive there is a letter from a "Physcian", advocating the desirability of presenting a suitable testimonial to Dr. Richardson, for his many valuable discoveries. I fully agree with all therein stated, and shall be happy to do all in my power for the furtherance of so praiseworthy an object. Debarred as we are from making profit of, or patenting, our hardly-achieved inventions, it is but just that we, as a profession, should recognise in some tangible form the great benefit conferred by one of our most hard-working and disinterested discoverers.

I am, etc., SEPTIMUS LOWE.

Lincoln, July 16, 1866.

SIR: I doubt not that the feeling in favour of giving Dr. Richardson a testimonial, as suggested by a "Physician" in your last impression, will be largely responded to by members of the Association, by the profession generally, and also by the intelligent public; and this for the simple reason that his researches have reached all these sections of the community. It is hardly necessary for me, under these circumstances, to write a line; but, as many years of friendship have existed between us, I feel that I cannot let the opportunity slip, of saying how heartily I second the proposal of giving him a testimonial which he shall be really complimented in accepting, and which the profession will consider worthy of offering to him.

For these reasons I support the suggestion, and shall be willing to contribute my quota; but this must be a stipulation—that the thing is done handsomely, and, on the part of the profession, distinctively. I am, etc.,

Camberwell House, S., July 19, 1866. J. H. PAUL.

SIR: In the last number of the BRITISH MEDICAL JOURNAL, I see with much satisfaction the suggestion of a "Physician" to set on foot a testimonial to Dr. B. W. Richardson, as a recognition of his eminent services to the cause of medical science and literature. I have not the slightest doubt that a most enthusiastic response will be rendered to this proposal, both on the part of the public and the profession. Most fully do I endorse all that "a Physician" so ably expresses; and I would say, in addition, that a more unselfish, disinterested, and genial man of science, it has never been my good fortune to meet with. This I know to be the feeling of numbers, who, with myself, hail with great satisfaction the opportunity of testifying in a public manner the esteem and admiration with which we regard our distinguished brother. I trust that a committee will at once be formed for raising the testimonial, to which I shall gladly contribute in every way that lies in my power. I am, etc., M.D.

P.S. I enclose my card.

SIR: If, as Cicero has it, "Homines ad deos nullâ re propiùs accedunt quam salutem hominibus dando", with all its toiling days and laborious nights, anxious hours and restless years, our vocation must be a noble one indeed. Isolated from the great world of social recreation, we

Toil, toil, toil,
From morn till night, and then
Toil, toil, toil
Till daylight comes again:
Regardless of self, unbiassed by gain,
We toil for the toilers; in pain relieve pain.

But still we are not gods, for there is a dash of humanity in us—

And like other mortals, and like other sinners,
We all have our wants, and we all want our dinners.

And, sir, you know we cannot get those said dinners unless we pay for them.

In the commercial world, every advantage is taken of every original thought, and a man no sooner makes a discovery than he makes a fortune, and, with his *otium cum*, enjoys it; but our divinity forbids this mundane arrangement, and, scorning the Patent Office, offers the fruit of our brain to every suffering being!

These lines were suggested by reading the letter of the anonymous "Physician", who, in the JOURNAL of Saturday last, so eloquently advocated a just and righteous cause, and so liberally promised to support it with material aid. Dr. B. W. Richardson has done enough to provoke the admiration and merit the gratitude of every thinking and ailing man. I cordially agree with the suggestion of "Physician", and will gladly add my mite to whatever sum may be collected for the accomplishment of his object. All men have not got such well-lined purses as "Physician", but all might give a little, and especially the opulent laity, who will certainly profit by the works of this great benefactor. I am, etc., D. MACKINDER, M.D.

Gainsborough, July 17, 1866.

CHLOROFORM IN DYING.—SIR: In connection with the interesting paper of Dr. Bullar, inserted in the JOURNAL of July 7th, will you allow me to suggest the use of chlorætherine instead of chloroform. Chlorætherine is prepared by mixing one part of rectified eau de Cologne (*i.e.*, eau de Cologne distilled from rectified spirit) with two parts of chloroform. The result is a clear liquid of specific gravity 1.152.

I first used it for cases of labour where I wished to give something that would not produce unconsciousness, but would obviate or lessen the pain of parturition. (Vide *Obstetrical Transactions*, vol. vii, p. 208.) I have since used it in numerous cases of tooth extraction, painful vaginal and other examinations, uterine and urethral stricture. In the latter it is extremely beneficial, as it at once allays the nervous spasm, often extreme, which is always induced at the approach of an instrument in such cases.

I do not say that carried to excess it would not produce unconsciousness, but I believe there is very much less risk in using such a dilution than in chloroform *pur et simple*, which, in unprofessional hands, has so often proved fatal.

The eau de Cologne is pleasant and gently stimulating; but is not supposed by myself to have any other special advantage over plain spirits of wine.

I may, nevertheless, mention that my friend Dr. De Wees, of New York, thought that the atoms of oil present therein might prevent the too quick elimination of the chloroform from its less evaporable diluent. I am, etc., I. B. BROWN, JUN.

14, Cambridge Street, Hyde Park, July 9th, 1866.

WE are much obliged to Dr. Bullar for his communication.

COMMUNICATIONS have been received from:—Dr. JAMES RUSSELL; Mr. G. B. MEAD; Mr. BIRCHENALL; Mr. A. BRACEY; Dr. MITCHINSON; Mr. C. HOLTHOUSE; Mr. PAGET; Mr. HUGH NORRIS; Mr. DREW; Mr. C. TRUSTRAM; Mr. DUNN; Dr. ROBERT FOWLER; Mr. J. FIRTH; Dr. THOMAS SHAPTER; Mr. REGINALD HARRISON; Mr. D. THOMPSON; Dr. G. JOHNSON; Mr. WILLIAM COPNEY; Dr. SIBSON; Dr. LANGMORE; Dr. J. BULLAR; Mr. M. A. ADAMS; Dr. M. PERRY; Dr. MACKINDER; Mr. S. W. NORTH; THE HON. SECRETARIES OF THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY; Dr. D. A. REID; Dr. SARGANT; Mr. S. LOWE; Dr. ADAM MARTIN; Dr. C. HARRISON; Dr. DUDFIELD; Mr. T. SYMPSON; and THE REGISTRAR OF THE MEDICAL COUNCIL.

BOOKS RECEIVED.

1. Idiocy; and its Treatment by the Physiological Method. By Edward Seguin, M.D. New York: 1866.
2. Sore-Throat, its Nature, Varieties, and Treatment; including the Use of the Laryngoscope as an Aid in Diagnosis. By M. Prosser James, M.D. Second Edition, illustrated. London: 1866.

Clinical Lectures

DELIVERED AT

CHARING CROSS HOSPITAL.

BY

HYDE SALTER, M.D., F.R.S.,

FELLOW OF THE ROYAL COLLEGE OF PHYSICIANS; LECTURER ON MEDICINE AT CHARING CROSS HOSPITAL MEDICAL SCHOOL; AND PHYSICIAN TO THE HOSPITAL.

LECTURE X.

History of Case. Cardiac Nature of apparently Pulmonary Symptoms. Points of Distinction between Cardiac and Asthmatic Dyspnœa. Steps of the Diagnosis, and the Reasons for them. Epistaxis as a Symptom in Heart-Disease. Termination of Case. Post Mortem Examination. Treatment.

GENTLEMEN,—I wish to-day to offer you some clinical remarks on a case of heart-disease that was admitted into the hospital a fortnight ago, and that terminated fatally yesterday. Its fatal termination has just enabled me to verify the diagnosis; and its clinical history presents us with certain incidents, the value and teaching of which, especially in relation to *diagnosis*, I am anxious to impress upon you.

The patient was brought to the hospital suffering with extreme shortness of breath; he was only able to speak in short and broken sentences; had a mingled expression of anxiety and exhaustion; and a certain sallow, almost jaundiced, tinge in his skin. He gave us with some difficulty (partly from his breathlessness, partly from his drowsiness and exhaustion) the following history.

Robert Lunt, aged 35, single, by occupation a sailor, has enjoyed unbroken health up to fifteen or eighteen months ago, when he had rheumatic fever; it affected every joint in his body, and confined him to his bed for three weeks. During the attack, he suffered, for the first time in his life, from great palpitation of his heart, severe pain in the præcordial region, and dyspnœa. His heart beat so strongly that he could hear it as he lay. When the attack came on he was on board ship, outward bound on a voyage to Australia. After he got into warm latitudes he convalesced pretty quickly, and was gradually able to resume his duties. At Bombay, four months after, he was again attacked with palpitation; which, however, lasted only an hour. Up to three months ago, on the voyage home, his breath was pretty good, and he was able to climb the rigging without inconvenience; but since he has been home it has failed, and he has suffered from loss of appetite and languor. About six weeks ago shortness of breath came on, and has never left him since. The difficulty of breathing renders it impossible for him to lie down: as soon as he attempts to his breath is gone, he feels choked, and is obliged immediately to sit up. It also prevents all sleep, even in the erect posture. For the last week, he states that he has not had a wink of sleep, day or night; and his friends corroborate his statement. He feels drowsy and sleepy—overwhelmed with sleep, in fact; but he cannot get a moment's slumber, on account of the dreadful breathlessness that immediately attacks him. Just as he is dozing off, he "chokes", as he expresses it, and is wide awake in a moment. The slightest exertion, too, aggravates the dyspnœa so much that it is insupportable; he cannot cross the room, cannot even get out of bed or into it, without assistance. The breathing is worse after food, proportionately to the quantity eaten. He has had no cough. A day or two after the shortness of breath came on he began to spit blood; the blood was clotted, black, and in pellets, unmixed with phlegm, and not frothy. He would spit it a dozen times, perhaps, in the twenty-four hours. Appetite bad; bowels confined; urine scanty, high coloured, and not albuminous.

On examining the chest we found crepitant rhonchus in patches here and there, especially in the upper part of the right side in front. Breath-sounds in other respects perfectly natural. Heart-sounds natural, except that the first sound was dull and defective. Pulse 84; respirations 30.

Now, before going any further, let us just stop to inquire what diagnosis could be constructed out of these materials, and what diagnosis actually *was* arrived at. The elements for diagnosis which we find here are, hæmoptysis, moist breath-sounds, dyspnœa, and an absence of cardiac *bruits*. Now, if any one were to give you these four points, and ask you to make a diagnosis out of them, you would no doubt say, and you would be perfectly justified in saying, that they pointed to pulmonary rather than cardiac disease. And yet we decided, on the strength of them, that the case was cardiac, and not pulmonary. You might say that this was a verdict "contrary to the evidence"; but I would submit that it was in strict accordance with the evidence—not the superficial and *primâ facie* evidence, but with the evidence fairly sifted and intelligently interpreted. For, in order to shew me that the symptoms I have enumerated assert a pulmonary diagnosis and negate a cardiac one, you must shew me that lung-mischief does give rise to them, and that heart-mischief does *not*; and, moreover, that lung-disease gives rise to that particular variety and form of them that we find in this case; and that, I think, would puzzle you very much. Let us take them in their order.

Does *hæmoptysis* necessarily point to lung-disease, to the exclusion of heart-disease? Has it necessarily and exclusively a pulmonary significance? We know perfectly well that it has not. We know that hæmoptysis is a characteristic and recognised incident in cases of heart-disease. I have seen it in a great many cases, and have known it fatal in two. I remember a case in King's College Hospital, under the care of Dr. Todd, some sixteen years ago, which terminated fatally in a little more than twenty-four hours: the man actually bled to death from his lungs. He had been suffering from heart-disease for some time. The hæmorrhage was slight at first, but it soon became considerable, and he was admitted into the hospital on account of it: it resisted all means to arrest it; and, in twenty-four hours after his admission, he sank under it. On examination after death, the mitral orifice was found greatly narrowed, and the lungs full of what are called pulmonary apoplexies, but otherwise not diseased. Another case somewhat similar occurred under my own care in this hospital about eight years ago. The patient was a boy about twelve years old; he had had rheumatic fever some few months previously, which had left his heart affected. The state of the heart went from bad to worse, and he became œde-

matous. His dyspnœa and other symptoms became very urgent, and one day I was told that he was spitting blood. Means were adopted to arrest it, with partial success; but the next day I was informed that he was dead. The hæmorrhage had returned, had resisted all efforts to check it, and had become so profuse that he rapidly sank under it. The lungs were healthy, except that they were full of blood. The disease in this case, too, was mitral.

We see, then, that not only is hæmoptysis not necessarily a pulmonary symptom, but that a form of it, the most profuse and fatal, may be of cardiac origin. I think, too, that we can distinguish the one form of hæmoptysis from the other by its own peculiar characteristics, independent of the general symptoms. I think, if I were shewn some bloody sputum due to cardiac obstruction, I should at once recognise it; and I think its appearance alone would enable me to diagnose its cause. The blood is always black, in pellets and clotted, reminding one of black currant jelly; it is not frothy, and not intermixed much with mucus. Its great characteristic is the blue-blackness of its colour, which is quite peculiar, and speaks of that imperfect arterialisation of the blood which the impediment to the pulmonary circulation to which it is due inevitably produces.

Then how about the *crepitation?* Are we to say that a man's disorder is pulmonary because we find crepitant rhonchus in one of his lungs? All we can say is, that there is some fluid material in the air-tubes which there ought not to be, giving rise to the moist sound. But, if blood in the air-tubes may be caused by heart-disease, then crepitation may be caused by heart-disease, because the crepitation may be caused by the blood, and, I believe, in this case *was* caused by the blood, and *exclusively* by the blood.

Then with regard to the *dyspnœa.* I need not remind you that dyspnœa may point as much to heart as to lung disease. If, then, we want to know what is its significance, we must go, not to the *fact* of dyspnœa, but to the *kind* of dyspnœa. Now, the kind of dyspnœa in this case was eminently cardiac. It had the three intolerances so characteristic of cardiac dyspnœa—intolerance of exertion, intolerance of the recumbent posture, and intolerance of sleep. The moment the patient moved, his breath was gone; the moment he lay down, his breath was gone; the moment he slept, his breath was gone. His dyspnœa was, in fact, that particular form of dyspnœa which is called orthopnœa, and pointed directly to heart-disease. Thus you see the hæmoptysis, the moist breath-sounds, and the dyspnœa, instead of pointing to pulmonary disease, pointed directly to cardiac.

When at the bedside of this patient one day, I asked an intelligent student of this school, who was standing by, what his diagnosis of the case would be; and he said, after thinking a minute or two, "Asthma". Now this was not a bad diagnosis; it was a *wrong* one, but it was a *reasonable* one. In asthma the paroxysms are generally nocturnal; so they were here. In asthma the dyspnœa is aggravated by exertion; so it was here. In the asthmatic paroxysm there is an inability to lie down; so there was here. Even the hæmoptysis is compatible with both; for it is not very rare to find cases of asthma in which blood-spitting occurs in the severe paroxysms, from the rupture of the congested vessels, and sometimes to a considerable extent. So that the guess of your fellow-student, if I may call that a guess for which there was so much reason, was not a bad one. There are, however, some points of distinction between dyspnœa of cardiac origin and asthmatic dyspnœa, very clear and certain, which are worth your attention.

In the first place, walking will not *bring on* asthma as its immediate result; nor will lying down. If the asthma exist, they will aggravate it; but they will not *bring it on*, if no trace of it exist at the time. But in this case, let the man be breathing ever so tranquilly, the slightest exertion threw him into a paroxysm of breathlessness; so did any attempt to lie down—immediately. So also sleep will not at once induce asthma; it may do so in an hour or two. But here the man had hardly forgotten himself when the struggle for breath awoke him. His constant cry was, "Do give me sleep; pray give me sleep; I am dying for want of sleep." But no power on earth could give him sleep; for the moment he dozed, his enemy appeared and woke him up.

Then, again, the subsidence of the dyspnœa was too quick for asthma: if movement brought it on, rest immediately relieved it; if lying down brought it on, sitting up immediately relieved it; if momentary sleep brought it on, it subsided in a few seconds after waking. Now this is not the case with asthma: once set the paroxysm going, and it is an affair of time, and often of very long time, to subdue it.

Again, in asthma, the dyspnœa is, from the very nature of its cause, almost sure to be accompanied with wheezing—in this case there was none. On listening to the chest, too, the respiratory murmur in asthma is universally or partially lost; but in cardiac dyspnœa, as in this case, the chest inflation is free, and the respiratory murmur exaggerated, especially during the paroxysms, which is the very time when in asthma it is lost.

Thus you see that in many ways, in spite of their points of resemblance, the two forms of dyspnœa, asthmatic and cardiac, may be easily distinguished from each other.

Having then arrived at this general diagnosis—having determined that the case was cardiac—what was our more precise diagnosis? what special form of heart-mischief did we think we had to deal with? Now here we were met by the fact—rare in such a case as this—that there was *no adventitious heart-murmur;* the diagnosis turned very much upon this, as you will see.

In the first place, we came to the conclusion that the heart was hypertrophied. Its action was heaving, the distribution of its impulse was extended, and the area of cardiac dulness was too wide; at the same time the first sound was dull and obscure; and this fact had all the more significance from the other facts—from the defective sound being associated with so strong an impulse and with a full pulse.

In the second place, we came to the conclusion that there *was* some valvular mischief, in spite of the absence of any *bruit.* And why did we come to this conclusion? Simply because the symptoms appeared all to start from rheumatic fever. The great value and indicativeness of this fact cannot be overestimated. The man had the first attacks of shortness of breath that he had ever had in his life during the rheumatic fever; there can be no doubt from the symptoms he suffered from—precordial pain and

palpitation—that his heart was then affected. Since that time he has suffered from repeated attacks of palpitation, and now he has manifest symptoms of hypertrophy. Now, taking those two points—rheumatic fever as the cause and hypertrophy of the heart as the result—what is the *tertium quid* that connects them? If rheumatic fever produces hypertrophy of the heart, by what agency does it do so? The only way that I can conceive is by organically damaging the heart's valves and orifices. Unless the rheumatic fever leaves some organic trace behind it, one does not see why, or how, it should ultimately give rise to cardiac hypertrophy—the mere fact of rheumatic fever having occurred could not produce it. Taking for granted, therefore, that the hypertrophy of the heart was primarily due to the rheumatic fever, I could not but conceive that thereby valvular disease was inevitably implied. What, then, did this bring us to? Valvular disease without a *bruit*.

And this brings me to the third point in our gradual narrowing of the diagnosis; namely, What particular valvular disease was that most likely to exist here? what valvular disease would be most compatible with absence of *bruit*, and with the other symptoms of the case? We concluded it to be *mitral narrowing*. There can be no doubt that mitral narrowing often does exist to a considerable extent without giving rise to a murmur, if the narrowing be unaccompanied with irregularities or asperities of orifice; and this is probably due to the feebleness of the force by which the blood is impelled (auricular systole) and its consequent feeble murmur-generating power. There can be no doubt, too, I think, that mitral narrowing has a greater tendency than any other valvular lesion to give rise to hæmoptysis, also a feature of this case.

My diagnosis, then, was some smooth narrowing of the mitral orifice, sufficient to give rise to considerable obstruction to the transit of blood through the left side of the heart, but not sufficient to generate a *bruit*.

Now, gentlemen, I have been at pains to give you the steps of my diagnosis and my reasons for them; for I do believe that it is only in this way—by examples, by shewing you individual instances of the application of its rules—that the art of diagnosis can be taught.

Before I tell you what the *post mortem* examination revealed, let me just finish the history of the case, which may be done in a few words.

After his admission into the hospital, no mitigation took place in the patient's symptoms. The urgent dyspnœa, especially on attempting to lie down, to sleep, or to move, continued. Day after day and night after night, he got no sleep, though begging and praying for it. To his sleeplessness was added now increasing restlessness, which greatly aggravated his distress. He would not remain in the same position two minutes together. At one moment he was in bed, the next out of bed, the next in bed again. As this restlessness increased, his drowsiness became exchanged for an apparent incapacity for sleep, and his manner had something the aspect of that of a patient suffering from incipient *delirium tremens*. Indeed, I have no doubt that his condition did approach to that of delirium tremens, and that his restlessness and vigilance were due to extreme exhaustion produced by the many exhausting influences that were telling upon him. There was the exhaustion of his sufferings, the exhaustion of his sleeplessness, the exhaustion of want of food (for he took nothing), and the exhaustion of the hæmoptysis. And to these was added a much more potent source of exhaustion, that I have not yet mentioned to you. After he had been in the hospital two or three days, he was attacked with profuse bleeding of the nose, which was so profuse and so ungovernable that, after many remedies had been tried and failed, both nostrils were obliged to be plugged. In spite of this he lost blood largely every day, and became quite blanched and anæmic. You must all of you remember the ghastly appearance of the man, with his haggard expression, his white face, his plugged nostrils, and blood-bedabbled linen. The nostrils remained plugged up to the time of his death, for every day the bleeding burst out afresh.

Now, what was the meaning of this profuse and persistent epistaxis? I am inclined to think that it bore the same interpretation as the hæmoptysis—that it was due to the giving way of vessels that had become congested and distended in consequence of the impediment at the heart retrograding upon them. You know how surely heart mischief in this way ultimately produces systemic venous stasis; indeed, that this and its attendant results constitute some of the most marked symptoms towards the close of cardiac cases. That the heart mischief had produced this result in our patient the œdema of his legs showed; and that the epistaxis, although due to the same cause as the hæmoptysis, did not supervene till some time after it, is quite explicable by the relative position in the circulation which the two seats of hæmorrhage occupied; for it would take some time for the impediment first felt at the pulmonary vessels to retrograde as far as the systemic venules. It is very possible that the tendency of the vessels to give way under the increased pressure of their contents might have been in this case assisted by a hæmorrhagic tendency, which I have over and over again seen associated with the rheumatic diathesis. I do not say that the hæmorrhage was positively caused in the way that I suggest, but I think it extremely probable. Indeed, considering how easily the venous plexuses of the nasal mucous membrane give way, and what conspicuous evidence we often see of venous turgescence in heart-cases, it seems to me more remarkable that epistaxis should not oftener occur in such cases than that it ever should. I do not know, however, that I have ever seen bleeding of the nose mentioned as a recognised occurrence in the course of cardiac cases. If this man's epistaxis really depended on the impediment to the circulation that the heart-disease offered, it would explain why it so resisted all attempts to stop it, because it was the result of a persistent and constantly acting cause.

The closing scene of the case was in this wise. The night before last (having been thirteen days in the hospital), the man was seized, without having appeared worse on the previous day than usual, except that he was weaker, with a more violent paroxysm of dyspnœa than he had before experienced; he felt as if he was dying. Similar paroxysms recurred throughout the night, getting more and more severe; and at length in one of them he died.

On making the *post mortem* examination just now, we found one of the largest hearts I ever saw; it might truly be called a "bovine" heart. It reminded one more of the ox-hearts we see hung up in but-

chers' shops than of anything human. The wall of the left ventricle was one inch and three-eighths thick; I measured it myself. The right ventricle was half an inch thick; and the auricles proportionately thickened. So far we found what we expected—the heart was, as we diagnosed, greatly hypertrophied. We then cut into it to see the valvular disease on which all this hypertrophy probably dedepended; and what did we find? *Every valve of the heart perfectly healthy!* There was nothing but a slight patch of opacity on one of the curtains of the mitral valve, that could never have interfered with its action. Now here was a strange thing!—perfectly compatible with the absence of *bruit*, and so far satisfactory, but subversive of our hypothetical diagnosis, and leaving the hypertrophy utterly unexplained. Here was a case of enormous hypertrophy without valve-disease, without lung-disease (the lungs were perfectly healthy), and without kidney-disease. I may mention too that the pericardium showed no trace of disease. Such cases are not common, but we sometimes see them, and they are among the puzzles of pathology. Perhaps the most curious thing is that, although the heart-symptoms that ended in this hypertrophy commenced with rheumatic fever, there should be no evidence of the ordinary agency by which rheumatic fever generates hypertrophy of the heart. Could it be that the patch of slight opacity on the mitral valve could be the remains and indication of a former valvular lesion sufficient when recent to have started the deranged action which gave rise to the hypertrophy? I cannot think it. The mind is baffled in seeking an intelligible solution of so difficult a problem.

In the way of treatment, there was little to be done. The great means of alleviating the cardiac embarrassment in cases of this kind—hydragogue catharsis—was in this case inadmissible from the man's exhaustion and the many weakening influences to which he was subjected. If we had dared to give him twenty grains of compound scammony powder every morning, and had thus draughted away from his bowels six or eight abundant watery stools, we should for the time being have reduced the volume of the blood to be circulated and so disembarrassed his heart.

The only thing to be done, besides using every means to stop the hæmorrhage, was to endeavour to keep him up in every way—by food and stimulants, especially alcoholic. Food we had the greatest difficulty in getting him to take. The condition of his circulation and respiration prevented our employing sedatives to procure him rest. Thus our hands were tied in every way, and there was little left for us to do, but to stand by and watch the inevitable and fatal issue.

Health of Philadelphia. Previously to every epidemic of cholera which has prevailed in this city an epidemic constitution of the atmosphere has always manifested itself in an increase of deaths from bowel affections. No such condition of things seems to exist at the present moment. The whole number of deaths from cholera infantum, diarrhœa, and dysentery, for the week ending May 26th, was only six, in a mortality from all diseases of two hundred and eighty-eight. (*Medical News and Library.*)

Original Communications.

ON A CASE OF LOSS OF POWER OF EXPRESSION;

INABILITY TO TALK, TO WRITE, AND TO READ CORRECTLY AFTER CONVULSIVE ATTACKS.

By J. Hughlings Jackson, M.D., Assistant-Physician to the National Hospital for Epilepsy and Paralysis; and to The London Hospital.

In the year 1863, a healthy looking man came under my care at the National Hospital for Epilepsy and Paralysis, for epileptiform seizures. He had then had four attacks. Each had affected, so far as he knew, the left side of his body only; but his speech was not disordered after them, and he was able to continue at his duties as a clerk. He continued to attend till early this year (1865). He then had a series of attacks; and these, his friends said, affected his right side. I now saw him at home with Dr. Roberts, of Lamb's Conduit Street, and with Dr. Roberts's assistant, Mr. Brown. After these attacks, the patient could talk, but he made mistakes in talking. There was, however, so much incoherence with this particular defect, that I did not then come to any positive conclusion as to how far his bad talking was to be classed in the same category with what has been described under the names of aphemia, aphasia, and many others. Of course, the proper thing would have been to have described the defects without any reference to such names, as the relations of defects of speech to actual incoherence are most important. I had no opportunity for doing this. I have already observed that defects of speech, or as I have called them more generally defects of expression, occur with paralysis on the right, and very rarely with paralysis on the left. I need scarcely remark that this has been previously pointed out by M. Broca and others.

This patient had no paralysis; but it is not to my mind without significance that he had no defect of talking, etc., after the first fits, when he was, as his friends said, convulsed on the left, and that there were the defects to be presently described after the attacks on the right. I do not, however, put the case forward as having much importance as a fact towards settling the question as to the side of the brain involved in disorders of speech, as probably both sides have been affected, although at different times. Moreover, many medical men would not agree with me in thinking that unilateral convulsions are frequently due, as I believe they were in this case, to disease of the hemispheres.

Besides, since the whole of this paper was first written, the patient has had attacks of a very curious sort, which I shall afterwards describe. They have resemblances to choreal movements; and thus to my thinking they have much importance, as shewing, with the other defects I am about to mention, the continuity of movement, actions, talking, and those conditions of nerve-tissue which do not necessarily result in outward movement; *e.g.*, subjective talking. It is important to add, that this patient had had rheumatic fever thirteen years ago. I think it most probable that the nutrition of parts of his hemi-

spheres has been interfered with by embolism of small vessels.

I have had no hospital patient under my care for defect of speech whom I know to have been well educated except this one. He had performed the duties of an important government office requiring good education and intelligence.

Before I relate my case, let me draw attention to an important case, which in some respects resembles the following, related by Dr. Banks of Dublin, in a valuable communication to the *Dublin Quarterly Journal of Medicine*. Another case, with an autopsy, has been published by Dr. Russell of Birmingham. That case is a very complete one, and is of extreme value. Dr. Sanders's excellent case, in which inability to write was a marked symptom, has recently been published in this JOURNAL. More recently, Dr. Gairdner has published a very interesting and valuable paper in the *Transactions* of the Philosophical Society of Glasgow.

I met my patient in the street a few weeks after my visit to him just mentioned. He was then, to superficial appearance, as well as ever. I observed that he spoke quite well, and this throughout rather a long conversation. If he had made the slightest mistake of any sort, I should have caught it at once. I congratulated him upon being able to speak well again. He replied, however, that he was often at a loss for a word; and his father told me that his son frequently made mistakes in names. On my remarking that I had not detected any defect of speech, the patient said that his speech was imperfect most "when anything came on him suddenly", or when he was not thinking particularly of what he was saying. His greatest trouble, however, was in writing. He had no difficulty in penmanship; on the contrary, it was beautiful. His trouble was that he could not readily find the proper words, and those he wrote he often spelled incorrectly. He shewed me something he had just written; namely, words on a plan. For "box" he had written "gox"; for "silver", "cilver"; and again I saw that, after crossing out this mistake, he had written "silves". I was extremely interested in his mistakes; for there was mind enough to give them relation to proper speaking and writing. I asked him to collect for me all the mistakes he had made in writing, and in a week he brought me several letters. He said he could generally manage to write a tolerably correct letter, if he made a copy first and then looked over it. He brought me, also, a bundle of letters written before he was ill; I could find no mistakes of any kind in them. They were chiefly on business, but some also on simple family matters.

The following is the first copy of one of his letters. In this, as in all the others except where it is expressly mentioned, the address, date, and signature, are correct. The words in the square brackets are corrections written by the patient; those in the curved brackets are written by myself.

"I glad to say that I am going on all right, and I home [hope] to continue to do so. I galy [daly] take a long walk, and do not find the configue [fatigue] as I formerly did. I am aglie agissue agligere (obliged?) to stop and think what ("what" is crossed out) how spell (crossed out) the wors [words] are spelt. I can per ger generly (altered to generaly) go on verly well in may makeing the second copy."

The following is the second copy he speaks of; but it will be seen that several words are still spelled wrongly.

"I am glad to say that I am going on all right, and I hope to continue to do so. I daly take a long walk, and do not find the fatigue as I formerly did. I am oblige to stop and think as to how as to how the words are spell. I can generaly go on verly ("verly" crossed out) very well in makeing the second copy."

When I saw the patient, I asked him to spell daily; and he did it quickly and correctly. The next day he could not spell it, and seemed to think "daly" must be correct.

The following is another letter.

"I do not find any improm (crossed out, and "improvement" substituted) in by leth [my health] this dalt [last] few days. Bodily I seem about the same with the exempt- except that I ave, av have had indejention [indigestion]. I can recofect things for years past very well, but I am pusseld [puzzled] to find how to spell, and cannot do so with (without?) thinding [thinking] first. I seem to av have got on better this (crossed out) with this better (letter?) than I some thim (crossed out) times can."

Another letter.

"My dear Sir,—I am glad to say I an soing [going] on fulvidloury (crossed out) favourably and op hope to leave London in a fue [few] days for gange [change] of eair [air]. I have had a long and levear (crossed out) severe adact [attack]. The the (crossed out) only thing I can see the mater [matter] with me it [is] the wand (crossed out) want of writing and corep coretur coker (three abortive attempts to write correspondence?)

"I am dy (crossed out) my dear sir, etc."

I was surprised to find how badly he read, after hearing him talk glibly and well. I asked him to read the following extract from the test-types used at the Royal London Ophthalmic Hospital (No. 1 of Jäger). It will be convenient, however, to give it first as he copied it, although this came afterwards. I mention the type, as I think that probably the trifling errors in his copy are due to carelessness in reading small type, and perhaps somewhat to nervousness. The additions in the brackets are my corrections.

"The place of our retreat was in a little neighbourhood consisting of farmers who tilled their our [own] grounds, and were equal strangers to opulence and poverty. As they had almost all the convenience [s] of life within themselves, they seldom visited towns or cities in search of superfluities. Remote from the polite, they still retain [ed] the primæval simplicity of manners; and frugal by habit, they scarce knew that temperance was a virtue. They wrought with cheerfulness on days of labour."

He read very slowly, and made, as nearly as I could estimate from the sound, the following mistakes, many of which he corrected. Red, round, hand, for neighbourhood; standers for strangers; opulus for opulence; possery, popery, for poverty; visit for visit; seppertition, sepperist, sepperit, sepperistis—abortive efforts to say superfluities (he could not say it after me until I said it very carefully and slowly for him); remake, remoke, remote, for remote; polites for polite; primavel for primæval; mimplicity for simplicity; menners for manners; fruel for frugal; themperance for temperance; cheerlessness for cheerfulness; lady for labour.

It may be that such mistakes as "polites", "fruel", are due to carelessness; but he pronounced these mistakes very clearly, and corrected them sometimes. Nor were the mistakes due to a permanent difficulty in articulation. He could say any word I asked him to say. He could repeat without the slightest slip the following difficult lines.

"Around the rugged rocks the ragged rascal ran the rural race."
"Up a high hill he heaved a huge round stone."

"Fruel" is perhaps the way in which a drunken man would shorten the word "frugal"; but there was at that time no such thickness about the patient's talk.

It must be observed that these last-mentioned trials are rather specimens of what he could do by care and by attending to what he was doing, and not of what he could say when talking loosely. As he still said that he made mistakes at home, I asked him to collect them for me. The following is the result.

"Intending to say the following words, I sayed, for case, clase; for sister, sisper; for stomach, spomach; for that, sthat; for never learnt, never lant, never tant; for to wear, to pear; for plate, s-s-s-plate; for three, th-th-th-ree; for pig, prig; for bedstead, beckstead; for Emma, Enna; for go to bed, go to ded; for reid [read], leid; for coat, sloat; for turn his toes out, turn his nose out; for later in the day, laer in the day; for answer as a tung [tongue], answer as a tooth; for how is your tooth? how is your hand—your tongue—your feets? for mistake or two, mistalabal; for to such extent, to such an expemut; for going to wear, going to vell; for sticking plaster, picking plaster; for sight, fight; for blood, brod; for beat, bread; for going right, going rike; for you need not wet it, you need not wat it; for you have a little cold, you have a little clean; for the sun is at its hight, the sun is at the moon; for you want some more meat to eat with them, you want some more meat to drink with them; for meat, bread; for knife, eggs; for wall, floor; for walk a mile, take a mile; for of meat, of mead; for not been my doing, not been ny doing; for nise [nice], nite; for tight, trite; for of a boy, of a dog; for alf [half] a sleap [sleep], alf a sleass; for travel, traverk; for he is nocked [knocked] up, he is locked up; for to school on Saturday, to school on Skatterlday; for people coming from church, people coming from slearch; for one stair, one floor; for all the week, all the sweet; for you had better save them, you had better ceave them; for its all mussell, its all mujjle; for custard, tustard; for showes as bright, showes as shite; for table, tadle; for the fastest train, the largest train."

I called on him one day, and asked him to spell several words. For plough he gave plow; for cough, coff; for dough, first dough, then dowe; for daily, daly; for generally, he began several times j, and when I told him it began by g, he could not proceed; for laugh he gave lauf (he pronounced the word something like this). For picturesque, at the first trial, picthuress; at the second trial, pickthuressk; at the third trial, he said, "No, that's not right", and deliberately spelled "esque".

I then dictated the following from an article in the *Saturday Review*. His mistakes are in brackets.

"The man [mand] whose [woos] mind [minds] is entirely taken up [out] with small [sall] details [detales], fancies [sances] he has a right to sneer [seen] at every one gifted [gisted] with less [lest] minute knowledge [nowledge]. Because [Begase, and again Begause] he can [gan] grease [crease] the wheels [weels] and tighten [bighten] the screws [schrees] of machinery [masheenery] he fancies [sances] himself an authority on the laws [laus] of motion [mosien]."

I then asked him to spell the word whose, aspirating it strongly. He wrote "hose". Small, he spelled "sall", as in the text; but quickly remarked, "No, that's not it; that's sall." He then hesitatingly spelled it rightly. Sneer he spelled sneer; because, becaus; and laws, lass. I said no. He then spelled "lause". I again said no. He said interrogatively, "There is a laws spelled l a s s?" I said, "That is lass, not laws." He replied, "So it is"; but still could not spell the word correctly.

[*To be continued.*]

A FEW REMARKS ON CANCER.

By R. H. Meade, F.R.C.S., Consulting Surgeon to the Bradford Infirmary.

Having been a great deal interested last year at Leamington, by hearing Mr. Moore's paper on Cancer, with the discussion which followed it, I venture to hope that the same subject may be revived at Chester, this summer, and that Mr. Moore may be able to report the acquisition of some valuable information in answer to the statistical inquiries which he made of the profession respecting the antecedents of cancer.

In Mr. Moore's paper, (which he afterwards published in a more extended form, and a copy of which he kindly sent me) there were many interesting remarks upon the pathology and treatment of this frightful disease; but several points were very open to criticism; and it is upon one or two of these that I venture to make a few observations. First, as to the constitutional nature of cancer; Mr. Moore is of opinion that it is purely local in the first instance, and independent of any morbid taint in the body. Now it would be very gratifying to be convinced that this hypothesis is strictly true, but I fear that we cannot at present come to that conclusion; there being so many facts which militate against it. The exceeding difficulty of preventing the recurrence of cancer after operation, is a strong argument in favour of its constitutional origin. How is it that a patient sometimes remains well for one or more years, and the disease then returns? If its return depend upon its incomplete extirpation, one would expect it to show itself quickly.

If cancer be not constitutional, how can we explain the fact of the comparative frequency of the occurrence of what are called recurrent tumours, "in the descendants or near relatives of those who are or who have been cancerous?" The distinguished surgeon and pathologist (Mr. Paget) whose words I have quoted, adds, "It is as if their growth" (that of recurrent tumours) "were due to some diathesis, through which the cancerous, in some instances, fades away into health, or is in some gradually developed."

Mr. Moore is obliged to admit that cancer is in some measure hereditary; but here he will not allow that any constitutional affection is transmitted; but says that, in his opinion, the inherited peculiarity is clearly a local one, and arises from the same kind of parental influence as may determine the production of deformities, or peculiarities of external form.

Mr. Moore suggests that, if cancer were in the blood, it might be found by chemistry, or the microscope. Can these means detect tubercle there, in patients predisposed to consumption? And yet will not Mr. Moore admit that phthisis is constitutional?

There can be no doubt of the hereditary nature of cancer, though, as in all other hereditary complaints, its descent cannot always be traced, and parents or other near relatives of a cancerous patient may have died of the same complaint in some internal form, without its nature having been known. I think that many old people die of cancer of the liver, or of some other internal organ, in whom the disease is not recognised during life. Believing, however, that cancer is both hereditary and constitutional, I admit that, as in other diseases of the same class, the diathesis may often originate *de novo* in the individual whom it attacks.

As in scrofula and tuberculosis, so in cancer, the constitutional taint varies greatly in intensity, so that the disease may appear sometimes to be strictly local. In scrofula we often see a single joint affected;

and, when this is removed by operation, the health of the patient is restored, and he may live to old age, without shewing any further symptoms of the complaint. No pathologist, however, would say that the affection in this case had been a purely local one.

The deposit of cancer differs no doubt from that of tubercle, or struma, in possessing a much greater degree of vitality, and thus spreading more easily to neighbouring, and, through the absorbents, to distant parts. Still, I think, it is sometimes possible to remove the local disease in cancer, with a prospect of success, if an operation be performed sufficiently early; for the cancerous predisposition may exist in a very slight degree, and the local affection may have been excited by a blow, or some other external cause of irritation.

There seems to be a great difference in respect to the liability to return, or rather in the difficulty of complete extirpation, between cancer in one part of the body and in another, even with respect to the same form of the disease. Thus, while the chances of success by an operation are greater in the epithelial than in any other form of cancer (except perhaps, the melanoid) when it is seated in the skin or lip; on the contrary, when it attacks the tongue, no form is so malignant. It appears to me that cancer is peculiarly liable, also, to return after extirpation in the female breast; and, unfortunately, the surgeon is more frequently called upon to operate here than in any other locality.

In my own experience, the most favourable cases for operation are those in which the disease occurs in an organ or part which is separated from the other tissues by some distinct capsule or coat, and can thus be more completely extirpated; so, in the testis, if the organ can be removed before the morbid growth has penetrated through the tunica albuginea, or extended up the cord, we may hope for success. In one case in which I removed the testis of a gentleman, whose brother had previously died of cancer of the same organ, where the characters of malignancy, both before and after the operation, were very well marked (though the disease was in an early stage), the patient lived for fourteen or fifteen years afterwards, and then died of apoplexy. Four years ago I removed another testis, affected in a very similar manner, from a middle aged gentleman, who is now in good health. I am sorry to say that these are the only two successful cases of the kind that I can record; but I am convinced that one great cause of failure is the postponement of an operation until the disease has proceeded so far that its complete removal is impossible.

The eyeball is another organ in which cancer on its first occurrence is sometimes entirely confined to the limits of the globe; and, if extirpation be performed, as soon as the nature of the disease is clearly apparent, success may be hoped for.

I removed an eye affected with cancer a good many years ago, from a girl 14 or 15 years of age, and she remained well at the end of six years, when I lost sight of her. The form of disease usually affecting both the testis and eyeball, is the encephaloid; and though, under many circumstances, this is usually the most rapid and malignant of any variety of cancer, yet it has been noticed by many surgeons that sometimes it bears removal better than others. The results of my own limited experience support this statement; and I could bring forward several instances where persons remained well for a considerable time after the removal of tumours of the encephaloid or medullary class. I remember one instance in which I excised a large tumour from the side of a man's neck (it extended from the lower jaw to the clavicle), which had been growing for many years; before the operation, I hoped the tumour was of an innocent character, as there were no signs of cancerous cachexia; but its structure was decidedly malignant. This man remained well for upwards of two years, when the disease returned in the neck, grew to an enormous size, and killed him.

I cannot agree with Mr. Moore, that cancer is eminently a disease of healthy persons; it may sometimes appear to be so, but I have noticed that, where it has occurred in members of families, whose history I have had an opportunity of knowing for many years, there has mostly been an unhealthy (generally a scrofulous or consumptive) tendency. Another point which I have observed, is, that patients affected with cancer are generally prematurely grey. Again, cancer is eminently a disease of the aged; as the vital powers diminish in strength, and the different structures become enfeebled and less capable of resisting degeneration, they seem more liable to cancer.

I have already said that I believe the internal forms of cancer to be more commonly the cause of death than is usually supposed. Old people often sink under chronic jaundice. I have no doubt that this is mostly produced by cancer of the liver. At other times the stomach is the failing organ, and the patient dies with symptoms of chronic dyspepsia. I think there is often cancer of the stomach or pancreas in these cases, though the pylorus may not be affected; and therefore the usual symptoms of cancer of that part are absent. I attended one old lady, who died at the age of 73, with symptoms of disease of the stomach, the nature of which I should have been at a loss to determine without a *post mortem* examination, except for the fact, that I had assisted in the removal of a cancerous tumour from her breast four years before.

In concluding these few remarks, I should feel it necessary to apologise for bringing facts and opinions forward which have been often promulgated before, if I did not feel the necessity of keeping the subject of cancer before the profession, with the hope that something may ultimately be found which will point to the cause, or arrest the progress, of this terrible malady.

Edinburgh University Athletic Club Games. The first annual public competition of this flourishing club took place last week. Many professors and distinguished members of the medical profession were present. Mr. J. W. Moir, son of the late distinguished Dr. Moir (Delta), acquitted himself splendidly. The ease and grace with which he succeeded in clearing a bar five feet seven inches in height, called forth the admiration of all the spectators. Numerous prizes were presented to the successful candidates by the president, Lord Neaves.

The Deaf and Dumb. England, with its deaf and dumb population of 12,236, supports eleven institutions for their education, containing about 1,000 pupils; Scotland supports five with about 240 inmates; and Ireland seven, with about 400 inmates: making in all twenty-three schools, with accommodation for about 1,640 pupils; about one twelfth of a class of unfortunate beings who have been described as "deficient in the sense most important to the intellectual and spiritual nature of man," whose need of education is most urgent, and whose claims upon our pity are both powerful and just. There are, therefore, 18,671 deaf mutes, out of the 20,311 in this country, for whom no recognised means of instruction are provided. In the metropolis there are 1819 deaf mutes.

Transactions of Branches.

CAMBRIDGE AND HUNTINGDON BRANCH.

PRESIDENT'S ADDRESS.

By J. J. Evans, Esq., St. Neot's.

[*Delivered June 26th*, 1866.]

Gentlemen,—In taking possession of the Chair as your President on this occasion, my first duty is to thank you for the high professional compliment you have paid me in selecting me to fill a post of so much honour. I should be vain indeed, were I not to feel that a great responsibility rests with me in connexion with the duties of to-day; and I have, therefore, to ask for a large share of forbearance on your parts whilst I humbly endeavour to do my best towards the proper fulfilment of those duties.

My professional brethren of this town and neighbourhood will also, I doubt not, feel complimented by your having fixed on the comparatively insignificant town of St. Neot's as the place wherein to hold the annual meeting of the Cambridge and Huntingdon Branch of the British Medical Association—an Association whose gross numbers now amount to upwards of 2,500 members (amongst whom are many of the most eminent physicians and surgeons of the day), and the ramifications of which Society, if we keep in view the distinguished foreigners who have joined our ranks, spread not only through every county in the United Kingdom, but may be traced wherever the character and skill of the English physician or surgeon have made themselves known. That an Association so extensive and so numerous should prove a bond of union to the professional brotherhood, is at once self-evident; and, though it may require the numerical strength of its general meetings to substantiate the fact, you will not, I am sure, deny that these smaller gatherings play an important part in the advancement of that harmonious and social feeling which is both an ornament as well as an advantage to each individual member of our profession.

The proportion that the Cambridge and Huntingdon Branch bears to many others is indeed small; but let it be remembered that the two counties are in themselves small and of a purely agricultural character, and therefore deficient in that professional element more profusely supplied by the demands of a manufacturing population. It has, however, the high honour of inclosing within its circuit one of our universities, from which it not only acquires many excellent members, but those of a superior order to the general body of country practitioners, since their academic position demands a larger amount of scientific attainment, to enable them to teach those departments of science of which they themselves are the professors.

It would be lost time to enter upon a minute description of this town and neighbourhood, or to describe the disorders which may have been deemed indigenous to this locality, but which have long since, through an improved system of agriculture, become almost unknown to the present generation of medical men. Still, although these disorders may have become almost extinct, and the face of the country so changed that, if revisited by an octogenarian, the scenes of his youth would no longer be recognised, the little town of St. Neot's, with its noble church and tower, its capacious market-square, and its softly flowing river, still remain, as if to remind him that he alone bears the impress of time.

As a parochial structure, the Tower of St. Neot's is not exceeded in elegant proportion and unity of design by any other tower in the kingdom; and, as it occupies a commanding position in reference to the country around it, it was selected as one of the angular points in the great trigonometrical survey of England. The Market-square is also, with two or three exceptions, one of the largest, and has an historical interest attached to it; viz., that, in the disturbed period which marked the latter part of the reign of Charles the First, a battle was here fought between the Royalist and Parliamentary troops, in which the former were totally routed, many having been drowned in their attempt to defend the bridge against the entrance of the Parliamentery troops.

It has been, however, only within, or slightly in advance of, my own time (1830), that the town has been efficiently drained, and its streets and houses lighted with gas. These and similar changes have produced a wholesome effect upon the town and its inhabitants; and I may add that, during a residence of nearly thirty-six years in it, this town has never been visited with the more severe outbreaks of epidemic disease which have too often darkened the history of other towns.

If, in my attempt to describe the agricultural improvements throughout the country north of St. Neot's, I should occupy a few moments, I should not be introducing irrelevant matter, since those improvements have had much to do with the present more healthy condition of this immediate neighbourhood.

It is only a few years since that an excursion to Whittlesea Mere, and a sail on its waters, formed one of the seasonable holidays of the people of this neighourhood. Now, the Great Northern Railway carries its iron paths over the very spot whereon I myself have sailed. The vast system of drainage, also, which is carried out in the contiguous fens of Cambridgeshire (amidst which, as recounted by a modern writer, Kingsley, lay the scenes of the conflicts and chivalric excursions of Hereward the Saxon, when surrounded and at length overcome by the conquering Norman), has effectively changed the face of the whole country north and north-eastward of St. Neot's. No longer, except in isolated spots, does ague linger amongst us; and even then its attacks are less severe than formerly. Although many other causes, amongst which may be reckoned more wholesome food and better house-accommodation, may have so far improved the condition of the labouring population, yet I believe that *drainage*, and drainage only, has been the extirpator of ague. The last cases I witnessed occurred in the year 1850, when a body of navvies were engaged in a deep cutting for the Great Northern Railway. Some thirty feet below the surface of a hill of Kimmeridge clay, south of the town, a bed of coarse limestone, about a foot in thickness, very similar to the cornbrash of the lower oolite, but differing from it in the absence of its usual characteristic fossils, was penetrated, and from beneath the stratum a copious supply of apparently very pure water flowed. The weather being extremely hot, the navvies drank freely of this water, and were individually attacked with ague. Having had the medical charge of these men, all the cases came under my observation, and I had the greatest difficulty in curing them. Even the larger doses of quinine were unavailing, and I was obliged to fall back upon the liquor potassæ arsenitis, which speedily relieved them.

Now, whence came this ague-poison, for the spot was not of a fenny character? Was it from a subtle

miasmatic aura, which might have been set free from crevices in the clay? from the large imbibition of cold water when the body was over-heated and exhausted? or from the soluble matter contained in the water? I believe the latter; as, from an examination of the locality by Mr. Seely, of the Woodwardian Museum at Cambridge, this stratum of stone is found to extend through the Tempsford Marshes to the base of the clay underlying the Sandy Hills; and, I have no doubt, is penetrated by the stagnant waters of the marsh, which must contain a large amount of *soluble organic matter*, the *fons et origo mali*.

Having alluded to the rarity of ague as the result of drainage, it is with regret that I have to admit that another disorder, typhoid fever, has taken its place, and may, I believe, be traced to the very cause which has removed ague from amongst us.

I am not intending to advocate the doctrine of the change of type in disease, but rather to prove to you the fact, that, when a new cause is introduced, a new disease will show itself. Now the improved system of agriculture necessitated by the close competition, not so much of an increased population, as of the more easy transmission of the produce of the land, to the manufacturing districts, demands a more frequent rotation of crops, as well as an increased quantity of produce. To obtain these, a large amount of powerfully stimulating manures are consumed. Of these, one of the most effective is night soil, and it is now extensively used by most farmers in this neighbourhood.

That this is becoming a source of great evil, will be evident from the cases I shall now report. During the last year, more than twenty deaths (I believe I am correct in this statement) occurred in an adjoining parish, in which the population is purely agricultural. As far as I have been able to learn, many of these cases originated in some farm cottages, situated in a valley, through which runs a small brook supplying their inmates with water for every purpose of life. This brook takes it rise in a woodland district about three miles distant, and, passing by a succession of well cultivated farms, it receives the drainage of not less than eight farmyards, with the house sewers attached, as well as the whole of the land drainage. Now on all these farms tiles are, I believe, exclusively used, as the most effectual and cheapest mode of draining. It is therefore evident that the better the drain the more rapidly is the water carried away, and with it, the soluble matter of the soil. In addition to the unwholesomeness of the water, its *scarcity* is most severely felt during the summer months, and I can bear witness that brooks which a few years ago ran freely during that season of the year, are now (at the present date, June 26th,) grown up with the rankest of herbage. Farmers also are already driven to the necessity of excavating ponds, as reservoirs of water for the use of their flocks. We have, therefore, not far to look for a cause all powerful in the production of fever.

The character of the fever in those cases which came under my observation, was usually typhoid, but in some instances the nervous system was especially depressed, and the debility extreme. One characteristic of this fever was great yellowness of the skin, with the clay coloured evacuation, and scanty urine. In other cases the fever was the less part of the illness, whilst the nervous depression with jaundice was the greater. Six cases of jaundice occurred amongst the children of one family, and two of another, both families belonging to the most respectable class of farmers. That the fever cases were the result of the drinking of bad water, I have no doubt, but I attribute the nervous depression, with jaundice, to the lowness, and exceeding dampness of the locality, which, combined with impure water, is, I believe, one of the most powerful causes of typhoid fever.

It would be interesting to know, from the experience of others, how far I may be borne out in these remarks; as the use of night soil as a manure is becoming very general throughout the country. Should this opinion be correct, what a dismal prospect for the inhabitants of the south-eastern part of England, when the drainage of the metropolis is completed!

I believe that I should not be introducing a novel style of address, if, instead of giving you an epitome of the general doings of the medical world, and of the proceedings in which this association takes its part, I should continue to make further observations in connexion with the subject I have so far discussed. I will, therefore, with your permission, pass on to speak of some of the modes by which deleterious matters enter the system, and of the effects they produce upon the living body.

The three principal inlets to the human body, may be said to be: the trachea, with its ramifications, the œsophagus, with its stomach and alimentary canal, and the skin. I have named them in this order because I consider that they bear this relative position each one to the other. It will not be necessary to describe their functions, as they are already well known, and may be said to belong properly to a state of health, into which it is not my object to inquire. I would not, however, pass them wholly by. Now, although these three inlets differ in many respects the one from the other, in one point they resemble each other; viz., in the fact that they each represent both secreting and absorbing surfaces. In these functions, too, they may be said to be involuntary agents, ever acting during life and ceasing only in death. The purpose for which respiration, or lung-absorption, is ordained, is so intimately connected with life, that life is wholly dependant upon it, and cannot be supported for even a few moments without its means. This very intimate relationship is perhaps one of the most perfect in the human economy, yet in its very perfection lies its imperfection, since the slightest interruption in its relationship is sufficient to produce a speedy death. Its function of absorption, so long as it is confined to what is intended for it; viz., the absorption of oxygen, is purely vital, as also is its exhalation of carbonic acid. Thus, on one hand, we have the absorption of oxygen, and (after its chemical union with the effete carbon of the blood) its excretion, under the form of carbonic acid, no longer a necessary and healthy constituent, but one that is injurious and destructive to life. Again, we have the absorption of nutritive matter by the alimentary canal, and (after its chemical and vital union with the blood) its exit from the body under various forms; all of them, if retained, being more or less injurious to life. So, also, in the function of the skin, we observe the ready absorption, under certain circumstances, of matters applied to it, and their return under a new form, that of perspiration.

Now, in the healthy condition of the body, all these functions are carried on imperceptibly. No disturbance is observed; and the various excretions pass away, each one possessing its specific natural character. On the other hand, when the matters absorbed are not essential to life, their entrance into, and combination with, the blood, give rise to various disturbances in the system, which constitute the ailments or functional disorders of ill-health. If, under these conditions, the further ingress of these deleterious matters be allowed, new compounds are formed, which are not only *not* carried out of the system, but are positively retained; some of them destructive to

life immediately, whilst others act more slowly, continuing to worry out the nervous sensibility, until, through this very depression, combined with the deleterious compounds retained in the system, the individual succumbs to that condition from which neither the *ars physica* nor the *ars medica* can relieve him.

There are other conditions under which a more speedy—yea, even a sudden—interruption of the vitality of the system may be observed: the inhalation of poisonous vapours or of gases which will not support life; the swallowing of narcotic, irritant, or corrosive poisons; the application to the skin of destructive agents, such as fire, boiling water, etc. These and many other causes will destroy life, but in a different way to that described; some act locally, whilst others act indirectly. Now, how is this latter action to be comprehended? If parts which are essential to life lose their integrity—in other words, are destroyed—it needs no stretch of intellect to understand why death should occur. But if, on examination, no trace of injury be discovered, and yet that the person an instant before should have been in perfect health, it may be ignorant of the fate that awaited him, is it not a mystery to us how a change from health, from activity, both of mind and body, shall have passed so suddenly into one of silence and of death? Life, gentlemen, is a mystery; death a mystery. Any effort to solve this difficulty only perplexes and comfounds him that attempts it.

Yet, though we cannot solve the problem before us, we are able to understand enough for the purposes required of us.

Now, the action of the brain and nervous system will partially explain this wonderful mystery; for mystery it must remain until the mode by which thought and sensation are transmitted is better understood.

We see numerous instances in which death occurs instantaneously, in which no organic lesion can be detected, and in which science fails to explain the why or wherefore that invisible thread, which in life connects the material with the immaterial, should be so suddenly broken. I find no difficulty, therefore, in applying this mysterious doctrine to the action of morbific matter in the living and healthy body; to the production of disease and death.

There is ever an antagonistic action in progress, whereby the animal body is ever exerting itself to the preservation of health, whilst the subtle influence of the *materies morbi* is as insidiously at work to destroy it. To keep this in view should be the aim and end of both medicine and surgery.

I shall not trespass much further on your time and patience, as there are those present who have many interesting subjects to introduce. I cannot, however, close my address without some allusion to the great medical topic of the season; viz., cholera.

I shall state as succinctly as possible what I consider to be the nature and cause of the disease, and how it may be most successfully treated and avoided.

I would class cholera amongst those disorders which are purely of an atonic character; viz., ague, remittent fever, typhoid fever, typhus fever, yellow fever, and plague. It may, therefore, be said to be a *fever*, and, as such, is so recognised in some of its stages. It is probably produced by some of the causes that produce those diseases; and, I believe, is most successfully treated by the adoption of those measures which may be strictly called preservative.

We all know that the neglect of sanitary laws, exposure to cold and malarious influences, unwholesome food, atmospheric changes both of temperature and of humidity, electrical variations both of the atmosphere and of the earth, and lastly depression or impairment of nervous tone, are all of them powerful causes that operate either for or against that well balanced adjustment of the vital forces which constitute health. We see, on the one side, that nervous exhaustion, coupled with impure air, with neglect of cleanliness, both of the person and of the different kinds of food, is soon followed by typhus; on the other, that the ingestion of effete excreta is followed by typhoid fever; and exposure to malaria, when the body is exhausted, by ague; and, I would add, similar exposures render the person a ready recipient of the contagion of scarlatina, erysipelas, etc.

Seeing, therefore, that the *materies morbi*, under whatever phase it may show itself, is so powerful an agent in the production of disease, need we doubt that a combination of some or other of its phases is sufficient to produce even what is usually named cholera? Experience has convinced me that, in some seasons and under certain conditions, ordinary diarrhœa may go on into cholera. In saying this, I do not imply that cholera must necessarily be preceded by diarrhœa; for I have seen cases of cholera, or I would rather say blood-poisoning, prove rapidly fatal without even an evacuation. That a strong similarity exists between the collapse of cholera and the rigor of incipient fever, I am certain of; and I therefore fearlessly ask you the question, whether the cold stage of an ague, the severe rigor which occasionally ushers in an attack of fever (and in which state I have seen patients die outright, without even an opportunity for reaction), the utter prostration of persons mortally wounded, the collapse of cholera, and the last stage of the dying, are not one and the same condition, varying only in degree, and being an actual failing of the vital energy of the brain and nervous system. Of the *modus operandi* of the brain and nervous system we know but little; but we do know that even sudden mental alarm will produce not only diarrhœa, but fatal syncope, giving no time for collapse. I think, therefore, that to lay down special rules for the treatment of cholera is not only unsafe, but positively injurious; for, in the treatment of disease, is it not our duty to examine carefully into the symptoms, condition, age, and sex of our patient, before we venture to prescribe? And is it not an equal duty so to prescribe as that the experience of past years, gained not so much from books and the dogmas of our schools as from clinical observation and study, shall be brought into operation? "Experiendo, magis quàm discendo cognoscere."

As cholera cases may be met with of every degree, so must our treatment vary. Who would think of giving opium to a patient complaining of sickness and slight purging, where the tongue was furred, and where there was evidence of accumulated and vitiated secretions? Or who would give a purgative to, or bleed, a collapsed patient, who might be said to be *in articulo mortis?* Between these two extremes, both opium, blood-letting (?), and purgatives are admissible. The doctrine of purgation in diarrhœa is not new, and, if adopted sufficiently early, is often beneficial; but what I do strongly object to is the having any doctrine at all. If I have found any remedy to be of benefit in the severer forms of diarrhœa, when sickness and purging, with cramps of the extremities, are hazarding the life of the patient, I have found none equal to frequent doses of creasote with chloric ether, in common with the external application of mustard. But in the perfectly collapsed patient, when the skin is covered with a glutinous exudation (for perspiration is no longer an applicable term), the surface of the body cold, the eyes sunken and glassy, and the skin of a leaden

hue, then, I fear, succour is too late, and we have only to witness the speedy approach of death.

I have no hesitation in saying that mental depression has much effect in producing the collapse of cholera; and that it behoves medical men to be careful not to pronounce severe cases of diarrhœa to be cholera, either before the patient or his more timid relatives.

Gentlemen, enough has been said to provoke remark amongst you, whom I am addressing. If, therefore, by so doing, I may have been the humble means of dispersing some of the clouds which now hover over our zenith, I shall sit down with a feeling of the utmost satisfaction.

NORTHERN BRANCH.

A CASE OF AORTIC AND FEMORAL ANEURISM, WITH EMBOLISM OF THE SPLENIC ARTERY.

By G. C. GILCHRIST, Esq.

[*Read June 22nd*, 1866.]

GEORGE R., a navvy, aged 40, was admitted into the Newcastle Infirmary, on June 22nd, 1865, under the care of Dr. Heath, by whose permission the case is reported.

He stated that about a month previously, while confined to bed with anasarca of the lower extremities, he experienced sudden pain in the upper part of the right thigh, and for the first time perceived a lump about the size of a walnut. The swelling and pain gradually increased, and at the time of his admission a tumour was visible in Scarpa's triangle. It was found to extend from Poupart's ligament three inches down the thigh, and to measure two and a half inches across. Pulsation, synchronous with the heart's impulse and readily controlled by compression of the external iliac artery, was well marked. On auscultation, a *bruit* was heard in the tumour, and, with the first sound of the heart, a murmur louder at the base than the apex. The tumour being considered aneurismal, the patient was ordered to lie in the supine position, with the leg flexed at the hip and knee, a horse-shoe tourniquet to be applied to the external iliac artery, and acetate of lead in two-grain doses to be taken three times a day.

The compression occasioning discomfort, necessitated the removal of the tourniquet on the second day, when no perceptible change was noticed in the size, solidity, or pulsation of the tumour.

During the evening of July 13th, he was suddenly seized with very severe pain in the bowels, followed by great depression; the pulse being very feeble, the lips dusky, and the extremities cold. Stimulants and an opiate were administered, with some relief to the pain; the prostration, however, increased, and he died early on the 14th.

The *post mortem* examination was made by Dr. Philipson twenty hours after death. The rigor mortis was well marked; the subcutaneous tissue devoid of fat. The pleuræ were non-adherent; at the apex of the right lung there was an old cicatrix, but no appearance of recent tubercle; anteriorly slight emphysema. The heart was large and flabby; the right ventricle somewhat dilated; the tricuspid and pulmonary valves were healthy; the left ventricle was hypertrophied and dilated; the mitral valves rigid and considerably thickened; the aorta inflexible and covered with vegetations, some of them loose and waving. The cavities of the heart contained no coagula. The transverse portion of the aorta was considerably dilated, the cavity being globular and fully five inches across; the coats of the vessel were intact. The spleen was enlarged, and on section displayed from above downwards three different appearances, limited by distinct lines of demarcation: the upper third firm, and of a reddish-brown colour, the middle almost black, and the lower portion of a claretty hue and pulpy. The splenic artery was distended with a coagulum, firm and distinctly laminated transversely. The branches of the artery to the pancreas and left extremity of the stomach were patent. The femoral aneurism was situated half an inch above the origin of the profunda femoris. It was about the size of an orange, lateral, sacculated, of the compound variety, the sac being formed by the outer and middle coat, the inner one being wanting. It contained neither coagulum nor laminated fibrine. The liver and kidneys were fatty.

REMARKS. The rapid increase of the femoral aneurism and the almost sudden extinction of life were unusual, and probably dependent upon the condition of the heart and the general textural changes throughout the body—the vitiated state of the blood fully accounting for the absence of any deposited fibrine. Considering the condition of the aortic valves and the appearances presented by the spleen, we may fairly infer that some of the vegetations had become washed into the circulation and carried onwards, until arrested in the branches of the splenic artery; a foundation being thus laid for a coagulum, which, by successive additions, finally obliterated the vessel. The transverse lamination in the splenic artery renders this supposition the more probable, as the changes in the structure and consistence of the spleen would be produced by a deprivation of blood; and the three dissimilar appearances in the consistence and colour by the blocking up, first, of a chief branch mainly distributed to the lower portion, then of others more central, and finally of the trunk itself.

THE PRUSSIAN MEDICAL SERVICE. The Prussian medical service seems to have proved equal to the exigencies of the campaign. The moment the fight has ceased, the wounded are rescued by the "sick-bearers," who scour the battle fields, carrying stretchers, and performing the dangerous duties of their office according to certain rules. A little to the rear, but still within cannon range, the wounds are slightly dressed by a senior surgeon, attended by junior assistants. Thence the sufferers are conveyed in carriages to a *Lechtes Feld-Lazareth*, temporarily established in some neighbouring village. There the most necessary operations are performed, and the dressings renewed, after which all the patients, capable of being transported, are at once removed either to a *Schweres Feld-Lazareth* in some populous town in the vicinity, or, if they can bear the journey, to a hospital in Prussia. Convinced of the evils of crowding, the Prussians have opened a large number of hospitals in every part of the country. It is by no means rare to find a man who received a ball in Bohemia having his wound tended at Dantsic or some other place on the far away Baltic. All over Silesia, Brandenburg, Posen, Pomerania, and Prussian Saxony, branch hospitals have been opened, and afford every comfort. Of physicians there is no lack. The senior surgeons are salaried by the Government, and many of them hold permanent appointments in the army; while nearly all the juniors are young men fresh from the universities, who are made free of military duty in the army in consideration of their surgical services. Students of divinity, who are liable to conscription, though actually never called out, have been requested to enter the army as "sick-bearers." An overwhelming majority of Austrians is noticeable in the hospitals of the Prussians.

We are requested to remind members of the Association that the Annual Subscriptions became due on the 1st of January. They can be paid either to the Secretaries of the Branches; or to the General Secretary, T. Watkin Williams, Esq., 13, Newhall Street, Birmingham.

British Medical Journal.

SATURDAY, JULY 28TH, 1866.

METROPOLITAN WORKHOUSE INFIRMARIES.

BOTH Dr. E. Smith's and Mr. Farnall's Reports on the Metropolitan Workhouse Infirmaries confirm generally the statements as to their defective condition made by the Association for the Improvement of the Metropolitan Workhouse Infirmaries. The necessity for immediate and extensive reformation of the present state of things is fully admitted by both inspectors. They nevertheless have addressed to the Poor-law Board separate Reports; and their divergence of opinion rests on the fact that their proposed methods of cure of the admitted evils are radically opposed. Mr. Farnall goes for an entire upsetting of the present system: he accepts the recommendations of the Association referred to. He considers that the present metropolitan workhouse infirmaries can never be made effective recipients of sick paupers; and suggests, therefore, that separate hospitals, "wholly apart from the workhouses," should be built for their reception, and maintained by a general rate. His main reasons are: 1. That, in the present workhouses, the allotment of 1,000 cubic feet of air to each patient, which he holds to be absolutely requisite, is impossible; and 2. That the Poor-law Board has not sufficient power to compel recalcitrant boards of guardians to provide properly for their sick paupers.

Dr. E. Smith accepts neither of these conclusions. He affirms that, with a properly managed ventilation, 500 cubic feet of air are sufficient for each patient; and that such an amount of space and such ventilation may be provided by reconstruction and extension *in situ* of the present workhouses. He holds, moreover, that, under due supervision, sick paupers may be properly provided for in the workhouse infirmaries.

Now, on this point we may observe that, as far as we can judge, most if not all of the evils (to use a mild term) which have been brought before the public by the *Lancet* Commissioners and by the Association referred to, are traceable in the main to a want of proper government and supervision. It does not appear that these evils are necessarily inherent in the present system, but rather that they have sprung up under lax management and a very defective and incapable inspection. We cannot close our eyes to this fact. The *Times* (as it seemed to us, very justly) called the Poor-law Board and its staff of inspectors to account for the existence of the evils referred to. That journal asked, How could these things have possibly been, if the Board had done its duty? No answer has been given to this question; and Mr. Farnall's implied condemnation of the present system has consequently been interpreted as in some sense an admission of his own incapacity, or of the negligence of the Poor-law Board. How is it possible, any one might ask, that a system like this Poor-law, involving wide and complicated relations, could work satisfactorily, unless effectively and rigorously superintended? Have we not the proof of its defective supervision in the existence of the abuses which have been discovered by non-official inspectors, by the *Lancet* Commission, and by the "Association"? If the casual inspection of non-official persons could have brought to light these things, why were they invisible to the officials whose very business and duty it was to note and remedy them? The *Times* has been hard on Mr. Farnall in this point of dereliction of duty; but its strictures, as applied to him and the Poor-law Board, are not undeserved. If the Poor-law Board had done its duty, if its superintendence and inspection had been full and effective, and if it had taken action in accordance with the recommendations of an effective supervision, the Association for the Improvement of Metropolitan Workhouse Infirmaries would never have been heard of. The grounds—*i. e.*, the abuses—which justified the existence of that Association, would have been wanting.

What, indeed, is the tale told by these very Reports—inspectorial Reports issued under the pressure of public indignation—but an entire condemnation of the inspection and conduct of the Poor-law management of the sick? All the many serious defects detailed by the Reports—defects whose existence is admittedly inexcusable—could they have been in existence at the present moment, if Mr. Farnall and his associates had done their duty? Why was it left to medical men, to the *Lancet* and its Commissioners, to discover the existence of all the evils inferred in the suggestions and recommendations made in these Reports?

We have often pointed out in these pages what seems to us a manifest and radical error in the constitution of the Poor-law Board and of its inspectorial staff—we mean the exclusion from it of medical men. We hail Dr. Smith's recent appointment, therefore, as an indication of a truer appreciation of the necessities of the case. As corroborative of this view, it is worthy of note, that every one of the scandals connected with workhouse management, which have

during past years excited public anger and called for special inquiry, have been associated with the ill-treatment of the sick—have, in fact, been brought about by defective medical management. Moreover, we might ask, what is in the main the nature of the many abuses brought to light by the Association referred to, but abuses connected with the treatment of the sick? Is it unfair, then, with such facts before us, to infer that much of these scandals and abuses has been occasioned solely through the absence of a proper *medical* supervision? The very evils, in truth, which have of late excited such indignation, and given birth to the powerful Association, were brought to light by medical men, casual visitors to the workhouse infirmaries, not by the Board's own inspectors. Unpaid medical philanthropists saw abuses which were invisible to the non-professional Poor-law inspector! Why is it that Mr. Farnall has only now discovered that, in many sick-wards, "patients do not get sufficient air and light"; that the "atmosphere of wards and corridors is impure"; that the "water-closets are ill-placed, some even in the sick-wards"; that the "medical officers' salaries are inadequate"; that drugs and dispensing should be provided by the guardians; that "pauper nursing should be wholly abolished, and a sufficient staff of paid nurses appointed"; that "he is obliged to confess that no satisfactory treatment of the sick poor can be made" in, at all events, eight workhouses, whose names he gives?

Is it reasonable, indeed, to expect that he who has not been trained to deal with the sick and to direct their management, who has not by long and special study made himself master of their requirements, can be fitted to act as their supervisor? It seems to us as reasonable to suppose that John Gilpin could efficiently inspect a brigade of cavalry, as that a man of law should be capable of deciding whether or not Lazarus was duly cared for in his lazaret. Surely it must be as necessary for an infirmary inspector to have a knowledge of diseases and their treatment, as it is for a cavalry inspector to be bred up to his business, to understand military evolutions and the details of regimental duties.

It is not possible for us to decide, without a wider knowledge of facts, whether or not evils of the kind alluded to are inherent in the workhouse system. But this much we may safely say (supposing them to be capable of remedy), that the Poor-law Board has not gone the way either to prevent or cure them.

Dr. E. Smith seems to consider that they are remediable, without resorting to the radical measures accepted by Mr. Farnall. And in favour of his view, it must be admitted, as we have said, that most of the abuses which have been brought under the notice of an indignant public could scarcely have existed had the Poor-law inspectors been efficient inspectors, and had the Poor-law Board done its duty. And this, indeed, would appear to be the opinion of Mr. Gathorne Hardy. He told the House of Commons that, in his opinion, the existing evils were capable of remedy by a more complete and extended exercise of its powers by the Poor-law Board; and we conclude that he means, at all events, to attempt their remedy by a more efficient government and supervision.

Dr. Smith gives full detail in his account of the evils which exist, and his proposals for the cure of them. He opposes, as needless and impracticable, the separate hospital scheme which Mr. Farnall accepts. Workhouses, he tells us, are now for the most part filled with the aged and the infirm, and "with a certain kind of sick". Acute diseases are comparatively rare. Lunatics are sent to asylums. Children are removed to other establishments. Fever and small-pox patients are passed to special hospitals; and venereal diseases to the Lock. Hence the infirmary of the workhouse contains, in the main, only the aged sick and the chronic cases of disease—those which require nursing rather than active medical treatment. They are a class of sick differing essentially from the cases met with in ordinary hospitals. But many of the workhouses, Dr. Smith admits, require entire reconstruction.

With regard to one essential particular of construction, Dr. Smith holds views opposed to modern authorities; 500 cubic feet of air—not less—are, in his opinion, sufficient for each sick patient, if a proper method of ventilation be adopted. Mr. Farnall takes 1000 cubic feet as the minimum of requisite space. Dr. Smith enters into elaborate details to show, by experimental proof, that 500 cubic feet are sufficient; but assuredly he will not persuade the profession and the public to agree with him in this. One fact, doubtless, he may safely affirm, that the very largest space—even 2000 feet—to each hospital patient, is of little avail in warding off pernicious diseases unless due ventilation is at the same time provided for. Difference of opinion between sanitary doctors on so essential a point will occasion Mr. Gathorne Hardy no little trouble. If he go to the study of documents for enlightenment as to the *plus* or *minus* of cubic feet of air which sick paupers need, all we can say is, we wish him a happy delivery in his decision. We may, however, note that the old-fashioned mode of ventilating—viz., opening the windows—has lived down a vast many highly scientific and "infallible" processes. In every part of the country, public buildings may be heard of, which, after indulgence, at a heavy cost, in scientific ventilation, have fallen back upon the old-fashioned plan of window-opening. Probably, therefore, reflecting on the many past failures of artificial ventilating processes, Mr. Hardy, in the dilemma of reconstructions, will decide that, at all events, to hold to at least 1000 cubic feet will be safer than to err on

the side of 500 cubic feet. If the 500 feet and Dr. Smith's ventilation fail, buildings constructed on that scale must be irreparable errors. But, as the major includes the minor, the 1000 feet building will swallow up the error of the 500, and, even from Dr. Smith's point of view, can only be an error of luxury, and always leave room, as the Yankees say, for shrinking. Nothing less than 1000 feet will satisfy the medical profession.

Dr. Smith's proposed ventilation may be excellent, but we cannot have faith sufficient in it to believe it a substitute for space. Besides we must remember that we are dealing with metropolitan infirmaries. If Dr. Parkes and other high authorities consider 1000 cubic feet the least space required in country hospitals, it might be fairly said that 2000 cubic feet are required in the heart of an enormous city with its heavily laden atmosphere. There is something, also, too restricted in the definite quantity of 500. Why 500? Surely 500 feet of Strand air are not equal in life-giving force to 500 feet of Clapham Common air. And, after all, why should these infirmaries be constructed on the smallest possible scale compatible with what may be calculated as scientifically sufficient for existence? Why should not the metropolitan pauper have metropolitan air and light in abundance—and enough, at all events, to satisfy the demands of modern hygienists? Why cramp him in those prime necessaries which Providence supplies without cost or labour? If the profession, guided by its authorities, have fallen into an error in the 1000 cubic feet as a minimum, it is happily an error which, if it does slightly hurt the pockets of ratepayers, can only be a providential blessing to unfortunate paupers.

Dr. Smith gives excellent advice as to the reforms needed in these infirmaries, pointing out their defects and the remedies required. He lays down minute directions as to bedding and furniture, utensils, etc. He demands paid nurses. He holds that every workhouse should have the efficient services of a chaplain; the present arrangements in respect of the chaplain being, in his opinion, most defective. He would have a resident chaplain. The medical officer, also, should reside within the workhouse when the number of sick is great, and always near the workhouse if not in it. He should not be allowed to do his work by deputy. Guardians should supply drugs; and a dispenser should distribute them. The medical officer should be properly and much better remunerated than he now is; and, on this head, he suggests that "the salary should be calculated at the rate of ten shillings per adult on the average maximum number of inmates in the workhouse at one time." As regards supervision, Dr. Smith distinctly says that the present amount of inspection is insufficient, and the kind of inspection faulty. What is required is a system similar to that adopted by the Lunacy Commission; viz., inspectors of two classes, those having professional and scientific knowledge of sanitary science, and those who have the knowledge and training of the lawyer. Dr. Smith says that he believes that, if such a mixture in the Poor-law Commission of men of medical and legal acquirements had long ago been adopted, existing evils would have been long ago removed; in fact, we suppose, would never have been heard of.

Summarily, we may say of these reports, that both Dr. Smith and Mr. Farnall admit great existing evils; that Mr. Farnall goes for a radical upsetting of the present system of dealing with the sick pauper—the taking him out of the hands of the guardians; and that Dr. Smith goes for a reformation only of the present system. Mr. Farnall's Report is a Bill of Indictment against the Poor-law System of Treating the Sick, and we suppose we must therefore add, a tacit condemnation of himself and of all those who have for so many years and so very quietly taken an active part in carrying out a system which he admits to be so scandalous in its operations. Dr. E. Smith, as we understand him, reports that the system is good in itself, but has failed because those who were entrusted with the carrying of it out were unequal to the performance of their duty. He therefore endorses Mr. Farnall's bill of indictment, in so far as to accept the implied condemnation passed on himself and his masters by Mr. Farnall. Mr. Gathorne Hardy's duty it is to satisfy this great divergence of opinion—"*tantas componere lites.*"

HOT INJECTIONS IN CHOLERA.

THE sum of our experience in the treatment of the collapse-stage of cholera appears to be, that heroic medicinal interference is useless, and worse than useless. A rational treatment such as described by Dr. Johnson is simply this. The patient is to be kept recumbent; to be well supplied with air and water; the escape of the morbid secretions from his bowels being facilitated by diluent drinks and gentle evacuants.

But are we to stop here? Have we exhausted all the rational therapeutical resources which scientific medicine places at our disposal—so exhausted them as to be justified in saying, This palliative treatment is all that our art can offer? We venture to answer no; and to suggest that we have in the article of injections into the veins a reasonable remedy, whose real value has never yet been fully and fairly tested.

Dr. Parkes says, as the summary of his experience, that his only hope of finding a remedy for this stage of cholera lies in some injection into the veins. We have already (see BRITISH MEDICAL JOURNAL, May 19th, 1866) brought this subject under the notice of the profession; and at this critical moment of cholera-infliction venture to do so again.

A careful consideration of the history of injections into the circulation in cholera-collapse justifies us in saying that their failure has not yet been demonstrated. Far from it. Encouragement to the use of the possible remedy is very great. Whatever way the hot injection acts, its effects are for the time positively marvellous; and, if they could be for a time sustained, might prove life-preserving, by carrying the patient through this dread passage of the disease.

Of the cause of failure of the injections, as heretofore employed, so far as they have failed, we have reasonable explanation in the nature of the agents employed. Modern physiological knowledge would *à priori* condemn them as destructive. Their fluidity and warmth may produce immediate and striking benefits, by freeing the arrested pulmonary circulation; but their chemical composition must necessarily tend to corrupt and poison the blood, and so possibly to aid in the destruction of life. No man in health could bear with impunity the injection of large quantity of saline fluids into his veins; and the albuminous fluids injected must, as Brown-Séquard has shown, have been the injection of matters worse than useless as elements of nutrition. Raw albumen thrown into the blood, acts only as a foreign body, and is got rid of, as a poison, through the kidneys, producing uræmia and other serious disorders.

The destructive action of large quantities of aqueous and saline fluids on the blood-globules is evident enough. That may be seen under the microscope. But, if this be so, have we exhausted all that science can suggest as, in this wise, rationally worthy of experiment? We answer unhesitatingly, no. The immediate benefit of hot fluid injections is undoubted. This no one denies. And may not, for reasons above given, the cause of their ultimate failure (as hitherto employed), be rationally ascribed to their poisonous and destructive nature? If this be admitted, the deduction is evident. We must then ask, Is it impossible to find a fluid which, while it conveys warmth and produces a sort of resurrection from impending death, may form on the one hand a healthy pabulum of nourishment, and on the other exercise no destructive influence either on the blood or the vital organs of the body?

Such a fluid in its most perfect form is human blood; and no one, we apprehend, would hesitate to inject human blood, properly prepared by whipping (*i. e.*, defibrinated and oxygenated), into the veins of a cholera-patient in collapse. But such a fluid is not readily to be had.*

Might not a substitute for it be found in sheep's or bullock's blood? Surely the thing is worthy of trial in such a desperate emergency. In such blood, properly defibrinated and oxygenated and duly heated,* we have an albuminous saline fluid, which has undergone digestion—been vitalised—and which, while it renovates equally as the hot saline and other injections hitherto used, might perchance have no pernicious influence on the elements of the patient's blood or on any of his vital organs. If, by such a means, life could be preserved for a few hours, it might perchance be altogether saved.

We have already, in the last volume of the JOURNAL, given a summary of Panum's experiments; and in those details will be found an account of the precautions, etc., which must be taken in order to perform successfully the operation of injection of blood. In those very precautions, we may observe, will be found another explanation of much of the ill success which attended previous efforts in this direction. We press this remedy, let it be understood, not from any profound faith in its efficacy, but because, in the absence of other means of cure, it appears to us to be a most reasonable one, and, to say the least of it, well worthy of a serious trial.

AN attempt has been made by some members of the Board of Guardians of the Strand Union to get rid of Dr. Rogers, their most efficient and energetic medical officer. The main crime laid to his charge was, that he was a member of the Association for the Improvement of Metropolitan Workhouse Infirmaries, and had told some unpleasant truths about the state of the Strand Union before the Poor-law Commissioners. One Mr. Chapman, after giving what he called "the facts", wound up his resolution as follows.

"In consideration of the above facts, the Board consider their medical officer has been guilty of gross dereliction of duty; and, having lost their confidence in Dr. Rogers, they deem him unworthy to hold so important an office as the medical officer of the Strand Union."

To the credit of Englishmen, even a metropolitan Board of Guardians could not swallow such an unjust accusation. For years past, Dr. Rogers has laboured unceasingly in behalf of the sick poor of the Strand Union, and has effected in their behalf great and essential improvements; and this he has done, thwarted at every turn by the dead-weight antagonism of the Board of Guardians. To the proposal of Mr. Chapman was offered an amendment by Mr. Storr:

"That this Board is of opinion that the evidence given by Dr. Rogers at the late inquiry was a fair statement of facts; and we desire to thank him for it, and for his faithful and earnest services to the sick poor in his career during the past ten years."

It was found, when a division took place, that the

* Doubtless, many a devoted relative would gladly shed his own blood on such an occasion to save his dying friend; but we are speaking of a proposal for hospital trial.

* In addition to this, as Panum has shewn, exceeding care must be taken to inject slowly, so as not to overload the heart; also, if much fluid is injected, blood should be allowed to escape from another vein, and for a similar purpose.

voting was equal, the number for and against the amendment being eight. Of course, however, the fact of such an amendment being proposed and not lost is proof enough of the correctness of the terms in which Dr. Rogers is therein spoken of. The sympathy of the profession and of the public is wholly with that gentleman.

It might be matter of very fair discussion whether or not our medical charities ought to make extensive and costly preparations for the reception of cholera patients. The Privy Council, on the 21st instant, issued an order of the most imperative nature, calling upon boards and vestries to make full and complete provision for cholera patients. The vestry or board is ordered to provide, immediately and without stint, everything which is requisite for the care and cure of the cholera patient. In every cholera district they are to meet daily. The Medical Officer of Health is to report to them daily. They are to appoint medical visitors, etc., to report. They are to provide dispensary stations, to be open day and night. They are to supply medical aid to poor cholera patients, nurses, hospitals, good water; to separate the sick from the healthy; to disinfect, bury, etc. In a word, by this Order in Council, the board or vestry is ordered to do everything that can be done for cholera patients. We therefore suggest this question, Why should hospitals supported by voluntary contributions do the work whose performance is so plainly and especially and fully provided for by Council order? Why, again, should medical officers of hospitals do gratuitously the very work for whose performance parishes are ordered to provide paid medical men?

Mr. Walpole, in answer to the Medical Council Deputation, readily admitted that the Medical Act requires amendment; but he feared it would be impossible to pass a new Bill during the present session. He would go into the subject during the autumn, and would himself undertake the charge of the amended Bill in the next session of Parliament.

The profession will read with satisfaction the official announcement of the acceptance by the Government of the recommendations of the Admiralty Committee.

"Colonel North asked the Secretary of State for War whether he would object to lay before the House the Report of the Committee presided over by Vice-Admiral Sir Alexander Milne relative to the medical officers of the army and navy; and whether it was intended to adopt the recommendations of the Commission in favour of the medical officers of the army. General Peel said that there could be no objection to lay the Report of the Committee on the table. It had been moved for that very evening, and granted as an unopposed return. It was not only the intention of the Government to adopt the recommendations of the Commission in favour of the medical officers, but to go beyond them. There would be no additional pay given this year, as it had not been provided for in the Estimates. It would not be necessary to publish a warrant in order to introduce the new regulations."

The profession will be glad to hear that Mr. G. Hardy, on the 26th inst., said to a deputation from the Association for Improving Workhouse Infirmaries, among other things, that he would do his very best to bring about a proper and fitting remuneration of Poor-law medical officers.

Professor Klob informed the Medical Society of Vienna that the production of the *Pharmacopœia* must be delayed until the end of the war, as most of the members of the Committee were engaged in treating the wounded. What excuse has the British Pharmacopœia Committee to make for its delay?

Mr. Hussey of Oxford has issued a second edition of an useful lecture delivered by him at Oxford to Volunteer Rifle Companies. It tells all riflemen how to act in cases of emergency.

In the *Edinburgh Medical Journal* of July, Dr. A. Smith of the Artillery gives his experience of pneumonia. Of 108 cases, all soldiers, three died. Dr. Smith lays great stress on the value of blood-letting as a remedy. It shortens, he affirms, the duration of the disease, and renders convalescence satisfactory.

The June number of the *Edinburgh Medical Journal* contains Dr. Douglas's Harveian Discourse on the Life and Character of the late Dr. Alison. Dr. Warburton Begbie has an interesting paper on Paracentesis Thoracis in Pleuritic Effusions. He thinks it a very useful means of cure.

The cholera has reappeared in Paris; but, says *Gaz. Méd.*, as authority perseveres in its system of secresy, in order not to frighten the people, we must refrain from giving even an approximative idea of the number of cases which have occurred in hospitals.

The *Wiener Medizin. Wochenschr.* says that, up to the present time, the Austrian army has lost eighteen medical men, killed or taken prisoners. It attributes this loss to the fact that Austria did not accept the Geneva Convention.

Professor Hebra, in *Wiener Medizin. Wochen.*, makes an earnest appeal to medical officers in the Prussian army to give him news of his son, a cadet of the Austrian army. He is believed to have been wounded and taken prisoner. Professor Pitha has issued a similar notice. His son, he says, 18 years old, lieutenant in the 4th Cuirassiers, was seriously wounded, but was not found on the field at Skalitz after the battle. He therefore concludes that he has been taken prisoner by the Prussians; and earnestly begs his Prussian medical brethren to assist him in his inquiry.

Special Correspondence.

LIVERPOOL.

[FROM OUR OWN CORRESPONDENT.]

CHOLERA has once more made its appearance in Liverpool; and, judging from past experience and present appearances, there is but too much reason to fear that we are on the eve of a general outbreak of that epidemic. The first undoubted appearance of the disease occurred in the workhouse, under circumstances which render it difficult to trace its origin either to contagion or to any of the ordinary alleged causes, unless perhaps it is to be attributed to some special atmospheric condition.

Almost immediately after the first attacks amongst the inmates of the workhouse, cases occurred in one of the low parts of the town; and, up to the present time (July 23rd), about a week from the commencement, there have been fifty cases in all; of which twenty originated within the walls of the workhouse, and thirty were admitted from various parts of the town, of which every one was from localities which are recognised as infected districts, and which are invariably sources of any particular form of epidemic which may be prevailing in the town. There have been up to this time twenty-nine deaths; nine are convalescent, two are still in danger, one discharged cured, and the remainder in a fair way of recovery.

The authorities of the town have adopted prompt and efficient measures for dealing with the epidemic with which they are confronted. At the suggestion of the Mayor, based on Dr. Trench's report of five deaths from cholera in the town, occurring almost contemporaneously with the appearance of those in the workhouse, the Select Vestry at once applied to the Home Office to put in operation the Diseases Prevention Act, which confers powers upon the local authorities to incur expenditure and to carry out provisions which, without this sanction, might be difficult or impossible to accomplish.

Every parochial medical district, either infected or suspected, has been subdivided, and each subdistrict placed under the charge of a supernumerary medical officer, who is made responsible for house to house visitation, and instructed to take charge of all cases of sudden illness, and to report daily to the Committee the fresh attacks, and also any nuisances or sanitary neglect that may come under his notice.

Additional dispensaries have been opened in various localities, where medical men are on duty day and night, to attend to all urgent cases, and where applications for medical assistance will be at once attended to, without the usual official routine of requiring an order from the relieving-officer. Ample provision is also made for the purification of courts, houses, middens, clothes, etc., and the free use of carbolic acid or other disinfectants. These measures, thus promptly taken, even if they fail to stamp out the epidemic at once, may reasonably be expected to exert a beneficial influence in mitigating its severity and extension. Irrespective, moreover, of the results as regards cholera, much good will be effected by the thorough sanitary inspection which will thus be carried on under competent medical authority in all the worst parts of the town.

The origin of this invasion cannot, as on former occasions, be traced to foreign emigrants, but appears to have arisen simultaneously with outbreaks in various distant parts of the country. Nor, thus far, has there appeared any very decided manifestation of the contagious nature of the disease. In some instances, two consecutive cases have occurred in the same family or household; but, taking into consideration the conditions under which attacks have occurred and run a fatal course in some of the most crowded parts of the town, it is remarkable that the disease has shown so little disposition to spread. This fortunate circumstance may to some extent, or perhaps altogether, depend upon the early precautions which have been taken to guard against the extension of the disease.

On the question of treatment, the same difficulty and difference of opinion that has hitherto existed appears still to remain. The general views of the profession, so far as we can gather, may be classed under two principal theories, one of which suggests the immediate control of what is called premonitory diarrhœa by astringents, the other being more or less closely analogous to the eliminative doctrine propounded by Dr. Johnson.

With regard to the castor-oil treatment, some practitioners, who have had experience in former epidemics, appear much disposed to regard it with favour; and probably, if the epidemic goes on, useful practical results may be obtained from future observation. The weak point in Dr. Johnson's proposition seems to be, that he has not yet been able to bring forward a sufficiently extended record of clinical experience on this particular point of practice to secure for it the confidence of those who have to deal with the disease on a large scale.

A formula for popular use has been published by Dr. Trench, the medical officer of health, intended only to be used when it is impossible to obtain the attendance of a physician; the composition being based upon the theory of checking the premonitory diarrhœa. It is as follows.

℞ Pulv. comp. opii, pulv. confect. aromat., āā ʒi; cretæ precipit. ʒss; pulv. acaciæ ʒss; carb. ammon. ʒij; olei menth. pip. 60 drops. M. Dose, from a teaspoonful to a desertspoonful.

The next few days will probably determine whether the present invasion of cholera is only one of those partial visitations attributable to a hot dry summer, or whether it is to assume the proportions of a formidable epidemic. It may further prove an interesting and instructive lesson in sanitary science, as a test of how far the extension of the disease is really within the control of hygienic proportions. Whatever the result may prove shall be duly reported for the information of your readers.

Association Intelligence.

BRITISH MEDICAL ASSOCIATION: ANNUAL MEETING.

THE Thirty-fourth Annual Meeting of the British Medical Association will be held at Chester, on Tuesday, Wednesday, Thursday, and Friday, the 7th, 8th, 9th, and 10th days of August next.

All the Meetings will be held in the Music Hall.

President—S. J. JEAFFRESON, M.D.Cantab.
President-elect—EDWARD WATERS, M.D.Edin.

TUESDAY, *August 7th.*

2 P.M. Meeting of Directors of Medical Provident Society.
3 P.M. Meeting of Committee of Council.
4 P.M. Meeting of General Council.
8 P.M. First General Meeting.

The retiring President (Dr. Jeaffreson) will resign his office.

The new President (Dr. Waters) will deliver his Inaugural Address.

The Council's Report will be read, and discussion taken thereon.

Election of General Secretary.

Report of Medical Provident Society will be presented.

Election of Chairman and Vice-Chairman of the Medical Provident Society.

WEDNESDAY, *August 8th.*

8.30 A.M. Public Breakfast in the Corn Exchange. Tickets, 2*s.* 6*d.* each.
10 A.M. Meeting of New Council.
11 A.M. Second General Meeting.

Dr. SIBSON, F.R.S., and Mr. HOLMES. What is the influence of Hospitals on Health and Mortality? with discussion thereon.

Papers and Cases on *Medical* subjects.

Adjourn at One o'clock for Luncheon.

2 P.M. Third General Meeting.

Presentation of Hastings Medal.

Address in Medicine by Professor BENNETT, M.D.

4 P.M. Full Cathedral Service, by permission of the Dean, in the Cathedral; and a Sermon by the Rev. Canon McNeil, D.D.

Papers and Cases on *Medical* subjects.

Adjourn at 5 P.M.

THURSDAY, *August 9th.*

9 A.M. Meeting of New Directors of Medical Provident Society.
10 A.M. Fourth General Meeting.

Report of Medical Benevolent Fund will be presented.

Dr. STEWART: Is the Expectant Treatment to be relied upon in any form of Acute Disease? with discussion thereon.

Mr. ALFRED BAKER: Are there any trustworthy Facts as to the Origin of Pyæmia? with discussion thereon.

Adjourn at One o'clock for Luncheon.

2 P.M. Fifth General Meeting.

Report from Medical Witnesses Committee will be presented.

Address in Surgery by WILLIAM BOWMAN, Esq., F.R.S.

Papers and Cases on *Surgical* subjects.

Adjourn at 5 P.M.

9 P.M. *Soirée*, by invitation of the President.

FRIDAY, *August 10th.*

10 A.M. Sixth General Meeting.

Professor CHRISTISON, M.D.: Observations on the Register of Deaths in Scotland; with discussion thereon.

Papers on *Medical, Surgical,* and *Obstetric* subjects.

Adjourn at One o'clock for Luncheon.

2 P.M. Seventh General Meeting.

Papers on *Medical, Surgical,* and *Obstetric* subjects.

3 P.M. Mr. SPENCER WELLS will perform Ovariotomy in Chester Infirmary, in illustration of a communication.

6 P.M. Public Dinner at the Grosvenor Hotel. Tickets, One Guinea each. Gentleman intending to be present at the Dinner are requested to give notice to the Hon. Local Secretary, JOHN HARRISON, Esq., 55, Nicholas Street, Chester.

Members are requested, immediately on their arrival, to enter their names and addresses in the Reception-Room, at the Music Hall, when cards will be supplied which will secure admission to all the proceedings.

A Clerk will be in attendance at the Reception-Room, and will give information respecting Private Lodgings, Hotels, etc.

To facilitate Excursions in the neighbourhood, the Clerk in attendance will be prepared to receive the names of gentlemen wishing to make such Excursions, and to arrange for the same.

Members who may wish for information previous to the meeting, may communicate with JOHN HARRISON, Esq., the Honorary Local Secretary.

The public will be admitted, on application to the President, to attend the discussion on Scientific and State Medicine.

Notices of Motion. Mr. WATKIN WILLIAMS: To alter Law VIII, by inserting the word "Treasurer" after the words "President of the Council."

Dr. MACKESY will move: "That a favourable opportunity now presents for soliciting the attention of the Government, the public, and the members of our profession, to the question of granting Parliamentary Representation to the Medical Profession in its collective capacity; that with a view to the accomplishment of this important object, the Council be empowered to take such measures as they *may consider judicious* to promote its success, by presenting memorials to the Government, petitions to both Houses of Parliament, and by communicating with the Medical Universities, Colleges, and Associations, to urge their zealous cooperation."

Dr. MARSH will bring forward the subject of the New Sydenham Club.

Papers have been promised by

A. B. STEELE, Esq. (Liverpool): On the Present State of Public Vaccination in England.

B. W. FOSTER, M.D. (Birmingham): Illustrations of the Use of the Sphygmograph.

JOHN BIRKETT,. Esq. (London): The Results attending the Removal of the First Growth of Cancer.

J. Z. LAURENCE, Esq. (London): On Removal of the Lacrymal Gland—a Radical Cure of Inveterate Cases of Lacrymal Abscess.

THOMAS NUNNELEY, Esq. (Leeds): On Reduction of Dislocations by Manipulation; On Removal of the Entire Tongue.

THOMAS SKINNER, M.D. (Liverpool): The Philosophy of the Algide Condition in Cholera.

THOMAS HILLIER, M.D. (London): An Account of Cases of Pyogenic Fever cured by Large Doses of Quinine; Account of Cases of Pleurisy requiring Thoracentesis.

Balmanno Squire, M.B. (London): The Treatment of Lichenous Disease of the Skin.

W. Camps, M.D. (London): Is there any Evidence to show that the Par Vagum—the Pneumogastric Nerve—is concerned in the production of the Epileptic Paroxysm?

James Rhodes, Esq. (Glossop): The Relationship of Forces as they exist in the healthy Human Being, and the Pathological Conditions induced by their imperfect development.

T. T. Griffith, Esq. (Wrexham): Three Cases of Compound Dislocation of the Astragalus, with Removal of the Bones.

W. H. Broadbent, M.D. (London): Cancer—a New Method of Treatment, by which Malignant Tumours may be Removed with little Pain or Constitutional Disturbance.

I. Baker Brown, Esq. (London): On the Use of the Actual Cautery in Ovariotomy.

Henry Dick, M.D. (London): On Loose Cartilages in the Articulations, and a New Instrument to extract them.

James Paget, F.R.S. (London): A Case of Herpes in part of the Distribution of the Right Inferior Maxillary Nerve.

Erasmus Wilson, F.R.S. (London): On Lichen Planus; the Lichen Ruber of Hebra.

Erasmus Wilson, F.R.S. (London): On a probable necessity for the revival of the Leper Hospitals of Great Britain.

Thomas Balman, M.D. (Liverpool): On Azoturia.

J. Birkbeck Nevins, M.D. (Liverpool): On the Treatment of Rheumatic Fever.

In order to facilitate the business of the meeting, it is particularly requested that all Papers be sent to the General Secretary on or before the 1st of August, if possible.

T. Watkin Williams, *General Secretary.*

13, Newhall Street, Birmingham, July 24th, 1866.

EAST ANGLIAN BRANCH: ANNUAL MEETING.

The annual meeting of this Branch was held at the Museum Room, Norfolk and Norwich Hospital, on Friday June 29th; T. W. Crosse, Esq., President. There were present: Drs. Chevallier, Copeman, Dalrymple, Durrant, Eade, Elliston, Pitt, and Vores; Messrs. Adams, Allen, Cadge, Clouting, Crawfoot, Ebden, Edwards, Freeman, Hutchison, Kendall, Payne, Taylor; and five visitors.

The President delivered an eloquent address.

Report. Dr. Pitt, the Honorary Secretary for Norfolk, read a short report of Council, congratulating the members on assembling in Norwich, and on the continued success of their Branch.

Resolutions. The following resolutions were passed.

Moved by Dr. Durrant (Ipswich), and seconded by Mr. Cadge (Norwich)—

"That the thanks of the meeting be given to Dr. Bartlet, the retiring President, for his services to the East Anglian Branch of the British Medical Association during his year of office."

Moved by Mr. Kendall (Lynn), and seconded by Dr. Vores (Yarmouth)—

"That the Directors of the Medical Provident Society, and Members of the Branch Council be re-elected."

Moved by Mr. Cadge (Norwich), and seconded by Mr. S. Freeman (Stowmarket)—

"That the Honorary Secretaries be re-elected."

Moved by Mr. Clouting (Shipdham), and seconded by Dr. Dalrymple (Norwich)—

"That the best thanks of this meeting be given to the Members of the Council, and the Honorary Secretaries, for their services during the past year."

Moved by Dr. Copeman (Norwich), and seconded by Mr. Cadge (Norwich)—

"That the next annual meeting of the East Anglian Branch be held in combination with the Cambridge and Huntingdon Branch, at Lynn, and that Dr. Hawkins be elected President."

Communications. The following paper was read.

On Melasma and Allied Affections. By P. Eade, M.D.

A discussion thereon followed, which was shared in by Mr. Crosse, Dr. Durrant, Dr. Elliston, Dr. Copeman, Mr. Allen, and Mr. Adams.

It was determined to forward this paper to the Journal.

The following case was stated *viva voce* by Mr. Cadge. Abdominal Tumour; Mistaken Diagnosis; Operation; Fibroid Tumour in Walls of Uterus; Removal of Uterus and Ovaries; Death after Thirty or Thirty-six hours. An interesting discussion took place on this case, in which Dr. Copeman, Dr. Durrant, Dr. Eade, Mr. Crowfoot, Mr. Ebden, Mr. Allen, and Mr. Adams took part. Mr. Crowfoot believed that in all cases of long standing ovarian disease, the patient generally became thin.

Votes of Thanks were unanimously given to the President, Readers of Papers, and Honorary Secretaries.

The Dinner. The members, to the number of twenty-four, dined at half-past five, at the Royal Hotel. The President, T. W. Crosse, Esq., occupied the chair, and Dr. Pitt, the Honorary Secretary, the vice-chair. The visitors being the medical Mayor of Norwich, and five other surgeons. After the usual loyal and patriotic toasts, the health of the President was proposed, which was received with enthusiasm. The Chairman having responded, other toasts followed, and the proceedings terminated at an early hour.

METROPOLITAN COUNTIES BRANCH: ANNUAL MEETING.

The fourteenth annual meeting of the Branch was held at the Crystal Palace, Sydenham, on July 18th. The chair was taken by the retiring President, E. H. Sieveking, M.D., who afterwards resigned it to his successor, Henry Lee, Esq. There were also present: S. S. Alford, Esq.; J. Armstrong, M.D. (Gravesend); J. W. Barnes, Esq.; W. Bartlett, Esq.; G. Bottomley, Esq. (Croydon); A. T. Brett, M.D. (Watford); T. Buzzard, M.D.; W. Camps, M.D.; C. T. Carter, Esq. (Hadley); R. Dunn, Esq.; S. Gibbon, M.D.; E. Haward, M.D.; Charles Hawkins, Esq.; C. Heath, Esq.; A. Henry, M.D.; Graily Hewitt, M.D.; R. G. Hill, M.D.; T. Hunt, Esq.; G. A. Ibbetson, Esq.; A. O. B. Jones, Esq. (Epsom); J. C. Langmore, M.B.; T. Langston, Esq.; A. Leared, M.D.; C. F. J. Lord, Esq. (Hampstead); W. O. Markham, M.D.; W. G. Marshall, Esq. (Colney Hatch); W. Martin, Esq. (Hammersmith); H. Maudsley, M.D.; C. H. Moore, Esq.; J. R. O'Bryen, M.D. (Brompton); J. H. Paul, M.D. (Camberwell); T. Pollock, M.D.; J. Propert, Esq.; E. Ray, M.D. (Dulwich); T. L. Read, Esq. (Kensington); J. D. Rendle, M.D. (Brixton); B. W. Richardson, M.D.; C. H. F. Routh, M.D.; J. Seaton, M.D. (Sunbury); C. Sercombe, Esq.; F. Sibson, M.D.; T. Heckstall Smith, Esq. (St. Mary's Cray); A. P. Stewart, M.D.; E. H. Vinen, M.D.; G. Webster, M.D. (Dulwich.) The General Secretary of the Association, T. Watkin Williams, Esq., was also present as a visitor.

The minutes of the last meeting were read and confirmed.

New Members. The following gentlemen were elected members of the Association and Branch: W. Thiselton Dyer, M.D., Berkeley Street; R. Gardiner Hill, L.R.C.P.Ed., Brompton; Timothy Pollock, M.D., Hatton Garden; Thomas L. Read, Esq., Kensington; and David W. Roberts, M.D., Manchester Street. As members of the Branch were elected: G. W. Callender, Esq., Queen Anne Street, and J. Hall Davis, M.D., Harley Street.

Report of Council. Dr. HENRY, one of the Honorary Secretaries, read the following report.

"The Council of the Metropolitan Counties Branch, in presenting the fourteenth Annual Report, are gratified in being able to congratulate the members on the increasing prosperity of the Society. At the last annual meeting, the number of members was 217. Since that date, nine members have resigned; one (Mr. Toynbee) has died; and 37 new members have been elected, making the present number of members 244.

"The Council are sure that the members of the Branch will share in the regret with which they heard, a few days ago, of the death of Mr. Toynbee. Mr. Toynbee was one of the oldest members of the Branch; and, on its organisation in 1853, was elected Treasurer. To this office he was annually appointed until 1859, when he resigned. The valuable services of Mr. Toynbee, as Treasurer of the Medical Benevolent Fund of the Association, and the liberal support which he rendered that fund, are well known to the profession, and will not soon be forgotten.

"In pursuance of resolutions passed at the last annual meeting of the Branch, and of a new law founded thereon, three ordinary meetings have been holden during the present year for the discussion of subjects connected with sanitary science and with the social and political interests of the profession. At the first of these meetings, on January 26th, Dr. Druitt read a very valuable paper on Reform in Sanitary Laws. The second meeting, which was summoned for March 23rd, but was adjourned to April 6th, was occupied with a discussion on a report of the Council of the Branch on the same subject. At the third meeting, which was held on May 25th. Dr. Richardson gave an able exposition of the difficulties attending the enforcement by law of Public Vaccination. The reading of the paper was on each occasion followed by a well sustained discussion.

"Your Council consider that the thanks of the Branch are eminently due to Drs. Druitt and Richardson for the readiness with which they agreed to furnish papers, and for the able and interesting communications which they brought forward. Your Council consider that the attempt to hold ordinary meetings of the Branch has so far proved satisfactory and encouraging; but they would suggest to the successors to consider whether a larger attendance of members would not be ensured by holding their meetings at some hour in the afternoon instead of in the evening.

"The subject of amendment of the sanitary laws, which was introduced by Dr. Druitt at the first ordinary meeting, has occupied much of the attention of the Council and of the Committee on Parliamentary Bills. On the reading of Dr. Druitt's paper, a resolution was passed by the Branch, desiring the Council to take the matter into consideration. In accordance with this resolution, the Council examined the subject with great care; and, with the aid of the Parliamentary Bills Committee, and of Dr. Burdon Sanderson, (to whom, though not of their body, they are indebted for much valuable assistance) they presented to the ordinary meeting, on March 23rd, a series of recommendations for amendments in the Sanitary Laws, which, with some modifications, were adopted at the adjourned meeting on April 6th. As the proceedings of the meetings have been fully reported in the BRITISH MEDICAL JOURNAL, it is unnecessary for your Council to enter into any further details. The members of the Branch will have perceived that the main defects in our present code of sanitary legislation have appeared to be, first, the multiplicity of sanitary acts, often containing provisions contradictory of each other; and, second, the absence of provisions for the effectual carrying out of sanitary measures. A Bill for the Amendment of the Sanitary Acts has been recently introduced into Parliament, and the members will probably hear from the Committee on Parliamentary Bills, an opinion as to the extent to which those provisions which the Branch considers essential are likely to be carried out.

"The initiative in the cause of sanitary reform, taken by this Branch, has, your Council have much pleasure in observing, been followed up by the Committee of Council, and by several other branches of the Parent Association.

"Although the state of the Army and Navy Medical Services has not been brought under the direct notice of the Branch during the past year, your Council feel it their duty to refer again to the subject. As the members of the Branch are aware, a Commission appointed by the Lords of the Admiralty, the Secretary of State for War, and his Royal Highness the Commander-in-Chief, together with two representatives appointed by the Colleges of Physicians and of Surgeons, has inquired into the claims of the medical officers of the army and navy, and has presented a report embodying recommendations for improvements in the pay and position of those meritorious public servants. Your Council have reason to expect that these recommendations will be carried into effect, and they feel persuaded that, if this be done, the public service will once more be sought by the young and well qualified members of the profession, instead of being avoided, as has of late been lamentably evident, especially in the navy. Your Council cannot leave this subject without alluding, with feelings of the deepest gratification, to the appointment, by the College of Physicians, of their colleague, Dr. Markham, as a member of the Commission, inasmuch as he may be fairly considered to have been the exponent of the views, not only of the learned body which nominated him, but also of the Association, and of this Branch; whose expressed opinions, the Council feel assured, he most ably and efficiently advocated in his place as a member of the Commission.

"Your Council have noticed with deep interest the present movement to improve the condition of the sick pauper in the Metropolitan Workhouses; and they venture to hope that the result will be a marked amelioration in the condition of those important institutions, and an elevation in the position of the medical officers in whose charge they are placed.

"Your Council would recommend the Branch to petition the legislature for a removal of the liability of public hospitals to be rated by parishes; inasmuch as these institutions, supported by voluntary contributions, and distributing annually gratuitous medical relief to an enormous amount, operate directly in reducing the rates not only of the parishes in which they are situated, but also of many surrounding parishes. Viewed in this light, it seems to your Council as unjust to tax the public hospitals for the support of the poor, as it would be to tax the workhouse infirmaries themselves.

"A highly respected member of the Branch, Dr. Armstrong, of Gravesend, having been lately subjected to the annoyance of a legal action on a groundless charge of malapraxis, the members present at the ordinary meeting on May 25th, unanimously passed a resolution expressing their sympathy and their undiminished confidence in his professional character. Your Council are assured that those who were not present on that occasion accept the opinions then expressed, as their own. A letter has been received by the secretary from Dr. Armstrong, expressing, for himself and his son, their warm thanks for the resolutions.

"The report of the Committee on Parliamentary Bills will be presented by Dr. Gibbon, who has, as hitherto, ably and zealously discharged the duties of Secretary.

"Your Council have much pleasure in presenting the financial report for the year; from which it will be seen that the monetary affairs of the Branch are in a satisfactory condition."

Mr. Bottomley moved, and Dr. Seaton seconded—

"That the Report of Council now read be received, adopted, and published in the Journal."

Dr. Gibbon objected to the paragraph which referred to the rating of hospitals. He thought that hospitals ought to be subjected to rates, and that the Branch ought not to interfere to prevent this. He moved as an amendment the omission of the paragraph in question.

Mr. Lord seconded the amendment; which, after some remarks from Dr. O'Bryen, Dr. Camps, Dr. Stewart, Mr. Martin, Mr. Heath, and Dr. Buzzard, was put to the vote and lost; 9 voting for and 11 against it.

The motion for the adoption of the Report was then carried.

Report of the Committee on Parliamentary Bills. Dr. Gibbon, Secretary to the Committee, read the following Report.

"The Committee on Parliamentary Bills, in presenting their third Annual Report, have to regret that, in consequence of the protracted debates on the Reform Bills, little progress has been made during the present session with matters that more immediately affect the interests of the medical profession.

"Early in February, the Council of the Branch deemed it desirable to agitate for an amendment, which is much needed, in sanitary legislation; it therefore referred the three following resolutions to your Committee.

"'1. That it be referred to the Committee on Parliamentary Bills to consider the best mode in which a consolidation of the sanitary laws may be obtained.

"'2. That the Parliamentary Committee be requested to consider and indicate what amendments, if any, it would be advisable to introduce into the existing sanitary legislation.

"'3. That it is highly desirable that a Ministry of Health, or some central authority, be created, in order to serve as a court of control and appeal in all matters relating to the public health.'

"Your Committee, after referring these important matters to a subcommittee, returned the following recommendations to the Council.

"'1. That a speedy and inexpensive appeal should be provided from the decisions of local authorities; and that the body best fitted for a Court of Appeal is the Health Department of the Privy Council, with power to carry out their judgments.

"'2. That the appointment of medical officers of health and of inspectors of nuisances should be made, as in the metropolis, compulsory, instead of permissive and dismissal.

"'3. That the appointment of medical officers of health should be subject to the approval of the Health Department of the Privy Council.

"'4. That a return should be yearly presented to Parliament of the names of the medical officers of health and inspectors of nuisances throughout the country, and salaries paid to them.

"'5. That, in counties, the appointment of medical officers of health should be vested in the justices; and that they should be paid out of the county rate.

"'6. That the provision of local refuges for those labouring under contagious diseases should be rendered compulsory on unions and parishes.

"'7. That local authorities should be required to provide carriages for the removal of such persons, and means for disinfecting their dwellings, wearing apparel, etc.'

"These the Committee believe to be some of the chief sanitary wants of the day, and the Committee hope to see them embodied in future Sanitary Acts. Indeed, a Bill to amend the Law relating to the Public Health, introduced into the House of Commons by the Right Hon. H. A. Bruce, June 6th, 1866, embodies two or three of them; and probably, if the profession exert its influence with Parliament, the other and more important provisions may be incorporated in this very measure.

"In the early part of the session, a Bill was introduced by Mr. Bruce, 'to consolidate and amend the statutes relating to Vaccination in England'. Inasmuch as the vaccination law had hitherto not fulfilled the just expectations of either the profession or the public, your Committee gave much attention and consideration to the provisions of this Bill. The conclusion at which they arrived after consulting several experienced vaccinators, was that an Act, to be thoroughly carried out in a matter like compulsory vaccination, must be simple in its provisions, so as to entail as little trouble as possible upon parents and vaccinators; and that the vaccinator should be properly paid for his time, skill, and labour. In order to carry out the first object, your Committee resolved to recommend Mr. Bruce, and the Select Committee to whom the Bill was referred, to abandon the attempt, futile as it has hitherto proved to be, of forming a complete register of all children successfully vaccinated. This register, which entails considerable trouble and expense, even if it were possible to render it complete, would, in the opinion of the Committee, be of little or no practical utility. Certainly, as yet, it has never been of the slightest use to any one. If this were given up, it would, by abating trouble and annoyance to vaccinator and parent, directly tend to stimulate vaccination; and the other provisions, especially that relating to the remuneration of the public vaccinator, could be made more effective. It was resolved, secondly, to endeavour to get the minimum fees for vaccination increased from 1*s.* 6*d.* and 2*s.* 6*d* to 2*s.* 6*d.* and 3*s.* 6*d.* respectively, and to get a fee allowed for all infants and children vaccinated in the workhouses.

"Your Committee are happy to be able to report that Mr. Bruce and the Select Committee have adopted the last two resolutions, except that the additional shilling per case is contingent on the Privy Council's approval of the quantity and quality of the vaccination.

"The Select Committee have retained the troublesome, and, as your Committee believe, useless scheme of forming a Register of Vaccination; but there are grounds for believing that this scheme will either be much simplified or withdrawn altogether in the subsequent stages of the Bill.

"The thanks of this Committee, as well as those

of the profession at large, are due to Mr. Richard Griffin, Chairman of the Poor-law Medical Reform Association, for calling the attention of members of the House of Commons to this Vaccination Bill, and thereby getting it referred to a Select Committee. The provisions, as amended by the Select Committee, are not altogether satisfactory in a professional point of view. It is quite just that the additional shilling that is to be awarded as a gratuity for each case by the Privy Council should be paid out of the Consolidated Fund. As to its taking the form of a gratuity, there may be objections; and your Committee confess they would rather that it were given as remuneration for work and services rendered; and that the whole, rather than part of the fee, should be given, subject to the certificate of a competent medical inspector.

"As the new Ministry have expressed their intention to proceed with this as well as the Public Health Bill during the present session, your Committee will watch their progress through Parliament, and endeavour to get these amendments made—amendments which they believe will tend to make the respective Bills, should they pass, more effective.*

"The Committee have also from time to time considered the influence of the following Bills on the profession. They have, in some instances, suggested amendments and alterations therein where it appeared to them to be desirable.

"The Cattle-Plague Bills (two) to check the spread of the cattle-plague in Great Britain.

"The Pensions Bill, to amend the law relating to the granting of pensions and superannuation allowance to persons holding offices connected with the administration of justice, and laws relating to lunacy in England.

"A Bill to amend Remedial Measures and Diseases Prevention Act (1860).

"A Bill to provide for superannuation allowances to officers of vestries and district boards within the area of the Metropolitan Local Management Act.

"Labouring Classes' Dwellings Bill, to enable the Public Works Town Commissioners to make advances towards the erection of dwellings for the labouring classes in populous places.

"A Bill to provide better dwellings for artizans and labourers.

"An amended Contagious Diseases Bill was brought into the House of Commons by Lord Clarence Paget, which, in respect of professional interest, was an improvement on the former one. Instead of making use of the unpaid services of the honorary medical officers of certain hospitals, the Government propose to properly appoint and remunerate surgeons to examine and attend the prostitutes at certain naval and military stations.

"Your Committee cannot close their report without alluding to the great want of medical representatives, or of gentlemen possessing an adequate knowledge of medical and sanitary science, in Parliament. Of the five members of the profession who offered themselves as candidates for seats in the House of Commons at the last general election, only two secured their election. Dr. Brady and Mr. Clement of Shrewsbury have most cordially and liberally supported the efforts of the Committee to improve legislation on medical subjects. The provision of the Reform Bill which allotted a member each to the Universities of Edinburgh and London was satisfactory to your Committee, as calculated indirectly to increase the representation of the profession in Parliament."

* Since this Report was presented, the Vaccination Bill has been withdrawn.

Dr. O'Bryen moved, Mr. Barnes seconded, and it was unanimously resolved—

"That the Report of the Committee on Parliamentary Bills be received, adopted, and published in the Journal.

"That the best thanks of the Branch be given to Dr. Gibbon and the members of the Committee; and that they be reappointed and requested to continue their services."

Officers and Council for 1866-67. The following officers and council were unanimously elected: *President*, Henry Lee, Esq.; *President-elect*, W. O. Markham, M.D.; *Vice-Presidents*, C. F. J. Lord, Esq.; E. H. Sieveking, M.D.; *Treasurer*, R. Dunn, Esq.; *Secretaries*, A. P. Stewart, M.D.; A. Henry, M.D.; *Other Members of Council*, A. T. Brett, M.D. (Watford); J. R. Cormack, M.D.; C. Drage, M.D. (Hatfield); J. R. Gibson, Esq.; C. H. Rogers Harrison, Esq.; Graily Hewitt, M.D.; A. Leared, M.D.; J. H. Paul, M.D. (Camberwell); J. Ridge, M.D.; J. Seaton, M.D. (Sunbury); F. Sibson, M.D., F.R.S.; G. Webster, M.D. (Dulwich).

Dr. Sieveking then vacated the chair, which was taken by Mr. Lee.

Vote of Thanks to the Retiring President. Mr. Heckstall Smith moved, Mr. Bottomley seconded, and it was unanimously resolved—

"That the cordial thanks of the Branch be given to Dr. Sieveking, the retiring President, for his able and courteous conduct in the chair on all occasions; and also for his liberal hospitality towards the members of the Branch."

President's Address. The President then delivered an instructive address.

Dr. Stewart moved, Mr. Martin seconded, and it was unanimously resolved—

"That the cordial thanks of the Branch be given to Mr. Lee for his excellent address; and that he be requested to publish it in the Journal."

Representatives in the General Council. The following gentlemen having been duly proposed and seconded, were elected to act, together with Dr. Stewart, as representives of the Branch in the General Council: R. Dunn, Esq.; C. H. Rogers-Harrison, Esq.; J. Hatton, M.D.; A. Henry, M.D.; H. Lee, Esq.; C. F. J. Lord, Esq.; W. O. Markham, M.D.; J. H. Paul, M.D.; B. W. Richardson, M.D.; J. Seaton, M.D.; F. Sibson, M.D., F.R.S.; and E. H. Sieveking, M.D.

Medical Provident Society. On the motion of Dr. Richardson, the following were elected Directors of the Medical Provident Society: C. F. J. Lord, Esq.; S. W. J. Merriman, M.D.; and T. Heckstall Smith, Esq.

Dinner. The meeting, which was the most successful that the Branch had ever held, was terminated by a dinner, at which forty-nine were present. The chair was occupied by the President, H. Lee, Esq., supported by the President-elect (Dr. Markham), Mr. Watkin Williams, Dr. Sieveking, etc.

DEPUTATION TO THE PRESIDENT OF THE PRIVY COUNCIL.

A Deputation from the Parliamentary Committee of the Metropolitan Counties Branch of the Association had an interview with His Grace the Duke of Buckingham, the Lord President of the Privy Council, Tuesday, the 24th inst., on the subject of amendments in the Vaccination Bill and the Public Health Bill. The deputation consisted of C. F. J. Lord, Esq. (Vice-President); Dr. Brady, M.P.; E. Jenkins, Esq. (Barrister-at-Law); Dr. Markham; Dr. Ballard; Dr. Leared; Dr. J. Seaton; Dr. G. Webster; Dr. R.

W. Fowler; T. Heckstall Smith, Esq.; J. R. Gibson, Esq.; Charles Hawkins, Esq.; H. W. Rumsey, Esq. (Cheltenham); and Drs. Stewart and Gibbon.

It was urged upon His Grace that Vaccination might be greatly promoted, without further legislation, by the Poor-law Board advising the guardians to give a more adequate fee for the operation, and cancelling their standing order that prohibits the payment for vaccination within the workhouses.

Dr. Brady recommended the Government, in framing any future Bill, to take counsel of the public vaccinators, who were practically acquainted with the subject.

Dr. Stewart submitted a memorial on the Public Health Bill, and explained the various resolutions on the amendment of sanitary law agreed to at a general meeting of the Branch in April last. He was supported by Mr. Lord and Mr. Rumsey. Dr. Robert Fowler mentioned the great assistance which the Poor-law medical officers could give towards the sanitary amelioration of the country.

His Grace discussed the recommendations *seriatim*, expressed his pleasure at having received them, and said that he should always be glad to have the advice and assistance of the Committee.

Correspondence.

POOR-LAW MEDICAL REFORM.

Letter from Richard Griffin, Esq.

Sir,—I shall feel obliged by your giving insertion to the reply to the letter I addressed to the President of the Poor-law Board on July 9th.

"Poor-law Board, Whitehall, July 10th, 1866.

"Sir,—I am directed by Mr. Gathorne Hardy to acknowledge the receipt of your letter of the 9th inst., and to thank you for the papers forwarded with it. He regrets that, as he has scarcely entered upon the duties of his office, he is unable at present to make any appointment for an interview.

"Your obedient servant, "J. Stewart Hardy."

In the House of Commons on July 17th, Mr. Hardy said—"I quite admit the present evil condition of the infirmaries throughout London. It is in the power of the Poor-law Board to take care that there is efficient and sufficient medical superintendence, and that the salaries of the medical officers should be fixed at a proper sum. It is also in the power of the Poor-law Board to take care that there is sufficient nursing. I trust that the House will allow me a little time now that I am wading through a vast mass of information; for I can assure hon. gentlemen that I am desirous to apply a remedy. I think the powers of the Poor law Board have not been put in force; and I ought not to ask the House to legislate until I have tried them. In the next session of Parliament, I shall be prepared to state what course I may think proper to recommend in respect of any new legislation."

From the foregoing statement of the President of the Poor-law Board, I think there can be little doubt he fully intends to place the Poor-law medical relief of this country in a more satisfactory state than it is at present; and I hope the time is not far distant when the Poor-law medical officers will be fairly remunerated for their services.

Allow me here to call attention to the Report of Dr. Edward Smith, Medical Officer to the Poor-law Board, which has only just been laid before Parliament. He says (page 62.)—"It should not be impossible to arrive at an agreement amongst medical men as to the sum which should be regarded as fairly sufficient. If the recommendation already made be effected; viz., that the guardians in all cases provide drugs, and in suitable cases a dispenser—would it not be satisfactory generally for the salary to be calculated at the rate of ten shillings per adult on the average maximum number of inmates in the workhouse at one time; two children, as defined by the Poor-law—viz., persons under 16—to be considered as an adult." He also says "that extras for midwifery, etc., as allowed by the Poor-law Board, should be added; and the medical officers should sign lunacy certificates and receive the fees. This would require a considerable increase in the salaries of nearly all the medical officers, and particularly of those in the larger workhouses, and it would probably lead the guardians to appoint one or more resident medical officers to each workhouse, who would devote the whole time to the duties of the office."

Should Mr. Gathorne Hardy, after a reasonable period, fail to name a time for me to present the petition of the meeting of July 5th, I will again communicate with him; but I think it hardly fair to press him now too much, considering the statement made by him in the House of Commons, "that he is wading through a vast mass of information", but rather give him a little breathing time. I am, etc.,

Richard Griffin.

12, Royal Terrace, Weymouth, July 21st, 1866.

THE TREATMENT OF CHOLERA.

Letter from Christopher Johnson, Esq.

Sir,—Would not the meeting of the Association at Chester afford a convenient opportunity for a discussion on the best means of arresting the spread of cholera?

Eliminating all matters of medical treatment, there are many points which demand early and careful consideration. Among them are the following.

Ought cholera hospitals to be established? or should home treatment be adopted?

If cholera hospitals are required, should they be portions of existing institutions or separate buildings?

If cholera break out in a confined district, should the sick or the healthy be removed?

If cholera cases be admitted into a hospital or workhouse, should the same medical attendants, nurses, and appliances, be provided for them and the other inmates?

Can a room that for several years has been exclusively used as a fever-ward be safely occupied by cholera-patients?

Will the use of a room as a cholera-ward unfit it for the reception of fever cases afterwards?

These are only a few of many questions which might be very profitably discussed at a meeting of the Association. I am, etc.,

Chr. Johnson, Local Secretary.

Lancaster, July 22nd, 1866.

Letter from D. A. Reid, M.D.

Sir,—At a time like the present, when cholera is breaking out in various parts of the world, and even touching our own shores, it behoves every one who has had any experience in the treatment of this dire malady to make it known to the profession. Let me ask you, therefore, to find space for the very few remarks I have to make on the subject.

In the years 1854 and 1855, when cholera was raging amongst the British and French troops before Sebastopol, I held the appointment of assistant-surgeon in Her Majesty's 90th Foot, and was consequently called upon to treat a very large number of cases of this disease. I regret that I have no tabulated statistics of the results of the various kinds of treatment. The life we led at that time was not conducive to the preparation of such

useful documents. But I have a vivid and ineffaceable recollection of the number of remedies employed, and of the great comparative success of large doses—ten to fifteen grains—of calomel and copious draughts of cold water. Smaller doses of calomel, combined with opium, astringents of various kinds, sulphuric acid, etc., appeared to have no effect whatever. It was too much the custom at that time to refuse *cold water*, although the patients invariably had a powerful craving for it—in fact, they could not in many cases be persuaded to swallow any other beverage. Believing this craving to be instinctive, and an outcry of Nature for something that the system actually required, I ordered water to be administered *ad libitum*; and the result was an immediate diminution in the mortality.

As I before mentioned, I have no statistics, and, therefore, cannot give the exact ratio of the improvement under this treatment; but I can safely say that fifty per cent. more cases recovered than when other plans were adopted.

This supports Dr. Johnson's eliminative theory. The calomel, being given in purgative doses, assisted in carrying off from the system the specific poison of the disease. If this poison is held in solution in the liquor sanguinis, it is easy to understand that large quantities of pure water taken into the stomach, and, becoming absorbed, would supply to the blood the fluid it had lost in the process of elimination, and prevent that thickening of the blood so forcibly described by Mr. Bottomley in your JOURNAL of the 14th instant. A pure fluid would be supplied in place of the poisoned one eliminated, and thus the healthy condition of the blood restored.

It seems to me most unreasonable to lock up the poison in the system by astringents or remedies checking the secretions or excretions, particularly when we know that the most certainly fatal cases of cholera are those in which there is suppression of these discharges. What we want is to relieve the system of the poison that is destroying it; and, from my own experience, I decidedly come to the conclusion that this is best done by purgatives (more particularly calomel) and cold water rinsing.

No doubt convalescence may be assisted by stimulants and strong beef-tea or other nourishing diet; though I do not believe the former are useful in treating the disease itself. Very likely Dr. Hassall's flour of meal may be found serviceable in country districts, where good beef cannot be procured at a short notice, or perhaps a weak broth made from this flour of meat might in some cases be used as a substitute for water as a drink.

I am, etc., DOUGLAS A. REID.

Pembroke, South Wales, July 1866.

P.S. I omitted to mention that an improvement in the symptoms generally took place after two ten-grain doses of calomel had been given, with an interval of an hour between. I then reduced the dose to five grains every two hours, discontinuing it when danger was over.

D. A. R.

LETTER FROM W. F. MORGAN, ESQ.

SIR,—As a postscript to my letter on the use of sulphuric acid in choleraic diarrhœa, which you were good enough to insert in the JOURNAL of last week, I would invite attention to a communication from Dr. MacCormac of Belfast, in the *Medical Times and Gazette* of this day, wherein he speaks highly of that medicine, not only as a curative but as a prophylactic measure, and gives a striking illustration of its efficacy in its latter bearing. We prescribe quinine on this principle in malarial districts; why may not the administration of sulphuric acid in cholera localities be followed by a similar result?

I do not under-rate any of those sanitary observances which are, indeed, a *sine quâ non* in successfully grappling with cholera. These are the fundamental prophylactics. But I am strongly impressed with the belief that in sulphuric acid we have the best medicine yet discovered wherewith to meet it. I trust it will be fully and fairly tried in the impending visitation.

Due consideration being paid to the sanitary instructions laid down by the best authorities, let the acid be commenced as soon as looseness of the bowels sets in; premising, however, in certain cases, where good evidence exists of retained fæces or of undigested food as a source of irritation, a dose of castor-oil or rhubarb, with a few drops of laudanum. The formula stated in my previous letter is, I believe, as good as any; in urgent attacks, increasing the frequency rather than the strength of the dose. And let those in attendance on the sick, and those who in any other way are exposed to risk, take the acid as a prophylactic, according to Dr. MacCormac's suggestion.

Perfect rest is of the first importance in the earliest stage of choleraic diarrhœa. Many have been the victims to a neglect of that precaution. During a former epidemic in this city, a worthy and estimable member of our profession thus fell a sacrifice to his self-denying zeal in the cause of the poor. The Guardians, to their honour be it mentioned, erected a costly and appropriate monument over his remains. I am, etc.,

W. F. MORGAN.

Bristol, July 22nd, 1866.

Medical News.

APOTHECARIES' HALL. On July 19th, 1866, the following Licentiates were admitted:—

Bingham, John Joseph, Staveley, Derbyshire
Harding, Peter, Shrewsbury
Mousley, George William, Atherstone, Warwickshire
Pattinson, Henry Beaumont, Heavitree, near Exeter

At the same Court, the following passed the first examination:—

Batt, Charles D., St. Bartholomew's Hospital
Crowfoot, Edward Bowles, St. Bartholomew's Hospital
Lee, Timothy Webb, St. Bartholomew's Hospital
Sunderland, Edward, Guy's Hospital
Webb, John, Guy's Hospital

APPOINTMENTS.

*JACKSON, J. Hughlings, M.D., appointed additional Demonstrator of Pathology at the London Hospital.

SUTTON, Henry G., M.D., appointed additional Demonstrator of Pathology at the London Hospital.

ARMY.

AMBROSE, Staff-Assistant-Surgeon J., M.D., to be Assistant-Surgeon 58th Foot, *vice* J. Carlow.

BURKE, Surgeon-Major A., 3rd Foot, to be Staff-Surgeon-Major, *vice* Staff-Surgeon E. Touch, M.D.

CARLOW, Assistant-Surgeon J., 58th Foot, to be Staff-Assistant-Surgeon, *vice* J. Ambrose, M.D.

CAY, Battalion-Surgeon C. V., M.D., Coldstream Guards, to be Surgeon-Major, having completed twenty years' full-pay service.

DE LISLE, Surgeon-Major R. F. V., M.D., Royal Artillery, to be Staff-Surgeon-Major, *vice* A. Guthrie, M.D.

GUTHRIE, Staff-Surgeon A., M.D., to be Surgeon Royal Artillery, *vice* Surgeon-Major R. F. V. De Lisle.

TOUCH, Staff-Surgeon E., M.D., to be Surgeon 3rd Foot, *vice* Surgeon-Major J. Burge.

ROYAL NAVY.

DUNCAN, David, M.D., Surgeon, to the *Basilisk*.

DYAS, Jacob A., Esq., Surgeon (additional), to the *Cambridge*.

FEGAN, Henry, M.D., Surgeon (additional), to the *Dauntless*.

FORREST, Edward P., Esq., Surgeon (additional), to the *Lion*.

SUTHERLAND, George W. J., Esq., Surgeon (additional), to the *Impregnable*.

VOLUNTEERS, (A.V.=Artillery Volunteers; R.V.=Rifle Volunteers):—

DAVIES, J., M.D., to be Honorary Assistant-Surgeon 26th Lancashire A.V.

DAWES, W., Esq., to be Honorary Assistant-Surgeon 2nd Staffordshire R.V.

GOLDSMITH, G. P., Esq., to be Honorary Assistant-Surgeon 1st Bedfordshire R.V.
WILTON, J. P., Esq., to be Surgeon 1st Administrative Battalion Gloucestershire R.V.

BIRTHS.

ADAMS. On July 10th, at Greenstreet, near Sittingbourne, the wife of Henry Adams, L.R.C.P.Ed., of a daughter.
CUPISS. On July 3rd, at Great Grimsby, the wife of F. P. Cupiss, Esq., Surgeon, of a son.
CURGENVEN. On July 23rd, at 11, Craven Hill Gardens, the wife of J. Brendon Curgenven, Esq., Surgeon, of a daughter.
HARRISON. On July 16th, at Walsall, the wife of A. J. Harrison, M.B., of a son.
MACK. On July 11th, at St. Paul's Road, Islington, the wife of Robert Mack, Esq., Surgeon, of a son.
MARTYN. On July 20th, at Clifton, Bristol, the wife of *S. Martyn, M.D., of a son.
PAGE. On July 19th, at Queen Street, Mayfair, the wife of W. E. Page, M.D., of a son.

MARRIAGES.

CLEMENGER, W. G. W., Esq., Surgeon-Major H.M. Indian Army, to Amelia Maria, eldest daughter of E. G. POWELL, Esq., of Coedmawr, Carnarvon, at Llanbeblig, on July 19.
HIND, Albert, Esq., Surgeon, Gravesend, to Minna A. M. R., youngest daughter of the late Captain William H. S. HADLEY, 68th Light Infantry, at St. Thomas's, Ryde, on July 18.
JACKMAN, Thomas S. H., Esq., Surgeon, at Leintwardine, Herefordshire, to Sarah, eldest daughter of the late John TAYLOR, Esq., of Edgbaston, at Great Malvern, on July 18.
*LEWIS, Thomas, M.D., Carmarthen, to Lucy Ann, second daughter of J. B. JEFFRIES, Esq., of the same place, on July 12.
*WEAVER, Frederick P., M.D., of Frodsham, Cheshire, to Mary Berry, eldest daughter of Edward Abbott WRIGHT, Esq., of Oldham and Castle Park, Frodsham, on July 19.

DEATHS.

ANSELL, Thomas, M.D., of Bow, aged 67, on July 24.
DOHERTY. On July 24th, at Dawlish, Elizabeth, wife of Hugh Doherty, M.D., of Dulwich.
HAWKES, Thomas C., Esq., Surgeon, at Okehampton, aged 87, on July 16.
LANGSHAW. On June 11th, at Ootacamund, India, aged 20, John, eldest son of *J. P. Langshaw, Esq., of Lancaster.
MIDDLETON, W., Esq., Surgeon, at Leamington, aged 63, on July 4.
PENNINGTON. On July 17th, at Liverpool, Jane, wife of *Thomas Pennington, Esq.
PRESTON, Wm. C., Esq., Surgeon, at Newcastle-on-Tyne, on June 23.
TURNBULL, George A., Esq., many years Superintending Surgeon Hyderabad Contingent, India, in Jersey, aged 80, on June 28.

PROFESSOR DUMREICHER has orders to prepare hospital room in Vienna for 10,000 sick.

STATUE OF BONNET. On the 1st inst., the bust of Amedée Bonnet, late of Lyons, was inaugurated at Ambérieu.

LONDON HOSPITAL. It has been decided to abandon any ceremony in opening the new Alexandra wing of this institution, on account of the outbreak of cholera.

DONATION. Among the list of contributions last week to the Bristol Royal Infirmary was one "From a lady who takes a deep interest in the welfare of the Bristol Infirmary, £1,000."

ROYAL COLLEGE OF SURGEONS. It appears that out of seventy-two candidates who lately presented themselves for the primary examinations in anatomy and physiology, on the 18th inst., twenty-seven failed. One candidate had an additional three months, having been discovered copying from a gentleman undergoing the written examination.

VACCINATION BILL. In the House of Lords, on Monday, Lord Shaftesbury made some remarks upon the recent alarming increase of small-pox, and inquired whether the Government intended to proceed with the Bill upon that subject which had been introduced into the other House.—The Duke of Buckingham said, in consequence of numerous objections, the Bill had been withdrawn; but the attention of the Government would be given to the subject during the recess.

M. JOBERT DE LAMBALLE is reported by the journals to be hopelessly insane.

VITRIOLIC SHOWERS. Dr. Angus Smith showed some years ago that the rain water of great coal-burning towns is very acrid, and that about a thousand tons of vitriol are showered down on Manchester every year.

THE CHOLERA is very severe at Berlin. Up to the 21st, there had been 687 cases.—On the 24th instant, *L'Union Médicale* writes—"For the last two days both the number of cases of cholera and their gravity have sensibly diminished."—The *France Médicale* says—"We regret to announce the reappearance of cholera in the capital. Some cases are reported in private houses; but it is unfortunately true that among the persons admitted lately at the Hôtel-Dieu, the Lariboissière, Beaujon, Necker, and St. Louis, there were some attacked by the disease." In Marseilles it has also appeared.

VETERINARY SURGEONS BILL. In the House of Commons, on Tuesday, Mr. Newdegate moved that the House go into committee on this Bill, the object of which was to prevent any person who has not obtained the diploma of the Royal College of Veterinary Surgeons from assuming the title of veterinary surgeon. He asked from the Government an assurance that nothing should be done during the recess.—Mr. Corry, who had intended to suggest the withdrawal of the Bill, said nothing would be done during the recess, and no charter would be granted to the Scotch or any other school to give diplomas. The representations made to the Government respecting the Bill were so conflicting that it was impossible for any one not conversant with the subject to form a decided opinion upon it.—Mr. M'Laren regretted to hear the rash promise that nothing should be done during the recess, because a public spirited man had left £40,000 to establish a college for Scotland; and he characterised the Bill as one to "repeal the Union", inasmuch as it would fine and stigmatise as an impostor every man who practised as a veterinary surgeon in Scotland or Ireland, no matter what his qualifications, if he did not hold the diploma of the London College. The Bill was then withdrawn.

CHOLERA IN LONDON. In July 21st, the births registered in London and twelve other large towns of the United Kingdom were 4132; the deaths registered 3433. The annual rate of mortality was 29 per 1000 persons living. In London the births of 1008 boys and 1015 girls, in all 2023 children, were registered in the week. In the corresponding weeks of ten years, 1856-65, the average number was 1909. The deaths registered in London during the week exceed by 428 the estimated number. While epidemic cholera has been for months prevalent in several cities on the Continent, and in some cities has been extraordinarily fatal, London has hitherto remained free from its ravages. At the end of June the temperature was excessively high, and after that date cholera cases were noticed; their character was not at first grave, but in the first week of July, fourteen cases, in the second, 32 cases of cholera were registered, half of them at least of the epidemic type. In the week that ended on Saturday last 346 deaths from cholera were recorded. The mortality by the epidemic is much greater than it was in the corresponding week of 1854, but not so great as it was in the epidemic of 1849. Of the 346 fatal cases now recordea, 308 occurred in the east districts of the metropolis. Eleven deaths from cholera were registered in the west districts, six in the north, and twenty in the south. Only one death from the epidemic occurred in the central districts.

The Lothians Medical Association. The medical practitioners of the villages and country districts around Edinburgh, have resolved to form themselves into an Association for the protection of the interests of country doctors. At a meeting in Edinburgh, the chairman alluded to the difficulty experienced in getting accounts collected, owing to the shifting character of the working population. He suggested that medical men should, at the end of every half year, send in their bills for attendance upon the farm labourers and their families, to the employers, with the view of having the amount deducted from the servant's half yearly wages. He likewise suggested that in the case of those who removed from one parish to the other without settling their doctor's bills, notice should be sent to the doctors in the district in which they should settle, who ought then to refuse to attend such persons, unless under circumstances of pressing need.

Cholera. The report of Mr. Simon to the Privy Council on the public health contains an interesting chapter on the cholera. Believing thoroughly in the contagiousness of the disease, Mr. Simon says:—"The doctrine on this subject, which, in my opinion, deserves, in the present state of knowledge, to be accepted as practically certain—sufficiently certain, I mean, to be made the basis for precautionary measures—may be stated in the following propositions: That when cholera is epidemic in any place, persons who are suffering from the epidemic influence, though perhaps, with only the slightest degree of diarrhœa, may, if they migrate, be the means of conveying to other places an infection of indefinite severity; that the quality of infectiveness belongs particularly, if not exclusively, to the matters which the patient discharges, by purging and vomiting, from his intestinal canal; that these matters are comparatively non-infective at the moment when they are discharged, but subsequently, while undergoing decomposition, acquire their *maximum* of infective power; that choleraic discharges, if cast away without previous disinfection, impart their own infective quality to the excremental matters with which they mingle in drains or cesspools, or wherever else they flow or soak, and to the effluvia which those matters evolve; that if the cholera contagium, by leakage or soakage from drains, or cesspools, or otherwise, gets access, even in small quantity, to wells or other sources of drinking water, it infects in the most dangerous manner very large volumes of the fluid; that in the above described ways even a single patient with slight choleraic diarrhœa may exert a powerful infective influence on masses of population among whom, perhaps, his presence is unsuspected; that things, such as bedding and clothing, which have been imbued with choleraic discharges and not afterwards fully disinfected, may long retain their infectious properties, and be the means of exciting choleraic outbreaks wherever they are sent for washing or other purposes."

A Good Hint from Germany. The system called "Trink-halles has been imported from Germany into Paris, where, at the present moment, there are twenty-two in operation. The structure consists of a covered stall, constructed of wood, open in front; in fact, a covered *buvette*, or driking counter. Only three kinds of drinks are allowed to be sold—eau-de-Seltz pure, and the same with currant syrup, or with syrup of Seville oranges. These drinks are charged respectively two and three sous a glass. The eau-de-Seltz is made by the society itself, and confined in copper cylinders, coated inside with tin, and these are carried round in carts several times a day to the Trink-halles, which are provided with fountains and reservoirs of ice, through which the aërated water is made to pass by means of coiled pipes, thirty feet long, so that the water is always well iced. The syrups are kept in closed porcelain vessels, which are furnished with ingenious taps that give to each glass a fixed quantity of the syrup. Each Trink-halle is is attended by two women, who wear simple uniform dresses; they receive two and a half francs a day (equal to two shillings), and have in addition the value of five glasses of the beverages allowed them daily. Trink-halles are furnished with tell-tale counters, which enable the inspectors to see how many glasses of the liquid have been sold during the day. The sale is said to amount in warm days to 10,000 and 12,000 glasses between the twenty-two Trink-halles, or, on an average 500 each, but on dull or cold days the demand is almost *nil*. Under the present arrangements the Trink-halles remain closed during the winter months, but it is said to be in contemplation to allow them to sell hot coffee and tea during cold weather. There is no doubt that, whether during summer heat or wintry blasts, the Trink-halle must prove a friend to temperance, and, consequently, a friend of the poor man.

Metropolitan Poor-law Medical Officers Association. The first general meeting of this Association was held on Monday last, in the Council-room of the Royal Medical Benevolent College in Soho Square, and was largely attended by members—workhouse and district medical officers in almost equal proportions, and representing nearly every part of the metropolis. Dr. Rogers, the President *pro tem.*, occupied the chair. Dr. Dudfield, the Honorary Secretary *pro tem.*, having read the minutes of the preliminary meeting and the names of the members, and stated the steps that had been taken in organising the Association, Dr. Rogers addressed the meeting at considerable length, setting forth the objects of the Association, as contained in the printed rules. He dwelt more particularly upon the necessity of making a great effort to better the condition of the sick poor, and to raise the status of the Poor-law medical officers. Considerations of pecuniary remuneration, though important, should be sunk in comparison to the former objects. They were engaged in the noblest work man could be engaged in: they were men of education, and devoted to their work. What, therefore, they should ask for, was increased means of doing their duty to the sick poor. The amount of their salary, which was admitted by Mr. Farnall, the Poor-law Inspector, to be quite inadequate, they would leave to the appreciation and justice of the public. The revelations which had been made respecting the treatment of the sick poor in workhouses had excited a strong public feeling upon this subject. The Poor-law medical officers were not responsible for that treatment; on the contrary, they did what they could to obtain more liberal treatment of the sick poor. He thought that one of their objects should be to get the medicines for the poor at the expense of the State. He was glad to find that this recommendation had the support of Mr. Farnall. The objects of the Association were: 1. To obtain for the sick poor chargeable to the State the advantages enjoyed by the sick poor in hospitals, etc.; 2. To obtain life-appointments for all Poor-law medical officers, and entire payment of salaries from the Consolidated Fund; 3. To provide a basis for consultation and united action; 4. To obtain an authoritative decision upon all disputed questions relating to duties and extra medical fees; 5. To obtain from the local authorities the provision of all medicines and appliances prescribed for the sick poor, and the employment and payment by the same

f qualified dispensers; 6. To address representations to the Poor-law Board by memorial and deputation; and, if need be, to petition the legislature in such cases and circumstances as may appear to render such action necessary. These objects, having been severally discussed at length, were agreed to, as well as a number of rules for the government of the Association; and a Council of twelve members was then appointed. Besides the ordinary members, there will be a second class of members, honorary in character, and consisting of "eminent physicians and surgeons, particularly those connected with public institutions." Portions of the Report of Mr. H. B. Farnall, C.B., the Metropolitan Poor-law Inspector, relating to the duties, etc., of the workhouse medical officers, having been read, together with his recommendations for the amelioration of their position, it was unanimously resolved: "That this meeting, representing the Poor-law medical officers of the metropolitan district, cannot separate without recording their deep seuse of gratification, inspired by his generous appreciation of their position and services." A copy of the resolution was ordered to be sent to the metropolitan inspector. A vote of thanks to the Council of the Royal Medical Benevolent College for the use of their room terminated the proceedings, which had been marked throughout by a strong feeling of earnestness, moderation, and unanimity. The following gentlemen were appointed officers for the ensuing year. *President:* Dr. Joseph Rogers. *Vice-Presidents:* Dr. C. Andrews; C. M. Frost, Esq. *Treasurer:* F. Goodrich, Esq. *Honorary Secretary:* Dr. T. O. Dudfield. *Other Members of the Council:* R. Bruce, Esq.; J. Clark, Esq.; Dr. T. Cotton; E. Goddard, Esq.; Dr. T. K. King; Dr. G. E. Nicholas; John Vinall, Esq.; with power to add to their number.—At a meeting of the Council of the Association held on July 24th, it was resolved unanimously: "That the Council of this Association, having taken into consideration the Report of Dr. E. Smith upon Workhouse Infirmaries, etc., desire at once, and without now entering into any detailed refutation of the various statements to which they shall subsequently refer at greater length, to reiterate their conviction that not less than one thousand feet of cubic space and eighty feet of floor-space should be allowed to each sick inmate of workhouse infirmary wards. They feel it proper to repel without delay the expressed insinuation of Dr. Smith, that the opinion of the medical officers on this subject, which was officially and urgently sought for by a printed document issued by the Poor-law Board, can be set aside as of no value, now that it proves to be contrary to that of Dr. Smith. The Council also express the pain and regret with which they have read many disparaging remarks of Dr. Smith in relation to their qualification, conduct, and position as medical officers. These they feel to be entirely undeserved, unjust, and ungenerous. The Council refer with confidence to the more just estimate formed by Mr. Farnall, who, as Poor-law inspector in the metropolis for several years, has had numerous opportunities of knowing the continuous efforts made by the medical officers to improve the condition of the sick poor, and faithfully to perform their duty." It was also determined that Dr. Rogers be requested to present a copy of the resolution to the President of the Poor-law Board.

COMMUNICATIONS have been received from:—The Registrar of the Medical Council: Dr. Griffith; Dr. Mead; Mr. Chr. Johnson; Dr. F. G. Brown; Mr. Trustram; Dr. Philipson; Mr. Griffith; Mr. W. F. Morgan; Mr. R. S. Fowler; Sir John Fife; Mr. A. E. Lloyd; Mr. R. H. Meade; Mr. W. Allison; Dr. S. Martyn; Mr. A. Hewgill; Mr. J. J. Evans; Dr. James Russell; Mr. W. Parker; Dr. Arthur Leared; Mr. Hughes; and Mr. Stone.

OPERATION DAYS AT THE HOSPITALS.

Monday.....Metropolitan Free, 2 P.M.—St. Mark's for Fistula and other Diseases of the Rectum, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

Tuesday. .... Guy's, 1½ P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.

Wednesday... St. Mary's, 1 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.

Thursday.....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Great Northern, 2 P.M.—London Surgical Home, 2 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.

Friday..... Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

Saturday..... St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1·30 P.M.—Charing Cross, 2 P.M.—Lock, Clinical Demonstration and Operations, 1 P.M.—Royal Free, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TO CORRESPONDENTS.

*** *All letters and communications for the* Journal, *to be addressed to the* Editor, *37, Great Queen St., Lincoln's Inn Fields, W.C.*

Communications.—To prevent a not uncommon misconception, we beg to inform our correspondents that, as a rule, all communications which are not returned to their authors, are retained for publication.

Correspondents, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

The Reports of the West-Somerset and Bath and Bristol Branches shall appear next week.

Mr. Trustram.—The notice in the Journal about Mr. Webber was simply an extract from the *Times*.

The Annual Meeting: Railway Tickets.—Dr. Mead of Newmarket has addressed a letter to the Railway Companies in reference to the travelling of members of the Association to and from Chester; and has received answers from the Great Western, London and North-Western, and Midland, that these Companies will extend the return tickets from the 6th to the 11th of August inclusive.

S. N.—It was Dr. Taylor who set going the report that Dr. Warder was an eminent toxicologist at the School in Grosvenor Place. He was the very opposite of this, having completely failed as a Lecturer on Jurisprudence. Another incorrect assertion Dr. Taylor is reported to have made, viz., that Dr. Warder was one of the medical men who defended Palmer. He appears, on the contrary, to have taken views strongly opposed to Palmer.

Statistics of Cancer.—Mr. Moore has the pleasure to acknowledge the return of "Registers for Cases of Cancer", from John Thompson, Esq., Bideford; J. S. Bartrum, Esq., Bath; and F. Hudson, Esq., Stockport.

The Armstrong Fund.—The Treasurer of the Gravesend and Milton Dispensary and Infirmary begs to acknowledge with thanks the receipt from Thomas Hunt, Esq., of the sum of seven pounds, being the balance of subscriptions after defraying the expenses incurred by Messrs. Armstrong, in the case of Rudman *v.* Armstrong. Gravesend, July 25th, 1866.

The Richardson Testimonial.—Sir: The letter of "A Physician", in your impression of the 14th instant, well recounts the labours of that distinguished physiologist, Dr. B. W. Richardson, and points out equally well the claims he undoubtedly has upon both professional and public gratitude.

To dilate upon the observations of your correspondent, would be to dilute them; but I cannot avoid saying, I think, apart from the recent great and important discovery of local anæsthesia, the public as well as the profession owe much to Dr. Richardson for what he has done in furtherance of scientific sanitation throughout the country.

Most thoroughly approving the suggestion of a presentation to this true and zealous worker in the field of science, I do hope no time will be lost in carrying into effect the proposition referred to, and I also trust the movement will result in something that will be calculated to show our distinguished brother, in the most unmistakable manner, the true feelings of the profession towards him, and the sense entertained of his high scientific attainments.

Let, then, the good work be at once commenced; and your correspondent must pardon me for saying, I think no one could be selected better qualified to take the initiative in a project of this kind than himself.

This gentleman has only to give his consent to the publication of his name, and I feel assured that, with your valuable assistance, the best wishes of Dr. Richardson's admirers (and their name is legion) will not only be very fully but very speedily realised.

I am, etc., A MEDICAL OFFICER OF HEALTH.

July 19th, 1866.

SIR: The kindness which induced you to comply with my request, and give insertion to my letter signed "A Physician", has been followed by such a happy result, that I think we have both of us good reason to be satisfied. I never for one moment doubted the suggestion being received with the most hearty approbation; but, I must confess, that I was scarcely prepared for such an almost universal approval.

Many of the letters I have received upon the occasion (and I can scarcely tell you how numerous they have been), from almost all parts of the country, and from professional brethren with whom I have never before had the pleasure of corresponding, are so full of thanks to me for having, as they say, "anticipated their wishes", that I feel constrained, although somewhat reluctantly, thus publicly to announce myself as the initiator of the movement, and, at the same time, to acknowledge through the medium of your columns, the communications I have referred to, as it would be quite out of my power to reply to all, individually, who have addressed me on the subject.

With so strong a proof as I possess of the general desire of the profession to support the movement, I think it would be unwise to delay, for any length of time, the convening a meeting for the purpose of organising a system likely to facilitate the necessary proceedings and to make the success as great and as certain as possible. London must be, I imagine, the best place for the *first* meeting; and I beg to suggest that the rooms of the Medical Benevolent College in Soho Square, if they can be obtained, would be suitable for the purpose. In the meantime, I shall be happy to receive communications from any one favourable to the object we are wishing to promote.

I am, etc.,

Stafford, July 24th, 1866. HENRY DAY, M.D.

SIR: Allow me to express the pleasure with which I read in your columns a letter from "A Physician", suggesting a testimonial to Dr. Richardson. I am sure that all who have been spared either the infliction or endurance of pain by means of the process which he has introduced, ought to be glad to avail themselves of such an opportunity of expressing their gratitude to him for this and also for his other valuable services to medical science.

I trust that I shall soon see a subscription-list announced, to which I shall have great pleasure in adding my name. Enclosing my card.

I am, etc., A SURGEON.

DIAGNOSIS OF SUSPECTED PREGNANCY.—SIR: I have an idea that the clinical thermometer may be advantageously employed in the diagnosis of suspected pregnancy.

We country practitioners might go on making experiments for years, without having a sufficient number of cases to enable us to arrive at any positive practical conclusion.

The opportunities enjoyed by pure obstetricians in large towns, would, however, enable them ere long to determine whether the above named instrument is of any value in such cases; and if the hint I have ventured to throw out prove the means of inducing some of my more fortunate brethren to make the needful experiments, perhaps it is not too much to ask if they would kindly record the results in your columns.

I am, etc., HUGH NORRIS.

South Petherton, Ilminster, July 12th, 1866.

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Illustrations
OF
HOSPITAL PRACTICE:
METROPOLITAN AND PROVINCIAL.

TAUNTON AND SOMERSET HOSPITAL.

SUCCESSFUL CASE OF OVARIOTOMY.

Under the care of H. J. Alford, M.B.Lond., Surgeon to the Hospital.

Mary Board, aged 38, a married woman, was admitted January 27th, 1866. She lives at Pitminster. She has had four children and one abortion. The eldest child is 8 years old; the youngest, 1 year and 8 months.

In general appearance, she was a dark, thin, emaciated woman, of a tranquil disposition. She had always been healthy. Last August, she first felt a pain in the left iliac region, and observed a tumour there of the size of an orange, which rapidly increased in size. She fancied that it first proceeded from a strain.

State on Admission. A large ovarian tumour was found filling the abdominal cavity. Its mobility was slight. The measurements of the tumour at the umbilical level were as follows. On February 2nd, 38½ inches; on February 10th, 40 inches; on February 16th, 40¾ inches; on February 22nd, 41¾ inches. Waves of ascitic fluid could be seen at the umbilicus and just above the pubes only. The abdominal parietes were tolerably thin; the lineæ albicantes clearly marked; and the abdominal superficial veins slightly enlarged. There was slight fluctuation in the left hypochondriac region. Impulse was felt over the whole upper part of the abdomen. No crepitus was perceived. There was tenderness over the left iliac region. The percussion-note was dull. No sounds were heard on auscultation. The lumbar sounds on percussion were tympanitic. She suffered from sickness, irritability of the bladder, and oppression of breathing—the results of pressure. The uterus was drawn upwards; its mobility was slight. The catamenia appeared every three weeks prior to admission; but since then had ceased altogether. She had no leucorrhœa. The urine was scanty, and contained a trace of albumen. The tongue was clean; appetite moderate. She slept well; had no cough or chest-symptoms. Her spirits were good. Pulse feeble; heart-sounds normal.

On examining the abdomen, it was found that the tumour consisted of two portions: a large cyst containing fluid above and a solid tumour below. She had never been tapped.

Operation was delayed for some little time, to see if the catamenia would return at their proper period; but this not being the case, ovariotomy was performed on February 26th.

Operation. The patient having been removed to a private ward at the top of the house, and the temperature having been raised to 75° Fahr., Mr. H. J. Alford first made an incision four inches long through the inguments, beginning about an inch and a half below the umbilicus, to about the same distance above the pubes. The tendinous structures were divided, and the peritoneum was opened and slit up on a director and then on the fingers. The upper cyst came into view, and was at once tapped with a large trochar. After the whole of the fluid (which was of a yellowish-brown colour) had been evacuated, it was found that the solid portion of the tumour required a larger opening. The incision was, therefore, prolonged upwards to about an inch above the umbilicus. Before tapping the cyst, Mr. Alford passed his hand into the abdominal cavity; and, finding slight adhesions all over the anterior surface, broke them down with the hand. Posteriorly, the adhesions were firmer, especially to the omentum at one spot. The solid portion was drawn out through the enlarged opening; and the pedicle, which was about two inches wide and three in length, was secured by a clamp, and also transfixed and tied by a double ligature. There was slight hæmorrhage from the omentum, but it soon stopped, and also some from one of the superficial veins, which was ligatured before opening the abdominal cavity. The opposite ovary and uterus were healthy. The wound was closed by silver wire sutures, three deep through the peritoneum and three superficial. Strips of adhesive-plaster were applied about two-thirds around the abdomen, and a warm wet flannel covered with gutta percha applied externally, and she was then removed on the mattress from the table to the bed which was close by.

The only peculiarities in the operation were the adhesions, which were almost universal; the tumour springing from the right ovary instead of the left (as was imagined previous to the operation); and the considerable quantity of ascitic fluid which, stained with blood, was removed by warm flannels from the abdominal cavity.

The cyst contained about 13 lbs. of fluid, and the solid portion below (which consisted of a number of small cysts filled with semi-solid creamy matter) weighed 7 lbs.; making a total of 20 lbs.

Previously to the operation, her bowels having acted spontaneously, she was administered an enema containing one grain of acetate of morphia. She bore the chloroform remarkably well.

10.30 P.M. Pulse 88. No pain nor sickness. An injection was given containing half a grain of acetate of morphia. Beef-tea injections and warm wet flannels to the abdomen were also ordered.

Feb. 24th, 10 A.M. The catheter was passed, and a large quantity of urine drawn off. Pulse 90. No pain, sickness, or tympanitis. The patient took iced milk. She breathed well with the abdomen as well as with the thorax.

Feb. 25th, 10.30 A.M. She had had a good night. Pulse 84. She was quite easy. The catheter was used.

Feb. 26th, 10.30 A.M. She had a good night without the opiate. She passed urine voluntarily. Pulse 80. The strapping was removed, and fresh put on. The wound was looking very well. There was no pain, tenderness, or tympanitis.

9.30 P.M. She had passed urine twice since the morning. She said she "feels just as she did when well."

Feb. 27th, 10 A.M. She had been rather restless during the night. Pulse 104; skin rather hot. She had taken bread and milk. The slough beyond the pedicle was removed.

Feb. 28th, 10.30 A.M. She had a good night, and was better this morning. The bowels had acted once. The wound was looking very healthy. Pulse 96. The ligature around the pedicle was removed. The urine was natural.

March 1st, 11 A.M. She had had a good night. The bowels had acted once. Pulse 104. She had a mutton-chop. The clamp and three sutures (two deep and one superficial) were removed. There was no retraction of the pedicle. Lint dipped in Condy's fluid was applied to the stump; and warm fomentations to the abdomen. An ounce of brandy was ordered to be given every four hours.

March 2nd, 10.30 A.M. She had a very good night, slept well, and lay on her side. She ate an egg and toast for breakfast. Pulse 96. Bowels quiet.

March 3rd, 10.30 A.M. The patient had a very good night, and slept until nearly ten this morning. She had a mutton-chop for breakfast. Pulse 84; no sickness nor diarrhœa. The rest of the sutures were removed.

March 5th, 10.30 A.M. She had a good night. After having some tea at 5 A.M., she was sick, and brought up a round worm, about nine inches long. The wound was healthy. She was ordered to have sherry wine. Pulse 96. In the afternoon, she had some retching and flatulence, and was ordered to have two grains of sulphate of quinine three times a day, and a morphia injection at night.

March 7th. Pulse 84. The bowels being confined, she was ordered a simple enema. This not acting, a turpentine enema, containing castor-oil, was administered, and acted well.

March 9th. She was progressing most favourably. Pulse 78. The wound was healing rapidly.

March 11th. She slept and ate well. She was sick after her dinner, and was ordered oxide of cerium, which checked the sickness. She turned in bed with great ease.

March 15th. Pulse 68. On dressing the wound, a slight hardness was felt close to an opening left by one of the deep sutures; and, on pressure, a quantity of healthy pus escaped through this opening, and at the lower part of the wound. The cause of this small abscess was explained by the discovery of the thread of a ligature used in tying the abdominal veins, which, being cut short and left in the wall of the abdomen, acted as a foreign body, and no doubt gave rise to many of her symptoms. It was removed, and the abscess rapidly healed. The tongue, which had been preternaturally red, was now quite of a normal colour.

March 18th. She sat up to-day for half an hour in an easy chair, and walked, with the nurse's help, from the bed to the fireplace. Pulse 68. The stump of the pedicle was touched occasionally with the nitrate of silver, as the granulations were rather flabby. The bowels were slightly relaxed; so she was ordered aromatic sulphuric acid, tincture of opium, and cinnamon-water.

March 21st. There was very little discharge from the wound; it was all healed, save the pedicle and the point where the abscess discharged. She sat up every day for an hour or more, and was gaining flesh rapidly.

March 28th. She had improved very much during the past week, ate and slept well, and sat up some hours every day. She walked with comfort about the ward. The wound was all healed, except the small stump of the pedicle. She was becoming stout, and the expression of her face was quite altered.

April 6th. Her nurse left, and she was removed down stairs into a female ward. She walked down from the top of the house herself.

April 25th. She was perfectly well; the wound was quite healed. She was only kept in to improve her general health as much as possible. She weas an elastic bandage.

May 12th. She was discharged cured.

June 21st. She was seen. The catamenia had appeared twice since she left the hospital, and she was in goo health.

COUPS DE SOLEIL. In New York city the heat was terribly fatal. The deaths there from *coup de soleil*, were in three days no less than fifty-one in a total of sixty-one cases. The deaths from sunstroke exceeded the number of deaths from cholera.

Original Communications.

OBSERVATIONS ON THE SOUNDS OF THE HEART:

IN REPLY TO DR. SHAPTER'S PAPER OF MAY 12TH.

By ARTHUR LEARED, M.D., M.R.C.P., Physician to the Great Northern Hospital.

UNDER the head of "Notes and Observations on Diseases of the Heart and Lungs", in the JOURNAL of May 12th, Dr. Shapter has stated in detail his views with regard to the mechanism of the sounds of the heart. After having mentioned other explanations which he considers unsatisfactory, he adds: "My own conviction is, that the sounds referred to are mainly, if not entirely, due to the natural interference with the even flow of the blood by the various mechanisms of the heart; and that they are to be referred to the ordinary laws of hydraulics, and little, if at all, to be attributed to the contracting act of the muscle of the heart, or to any vibratory motions in the substance of the valves."

In this passage, Dr. Shapter does not claim the views put forward as his own; but neither does he attribute them to their real source. Possibly he was not aware that many years ago I published a paper in which the heart's sounds were held to be caused entirely by the blood itself. I afterwards published the same views in a more developed form, as a thesis read in the University of Dublin.* I have endeavoured to show, in this publication, that no other explanation of the sounds which emanate from the circulatory system is so comprehensive or so consistent with known principles. But there is another more important matter. I am prepared to prove that none is so compatible with the various morbid deviations from the normal sounds, or with the production of new sounds. In a practical point of view, the subject is no less interesting than important; and I only regret that other pursuits have interfered with my intention to demonstrate by a mechanical arrangement that these sounds are products of a more or less complete arrest of the blood's motion. I have expended much time and trouble in numerous hydraulic devices and experiments, and the final results are highly encouraging. The *perfect* imitation of the human heart-sounds has yet, however, to be achieved. The difficulties in the way, both as to material, delicacy of finish, want of comprehension and even honesty of purpose on the part of those employed in constructing the necessary apparatus, are great. In a letter of mine published in the *Medical Times and Gazette*, April 7th, 1866, it may be seen how all my pains for the formation of an India-rubber apparatus were frustrated, because the persons to whom its execution was entrusted chose to apply the principle involved to the production of a now popular enema-apparatus!

In the face of long established opinions favourable to the valvular theory of the sounds, sustained by names of eminence and the strong bias which writers on the diagnosis of diseases of the heart must inevitably entertain for the foundation upon which their views are based, I have felt that the demonstration in question requires to be complete. Sanguine

* See pamphlet "On the Sounds caused by the Circulation of the Blood: being a Thesis read in the University of Dublin for Degree of M.D. at the Winter Commencement, 1860." Churchill: 1861.

of success, I hope at no distant day to renew my attempts.

Although my views have not met the attention which I might have expected, this would be no excuse for apathy in the matter. Speaking with a sincere conviction of their truth, I may be pardoned in stating that this neglect will sooner or later be atoned for. Instead of a bare allusion to my explanations in the last edition of the standard work on *Physiology*, and their complete omission in some recent works on diseases of the heart, I am confident they will one day take the place to which their truth entitles them. I am glad, therefore, to find Dr. Shapter, while he points out reasons for dissatisfaction with other theories, adopting the present one. There are, however, certain conditions requisite for the production and modification of the sounds formed in the circulation, which he has not touched on, and for which I must refer him to my paper. The argument in that paper is strengthened by analogies, than which nothing short of direct proof can be more convincing. Dr. Shapter also not only employs analogy, but uses one identical with one I have given, quoting for the purpose a passage from Dr. Arnott, written without reference to the present subject, which I had not before seen.

DR. ARNOTT.

"It has long been observed, in household experience and elsewhere, that while water is running through a pipe, if a cock at the extremity be suddenly shut, a shock and noise are produced there. The reason is, that, the forward motion of the whole water contained in the pipe having been instantly arrested, and the momentum of a liquid being as great as of a solid, the water strikes the cock with the same force as a bar of metal, or a rod of wood having the same weight, and moving with the same velocity. A leaden pipe, if of great length, is often widened or burst in this experiment. . . .

"The circumstances attending the circulation of the blood through the heart will, on consideration, be found to present every condition necessary for the application and illustration of this law; there is the current of blood passing through tubes, and this current suddenly and forcibly arrested by the closure of the valves."

DR. LEARED.

"The second sound occurs during diastole, and its mechanism closely resembles the first. The blood having been driven with much force into the aorta and pulmonary artery, a portion of it recoils, but is checked in its rapid descent towards the heart by the semilunar valves. The sound is caused by the concussion thus induced; the force of which is, however, by no means sustained by the valves alone, for they are thoroughly supported by the ventricles and their contents. This is obvious, since there can be no approach to a vacuum in the heart. The valves are to be regarded as separating media, which do not themselves sustain the force of the descending blood. A valve thus supported is known in the arts as an equilibrium valve.

"An experiment at hand in most houses demonstrates the principle on which the second sound is formed. When a cock, attached to the lower end of a perpendicular pipe of some length, through which water is flowing from a cistern, is suddenly turned, a loud jarring sound is heard. It is caused by a concussion in the water from the sudden arrest of its onward flow. The semilunar valves are here represented by the plug of the cock; and, allowing for the difference between rigid and flexible materials, the conditions are very similar, since the elastic reaction of the vessels effects a pressure on the blood which is effected in case of the water by length of the pipe. If, then, the pipe and cistern are capable of yielding a sound which may be heard at a considerable distance, it cannot be wondered at if the heart and its vessels, on the same principles, give rise to sounds audible through a stethoscope or by direct contact with the body.

"If the cock is only turned so as to allow even a small portion of water to pass through, a rushing sound (in this case continuous) results. The change of the normal second sound into a murmur from incompetency of the valves is thus demonstrated."

Space will not allow me to place my explanation of the formation of the first sound before the reader. Let it suffice at present to say that it has nothing to do with the vibration of valves; and that, in support of this statement, very strong reasons, derived from pathology, can be adduced. One of the arguments relied on to prove the valvular origin of the first sound, was the great probability that both sounds were formed by the same kind of mechanism; and the dogma, that the second was a valve-sound, was held to be unassailable. Whether or not this is the case any longer, I must leave for others to judge; only let the matter be impartially considered. That it is more philosophical to look for a common cause for both sounds, is quite true; and that cause will be found, as already said, in the motions of the blood itself, not in such a vibration of delicate valves as would be necessary for the production of sound in a viscid fluid, and which would imply a degree of strain which, to say the least, is highly unphilosophical.

The experiments of my late colleague, Professor Halford, have for the time propped the valvular theory of the heart-sounds, and tended to divert attention from every other. But, ingenious and painstaking as these undoubtedly were, there is no one of them of any moment, which, when rightly interpreted, is contradictory of my views. One experiment was supposed by himself and by others to be conclusive as to the truth of the valvular theory. The heart of a living animal having been exposed, he cut off its supply of blood by compressing its afferent veins. No sound was then heard on applying a stethoscope to the heart, because, as he argued, there was no blood to act on the valves. It curious that I had performed the selfsame experiment some time before seeing the printed account of that by Professor Halford, and then wrote to him to that effect. It was intended alike by him as well as by myself to disprove the once generally accepted muscular theory of the first sound; but it is hardly necessary to say that, according to my explanation of its cause, this sound would be as effectually suppressed by cutting off the ventricular supply of blood, as it would be supposing the sound to be valvular.

PUBLIC VOTES. The following votes have been granted in the House of Commons: £5793 for the University of London; £14,867 for the Scottish Universities; £1452 for the Queen's University in Ireland; £2,250 for the Queen's Colleges in Ireland; £5,000 for vaccination inspectors and public vaccinators; £5,926 for medical officers in the Royal Navy.

STEAM AS A DISINFECTANT. DR. A. N. Bell, of Brooklyn, contends that steam is a far better disinfectant than chlorine, the latter remedy rotting the clothes, while the former is thoroughly efficacious, and makes not the slightest difference in the clothes, beyond the great one of disinfecting them of all disease. The apparatus used for the experiments was simply a steam boiler of three-horse power, and a force pump.

Transactions of Branches.

BATH AND BRISTOL BRANCH.

PRESIDENT'S ADDRESS.

By JOHN S. BARTRUM, Esq., F.R.C.S., Bath.

[*Delivered July* 19th, 1866.]

GENTLEMEN,—Whenever, from the kind consideration of his friends, a member of this Branch Association is placed in the honourable position which by your favour I this day occupy, knowing that, in accordance with a laudable custom, he will be expected to address some observations to his associates, he naturally reverts either to his own past career, or to some department of medical science, on which to comment in his opening address. To this good plan this Branch has been indebted for many valuable papers, characterised by the peculiar features of each man's mind, and by his opportunities of medical practice.

Acting on this long established custom, the topic that has occupied my thoughts in reference to our meeting to day, is, Are pharmaceutical remedies of any use? and to what extent? On what grounds do we ascribe power over disease to certain drugs?

In such an assembly as this, it may sound strange to suggest such an inquiry, or even to intimate the possibility of a doubt upon the subject. Personally I have no doubt of it; but for some years past there has been a tendency to ignore the modifying power possessed by various drugs over those abnormal states of the body, which we term disease. The effects of some mineral and vegetable substances are so obvious, and when used in too large quantities are so injurious, or even destructive of life, that no doubt can be entertained of their vigorous action upon the living frame; it is when these are used in smaller quantities and variously combined, that doubts as to the good effected by the use of medicines are often expressed by certain men, whose minds require absolute and reiterated demonstration to insure conviction. We are conscious that, as men advance in years, and profit by experience, they become more simple in their aims, and in their mode of prescribing; they take broader views of cases, less localise disease, and regard the local development as due to primary constitutional causes; at the same time they take every precaution to save the functions of the suffering part, and to reduce the vital powers as little as possible. In the last generation, Abernethy was the great advocate of the constitutional origin of disease, which theory he forcibly impressed on his pupils and patients. Though his theory was correct, there can be no doubt that his practice was very rough, and often inappropriate. In the earlier stages of professional life, before men have acquired that tact and readiness, which thoughtful experience can alone give, every item in a prescription is duly considered, and to meet the varying symptoms of the case many, and often incongruous drugs, are ordered in the same prescription. In this stage of life, the disease is expected to yield to the remedies used; the principle is not then recognised, that all the physician prescribes is but an adjuvant to the natural powers, by which alone, whatever treatment is adopted, diseased actions are controlled, and the organs affected regain their usual health. The ill educated, or those possessing but a limited knowledge of the marvellous restorative powers with which every highly organised being is endowed, ascribe great virtues to the remedies used, without any more settled principle than that they are ordered with unwavering faith, and are taken in the same spirit. This obtains most markedly among the savage tribes, whose confidence in the medicine man is unbounded. Happily for the sick the remedies are often innocuous, so that Nature is left to herself to throw off the disease. The same result is often attained when the patient recovers in spite of treatment. This faith in the use of remedies, when well guided, is a very valuable element in a physician, who without it does not inspire confidence in those under his care. This excessive reliance on drugs was very characteristic of a race of practitioners, who have now passed away: they ordered enormous quantities of medicines, and were paid in proportion to the quantity sent, even if not all swallowed. The amount of physic consumed by some patients, within my own memory, would astonish the present generation. In my early days, one old lady took regularly for years never fewer than four draughts daily, often she had six; I need not say they were very harmless, for she lived to be 92, and she paid her apothecary never less than £100 a year. I know another firm, then practising here, who, on one day, about this same period, sent out upwards of twenty-four dozen draught bottles, besides many other supplementary appliances in the form of pills, blisters, lotions, etc. Happily for the profession, as well as for the public, that system no longer exists; but, as is usually the case, the succeeding generation has gone too much into the opposite extreme.

About twenty years ago a paper was published by Dr. Forbes, in the *Brit. and For. Medical Review*, then recently started, upon the powers of Nature and Art in the cure of disease. He therein showed how little influence the remedies used in acute disease had on the number of cures, which gave the same general average, whatever treatment was adopted; the comparison being made between cases of similar type, and under similar hygienic conditions. The impression his papers gave was, that in acute cases medical art was of little use, beyond keeping the patient from hurtful influences, and that many would have had a greater chance of recovery if the natural powers had not been interfered with by ill directed, but well intentioned efforts: he did not express so decided an opinion of the inefficiency of treatment in chronic cases, which were not likely to be so heroically treated. There can be no doubt, that Dr. Forbes's criticism of the treatment of acute diseases was to a great extent just, for in those days acute pneumonia was treated by vigorous bleeding, antimony, and a strictly antiphlogistic regimen. The general type and tendency of diseases were not so carefully studied by the majority of practitioners, as they now are; the practical question now being not so much, what is the special form of disease, as how shall the patient be conducted through the attack to convalescence, with the least damage to the constitution? Dr. Forbes, while ascribing so little power to the art of medicine as then practised, by no means depreciated its beneficial influences, especially in chronic diseases, when wisely practised. He sternly reprobated the assumptions of the homœopathic practitioners, who if they honestly pursued the theories of their great authority, conducted their patients through illness solely by an influence on their minds, the acknowledged remedies being wholly inoperative. Indeed, in this respect honest homœopaths have an advantage in cases where time only is needed for recovery. Patients are not contented to be told that they have only to wait for so many weeks or months, and they will get well: unless they are more hopeful or sensible than

most men, they wish to adopt some means to shorten convalescence, for the passive waiting for recovery is rendered less irksome by doing something, however harmless, which encourages that hopefulness, which is so valuable an element in the restoration of the bodily powers.

The influence exercised over the practice of that day by arguments which I have endeavoured fairly to epitomise, was very considerable; the papers in question, as expressing the opinion of one man, would not have obtained such influence had they not embodied and brought prominently into view the judgment of many thoughtful physicians. Dr. Pring in his *Pathology*, published in Bath, in 1825, had put forward similar views; but he wrote in a provincial town, before the time when the reaction against depleting treatment had set in, though his book contains many examples of the injurious effects of the treatment then in vogue.

The natural history of disease, with its probable terminations irrespective of treatment, has from that period engaged far more attention than it did in the previous generation of practitioners, who had not the means of forming so correct a diagnosis as we have. The collateral sciences are now called more frequently to our aid, the test-tube, the thermometer, and the microscope, being now essential to diagnosis in many obscure cases, the pathological condition of which would be unknown but for their information. The end for which all these subjects are studied by physicians in practice, is to attain accuracy of diagnosis and prognosis; for we cannot treat a patient with satisfaction to ourselves unless we have endeavoured to ascertain the disease of the patient, and its tendency. This cannot always be done; but the more steadily the practitioner keeps this principle in view the more likely is he to treat it successfully. The study of the natural history of disease is an interesting employment, and may be pursued quite independently of the main purpose to which all our studies should point, the cure of those ills, the cause and termination of which form the science of medicine, in contrast with the art of medicine, one branch of which latter must now engage our special attention.

When we administer a remedy of known power, such as opium, we know what effects are to be expected; there is the primary excitement, with the subsequent torpor, and sedative influence, according to the dose, or the state of the patient. If for the first time we had given opium to a person on whom it acted as a poison, in a very small dose, and to another, in an excited maniacal state, we should be struck with the contrary effects of the remedy, and be puzzled what opinion to form of the newly tried drug. One case would show how powerful it was, the other how powerless; by degrees, experience would tell us where to give it, and where to withhold it. After a while some friend might suggest its solution being injected into the cellular tissue to allay local pain, or general restlessness in a patient who could not bear its administration by the mouth. We should then find that a very small quantity taken into the system in this manner, would induce the same symptoms which had followed its administration by the mouth. This extended experience would have convinced the student, that here he had a remedy that evidently acted through its presence in the blood, which conveyed its influence throughout the circulation; that it owed its power to some chemical compound which was indestructible for a certain period in the system.

A newly discovered country has furnished a drug here much used for certain purposes; it is tried in various complaints, and is found to produce in large doses vomiting, in smaller doses to lessen the difficulty of expectoration, without nausea. Another man, from reasoning based on analogy, tries it in dysentery, and urges its general adoption in such cases. Are we to forego its use, or to mistrust it because its powder in some very susceptible persons produces difficulty of breathing, resembling spasmodic asthma? Certainly not! but endeavour by careful experience to ascertain in what cases it is most useful. In this we shall be strengthened by the knowledge that chemists have separated also from it a definite and active principle called emetine, whose effects resemble the original ipecacuanha.

Referring to another expectorant, squills, we find that it appears to stimulate another set of organs; though large doses will be rejected by the stomach, we learn that it also is digested, and enters the blood, for it passes off chiefly by the kidneys, though, at the same time, it stimulates the bronchial mucous membrane; it has its special alkaloid, scillitin, which also is a definite compound. An investigation into the actions of many drugs of this class would convince an impartial experimenter, that some appear to possess a special power over certain excretory organs, which are wholly uninfluenced by other drugs nevertheless having the same remedial results; thus by such careful observations we learn the special qualities of lobelia and senega contrasted with tolu and copaiba, and when and where to use the one or the other.

Our knowledge of the effects of the action of sedatives, excluding opium, has always appeared to me very unsatisfactory; one practitioner orders henbane, another conium, another belladonna or hemp, each being ordered to allay special phases of irritability. Some will ask you, Do you trust henbane? or hemp? and so with remedies of this class. Why do we order the one or the other? Experience has directed the use of these remedies, each of which is applicable to certain states of the nervous system. In large doses we know that each is an active poison, which is proved by their disagreeing in the minutest doses with some individuals. We see that one fortieth of a grain of atropine injected beneath the skin will cause dilatation of the pupil, and dryness of the fauces, and even severe constitutional disturbance, which is said to be controlled by the subcutaneous injection of morphine. This is a type of the baneful effects of the concentrated poison, which in lesser doses, and properly used, is a valuable auxiliary.

The vegetable alteratives which are said to purify the blood, form a class of drugs which need a far more careful examination than they have hitherto received. Among them I will mention taraxacum, which is reputed to act on the liver. What evidence is there that it thus acts? I know that, when its expressed juice is taken in moderate doses, it seems to be a corrective by a gentle aperient action, which continued for some time, and conjoined with cod oil, I have found very serviceable in those anomalous cases called bilious, that stumbling block of every day practice, which usually means that a larger quantity of food is taken than can be digested with comfort to the system; and patients perpetuate the mischief by taking active aperients instead of abstinence or stomachics. Nettle-juice, sarsaparilla, and the various herb-infusions constituting rural domestic pharmacy, have been of great repute in certain states of blood which need modifying, and the removal of offensive materials as well as the supply of deficient elements; this latter is, I believe, the source of much of their power. We see the same result obtained by change of food in our domestic animals; with a fresh sample of hay, or a fresh pasture, or a larger run, our horses and cows improve and fatten, though to our ken they have previously

had food of the same composition. It is by this class of remedies that so much fame is sometimes acquired by old women who, with implicit faith in their decoctions, strive to excel the professional doctor, in the treatment of anomalous cases; they occupy the mind of the patient through a prolonged period of inaction, during which active treatment would be inapplicable. We often ridicule treatment of this kind, and sometimes justly; but is there not an element of truth in it? We should endeavour to analyse its cause of success, and adopt the hints learnt by the inquiry, as often a sound and consistent theory will explain the success of purely empirical practice. Allied to this part of our inquiry is the fact, that the old fashioned infusions and decoctions are often more agreeable to the stomach, and more beneficial to the patient, than the modern concentrated forms of essences and alkaloids, which though of a known strength are wanting in that natural admixture, whereby the active principles are more readily absorbed by the stomach.

I have thus far spoken of vegetable remedies which act through absorption into the blood, and do not pass off by the bowels. Do aperients act in this mode? or do they simply pass through the alimentary canal? Taken into the mouth, they are usually presumed to pass through the canal almost without absorption; yet it is not so generally. It often happens that castor-oil or senna has had no purgative action on the mother, but has briskly purged the infant. The colouring matter of rhubarb and of santonin may be detected in the urine. These remedies, though in such constant use, have not been, as far as I know, the subject of physiological experiment, but are mingled so as to produce the least noxious effect. Nevertheless, some deserve a passing notice in relation to my theme. One drug of recent introduction, podophyllin, is supposed to act specially on the liver: has it any other claim than as a vigorous purgative, rather uncertain in its operation? Aloes are said to irritate the lower bowel, while to scammony and jalap is ascribed a greater influence on the smaller intestines. We have been so taught from our days of studentship; but does our experience confirm this general opinion? I cannot give an affirmative answer, nor can I deny it. In all such questions we adopt certain views and practice, and do not alter them unless our attention be drawn to them, and we find it needful to modify them, which gives more trouble than we are inclined to bestow on the matter.

Hitherto I have spoken only of vegetable substances, because there is so much more doubt about them than about the mineral drugs. The bases of these latter, being indestructible by any process known at present, can be traced in the various excretions and tissues. The blue line of the gums tells the physician that the system is saturated with lead, which can be recovered from the excretions; as the metallic poison is eliminated the line becomes fainter, and the muscles regain power. The swollen tongue and dribbling mouth denote the saturation of the system with mercury, the presence of which can be demonstrated in the saliva. The iodine given for the periosteal node can be detected in the urine. Arsenic and antimony are traced with equal ease. These metals having a fixed base are readily detected, whereas the alkaloids of the many vegetables I have named, being formed of very numerous equivalents, often loosely held together, cannot yet be detected in the excretions, though there is every probability that within these few years they will be demonstrated as clearly as the metals now are. We know how long strychnia remains in the system unchanged; and Dr. Bence Jones is at present examining the blood that he may find quinine when it has been taken. Although quinine has not yet been separated from the blood, its presence in the urine of a patient of Mr. Morgan at the Bristol Infirmary was demonstrated by Dr. Herapath in 1853, and by him published in the *Pharmaceutical Journal*. Cantharidine may also be found in the urine of those affected by strangury after blisters. There can be little doubt that before long the presence in the blood of all the alkaloids will be demonstrated, as arsenic and antimony have been.

Those interested in organic chemistry are aware of its rapid development. Already it has prepared for our use in medicine valerianic acid; it has formed many products usually regarded as characteristic of animal life, as urea, taurine, formic acid, and many others. Abernethy, in his *Surgical Lectures*, mentioned a case where the skin excreted a blue secretion; and in the year 1844, in this hospital, Dr. James Pring had a case presenting similar peculiarities. The legs were bandaged with wet compresses; and, after some few hours, the bandages appeared as if they had been dipped in some blue dye. The cause of this discoloration was then unknown, and gave rise to many surmises; but its solution was left to our distinguished associate, Dr. Herapath, who some years ago demonstrated to us the presence in some purulent discharges of a substance analogous to indigo. At that time, the correctness of his deduction seemed rather problematical; but now those conversant with the subject do not doubt the possibility of such a transmutation of tissues. It is probable that many of the substances frequently used in pharmacy will be made artificially; so that, should the cinchona plants not flourish on the Neilgherries or Ceylon, we may hope that their most important principle will be produced in some more dingy laboratory, where man unceasingly strives first to analyse the component parts of organic bodies, and then as zealously aims to restore them to their original state, so that the most acute observer shall be unable to say which was formed by the ordinary processes of vegetable life, and which by the chemist's careful synthesis.

But I must revert to the special topic before us. Mercury for generations has been supposed to act on the liver; and, in the days of heroic treatment, much mischief was done by this supposition. We know from accumulated experience that, in certain states of the system, in small and repeated doses, it promotes absorption; and so its use for this purpose is continued, happily, far less than it was. In larger doses, its aperient action is obvious, and accompanied by yellow mucous stools, whereby both patient and doctor are satisfied. But does this prove any special action on the liver or the mouth of the gall-duct? Undoubtedly, its mode of action differs from other aperients, as the effect of one vegetable aperient differs from that of another. We know that it acts through the blood, which is well illustrated by its poisonous effects on some persons peculiarly intolerant of the smallest dose. Other persons are equally intolerant of iodine, which, in the smallest quantity, induces in them coryza and dryness of throat. The power of iron in restoring the colour and improving the tone of the system is notorious; yet some patients cannot bear it in any form. I have two ladies whose blanched and languid frames denote the absence of its due proportion in their tissues, yet they cannot bear it even in so diluted a shape as a grain of sugared iron with their food, or a small quantity of our Bath waters; yet both of them, when in this state, are rapidly benefited by zinc. Such cases prove as incontestably as an experiment in the laboratory, that certain substances have a pecu-

iar power over certain states of the body; and, when used with discretion, can so modify the vital functions that they acquire the name of medicines; and, as such, their mode of action is worthy the close observation of those whose duty it is to use them in the treatment of disease. We may go further, and say that universal experience forbids us to doubt that certain medicinal substances have a special influence on certain organs. While morphine closes the pupil, atropine dilates it; strychnine acts on the spinal cord; opium on the brain; while emetine acts primarily on the stomach. Of this local action, ergoted rye is a marked example. Although so freely employed by some practitioners, others, using it more scrupulously, have doubted its power over the uterine muscles. One of the highest living authorities on such subjects, Dr. West, states in his last edition that he had disbelieved this power, but further experience had shown him that the general opinion of its efficacy to excite uterine action was correct. This power is the more singular, because it does not appear to affect any other part of the muscular system, though, like all other remedies, it must exert its influence through the blood.

As the earliest stages of all those pursuits which aim at attaining the rank of sciences are based on broadly marked facts, the position long enjoyed by medicine was that of an art, not a science. In his first chapter, Celsus most graphically describes the contests in his day between the empirical and the rational school of medicine. This difference still continues, though not expressed in so many words. One man will fully explain and dilate on the pathology of a case, or be most accurate in his diagnosis, and be equally deficient in the treatment; whereas another man, who has taken a general view of the patient's condition, but is not so clear in his views of the morbid changes, will treat the sufferer far more satisfactorily. In our every day life, though wishing to prescribe on some sound theory, we continually do so only empirically, gladly availing ourselves of the experience of those around us. We welcome each man who with enthusiasm advocates the use of one remedy, perhaps for one disease; he tries it extensively, and induces others to follow his example. Occasionally, some valuable remedy thus obtains general adoption, and holds its ground; far more often it fails in its expected effects, and is soon lost to view. Without such men, we should go on in the same routine, and not aim at increasing the efficiency of our remedies. This fashion in physic, and the employment of one remedy for many phases of disease, is a supplementary argument in favour of the inefficacy of drugs in the treatment of disease; yet it is not fair to argue against the right use of anything from its abuse. It moreover proves how paramount are the restorative powers of Nature in the greater number of cases under treatment. Were our friends, who are more interested in the pharmaceutical novelties than in those of older date, to see the collections on the druggists' small shelves, they would be reminded of many former friends, whose acquaintance they have dropped for others with harder names and more outward refinement, but often not possessing more substantial excellence. What a contrast does such physicking present to Brodie's excellent description of the apothecary with whom he learnt pharmacy, who cured his patients chiefly by the modification of four stock bottles. The prescriptions in the mediæval period are marvels of admixture, and many were as efficacious for the treatment of disease as the contents of the witch's cauldron. The greater the number of drugs, and the longer the time occupied in the manufacture, the more valuable were they thought; whereas now, if principles of treatment are clearly seen as men advance in life and gain experience, the number of remedies will be fewer, but there will be greater aptitude in their skilful use. It will, moreover, be found that it is not a matter of indifference in some fidgety dyspeptic cases whether a simple bitter, as calumba, is ordered, or an astringent bitter, as gentian, or one acting with greater constitutional effect, as quinine. When an intelligent man, who wishes as much as possible to avoid taking drugs, tells you that nothing acts on him so comfortably as a sedative as a grain of ipecacuanha with two of conium, you cannot disbelieve such evidence. It may be derogatory to us, as scientific men, to be obliged to confess that our practice is founded on an empirical base, as all quackery appeals for its success to the same; but the difference of the experiments is great. In the one case, one remedy is recommended for the cure of one or many diseases, which, when used by other men, does not give the same satisfactory result; whereas the greater number of remedies in ordinary use have been beneficially administered by very many men, in very different circumstances and stages of disease.

But we must not be contented to remain at this state of our inquiry; for then we should be truly empirics, having no certain principles on which to prescribe. The influence that the theory of disease has on its treatment is unspeakably great. When pneumonia was regarded as an inflammatory condition, it was met by bleeding, blisters, antimony, purgatives, and a strict antiphlogistic regimen; and many patients struggled through. Recently we have seen this theory disregarded; and the contrary treatment has been pushed to the corresponding extreme, and the use of stimulants and support advocated with a vigour which astonished us, who do not find the population among which we practise bear the enormous stimulation ordered by the advocates of the alcoholic treatment of acute diseases. Cholera is another example wherein the theory of the disease has, in the opinion of Dr. Johnson, caused the death of thousands from opiates and astringents being given; whereas, according to him, the elimination of the poison should have been the primary object in treatment.

There can be no doubt, that at present we are passing from the state of almost blind empiricism to that of rational treatment, wherein, while using the experience of the past, we endeavour as far as possible to ascertain the mode in which drugs act, and to be able to give a reason why one is ordered instead of another. For this scientific principle we are mainly indebted to those practitioners who have carefully studied the chemical reactions of the medicinal substances in ordinary use. These chemists, by combining the known action of certain compounds with careful observation of physiological experiment and the action of poisons, are laying bare many of the vital processes that hitherto have been most obscure. The treatment of gout in its various phases most forcibly illustrates the influence of the chemical school on our daily practice. Long and varied experience told us that colchicum was a specific for gout. Chemists prove that, under its use, a larger quantity of lithic acid is excreted; that lithic acid is very soluble in potass, but that the lithates of soda are less soluble; that those taking a large quantity of certain articles of diet form lithic acid in abnormal proportions. On these grounds, the physician combines potass with colchicum, and lessens the quantity of animal food, forbids beer, and orders his patient to drink water freely, to aid the excretion of the morbific matter, and to keep the skin in vigorous action. As the patient grows older and the stomach less

vigorous, the gout becomes chronic: then, again, chemistry comes to our aid, and often dilute nitric acid is taken with advantage, as it appears to aid in the oxygenation of the tissues, and so helps the disintegration of the worn-out materials, on the proper removal of which our health so much depends. The attention of chemists is directed to the powerful alkali, lithia, in which lithic acid is peculiarly soluble. The physician at once tries it in gout, and finds that no remedy, in such small doses, so rapidly renders the urine alkaline, and so helps to carry off the peculiar principle, on the abnormal quantity of which in the system the fit of the gout seems to be due. Further investigations shows that this newly discovered alkali is present in the Vichy and Bath waters, which have always had a reputation for the cure of the gout.

The prevention of this accumulation in the system is the highest branch of therapeutics; but it is a subject beyond my present purpose, and too large a one for more than a passing reference.

The treatment of rheumatism, so closely allied to gout, has for some years received considerable attention. In my early days, the treatment consisted of bleeding, purging, and sweating; then came the alkaline treatment; and now men boldy advocate doing nothing, but to put the patient in blankets and to look on, letting the disease burn out without further interference. In rheumatic pericarditis, calomel and opium were regarded as our sheet-anchor; now they are said to be more hurtful than doing nothing. Surely, one or other race of observers must be in error, or be inefficient practitioners. With the excretions acid, and the urine so loaded with lithates, is it of no advantage to endeavour to modify the constitutional state which is the source of the disease? Though we cannot attain all we desire in the treatment of rheumatism, there are few among us who would not strive to lessen the activity of the disease and to shorten its duration, by the elimination of the peccant matter through the skin and bowels and kidneys, not forgetting the modern but efficient practice of blistering the affected parts. Some cases of the chronic form of this troublesome disease afford an example of the usefulness of remedies helping the system to burn off the *materies morbi*. I allude to small doses of the iodides taken in a moderate quantity of liquid, and then followed by bark and acid or iron, as may best suit the constitution of the patient, or even by the free use of lemon-juice.

I have selected these well known diseases, gout and rheumatism, as illustrative of the value of drugs in the treatment of disease, because they present well known and easily recognisable symptoms, the dependence of which on morbid states of the blood can be chemically demonstrated, and can to some extent be modified by treatment directed to that end. The same general principle obtains in all diseases which, originating in the constitution, take some special form, and, being localised, gain a specific name, the local disease being usually only the manifestation of the previous disordered state of the circulating fluid.

On what principle are we to use medicines? There are three leading principles in their administration: 1, the elimination of offensive substances; 2, the supplying of new materials; 3, the controlling by appropriate remedies any incidental symptoms that can be so influenced. To this latter, I refer the use of the various anodynes and sedatives—opium, hemp, digitalis, aconite, chloroform, etc.—whether internally or externally; they calm the system, and so allow time for the constitution to rally, or, if that be impracticable, they lessen the bodily suffering. To this class I should refer the action of remedies taken internally to act directly on the bladder, stomach, etc.; as when alkalies are taken to promote the solution of calculi, or tannin to stop hæmorrhage either from the stomach or the kidneys.

The supply of deficient materials to the blood is chiefly to be effected by food; but it is illustrated by the use of lemon-juice or potash salts in scurvy, of cod-oil in emaciation unconnected with disease of pancreas or liver, of ammonia in diabetes, of iron in anæmia, of lime with phosphorus and iron in rickets, and less markedly, but equally efficaciously, in the persistent use of some vegetable infusions, which appear to supply some deficient materials, though most of this class should be referred to the first and by far the most important category.

The number of remedies that aid the treatment of disease by elimination is endless, and they act in different modes. The action of emetics and purgatives is simple and easily understood; by defluxion from the digestive mucous membrane an unusual quantity of fluid is removed from the blood, which is thereby modified. The same principle holds good when alkalies are given, which, by rendering the used-up materials more soluble, permit them more readily to pass off by the kidneys. But it is in the action of what are termed alteratives that the most complex chemical changes are brought about. As an example, let us mark the improvement that not infrequently follows the use of chlorate of potash in weakly children, whose system seems to be deficient in oxygen. Hence the value of oxygen-water and of nitric acid, which appear to render the tissues more readily oxygenated and so more ready to take on healthy action. Small doses of iodine, iron, and mercury, act in much the same way; they appear to hasten that catalytic action on which depends the removal of the spent materials. We know that a solution of pure starch or sugar cannot be fermented without the presence of some suitable nitrogenous compound; the addition of which to the previously stagnant solution enables those chemical changes to be set going, which so speedily alter the composition of the fluids. Such appears to be the mode in which many alteratives act. The changes that some substances undergo in their transmission through the blood are known. Thus, benzoic acid becomes hippuric, and can be recovered from the urine, removing by this metamorphosis urea from the blood. Tannin becomes gallic acid, and can be detected in the same excretion, where also may be found nicotine after smoking. When we wish to administer alkalies in the most innocuous shape, we order them saturated with acetic or citric acids, and the vegetable acid is found to have been decomposed and an alkaline carbonate has taken its place. But in all these modifications there is very much that we cannot explain or understand. We can only take them as facts beyond dispute, and strive, amid a mass of details, to ascertain a leading principle applicable to all. Having mastered the principle of action, we must still fall back on past experience to tell us why arsenic should be used in one case of skin-disease or ague; why mercury or quinine should be given in another. On the ground of reason, confirmed by experience, we can see the propriety of one man advocating dilute nitric acid for chronic gout, while another, on equally good grounds, prescribes it for chronic cough. In each case the practitioner has looked beyond the prominent symptoms, and traced them to their constitutional origin.

There is every probability that this branch of medicine will make rapid strides in future years; and that the profound chemistry of modern days will enable us to track in their course through the blood many of those definite compounds which have

hitherto baffled detection, whose remedial action will be explicable on the same grounds as are used for the explanation of the usefulness of those metallic salts which, from their fixity in composition, are more easily demonstrated.

The subject I have thus imperfectly touched on, is one so interwoven with our daily duties, that I have deemed it worthy of careful examination, especially when one acquaintance tells you that he cures all his cases with Epsom salts, and another says he has no faith in physic; both you will, I am sure, regard as equally wrong in practice and in principle; and not far removed from those irregular practitioners whom we do not receive as legitimate professors of the healing art. The subject has, however, so many ramifications, and embraces so many of the sciences allied to medicine, that one man can only pursue one branch of it. We, therefore, find that one analyses the action of drugs as a chemist; while another pursues the same object as an experimental physiologist. The practical physician, in the meanwhile, notes the results of these different investigations; and adopts what is available for the more efficient treatment of disease, and strives, from his own experience, to learn the *rationale* of their action, which is thereon applied to new cases and to new remedies.

In ordinary practice, it is impossible to institute any reliable experiments on the action of new remedies; but our hospitals are fields which would yield a rich harvest of trustworthy facts to any one who would zealously cultivate it. He might not be rewarded by the same fame, as is justly given to the man who is renowned for accuracy of diagnosis, or who first describes a disease which for a generation is called by his name; but he will be almost equally useful; for he will enlarge our knowledge of the remedies in ordinary use, and render their application more certain from increased confidence in the expected results.

May I, in conclusion, venture to hope that I have proved my propositions: that drugs are useful in the treatment of disease; that some have a special action on the function of particular organs; and that, although the mode of action is yet unknown, the majority effect this by a chemical reaction, the nature of which we cannot at present explain.

For my deficiencies in this outline I must crave your indulgence; for I know, from my long intercourse with you, that every one who humbly but sincerely endeavours to improve the practice as well as the science of medicine will receive at your hands his due reward.

It is the duty of your President not only to deliver a professional address, but to notice those who by the decrees of Providence have been removed from us. The list I shall present you to-day is a painfully long one, and among them were two members of the Council of this Branch whom we could ill spare, Mr. Mayor of Old Market Street, Bristol, and Mr. Hutchings of Keynsham. They were most regular in their attendance, both at the meetings of the Branch and of the Council, and took the greatest interest in the welfare of our Association. The other deceased members are Mr. Rudd Lucas of Long Ashton, Mr. Macey of Westown, and Mr. Keddell of Park Street, Bristol.

The late Mr. Emilius Scipio Mayor was born in or near the city of Bath on the 21st November, 1800, and was deprived of a mother's care at a very early period of his life, as Mrs. Mayor died when he was about three years of age. From his father, who was a man of great abilities and learning, he received his early instructions in literature, and was afterwards a favourite pupil of the late Mr. W. G. Horner, of Bath, a man eminent for literary attainments and mathematical knowledge. With him young Mayor made considerable progress in classics and mathematics, and at this period of life his kindness of heart displayed itself in the aid which he was ever willing to afford to his less advanced or less gifted school-fellows in their studies. Many an hour, indeed, did he take from his own pursuits to explain obscure passages, or to solve abstruse problems for those of his fellow-pupils who were less ready than himself to cope with the difficulties in the road to learning. This kindness of heart he maintained through life, as many of his later friends can testify; nor, until death closed the scene, did it cease to influence his feelings and actions.

From school our late associate was removed to serve an apprenticeship with a medical practitioner at Bath, where he was also for some time a pupil of Mr. Norman, then surgeon to the Casualty Hospital. At the conclusion of his pupilage in Bath he went to Bristol, and became assistant to the late Mr. J. R. Hill, who, during his early career in practice, was associated with the late Mr. Baynton, the inventor of the plan of support and compression by plaister and bandage, which has furnished us with a most valuable remedy in the treatment of many forms of disease. Whilst with Mr. Hill, with whom a firm and lasting friendship, terminated only by the death of Mr. Hill, was established, Mr. Mayor was a pupil at the Bristol Medical School and Infirmary, and afterwards at the Middlesex Hospital under Sir Charles Bell.

Upon the death of Mr. Hill in 1835, Mr. Mayor succeeded to his practice, and not long afterwards obtained, upon the formation of the Clifton Union, the appointment of medical officer to the workhouse, and to the No. 2 district of that union; of both these offices Mr. Mayor performed the duties with diligence and fidelity. In him the sick poor found a careful and skilful adviser; but he had no sympathy with the malingerers, with that large class of idle and lazy applicants for relief who sham illness in order to escape work, and would rather sponge upon the ratepayers than earn their bread by honest industry. Among this class he had therefore many enemies, who often impose upon weak guardians, too ready to listen to such grumblers; and thus was raised a cabal against a medical officer whose zeal and discrimination ought rather to have received commendation at the hands of those whose duty it was to dispense the public money with discretion as well as mercy. Many, however, of those who censured Mr. Mayor have lived to see their error, if not to acknowledge it. In addition to these somewhat arduous duties, Mr. Mayor had the appointment of subregistrar of the district, and this involved an amount of labour which those only can estimate who have seen the volumes of writing which registration in so large and populous a district requires. Mr. Mayor's books were however written with a clearness and accuracy which were remarkable; indeed, much as he undertook in the way of public duties, he undertook nothing which he did not conscientiouly, and we may say emphatically, *most* efficiently perform.

In addition to the labours already mentioned, we have to record other appointments of an important character, and demanding untiring energy and punctuality in their discharge. He was appointed, soon after the establishment of the Bristol cotton works, medical attendant of the operatives of that concern. He was also examining surgeon under the Factory Act for the Bristol district. With regard to all these appointments, it is almost superfluous to add that their duties were discharged with the most scrupulous attention and untiring zeal; what he

could not do single-handed, he was enabled fully to perform by the aid of able assistants, of whom several are now living and engaged in active practice, and are men eminent and highly respected in the profession. It would be unjust to the fair fame of our old colleague to pass over his exertions during the epidemics which visited our neighbourhood during his public career. During the prevalence of influenza and of cholera in the city of Bristol Mr. Mayor's exertions were indefatigable, and his powers were severely taxed; but in dealing with both these trying outbreaks he never flinched from his duties. Where the thickest of the pestilence raged, there he was, prepared to do all that human forethought and the exertion of professional skill could accomplish to meet the evil and to mitigate its attendant calamities. In these matters he was never taken by surprise; and where, as was generally the case, he was assisted by the boards for which he was working, all that human care and philanthropy could do to relieve the afflicted and arrest the progress of disease was promptly and energetically effected.

All these labours and exertions did however tell upon his health and strength; and although a vigorous constitution and a powerful mind carried him through all difficulties and surmounted all obstacles, his friends saw that his powers were severely tried, and that the vigour of his frame was shaken. He however seemed insensible to the warnings either of nature or his friends, and went forward still labouring in his many occupations, determined at all hazards to do his duty. Mr. Mayor retired from the attendance upon the inmates of the workhouse in 1862, but continued to be the medical officer of the No. 2 district, in which, during the autumn of 1865, there was an outbreak of fever, and he went from house to house in the worst purlieus of the locality in which it was raging. Often wearied and weak—reduced by toil, anxiety, and worry—still he exposed himself in the fever-stricken quarters, doing his best for the sick and suffering, until at last he was struck down himself, and went home to lie down and die. A few days, a period of time scarcely more than a week, saw him on his return from his last professional visitations, and on his bed a corpse.

There is no doubt that the public duties in which Mr. Mayor was so actively engaged interfered with his private practice, and prevented him from extending it as he might otherwise have done. He had nevertheless many patients, who valued him highly, and appreciated both his professional skill and kindness of heart, and it may not be out of place here again to remark upon this bright and genial feature in his disposition, which was conspicuous even from his boyish days until its final extinction by the cold hand of death. He was always ready to exert himself to do a kindness for a fellow-creature, and his friends always found in him a judicious and disinterested adviser. As a man of business he was particularly accurate and correct, scrupulously honourable and inflexibly just.

We may indeed sum up our report of our old colleague by saying, that whether in the fulfilment of his professional duties, or other public offices; in the performance of acts of kindness for friends, or deeds of mercy for the afflicted, he ever acted under the glorious motto—"England expects every man to do his duty;" and he may be numbered among that noble army of martyrs in our profession who have yielded up their lives rather than shrink from any danger which crossed their path of duty.

(Theodore Davis.)

William Hutchins of Keynsham was the eldest son of a Bristol merchant, and was one of a large family. He was articled in 1819 to a well-known and valued member of our Branch, Mr. Farnham Flower of Chilcompton, with whom he lived for five years, and up to the time of his death enjoyed his confidence and respect, and had many opportunities of obtaining that practical knowledge of the profession that so distinguishes many of our country surgeons. He then went to St. Bartholomew's, and in the year 1826 commenced practice at Keynsham, where he remained till his death in March 1866—a period of forty years. He married Miss Palmer of Willsbridge, whose father and grandfather had practised in the same house where he died. When the medical arrangements of the Poor Law were altered in 1838, he was appointed medical officer to the Keynsham Union Workhouse, which post he filled for twenty-eight years, to the entire satisfaction of the guardians, who placed the greatest confidence in his judgment and ability.

He had a very fair country practice, to which he attended zealously and faithfully, and by his kindness, good sense, and skill had attained the confidence of an extensive circle of friends and patients, who universally respected him, and by whom is death is felt as a great loss not easily to be replaced.

He has left a widow and three children to deplore his death.

(G. H. Hutchins.)

Henry Joseph Macey was born at Congresbury Feb. 17, 1805; was educated at Rev. J. Smith's, Shepton Mallet; after which he commenced his medical education under the care of Mr. Henderson of Bristol in 1820; and in October 1825 he went to Guy's Hospital, where he was noted for his diligence, especially in anatomical study. He became dresser in 1827-28, and passed the Hall May 18, 1826, and the College May 2nd, 1828. He entered into partnership the same year with Mr. Bisdee of Westown, and continued in practice there for thirty-seven years.

Some three years since he had diabetic symptoms associated with cardiac distress, which gave cause for anxiety, and much interfered with professional duty. In March 1865 he was entirely laid aside with cardiac asthma and general prostration of power, and died at his son's residence at Gosport, June 9th, 1865, aged sixty.

He was an enthusiast in his profession to the last, and eminently qualified for the large sphere of practice he occupied. Fertile in the resources of his art, and with singular tact in practically dealing with cases under his care, he belonged to that too numerous class of successful practitioners whom we have to mourn as having passed to their graves without leaving behind them a well digested record of an ample experience. He was a warm and steady friend, and always alive to the dignity and honour of the noble profession of which he was a member.

(S. B. Cowan.)

Mr. George Keddell was born at Falmouth in January 1807, and was apprenticed to his brother, Mr. John Keddell, of Sheerness, who survives him. After having "walked" St. Thomas's Hospital, and attended the usual course of lectures given at that school, he became a M.R.C.S. in 1827, when he was just twenty-one years of age; indeed, some short time before, as he petitioned the court to be allowed to "come up", in consequence if his having a prospect of getting some engagement as an assistant. He was, I believe, an assistant at East Grinstead, in Sussex, whence he removed to Keynsham in 18—. At the expiration of the first year, his receipts were only £40; but by diligence and perseverance, combined with good sound common sense and professional knowledge, he realised during the last year in which he practised in that place upwards of £900.

In consequence of his wife's state of health, and by the advice of Dr. Wallis, he removed into Bristol, and disposed of his practice to Dr. Vaughan. Living at Keynsham at the time that the tunnels between Bristol and that village were being made, he frequently was sent for to accidents, and was afterwards appointed by the Great Western Railway Company as one of their medical staff. After his removal to Bristol, he had almost to commence practice *de novo*; but he had "borne the yoke in his youth", and therefore, beating out a practice at the age of 42, was not attended with those misgivings which one might have expected. During the time of the cholera, in 1849(?), he was one of the medical men who volunteered his services in the Bedminster District, and night and day he devoted himself to alleviate the sufferings of those attacked with this fearful malady.

About 1851 or 1852, he removed from his residence in Cumberland Road to Park Street, and he then established a practice of £600 or £700 *per annum*. He resigned the surgeoncy of the Great Western Railway some five years ago. With great shrewdness and tact, and a thorough knowledge of human nature, he possessed a singularly benevolent disposition, and though frequently cramped in his means, he hesitated not to alleviate the wants of his poorer patients by pecuniary assistance. He was remarkably intelligent and quick sighted; and in the diagnosis of disease was specially gifted. Having been thrown upon his own resources for many years in a country practice, where professional rivalry is more noticeable than in town practice, he was seldom at fault; but whenever he was doubtful as to the character of symptoms, he did not hesitate to call in the aid of those whom he deemed qualified to clear up a difficulty.

My acquaintance with him commenced about fourteen years ago; and during the whole of that period, up to the evening before his death, we were almost daily thrown together, and I have reason to express my deep sense of obligation to him for many practical hints in the treatment of disease and my warm appreciation of his character as a professional man and a Christian. He was very ready as a speaker, and had a peculiarly happy method of expressing himself whether in public or private. He always deferred to the opinions of others when he himself was in doubt; and, though he gave good reasons for differing, he never allowed his own views to have more weight than those of his professional brother in the presence of his patient.

His last illness was brought on by a severe cold caught by leaving off his greatcoat during the spring of 1865. He had some very severe paroxysms of apnœa during the summer, and latent disease of the heart manifested itself in a more definite form about July and August. He consulted Dr. Symonds by my advice; and the moment he saw him he gave a very unfavourable prognosis. His real love of his profession was such that he saw patients in his bedroom until within a few days of his death, and one of his last professional acts was to examine a man for life-assurance. I have not heard but one expression of regret at his loss from his patients, all of whom entertain for him the profoundest respect and veneration. I have lost in him a sincere friend and counsellor. His age was 58. He has left a widow and three daughters.

There is another part of Mr. Keddell's career which should not be passed over without notice—it is his character as a Christian man. In addition to his professional duties, he devoted himself to the work of various religious societies in Bristol; and the one in which he took the warmest interest was that founded for the evangelisation of the great continent of South America. The obituary notice published by that Society speaks in the highest terms of him as a devout and happy Christian, of warm and loving temperament, who on all occasions, whether in public or private, threw his whole energy into the work in which he was engaged; and whether in visiting the sick or in the social circle, he ever testified what spirit he was of. His brother describes him as having ever been a dutiful and loving son and a truly kind and affectionate brother. He was truly a good man and a sincere Christian.

(Robert T. H. Bartley, M.D.)

Reviews and Notices.

The Toxicologist's Guide; a New Manual on Poisons, giving the best Methods of Manipulation to be pursued for their Detection (*Post Mortem* or otherwise). By John Horsley, F.C.S., Analytical Chemist, Cheltenham. Illustrated by Coloured and other Diagrams. Pp. 73. London: 1866.

This book is not, as some might suppose from its title, a treatise on the symptoms, pathological appearances, etc., produced by poisons; but a code of directions, evidently drawn up with much care and founded on practical knowledge, for the detection of the various mineral and vegetable poisons. The instructions given by Mr. Horsley are clear and concise, and appear likely to be useful. The book contains several representations of the forms of crystals of the salts of the alkaloids, and a plate of the coloured reactions of chemical tests, to which reference is made by number in the course of the work.

The Forms, Complications, Causes, and Treatment of Bronchitis. By James Copland, M.D., F.R.S., F.R.C.P., etc. New Edition. Pp. 165. London: 1866.

The groundwork of this little treatise appears to be the article Bronchitis, in Dr. Copland's well known *Dictionary of Medicine*. The article referred to appeared in 1832; and since that time the author has had uninterrupted opportunities of observing the disease in its various forms, and of testing the efficacy of various modes of treatment—of which opportunities, as his well known industry would lead one to suppose, he has assiduously availed himself. We do not find much reference to any of the more modern authorities; the author has evidently preferred to give the results of his matured experience. Men who, having passed a long life in the practice of medicine, deserve well of their profession when, like Dr. Copland, they give their brethren the benefit of their accumulated experience and study in the treatment of disease in general or of any one form.

The Principal Baths of France; considered with Reference to their Remedial Efficacy in Chronic Disease. By Edwin Lee, M.D., Corresponding Member of the Medical Association of Prussia, etc. Fourth Edition; re-written with Additions. Pp. 154. London: 1866.

It is scarcely necessary, we think, to do more than call the attention of our readers to the issue of a new edition of one of the works of that indefatigable writer on foreign bathing-places, Dr. Edwin Lee.

British Medical Journal.

SATURDAY, AUGUST 4TH, 1866.

DEATH OF SIR CHARLES HASTINGS.

THE venerated Founder of the British Medical Association is no more. He died after a long illness, on Monday last, the 30th ult., in the 73rd year of his age. This melancholy announcement will, we feel assured, be received with the deepest regret by every member of the Association; especially by those old friends of Sir Charles Hastings who have with him watched over the development of the great project for the promotion of the good of their profession which he conceived more than thirty years ago, and in whom friendship and esteem have, through long and repeated intercourse, ripened into veneration and affection. All these men will, when they hear of the departure of their much valued friend, ask themselves—

"Quis desiderio sit pudor aut modus
Tam cari capitis?"

We hope to receive, from the hands of one more competent than ourselves for the task, such a biographical sketch of Sir Charles Hastings as shall do full justice to the excellence of his character, and to those unremitting labours of his to which his brethren in the profession are so much indebted. In the meantime, however, while recording our sorrow at his loss, we may briefly touch on some of those points in his career which have made his name known and honoured, and himself esteemed and beloved.

Sir Charles Hastings was the son of a clergyman of the Church of England, who died at an age exceeding 100, a very few years ago. He was born at Ludlow, in Shropshire, in January 1794. At the age of 16, he commenced his medical education under the tuition of Mr. Jukes and Mr. Watson, then in practice at Stourport. In 1812, when but 18 years of age, he was elected, after a very close contest, house-surgeon of the Worcester Infirmary. In 1815 he commenced his studies at the University of Edinburgh, where he graduated in 1818. While a student in that school, he distinguished himself highly as a physiological experimentalist and painstaking observer. It is a noteworthy fact, that at that time he was the only student in the University who applied the microscope to physiological and pathological investigation. His researches—for which, indeed, he had already gained a reputation before going to Edinburgh—on the functions of the nerves, and on the blood-vessels and inflammation, were at the time declared by competent judges to have added greatly to the existing store of knowledge.

Having settled in practice at Worcester in 1818, he was in the same year elected physician to the Infirmary of that place, and remained in office until 1862, when he resigned, after a connection of half a century with the institution.

Soon after he had become settled in practice, Dr. Hastings was forcibly struck with the evils arising from the isolation of the provincial practitioners from each other, and from the want of any organisation to represent provincial medical science. He did not content himself with merely observing and lamenting the existence of this evil, but applied himself to the means of remedying it. Accordingly, in 1828, he, aided by several friends, established the *Midland Medical and Surgical Reporter*, a periodical which was published until May 1832, when, in the last number, appeared an announcement that the work would be closed, and that a "wish had been warmly expressed and widely circulated, that the members of the profession should unite themselves into an association, friendly and scientific." Such was the origin of the Provincial Medical and Surgical Association, of which the first meeting was held at the Worcester Infirmary on July 19th, 1832, and was attended by a large number of eminent provincial practitioners, under the presidency of the venerable Dr. Johnstone of Birmingham. Dr. Hastings on that occasion delivered an address, which was published in the first volume of the *Transactions* of the Association. In it he sketched the objects which it was proposed that the Association should carry out, and the directions in which it might usefully labour for the promotion of medical science.

"I congratulate you," he said, "that the day for forming a Provincial Medical and Surgical Association has at length arrived; an Association which, I trust, is destined to exercise no inconsiderable influence on the future progress of medical science. Feeling, as I have long done, the disadvantages under which the prosecutors of medicine resident in English provincial towns have laboured, in consequence of the want of any system of cooperation, by which their separate exertions for the promotion of our knowledge of the healing art may be so united as to render them more influential and more extensively useful, I cannot but hail this day—*hunc lætum medicis diem*—as one of peculiar promise, as one likely to lead to the most important results."

Again, in concluding his remarks, he said:

"You will, at any rate, admit that the objects I have hastily introduced to the notice of the meeting are worthy of deep meditation. The contemplation of them appears to me, indeed, to open to us a vast and unbounded prospect, and to beget high and lofty thoughts of our future proceedings. I may be sanguine in my expectations; but I cannot help indulging the gratifying, the cheering, the delightful thought that, if we engage in this undertaking, as we are bound to do by the obligations which our profession imposes on us, with the zeal and alacrity of men anxious for the good of mankind, the Association must be of some use."

That Dr. Hastings' appreciation of the necessity of

such an Association was just, its subsequent progress has proved—a progress which, indeed, we believe to have surpassed all that he or his most sanguine supporters expected. Even in 1849, when, as President for the year, he delivered an address, he said, referring to the expectations which he had formed in 1832:

"These glowing anticipations have been fully realised by the result of the last seventeen years; or rather I should say that the success which has attended our efforts to combine and consolidate the energies of the provincial profession has surpassed the expectations then formed of the probable progress of the Association."

These words were spoken by Sir Charles Hastings seventeen years ago—just midway in the period of the existence of the Association; and still more must his expectations have been surpassed by the progress and enlargement of scope which it has since undergone. The Association, as first designed by him, appears to have been formed for scientific purposes; but it was not many years from its foundation before a political element was introduced—and great has been the influence which it has exerted, and perhaps even greater is that which it is likely to exert, in this direction. The Association was, moreover, founded by him for the express benefit of the provincial practitioners; but, as time passed on, it became more and more evident that the restriction of name was a restriction of its utility; and, after much deliberation and warm discussion, it became the British Medical Association. This change of name, as well as the previous removal of the JOURNAL from its place of publication in the country to London, was at first regarded with but little favour by Sir Charles Hastings, who, with other respected and influential members, was of opinion that the Association ought to remain, as it was originally, provincial. But, no sooner had it become apparent that the majority of the members regarded the proposed changes as advisable, if not indeed necessary, for carrying out that great idea of uniting the profession which had throughout been the great aim of Sir Charles Hastings, than he gracefully withdrew all appearance of opposition on his part; and no one, in his position and with his influence, could have more heartily and honestly cooperated in carrying on the affairs of the Association under the new *régime*, than he has done up to the time of his death.

Sir Charles Hastings was for many years the Secretary of the Association. He held the office until 1843; and, on his retirement was appointed perpetual President of the Council, and Treasurer. In 1856, when the name of the Association was changed to that of British, and a new code of laws was agreed on, the offices of President of Council and Treasurer were again unanimously conferred on him for life; provision being made, that the tenure of office by his successors should be triennial. At the end of three years—in 1859—he most honourably placed his Presidency and Treasurership at the disposal of the Association—with the result, however, of receiving an unanimous expression of that esteem and confidence which the members had long learned to feel towards him. Since that period, he continued to discharge his duties with unremitting assiduity and conscientiousness until within the last few months; when his failing health induced him to forward his resignation to the Committee of Council. That body, a few weeks ago, accepted his resignation of the office of Treasurer; but expressed a hope—evidently not expecting that his death was so near at hand—that he might yet be able to discharge the less onerous duties of President of Council. Who his successors in the two offices will be, we do not know—the Association will have to decide at the forthcoming meeting. But of this we are certain: that, while there are not a few men in the Association who would discharge the duties of the offices with ability and honesty, there are none who can surpass—if indeed any can equal—our departed friend in honesty, in earnestness, or in the possession of those qualities of mind which at once cause one to be confided in as a man of business and beloved and followed as a guide and counsellor.

From the foundation of the Association, Sir Charles Hastings has been present at every anniversary meeting, as well as at the occasional special meetings which have taken place; and, we believe, up to the present year he was never absent from his place in the Council. The meeting of 1866 will be long memorable as the first in which his familiar face was no more seen.

With these remarks we conclude. We have written rather for the purpose of placing on record our feelings of veneration and affection towards Sir Charles Hastings, than of entering into the details of that life which he so earnestly and effectively endeavoured to render useful to his profession. What he did in his day for the promotion of medical science; how, in the place where his life was passed, he laboured in the promotion of scientific knowledge among his fellow-citizens and neighbours; how he received well merited honours at the hands of his brethren and of Royalty, we must leave to another to describe.

Sir Charles Hastings is dead, as men speak of death. But yet he will live in the memory of many, and in that noble work which he originated. We, his survivors, can offer no more fitting tribute of our affection towards him and respect for his memory, than by continuing to guard and foster the tree which he planted, and the growth of which was the object of his constant care.

RAILWAY ARRANGEMENTS FOR THE ANNUAL MEETING.

THROUGH the kind offices of Dr. Mead of Newmarket, the managers of the Great Western, London and North Western, and Midland Railway Companies, have generously consented to extend their ordinary return-tickets from the 6th to the 11th of August (both days inclusive) to members of the British Medical Association attending the meeting at Chester.

Each member of the Association proceeding to Chester must present at the Station where he takes his ticket, the slip of paper enclosed in the present number of the JOURNAL, *with his name and address written thereon.*

THE CHESTER MEETING.

LAST year, the British Medical Association visited a place, of which it may be easily supposed that the "oldest inhabitant" can remember its rise from a village with a population of 300 to a town with a population of 20,000. This year, the members visit a city of antiquarian celebrity, whose history dates back to the Roman occupation of Britain.

Like the Leamington meeting in 1865, the Chester meeting will extend over four days; and there seems not the least doubt that, as was the case last year, the time will be fully occupied. Already, the number of papers to be read, of which notice has been given to the Secretary, exceeds that which appeared in the programme of 1865.

The first meeting of the members will take place at eight o'clock in the evening of August 7th; and the principal business will be the delivery of an address by the President, Dr. Waters; the reading and discussion of the Council's Report; and the presentation of a Report from the Board of Directors of the Medical Provident Society.

It will be the duty of the Association on one of the days of meeting, to elect a President of the Council and a Treasurer, in the room of the late Sir Charles Hastings. The members will have observed, from a recent resolution of the Committee of Council, that the venerated founder of the Association felt himself compelled, by the state of his health, to resign the office of Treasurer, which was conferred on him for life several years ago, and to the discharge of the duties of which he has applied himself with untiring earnestness and devotion to the welfare of the Association. According to the law of the Association passed in 1856, the Treasurership and Presidency of the Council were conferred on Sir Charles Hastings for life; but his successors will be appointed for terms of three years.

Among the notices of motion placed on the programme is one by our zealous associate, Dr. Mackesy of Waterford, who will bring forward a motion regarding the representation of the medical profession in Parliament. From the terms of his notice, it seems that he advocates the direct representation of the profession in its collective capacity. Whether the attainment of this object be one to which the Association should direct its energies, is a question regarding which there may be much diversity of opinion. We have no doubt that it will be fully and fairly discussed at the meeting; and therefore, while fully recognising the general principle that our profession, in proportion to others, falls very far short of its fair share of representation in the general council of the kingdom, we refrain from expressing any opinion as to the way in which a more just and adequate amount of representation might be obtained.

The Association has again had the good fortune to secure, as the deliverers of the Addresses in Medicine and Surgery, two of the leaders of the profession—stars of the first magnitude in their respective spheres—Professor Bennett of Edinburgh and Mr. Bowman of London. Discussions on important subjects in scientific and state medicine will also be opened, by Dr. Sibson and Mr. Holmes on the Influence of Hospitals on Disease and Mortality; by Dr. Stewart on the Expectant Treatment in Acute Disease; by Mr. Alfred Baker of Birmingham on the Origin of Pyæmia; and by Professor Christison of Edinburgh on the Register of Deaths in Scotland. Last year, one of the subjects of discussion was that of medical witnesses in courts of law. It was most ably brought forward by Dr. Symonds of Clifton; and a committee was appointed to take the question into consideration and to report thereon. The report of the Committee will be presented at the afternoon meeting on Thursday.

From this brief sketch, and the programme published in another page, there is every reason to believe that the Chester meeting will be a very satisfactory one. As far as can be judged, a greater proportion of the time than is sometimes the case will be enabled to be devoted to the consideration of subjects of direct scientific and practical interest.

THE POOR-LAW AND THE LONDON PAUPER.

THE chief difficulties under which the Poor-law Board labours at the present moment are connected with the defective treatment of sick paupers in the metropolitan workhouse infirmaries. The reports both of Mr. Farnall and of Dr. E. Smith admit that great and immediate reforms are required in the treatment of sick metropolitan paupers; but in one main particular, viz., as to the method of cure, they differ.

Many of the evils connected with the treatment of the sick are capable of immediate remedy; those, for example, which result from the absence of proper nursing, medical attendance, medical inspection, diet, etc. But the main difficulty, overcrowding, is not so readily disposed of, and yet it is one which demands instant attention.

It is admitted that many of the metropolitan workhouse infirmaries are, as buildings, utterly unfit for their purposes; that many of them require reconstruction; that few, if any of them, can afford the space—viz., 1000 cubic feet of space—which is held by modern science to be the minimum required for each sick person; that in most cases the sites on which the workhouses at present stand are incapable of affording such space; and that to acquire the necessary space *in situ* would require an enormous outlay, if it could be had at all. It is also asserted, that some few of the parishes are too poor to provide duly for their sick paupers.

To meet this fatal evil of overcrowding, two schemes are proposed by the Poor-law Inspectors.

Mr. Farnall recommends the adoption of the scheme of the Association for the Improvement of Metropolitan Workhouse Infirmaries; viz., the erection of six 1000-bedded pauper hospitals in the metropolis, and the entire separation of the sick from the healthy pauper.

Dr. E. Smith recommends the reconstruction and expansion *in situ*, where necessary, of the present workhouses, and the maintenance in them, as at present, of the healthy and the sick paupers.

We venture to think that both these proposals are objectionable, not to say impracticable. A modification of them would probably meet more satisfactorily the difficulties of the case.

The construction in London of six 1000-bedded hospitals for the reception of sick poor of the metropolis would in our opinion be a great error: for the following reasons.

The massing together of large bodies of the sick is always and under all circumstances, and especially in crowded cities, a great evil; and is only to be justified on the plea of necessity.

It is difficult, even with the most perfect systems of ventilation, to keep metropolitan hospitals (and the largest of these in London does not hold many more than 500 patients) free from diseases especially incidental to hospitals, such as erysipelas, gangrene, etc.

The only grounds, indeed, which can be adduced in justification of the existence of large hospitals in a city are, that they are schools for the advancement of medical and surgical knowledge, and for the instruction of students of medicine; and that in them the sick poor obtain the benefits of the highest medical and surgical skill.

So far as the wants of the sick are concerned, all that is required of hospitals in a city is, that they afford convenient, sufficient, and instant accommodation for accidents and urgent (*i.e.*, acute) diseases.*

But accidents and acute diseases form but a comparatively small per centage of the cases at any time to be found in metropolitan hospitals. The very large majority are composed of chronic and other diseases which could find their way equally well into suburban as into metropolitan hospitals, and which would there (in the open country) be more economically provided for, and doubtless more rapidly cured. It is almost superfluous to say that, so far as the interests of this class of patients are concerned, it is infinitely more to their benefit that they should be treated in an atmosphere where plants will grow and thrive, where the sun's rays can penetrate, and the winds play freely, than in the comparatively obscure and tainted atmosphere of metropolitan hospitals. Many of the very diseases in question are actually provoked, or encouraged, by the influence of defective air and light. No supposed superior skill obtained in city hospitals can compensate for the defective condition of those two prime necessaries, air and light.

But none of the reasons here mentioned which explain, if they do not justify, the existence of large metropolitan hospitals, can apply to large metropolitan workhouse infirmaries, as proposed by Mr. Farnall. They would not be schools of medicine or surgery; they would not be erected for the reception of accidents and acute cases, such as are at present accommodated in our ordinary hospitals; nor would the sick paupers in them enjoy the supposed advantage of the services of the highest medical and surgical skill, such as is enjoyed by the sick in our ordinary hospitals.

Moreover, the reasons given above to show that a very large percentage of our present hospital patients might be treated more effectively and economically in suburban than in London hospitals, apply with even greater force to the case of sick paupers. Many of these are permanently sick, and are sufferers from chronic diseases of a kind which require, very many of them, nursing rather than any special medical treatment.

Other objections might be urged to the thousand-bedded hospital scheme: the enormous outlay attending their erection in the metropolis; the great expenditure requisite for their maintenance on the

* St. Thomas's Hospital may be used to exemplify the case as here stated. It is to be rebuilt on a narrow slip of land, half of which is reclaimed by piles from the river. Its construction will cost, we hear, £350,000; and it will contain upwards of 600 beds. No one can suppose for a moment that the accidents and acute diseases of the district require accommodation in such a place. A provision in the suburban country for 450 of these 600 beds would have been an enormous saving in money, and an inestimable boon to the sick who will ever hereafter occupy the building on the Thames. Medical and surgical science alone can explain or justify the erection of such a magnificent pile of buildings on such a spot, and at so enormous an outlay.

scale and after the manner proposed; and the difficulty of utilising them—the difficulty attending the transfer and re-transfer of pauper patients from the workhouses to the hospital.

There is also a contingency, worthy of very serious consideration, which might, or rather would almost certainly, result from the erection of these hospitals. They might lead to the reduction or even suppression of some of our present hospitals which are supported by voluntary contributions. Subscribers to hospitals might reasonably argue: These magnificent receptacles for the sick poor are paid for by us out of the rates: why, then, should we also subscribe to private hospitals? In this way, we would suggest, the erection of such hospitals would cause a large amount of work at present done by private charity to be thrown on the poor-rates.

Dr. E. Smith's proposal, so far as it advises a needful reconstruction, etc., of the present workhouse infirmaries, is good; but, as a complete provision for the wants of metropolitan sick paupers, it stands condemned in the opinion of the profession, in that it gives to each sick pauper only 500 cubic feet of air. A scheme which is opposed to the sense of the whole medical profession will, we conclude, scarcely receive the sanction of the community.

In a modification, however, of the proposals of Mr. Farnall and of Dr. E. Smith, may, in our opinion, be found a remedy simple and complete, one dictated both by economy and philanthropy. To meet the difficulty, which manifestly arises from overcrowding and want of space, we would recommend the *establishment in suburban districts of refuges for the permanent sick and for the permanent pauper; and the retention of the present workhouses, properly reconstructed (when required) for the purposes of the casual or temporary paupers, sick and healthy.*

It must be remembered that in all workhouses there are a large number of persons, for the most part aged and infirm, who, though not sick, are for sufficient reasons permanent dwellers in workhouses. Moreover, there are in workhouse infirmaries many persons suffering from incurable diseases, from cancer, consumption, scrofula, and the like, who are also permanent dwellers in workhouses. And, again, there are in workhouses many persons, especially aged paupers, who suffer at times from chronic diseases, and are sick, on and off, more or less permanently, and who are also permanent dwellers in workhouses. Now, the removal into suburban refuges of these paupers—*i. e.*, of the incurable and permanently sick pauper, of the permanently ailing pauper, and of the aged and infirm pauper—would fulfil two most desirable ends. It would relieve the present overcrowded workhouses, so as to afford abundant space for the temporary and casual pauper, sick and healthy; and space enough to give each sick pauper 1000 cubic feet of air-space. It would also be an act of the highest mercy; it would be the removal into clear air and bright light of those who are otherwise doomed to live and die in what must ever be to a great extent the dismal wards of a workhouse infirmary.

Such a scheme would, of course, render necessary an equalisation of the metropolitan poor-rates.

THE CHOLERA.

The journals announce that injection of blood has been tried in cholera-collapse at the London Hospital. The *Medical Times*, however, states very properly that "to inject a patient nearly *in articulo mortis* is scarcely likely to lead to any result." The trial, indeed, from the account given, might just as well have been made on a corpse, so far as it can be taken as any test of the value of hot injections of defibrinated sheep's blood. It is, indeed, to be regretted that such trials are made, as they are sure to be quoted, and as against the use of such injections. The dread of the use of this remedy is really surprising, and especially at this juncture, when we find medical men forced now again, as heretofore, to play the changes with remedies whose inefficacy has been again and again demonstrated *hic et ubique.* At all events, it is sincerely to be hoped that the possible remedy will not be condemned as useless merely because it is employed, and only half employed, in patients who are already as good as dead.

At the present moment, the hospitals of London are besieged with possessors of infallible cures for the cholera. We should recommend these ambitious credulities to address themselves to the *Times*, or else to the French Academy of Sciences, which strangely enough has a reporter to report to them as to the value of all secret remedies addressed to it. Surely the Academy might find some more worthy occupation.

Mr. Shaw (*Medical Times*) gives a very well marked case of cholera perseveringly and successfully treated with castor-oil. Iced water, beef-tea, and tea, were given as drinks; but neither opium nor alcohol, although the purging was copious and the depression very great.

Messrs. Griffin and Bencraft of Southampton have given a full trial to Dr. Chapman's ice-bag treatment of cholera; and they conclude, as the result, to abandon it. Curiously enough, Dr. Chapman, in the very *Medical Times* which says this, quotes the practice of those gentlemen to prove the value of his method. Dr. Cheeseman sticks to calomel as his remedy; Dr. Aldridge believes in arsenic; Dr. Wiblin tries the hypodermic injection of camphor and turpentine, and of bichloride of mercury and turpentine.

The death from cholera of M. Boussard, an *interne*

at Hôpital St. Antoine, is announced. He was doing duty in the cholera-wards of that hospital when he was attacked.

The nine *internes* sent from Paris to Amiens, to aid in treating cholera patients, have happily hitherto escaped the epidemic.

Dr. G. Johnson has republished, in a pamphlet form, a paper on the Treatment of Cholera which lately appeared in these pages. He has added to it the summary of his views on cholera which was given in the *Saturday Review*. He regards this exposition of his theory as very correct and lucid. He tells us that it was written by a physician of the greatest eminence. We have already called attention to the summary in question, and again recommend its perusal, especially to our younger brethren, if only as a model of writing, which they may well strive to imitate. There can, we suppose, be little doubt as to its author. Such composition is not met with every day in medical literature; and few are they of our profession who can tell their tale thus logically, and in language at once simple, forcible, and most clear. As the giant is known by his foot, *ex pede Herculem*, so is this master by his pen. Dr. Johnson's pamphlet appears opportunely. His directions for treatment will, we apprehend, in the main meet with general approval. Many of his critics, it is only fair to say, have condemned him as the uncompromising promoter of one particular method of treatment. This pamphlet will show that, in doing so, they have done him an injustice. Dr. Johnson doubtless feels what every scientific man of medicine feels—that there is no uniform treatment for any disease. It is not, for example, because a man says that *some* cases of cholera-collapse improve under bleeding, that therefore he is to be accused of recommending bleeding in *all* cases. Dr. Johnson's treatment is, in the main, that recommended by the College of Physicians. In favour of this theory, may we not ask, Do the results of the opium and astringent and brandy treatment, in so far as they have been used at the London Hospital, recommend this treatment? Can any one conscientiously say that an eliminative treatment would have produced worse results than those at present recorded? Dr. Johnson seems to us to say simply this: Do not give those medicines which will either paralyse the movements or interfere with the secretive action of the bowels. Do not attempt to restrain the separation of poisonous matters from the blood, nor to keep them in the bowels when separated.

There was a great opening for *Punch's* "Essence of Parliament" in the debates on the Public Health Bill on the 30th ult. The science of our legislators shone out vigorously.

Mr. Ayrton had seen a scientific treatise attributing to coal-smoke a healthful influence; and the great freedom of Birmingham from cholera on a former occasion was stated to be owing to the coal-smoke. Why, therefore, should Parliament try to put down smoke?—Sir R. Peel believed that the absence of cholera from Birmingham arose from the superior drainage of that town.—Mr. Adderley suggested that in Bilston and other parts of the black country, where there was no deficiency of smoke, the ravages of cholera were more extensive than in any other part of the kingdom. Sir J. Jervoise thought the word "infection" ought to be defined. The medical officer, before surveying a house supposed to be infected, was recommended by the Privy Council to have a dress consisting of "strong water-tight boots, reaching to the knees, and greased all over; a waterproof coat, closely buttoned up to the neck and at the wrists; and the head covered with a cap which takes the hair well in." He hoped the medical officer would be clothed in this safety dress before he embarked in the dreadful danger of visiting these nuisances, especially as he had to report to the nuisance-authority; or, going into these pesthouses, he would himself come out pestiferous. The Emperor of the French had been visiting the cholera hospitals in Paris. There was also the experiment of a young student, named Jerard, who, to show that cholera was not infectious, took the perspiration off the forehead of a dying man and the fur off his tongue, and put them in his own mouth. A Commission on the yellow fever at Bermuda reported that it was not infectious.—Mr. Bruce would not argue whether cholera was or was not infectious. He presumed it would not be denied that there were diseases which were infectious.—Mr. Henley said the House ought to be informed what disinfecting meant.—Mr. Bruce replied, that the process was well known at the hospitals.—Sir J. Jervoise observed that a work recently published stated that one of the methods employed made matters worse than they were before.—Mr. Henley asked what precautions were to be taken against spreading an infectious disorder.—Sir J. Jervoise referred to a statement of the medical officer of the Privy Council, to the effect that medical men were constantly conveying scarlet-fever to their own children; and that being so, it was plain that they did it without proper precaution and wilfully, and, consequently, ought to be convicted.—Mr. Bruce observed that there was no doubt of the truth of the remark of the hon. baronet; and even when medical men had changed their clothes and washed themselves after visiting a patient afflicted with an infectious disease, they had been the means of conveying that disease to others.—Sir J. Jervoise said that the country practitioner would have to take a whole wardrobe about the country with him.

Every one must remember the famous Broad Street pump. Dr. Snow traced to it the Golden Square cholera tragedy. All who drank of the poisoned well took cholera. An investigation has shown that many of the water-pumps in London yield water poisoned by sewage and other infiltrations. Many of the pumps have consequently been condemned. But the Broad Street murderer still remains. Dr. Lankester gave advice, and the handle of it was removed. But now that cholera and hot weather are upon us, the handle of the pump, by order of the wisdom of the Vestry of Bumbledom, has been replaced.

A LARGE and influential meeting of members of the profession was held on the 2nd instant, in Soho Square, for the purpose of taking the necessary preliminary steps towards raising a testimonial to Dr. Richardson, in accordance with the widely expressed feeling of the profession. James Paget, Esq., was called to the Chair. Amongst those present, we observed Drs. Sibson, Fuller, Aldis, Ogle, Carr, H. Day, Adam Martin, Davey, etc.; Messrs. Partridge, E. Wilson, Moore, Adams, Propert, H. Lee, Walker, Dunn, Lord, etc., and the Rev. Dr. Bell. The resolutions in favour of the movement were warmly supported, and all were carried unanimously. Mr. Paget pointed out that Dr. Richardson had spent many years in literary and scientific pursuits more useful to others than to himself; that in all his work he had been thoroughly unselfish. "Our profession," he said, "is preeminently unselfish, and the idea of patenting an invention useful to humanity abhorrent to it. Many of Dr. Richardson's inquiries might, if patented, have been productive of great wealth to him. His career is yet far from complete; and we can cheer him on by tokens of our general approval. It is not a mere testimonial, but a substantial assistance, that we give him. Let us, therefore, give him what he will use for the benefit of science. His last invention—the ether-spray—indicates that this is a time for doing so. We need not argue as to the discoverer. It is enough to say that those few who, like myself, previously used local anæsthesia, used it perhaps once a month, and now use it daily. No trivial gift this to humanity. So many are the smaller operations where chloroform was not given, in which pain was suffered, that we may perhaps now say that the sum of all this pain is equal to that which was relieved by choloroform in the larger operations. Let us give him, therefore, as an acknowledgment, the real advantage of a substantial testimonial."

PROFESSOR LONGMORE lately delivered, at the Royal United Service Institution, a very instructive lecture on the Geneva Convention of August 1864; giving also an account of the National Committees formed for aiding in ameliorating the condition of the sick and wounded of armies in time of war.

Mr. Paget (*Lancet*) describes a case of necrosis of the lower jaw resulting from the introduction of tobacco-oil into the hollow of a bad tooth. The man, some months before, had put the oil from his pipe into the tooth to relieve toothache. Great pain and violent inflammation followed thereupon, ending in death of bone. The sequestra were removed by Mr. Paget.

Dr. Sisson (*Lancet*) relates the case of a young lady, aged 16, who had been epileptic from her seventh year. She was clitoridectomised. For a few weeks after the operation, the fits became less numerous; they are now the same in number as before—viz., ten per week. The operation was, therefore, useless to the patient.

DR. SCHRÖTTER presented to the Medical Society of Vienna a man, 23 years old, in whom there was an obliteration or contraction of the aorta on a level with the ductus arteriosus. The defect was congenital; and as the symptoms were not as clear as usual, required careful diagnosis. The heart was deeply placed, and exhibited a commencing defect of the mitral valves. Scarcely any pulsation of the abdominal aorta was perceptible; and equally weak was that of the crural artery. No pulse was perceptible in the popliteal or pedal arteries. The dorsalis scapulæ, the superior and inferior intercostal, as well as the internal mammary by which the blood was conveyed into the descending aorta, were all largely developed, and pulsated and thrilled strongly. Towards the right outer border of the sternum, there was dulness and a distinct thrill, produced either by the internal mammary or the distended aorta, probably by the latter, as the second sound at this point was louder than that of the pulmonary artery. The patient is well nourished and sound in all other respects.

M. Kœberlé of Strasburg emulates our London uterine operators. He has lately practised the Cæsarean section in a case of double uterus in which the fœtus, seven months old, had been dead twenty-one months; performed partial excision of the uterus inverted by a fibrous tumour; and entire resection of the womb (through the abdominal walls) for an interstitial tumour—and, what is still more surprising, all three of the operations were successful.

The *Sardegna Med.* relates a case of transposed menstruation. A female, aged 27, the mother of three children, had suckled them for a long period. When she ceased suckling, there appeared a slight flow of blood from the nipples at each menstrual period, which lasted three or four days. By means of stimulants applied to the womb and the parts around, the normal menstrual discharge was re-established.

Dr. Tanturri (*Annali di Med. Bibl.*) recommends as food the blood of slaughtered animals, which is now wasted. Aversion to its use, he says, is simply a prejudice, and connected with the idea of ancient sacrifices, which formed the basis of worship in the olden days. The blood of the victim was then regarded as a homage to divinity; and its use as food was a sacrilege. It contains highly nutritive materials. Why, then, should it be wasted, and especially now when meat has become so expensive? Every day, he adds, we lose blood enough to feed thousands of people.

THE CHOLERA.

The Registrar-General's return for London for the week ending July 28th shews 2600 deaths, exceeding by 1213 the estimated number. The excess is caused entirely by 904 deaths by cholera and 349 by diarrhœa; aggregate 1253. The deaths by cholera in the last five weeks have been 6, 14, 32, 346, and 904; by diarrhœa, 67, 102, 150, 221, and 349. 309 of the 349 deaths from diarrhœa last week were children under 5 years of age. Of cholera, 179 children; 160 boys and girls of 5 and under 20 years; 455 men and women in the prime of life; and 110 people of ages above 60. The greater part of these deaths took place within the eastern side of London. The attack extends along the north side of the Thames, from the River Lea and the Isle of Dogs to the Tower of London. This is essentially the port of London. The canals and the basin are full of foul water. The East London Waterworks canal draws its supply from the river at Lea Bridge, and runs for a couple of miles by the side of the Hackney cut down to its other reservoirs north of Bow and near the Lea. The present cholera field derives its waters from these works. It is right to add that the water has hitherto borne a comparison with the other London waters in Dr. Frankland's analyses.

In Poplar alone 145, in Bow 188, people died last week, including Dr. Ansell, the meritorious health officer, and Mr. Ceeley, clerk to the Board of Works.

Several wards of the London Hospital are full of patients, many of them very young children; some dying, some well again and playing. The medical men have no rest, and, with the health officers, are nobly doing their duty—brave men ready to lay down their lives for their patients. The people themselves are most patient, most willing to help each other, the women always in front, and none shrinking danger. There is no desertion of children, husbands, wives, fathers, or mothers, from fear.

In the midst of this scene, says the Registrar-General, the authorities have been to some extent paralysed. The nuisance inspectors are not sufficiently numerous, neither are the medical officers. The administrative work has not been organised with sufficient promptitude, and is not carried out with sufficient energy.

At a meeting of the West Ham Board of Guardians, Dr. Vallance, the medical officer, said that there was a great peculiarity about the present attacks. People are suddenly taken in most instances with a pain over the region of the bowels. In an hour, cramp comes on; then a slight tremulousness; after that a little purging; they go black and red in collapse almost directly; there is little or no pain, but that apathy exhibited by people in sea-sickness; then collapse comes on, and they are frequently dead in six hours. (*Morning Advertiser*, August 1st, 1866.) It scarcely need be said that such attacks as are here described by Dr. Vallance are quite inconsistent with the theory that collapse is a result of loss of liquid by vomiting and purging.

In Liverpool, of the 440 deaths returned last week, 87 were referred to cholera, against 45 fatal cases in the previous week. The 45 deaths in Southampton, showing an annual rate of mortality equal to 43 per 1000, included 24 from cholera, showing a decrease of 5 upon those of the previous week. The following deaths were certified as from cholera in the remaining large towns of England furnishing weekly returns. Manchester and Salford, 8; Bristol, 2; Sheffield, 2; Leeds, 4; Newcastle-upon-Tyne, 2; and Hull, 3. No fatal case of cholera is noticed in the Birmingham returns.

In South Wales, not a single case of cholera has yet appeared, except in Llanelly. Upwards of 60 deaths have taken place in and near Llanelly within a very short period.

The *Courrier Médicale* says: "The sanitary state of Paris has visibly improved within the last few days—an incontestable fact, which we are happy to announce."

From Amiens, the number of deaths from cholera on Tuesday is stated to be 22, and among them Dr. James, secretary and professor at the School of Medicine, and a member of the Sanitary Council of the place.

An imperial decree confers a gold medal of honour upon Madame Cornuau, wife of the Prefect of the Somme, for her courage and devotedness during the cholera at Amiens. The medal bears the following inscription. "L'Impératrice Eugénie à Mme. Cornuau. Epidémie cholérique d'Amiens, 1866."

A few cases of cholera are occasionally reported in New York City, but the number is slight. To quote the language of Dr. Harris, the disease "has scarcely found foothold in the city." "The exotic pestilence, which has in well known localities suddenly destroyed a few lives," says Dr. Harris, in the same report, "seems to have been wholly subdued in every block where it has appeared."

The deaths from cholera in Paris from July 17th to 24th are, as nearly as can be ascertained in the absence of official returns, as follows: 17, 29, 116, 142, 106, 89, 92, 94.

In Berlin, from the 17th to the 18th of July, the seizures were 174, the deaths 52; and on the following days, up to July 23rd, the corresponding numbers were respectively, 217, 67; 208, 63; 227, 81; 156, 69; 227, 74. The total of cases thus amount to 3504; of which 327 recovered, 1765 died, and 1412 remained under treatment. On the last named day there were in the three cholera-hospitals, 73 patients in No. 1; 121 in No. 2; 63 in No. 3. One of the greatest calamities in every extensive epidemic visiting the city of Berlin, consists in the unfortunate monopoly by which one person has not only possession of the whole of the funeral conveyances, but is also allowed to keep them all at one single locality. That there should be no more than one such office to apply to for a population far exceeding half a million, spread over so vast an area, is an anomaly so preposterous that it should have long been done away with. Yet it is but quite recently that the man who has enriched himself by this sad privilege succeeded in securing it afresh. The really disheartening experience in this particular made during the present epidemic, will, at last, we hope, remove the film from the eyes of even the blindest supporters of such like monopolies, and the claim of the inhabitants to see their wants also taken into account in arrangements of this order, will perhaps be assisted to some extent by the consideration of the dangers to the community, involved in the existing practice. Only to mention one point, it is proved that, while corpses of cholera patients, the speedy interment of which is of such vital importance, are often retained in private dwellings much beyond the customary three days, they have accumulated in the public dead-houses in the most alarming degree, only because there are not conveyances sufficient for their removal. It needs no remark how this nuisance must lead to the creation of fresh centres of infection. (*Deutsche Klinik*, No. 30, July 28th, 1866.)

Donation. Mrs. Nesbitt has given to the Staffordshire Infirmary the medical library of Mr. Nesbitt late Surgeon of the Hospital.

Association Intelligence.

BRITISH MEDICAL ASSOCIATION: ANNUAL MEETING.

The Thirty-fourth Annual Meeting of the British Medical Association will be held at Chester, on Tuesday, Wednesday, Thursday, and Friday, the 7th, 8th, 9th, and 10th days of August next.

All the Meetings will be held in the Music Hall.

President—S. J. Jeaffreson, M.D.Cantab.
President-elect—Edward Waters, M.D.Edin.

Tuesday, *August 7th.*

2 P.M. Meeting of Directors of Medical Provident Society.
3 P.M. Meeting of Committee of Council.
4 P.M. Meeting of General Council.
8 P.M. First General Meeting.

The retiring President (Dr. Jeaffreson) will resign his office.

The new President (Dr. Waters) will deliver his Inaugural Address.

The Council's Report will be read, and discussion taken thereon.

Election of General Secretary.

Report of Medical Provident Society will be presented.

Election of Chairman and Vice-Chairman of the Medical Provident Society.

Wednesday, *August 8th.*

8.30 A.M. Public Breakfast in the Corn Exchange. Tickets, 2*s.* 6*d.* each.
10 A.M. Meeting of New Council.
11 A.M. Second General Meeting.

Dr. Sibson, F.R.S., and Mr. Holmes. What is the influence of Hospitals on Health and Mortality? with discussion thereon.

Papers and Cases on *Medical* subjects.

Adjourn at One o'clock for Luncheon.

2 P.M. Third General Meeting.

Presentation of Hastings Medal.

Address in Medicine by Professor Bennett, M.D.

4 P.M. Full Cathedral Service, by permission of the Dean, in the Cathedral; and a Sermon by the Rev. Canon McNeil, D.D.

Papers and Cases on *Medical* subjects.

Adjourn at 5 P.M.

8.30 P.M. *Soirée* in the Assembly Room, Grosvenor Hotel.

Thursday, *August 9th.*

9 A.M. Meeting of New Directors of Medical Provident Society.
10 A.M. Fourth General Meeting.

Report of Medical Benevolent Fund will be presented.

Dr. Stewart: Is the Expectant Treatment to be relied upon in any form of Acute Disease? with discussion thereon.

Mr. Alfred Baker: Are there any trustworthy Facts as to the Origin of Pyæmia? with discussion thereon.

Adjourn at One o'clock for Luncheon.

2 P.M. Fifth General Meeting.

Report from Medical Witnesses Committee will be presented.

Address in Surgery by William Bowman, Esq., F.R.S.

Papers and Cases on *Surgical* subjects.

Adjourn at 5 P.M.

9 P.M. *Soirée*, by invitation of the President.

Friday, *August 10th.*

10 A.M. Sixth General Meeting.

Professor Christison, M.D.: Observations on the Register of Deaths in Scotland; with discussion thereon.

Papers on *Medical, Surgical,* and *Obstetric* subjects.

Adjourn at One o'clock for Luncheon.

2 P.M. Seventh General Meeting.

Papers on *Medical, Surgical,* and *Obstetric* subjects.

6 P.M. Public Dinner at the Grosvenor Hotel. Tickets, One Guinea each. Gentleman intending to be present at the Dinner are requested to give notice to the Hon. Local Secretary, John Harrison, Esq., 16, Nicholas Street, Chester.

Return Tickets to and from Chester, from all stations which usually issue them, available from the 6th to the 11th of August (both inclusive), will be granted to the members of the Association producing vouchers.

Members are requested, immediately on their arrival, to enter their names and addresses in the Reception-Room, at the Music Hall, when cards will be supplied which will secure admission to all the proceedings.

A Clerk will be in attendance at the Reception-Room, and will give information respecting Private Lodgings, Hotels, etc.

The principal Hotels are:—the Grosvenor; the Queen's; the Green Dragon; the Blossoms; the Hop-pole; and the Bars.

To facilitate Excursions in the neighbourhood, the Clerk in attendance will be prepared to receive the names of gentlemen wishing to make such Excursions, and to arrange for the same.

Members who may wish for information previous to the meeting, may communicate with John Harrison, Esq., the Honorary Local Secretary.

The public will be admitted, on application to the President, to attend the discussion on Scientific and State Medicine.

Notices of Motion. Mr. Watkin Williams: To alter Law viii, by inserting the word "Treasurer" after the words "President of the Council."

Dr. Mackesy will move: "That a favourable opportunity now presents for soliciting the attention of the Government, the public, and the members of our profession, to the question of granting Parliamentary Representation to the Medical Profession in its collective capacity; that with a view to the accomplishment of this important object, the Council be empowered to take such measures as they *may consider judicious* to promote its success, by presenting memorials to the Government, petitions to both Houses of Parliament, and by communicating with the Medical Universities, Colleges, and Associations, to urge their zealous cooperation."

Dr. Marsh will bring forward the subject of the New Sydenham Club.

Papers have been promised by

A. B. Steele, Esq. (Liverpool): On the Present State of Public Vaccination in England.

B. W. Foster, M.D. (Birmingham): Illustrations of the Use of the Sphygmograph.

John Birkett, Esq. (London): The Results attending the Removal of the First Growth of Cancer.

J. Z. Laurence, Esq. (London): On Removal of the Lacrymal Gland—a Radical Cure of Inveterate Cases of Lacrymal Abscess.

Thomas Nunneley, Esq. (Leeds): On Reduction of Dislocations by Manipulation; On Removal of the Entire Tongue.

Thomas Skinner, M.D. (Liverpool): The Philosophy of the Algide Condition in Cholera.

Thomas Hillier, M.D. (London): An Account of Cases of Pyogenic Fever cured by Large Doses of Quinine; Account of Cases of Pleurisy requiring Thoracentesis.

Balmanno Squire, M.B. (London): The Treatment of Lichenous Disease of the Skin.

W. Camps, M.D. (London): Is there any Evidence to show that the Par Vagum—the Pneumogastric Nerve—is concerned in the production of the Epileptic Paroxysm?

James Rhodes, Esq. (Glossop): The Relationship of Forces as they exist in the healthy Human Being, and the Pathological Conditions induced by their imperfect development.

T. T. Griffith, Esq. (Wrexham): Three Cases of Compound Dislocation of the Astragalus, with Removal of the Bones.

W. H. Broadbent, M.D. (London): Cancer—a New Method of Treatment, by which Malignant Tumours may be Removed with little Pain or Constitutional Disturbance.

I. Baker Brown, Esq. (London): On the Use of the Actual Cautery in Ovariotomy.

Henry Dick, M.D. (London): On Loose Cartilages in the Articulations, and a New Instrument to extract them.

James Paget, F.R.S. (London): A Case of Herpes in part of the Distribution of the Right Inferior Maxillary Nerve.

Erasmus Wilson, F.R.S. (London): On Lichen Planus; the Lichen Ruber of Hebra.

Erasmus Wilson, F.R.S. (London): On a probable necessity for the revival of the Leper Hospitals of Great Britain.

Thomas Balman, M.D. (Liverpool): On Azoturia.

J. Birkbeck Nevins, M.D. (Liverpool): On the Treatment of Rheumatic Fever.

Charles H. Moore, Esq. (London): A Brief Report on the Cases of Cancer registered by Members of the Association during the present year.

B. W. Richardson, M.D. (London): On Feeding by the Veins.

B. W. Richardson, M.D. (London): Abstract of some Original Researches on the Heat of Fluidity or Latent Heat of Animal Bodies.

J. Thorburn, M.D. (Manchester): The Treatment of Tedious Labour in the Second Stage.

Thomas Skinner, M.D. (Liverpool): Two Long Forceps Cases; one with Rupture of the Entire Perinæum: with Remarks.

Spencer Wells, Esq. (London): On the Mode of Dealing with the Pedicle in Ovariotomy.

Christopher Heath, Esq. (London): Demonstration of the Use of the Endoscope.

W. Rutherford, M.D. (Edinburgh): Description of the new Myographion of Von Bezold; with Experiments therewith demonstrating the Rapidity with which Nervous Influence travels in the Frog.

Henry Day, M.D. (Stafford): Secondary Cancer affecting the Lungs.

In order to facilitate the business of the meeting, it is particularly requested that all Papers be sent to the General Secretary on or before the 1st of August, if possible.

T. Watkin Williams, *General Secretary.*

13, Newhall Street, Birmingham, July 24th, 1866.

WEST SOMERSET BRANCH: ANNUAL MEETING.

The Annual Meeting of the West Somerset Branch was held at the George Hotel, Ilminster, on Wednesday, July 11th, at half-past two o'clock. The members present were H. Alford, Esq.; H. J. Alford, Esq.; G. R. Burt, Esq.; G. Gillett, Esq.; Hugh Norris, Esq.; J. Prankerd, Esq.; and the Secretary, W. M. Kelly, M.D.

The Retiring President, Dr. Norris, after some remarks in reference to his past year of office, and alluding in feeling and eulogistic terms to the late Dr. Gillett, retired from the chair, which was then taken by the President, Mr. Burt.

President's Addresss. Mr. Burt read an interesting address, in which the subject of the Vaccination Laws, and their imperfect operation in causing vaccination to be efficiently performed, were detailed and exemplified. He considered that some readier and more stringent means for enforcing vaccination than the present laws provide are required. More especially is this needed when small-pox breaks out in a district, because, during the intervals of bringing into action the routine of the present law, the disease would be spreading, with no power to check it among unprotected families. He thought the legislature should be petitioned with this end in view.

The President was cordially thanked for his address, and the questions it suggested were fully debated.

Absent Members. The Secretary stated that he had received letters from Drs. Bridge, Cordwent, and Winterbotham, from Messrs. Wookey, Stuckey, H. E. Norris, Collyns, Grigg, Metcalfe, Cornwall, Martyn, Silke, Randolph, Olivey, Cornish, and Kidgell, regretting their unavoidable absence.

Resignation of a Member. A letter was read from Dr. Bridge, dated July 4th, 1866, saying that the impaired state of his health led him to expect that he should not again be able to attend the meetings and enjoy the society of his old friends; and that he, therefore, begged to withdraw his name from the Association. It was resolved—

"That the Secretary be requested to express to Dr. Bridge the regret felt at the announcement of his wish to withdraw, especially under the circumstances stated, with a hope that he may yet rally again and enjoy future meetings of the Association."

Business. The minutes of the last annual meeting were read; also a letter from R. Griffin, Esq., dated July 8th, 1865, acknowledging the receipt of £2 from the funds of the Branch towards the expenses incurred in endeavouring to improve the condition of the Poor-law medical officers, and thanking the Branch for the same.

Report of Council. The following Report of Council was then read.

"1. The Council congratulate the members of the West Somerset Branch of the British Medical Association on their being assembled under such good auspices on this their twenty-third anniversary.

"For the first time the Branch meets at Ilminster, in a district hitherto considered remote and not sufficiently attractive; but this part of the county being now united to the central town of Taunton by a railway, it is hoped the facilities of communication with Chard and other places on the line, will induce many medical men previously deterred by distance to join the Association, and thus that on this day a new and valuable offshoot may be regarded as having sprung into life, destined to a propitious future of usefulness and advantage equally to itself and to the parent stock.

"2. During the past year two intermediate meetings of the Branch have been held (in accordance with the resolution passed at the last annual meeting), which

were fairly attended, and at which the following interesting papers, etc., were read and discussed.

"1. On Dropsy after Scarlatina. By W. Legge, Esq.

"2. On a Visitation of Endemic Typhus Fever. By H. W. Randolph, Esq.

"3. A Case of Embolus. By Hugh Norris, Esq.

"4. A Case of Placenta Prævia. By Hugh Norris, Esq.

"5. On Induction of Artificial Premature Labour. By Hugh Norris, Esq.

"6. A Statistical Report of the Use of Chloroform in Childbirth. By Henry Alford, Esq.

"7. A Case of Successful Ovariotomy. By H. J. Alford, Esq.

"8. A Case of Operation for the Cure of Inguinal Hernia. By William Liddon, Esq.

"9. On Medical Fees and the Tariff adopted in Bridgwater. By W. C. Winterbotham, Esq.

"10. On Dr. Richardson's Mode of producing Local Anæsthesia. By W. M. Kelly, M.D.

"3. A memorial from the Fellows of the Royal College of Surgeons of England resident in Taunton, in favour of admitting Fellows to vote by papers, instead of *vivâ voce*, was presented at the Council meeting of the College on the 10th November last by Mr. Paget; but, as is now known, without producing a successful result.

"4. The Council is happy to announce that the Branch has been augmented during the past year by five new members being added to the list, which now numbers thirty-four. The Branch has lost a valued member, Mr. Legge, who has removed from the neighbourhood. His interesting papers and practical remarks will be much missed. All have deplored the loss of one of their oldest and most esteemed associates, the late Dr. Gillett, who died in February last. The event was noticed at the intermediate meeting in March; and the Secretary was requested to address a letter of condolence to the brother and relatives of the deceased.

"5. The Treasurer's balance-sheet, which has been examined and found correct, shows a balance in hand of £3 : 12 : 10.

"6. In conclusion, the Council has the pleasure to assure members present that a cordial welcome to Ilminster greets them. The President will do all in his power to make the meeting pass off agreeably, and after dinner will be happy to see the members at his house."

Treasurer's Report. The Treasurer's balance-sheet, duly audited, was read and approved.

Intermediate Autumn and Spring Meetings. It was resolved—

"That Branch meetings, with a dinner at five o'clock, be held on the evenings of the 26th of September, 1866, and the 20th of March, 1867."

New Members. Mr. Frank Harvey Brown of Ilminster, and Mr. George Robert Norris of Wiviliscombe, were admitted members of the Association and of the Branch.

Next Annual Meeting; President-elect. It was resolved—

"That the next annual meeting be held at Taunton; and that C. H. Cornish, Esq., be President-elect."

Representative in the General Council. It was resolved—

"That Hugh Norris, Esq., be elected to represent the Branch in the General Council of the Association, together with the Honorary Secretary, W. M. Kelly, M.D.

Members of Council of the Branch. It was resolved—

"That H. J. Kinglake, M.D.; J. Prankerd, Esq.; and H. J. Alford, Esq., be elected to fill the vacancies in the Council."

The Council for the ensuing year will then consist of Messrs. H. Alford, G. Kidgell, W. L. Winterbotham, and the before-named gentlemen.

Secretary and Treasurer. It was resolved—

"That Dr. Kelly be re-elected as Honorary Secretary and Treasurer."

Votes of Thanks to the Council for their services during the past year, and to the Secretary and Treasurer, were unanimously passed.

Paper. Mr. H. J. Alford read an account of a Case of Amputation at the Hip-joint.

Dinner. The members of the Branch then dined together under the presidency of Mr. Burt, and subsequently adjourned to his house for the remainder of the evening.

BATH AND BRISTOL BRANCH: ANNUAL MEETING.

THE annual meeting of this Branch was held at the Mineral Water Hospital, Bath, on Thursday, July 19th, 1866, at 4.45 P.M. The President for the past year, Dr. BRITTAN, having taken the Chair, the minutes of the last meeting were read and confirmed. Dr. Brittan, after a few appropriate remarks, resigned the chair to J. S. BARTRUM, Esq., President, who delivered an interesting address.

Dr. HERAPATH proposed, and Dr. TUNSTALL seconded, the following resolution, which was carried by acclamation.

"That the thanks of the meeting be given to Mr. Bartrum for his address, and that he be requested to allow it to be printed in the BRITISH MEDICAL JOURNAL."

Report of Council. The Bath Secretary, Mr. FOWLER, read the following Report of Council.

"The Council is happy to congratulate the members on the continued prosperity of the Branch. Though it has suffered much by death and by change of residence of many of its members during the past year, the election of new members nearly compensates for the loss.

"The Council much regrets the deaths of Messrs. Wm. Hutchins and E. Scipio Mayor, who for many years were most active members of the Council. Since the last anniversary, three other members have also been taken from us, namely, Messrs. Keddell, Lucas, and Macy, who, although not actively engaged in the affairs of the Branch, are much regretted in their respective spheres.

"Thirteen new members have been elected during the past year; and our numerical strength is now 154, being only one less than at the same period last year.

"During the six meetings held in accordance with the resolution passed in 1863, the attendance has been as numerous as heretofore, and the interest in the subjects brought forward, and in the discussions thereupon, as fully sustained.

"The following papers have been read during the session.

"1. Dr. Brittan: Case of Embolism.

"2. C. E. Barter, Esq.: Notes of Cases of Injury to Shoulder-joint.

"3. W. M. Clarke, Esq.: Case of Retention of Menses from Occlusion of Vagina.

"4. C. Gaine, Esq.: Anæmia of the Optic Nerve constituting Extra-cerebral Amaurosis, following Abscess of Antrum, caused by a Diseased Molar Tooth.

"5. E. H. Swete, Esq.: Discs of Calcareous Matter from the Scrotum after Hydrocele.

"6. E. H. Swete, Esq.: Case in which a Child was born with unaccountably Lacerated Scalp.

"7. Dr. J. G. Swayne: Case of Polypus Uteri.

"8. Dr. E. L. Fox: Typhus. (This paper led to a lengthened discussion.)

"9. Joseph Hinton, Esq.: Case of Renal Calculus.

"10. E. H. Swete, Esq.: Village Hospitals.

"11. H. W. Freeman, Esq.: The Cattle-Plague as observed in this Neighbourhood.

"12. Dr. Brittan: Cancerous Disease of Ovaries.

"13. C. Steele, Esq.: Puerperal Cardiac Embolism.

"14. E. C. Board, Esq.: Death by Imbibition of Chloroform.

"15. Dr. B. W. Foster: The Use and Application of the Sphygmograph.

"16. C. Gaine, Esq.: Local Anæsthesia.

"17. Dr. Ludlow: Case of Poisoning by Opium.

"18. D. Davies, Esq.: The late Fever in Bristol.

"19. Dr. J. G. Swayne: A Case of Double Monstrosity.

"The following statement of accounts shows a balance due to the Secretaries; but the increased subscription resolved upon at the last annual meeting, and payable this year, will render the next account more satifactory.

	£	s.	d.		£	s.	d.
149 Subscriptions	18	12	6	Due to Secretaries, on December 31, 1864..	2	12	0
Due to Secretaries, on December 31, 1865..	4	9	8	Hire of Rooms	11	1	0
				Printing	3	3	4
				Postage	5	15	5
				Sundries	0	10	5
	23	2	2		23	2	2

"Your Council has much pleasure in informing the members that the Draft of the Royal Charter of Incorporation will very shortly be printed in the JOURNAL, and will be submitted for final approval at the annual meeting at Chester.

"This Branch, in common with most of the other Branches of the Association, presented a memorial to the Privy Council, calling their lordships' attention to the necessity for an immediate reform in the sanitary laws, to which the following reply was received by the President.

"'Medical Department of the Privy Council Office, May 30th.

"'Sir,—I am directed by the Lords of Her Majesty's Privy Council to acknowledge the receipt of a memorial signed by yourself and others on behalf of the Bath and Bristol Branch of the British Medical Association; and I am directed to inform you that the suggestions therein contained shall receive their lordships' careful consideration. "'I am, etc., your obedient servant,

"'F. Brittan, M.D.' "'JOHN SIMON.

"It is satisfactory to your Council to see it stated by the present Government, that they have determined to take the matter into consideration before the close of this session of Parliament.

"The members of this Branch may remember that a few years since a memorial was presented to the Royal College of Surgeons, pointing out the hardships of the regulation of the College by which students were prevented from obtaining the Fellowship without three years' hospital practice in London. It is satisfactory to find that this bye-law is now rescinded; and provincial schools and hospitals are thus placed on the same footing as metropolitan.

"At the last ordinary meeting of the Branch, attention was called to the case of Dr. and Mr. Armstrong, whose prosecution by Rudman involved them in much annoyance and considerable expense. Impelled by the consideration of the value of professional support in such a case, a vote expressing the sympathy of this Branch was recorded; and a liberal subscription was raised by the members present, and forwarded to the Armstrong Fund Committee.

"The claims of the Medical Benevolent Fund cannot be too strongly impressed on the consideration of the members. It still continues to extend its aid to those needing assistance, and fully deserves the support of all prosperous members of the profession. Your Council cannot fail to regret the recent untimely death of its energetic Treasurer, Mr. Toynbee, who not only used his best endeavours to promote its success, but was a munificent donor to its funds.

"The scrutineers appointed by your Council to examine the ballot-papers for filling up the vacancies in the Council report the following to have been elected. For *Bath*—R. W. Falconer, M.D.; E. Skeate, Esq.; Jos. Lawrence, Esq.; Jos. Parsons, Esq.; Wm. Bush, Esq.; W. H. Bruce, Esq.; and Wm. Davies, M.D. For *Bristol*—A. Prichard, Esq.; J. G. Swayne, M.D.; W. F. Morgan, Esq.; and T. Green, Esq."

Resolutions. The following resolutions were passed.

Proposed by Mr. C. H. COLLINS, seconded by Mr. MASON, and carried unanimously—

"That the Report of Council now read be received and adopted."

Proposed by Dr. SWAYNE, seconded by Dr. DAVEY, and carried unanimousiy—

"That R. W. Coe, Esq., F.R.C.S., be elected President-elect for the ensuing year."

Proposed by Mr. SPENDER, seconded by Mr. JOSEPH HINTON—

"That the best thanks of the Branch are due, and be presented, to Dr. Brittan, for his able conduct in the chair; and to the members of the Council of the past year, for their management of the affairs of the Branch."

Proposed by Dr. FALCONER, and seconded by Mr. W. M. CLARKE—

"That the best thanks of the Branch are due to Messrs. R. S. Fowler and C. Steele; and that they be requested to continue their services as Honorary Secretaries for the ensuing year."

Proposed by Dr. MARSHALL, seconded by Mr. STONE, and carried by acclamation—

"That the best thanks of the Branch be presented to the Governors of the Bath Mineral Water Hospital for their courtesy in granting the use of their hall for this meeting."

Representatives in the General Council. The following gentlemen were elected representatives of the Branch on the General Council of the Association: J. S. Bartrum, Esq.; F. Brittan, M.D.; W. M. Clarke, Esq.; R. W. Falconer, M.D.; J. Marshall, M.D.; A. Prichard, Esq.; Jas. Tunstall, M.D.

Dinner. The members afterwards dined together at the York House, Mr. Bartrum in the chair, supported by the Mayor and the Rector of Bath.

A FEMALE DOCTOR. The wife of a Bristol (America) physician has passed the examinations necessary to her admission into the profession of medicine, and she now assists her husband in his practice.

LONGEVITY IN ENGLAND. The mortality returns of England for 1864, show that in that year twenty-eight of the men who died, and seventy of the women, had reached 100 years of age or upwards; one woman dying at 108, and one man at 109. Of these ninety-eight very aged people, London had twelve. In Yorkshire, with not far from three-fourths of the population of the metropolis, there were only three. There were three also in the north-midland division, which had not two-thirds of the population of Yorkshire. In the south-midland division there were none. The west (except the north-west) makes a good appearance in the tables. The south-western division, with two-thirds of the population of the metropolis in 1861, parted with eleven of its people at above 100; the west-midland, with an eighth less population than the metropolis, had eighteen centenarians in its obituary; Wales, with less than half the population of the metropolis, had twenty-one. In the south-eastern division, with two-thirds of the population of the metropolis, there were nine deaths at above 100; in the eastern counties, four, a smaller proportion; in the northern division, with nearly the same population as the eastern, there were nine.

Correspondence.

POOR-LAW MEDICAL REFORM ASSOCIATION: VACCINATION.

LETTER FROM RICHARD GRIFFIN, ESQ.

SIR,—Many of my medical brethren will have seen with regret that the Vaccination Bill has been withdrawn; but your readers may not be aware of the cause.

It will be in the recollection of all, that the Vaccination Bill was brought in as a Government measure, and framed by Government officials; but, as it contained many objectionable clauses, and made no provision for the better remuneration of the medical officers, I addressed a pamphlet to each member of Parliament on the subject, and suggested certain remedies. My views were, through the medium of your JOURNAL, made public; and so much opposition was raised in Parliament by the profession, that the Bill was referred to a Select Committee, to whom I sent copies of the amendments proposed by us; and the result was, that a large number of the clauses were amended; and the Bill, had it become law, would have given the profession some twenty or thirty thousand pounds per annum more than they now have. The measure was not perfect; but I considered it would be most unwise to offer any further opposition to a Bill which had the sanction of a Select Committee of the House, and which would be of material benefit to the public as well as to our profession, and, unopposed, would pass into law. Judge, therefore, my surprise when, on July 21st, I received a letter from Dr. Gibbon with a printed heading, "Metropolitan Counties Branch of British Medical Association, Parliamentary Committee," asking me to oppose the Bill; at the same time inclosing printed reasons against the fines and registration clauses contained in the Bill. Unfortunately for us, the gentlemen composing this Parliamentary Committee, who seem to have a *carte blanche* to do as they like, without consulting the members of the Association, raised such an opposition in the House, that, when the Bill should have gone into Committee on July 23rd, Mr. Corry withdrew it, saying "he had ascertained from hon. gentlemen on both sides of the House that the measure was likely to meet with great opposition; and it was, therefore, doubtful whether it could be carried through this year."

I sincerely trust the Association, at their next annual meeting, will point out to their Parliamentary Committee that, whenever practicable, they should consult the members of the Association before they take active measures to oppose Bills. And here permit me to say I do not believe the Association as a body would ever dream of asking Parliament to do away with the registration of vaccination, without which the whole machinery must fall to pieces.

I regret the loss of the Bill, as, on the whole, it was a good measure, and would have been of great benefit to the poorer portion of our profession, the Poor-law medical officers. I regret it still more, as it is the imprudent act of members of our own profession.

I am, etc., RICHARD GRIFFIN.

12, Royal Terrace, Weymouth, July 28th, 1866.

THE VACCINATION BILL.

LETTER FROM SEPTIMUS GIBBON, M.B.

SIR,—I congratulate the profession on the withdrawal of this Bill. Although the sixth clause provided a little additional remuneration as payment for the operation in workhouses, and an extra sixpence for cases at a distance of *one* instead of two miles, it was by no means an equivalent to the trouble of the certificates (A), (B), (C), and (D), together with the penalty to which the vaccinator was made liable for not registering every case within twenty-one days of the operation.

The best, and indeed the only way to stimulate the practice of vaccination, is to pay a proper fee for it.

The fifth clause, proposing to give a gratuity according to the quality and quantity of the vaccination, even Mr. Bruce admitted to be impracticable, and assured me would not pass. The principle of payment for results is a good one; but the result must be *attainable*, which is not always the case in surgical operations.

The great blot on the Bill was the heavy penalty on parents and public vaccinators for non-registration of cowpox certificates. The probable effect of this fine, which would ultimately fall upon the private as well as the public vaccinator, would be so to enhance the cost of the little operation as to reduce or to annihilate the demand for it. No "medical practitioner" would submit a second time to the degradation of being fined like a nuisance or costermonger in a police-court; so that parents and boards of guardians would have to employ other than "medical" practitioners to vaccinate, who, according to the wording of the clause, would not be liable for either the fine or certificate. In April last, I drew Mr. Bruce's attention to what I considered the extreme impolicy of this penalty. Unfortunately, Mr. Bruce would listen to no arguments except those of the Privy Council inspectors; and the Select Committee on the Bill decided not to receive evidence.

The present Home Secretary consulted the Registrar-General, whose opinion as to the registration clauses was not favourable.

As Mr. Bruce stated that the Bill should be "thoroughly complete and effective", I almost wonder he did not provide for the *re*-vaccinations as well as the *vaccinations*.

I imagine, sir, all Mr. Simon and Parliament require is a periodical return of vaccinations, which, at a small cost, I submit, they can get with tolerable, if not perfect accuracy, direct from the vaccinators. Parsimony of a very foolish description seems to be a failing of the Privy Council in all medical matters. Thus, in this instance, it has chosen to put the profession to a vast deal of trouble and annoyance, and the ratepayers to an expense of about £40,000 annually, rather than expend a few hundreds itself in collecting these returns of vaccinations. The same false economy made it abandon the printing of a valuable weekly return of all fresh cases of sickness occurring in the metropolis, supplied by the medical officers of health, and ably edited by the late Dr. Dundas Thompson. Such return was always useful; but now that we have an invasion of cholera, its statistics would be invaluable. The total cost of this document to the Government was less than £300 a year.

I am, etc., SEPTIMUS GIBBON.

13, Finsbury Square, July 24th, 1866.

EFFECTS OF A COLD CHOP. Dr. Guillotin writes: "*Mon cher*: The punishment which I have invented is so gentle, so gentle that really it is only the idea of death which could make it disagreeable. Indeed if one were not thinking of death, one would only experience the sensation of a slight and pleasant coolness on the neck, *et voila tout!*"

WHOLESALE LITERARY ROBBERY. Lindsay and Blackiston, of Philadelphia, have in press Aitken's *Science and Practice of Medicine*, from the fourth London edition; Waring's *Practical Therapeutics*; Dixon's *Practical Treatise on the Eye*; Prince's *Orthopedic Surgery*; *Zander on the Ophthalmoscope*, translated by Carter, with illustrations; *Beale on the Microscope*; *Trousseau's Clinical Medicine*; Duchenne's *Localised Electrisation*; and *Basham on Dropsy*. (*Phil Med Rep.*)

Medical News.

UNIVERSITY OF LONDON. Preliminary Scientific M.B. Examination, 1866. Pass Examination. Entire.

First Division.

Barlow, Thomas, Owens College
Barnes, Edgar George, St. George's and University
Barrett, Ashley William, London Hospital
Baxter, Evan Buchanan, King's College
Birt, George, General Hospital, Birmingham
Bradley, George, Guy's Hospital
Calthrop, Christopher William, Charing Cross Hospital
Curnow, John, King's College
De Liefde, Johannes, Guy's Hospital
Durham, Frederick, Guy's Hospital
Greenfield, William Smith, University College
Hoar, Charles Edward, King's College
Joubert de la Ferté, Charles Henry, St. Mary's Hospital
Lucas, Richard Clement, Guy's Hospital
McGill, Arthur Fergusson, King's College
Martin, Henry Newell, University College
Milles, George Ridley, King's College
Percival, George Henry, Guy's Hospital
Pollard, Frederick, St. Thomas's Hospital
Seaton, Edward Cox, St. Thomas's Hospital
Shewen, Alfred, University College
Smith, George Francis Kirby, Guy's Hospital
Smith, Herbert Alder, St. Bartholomew's Hospital
Steele, Edward Harry, R. School of Mines and Guy's
Vachell, Charles Tanfield, King's College
Walker, Hugh Eccles, Guy's Hospital
Whitmore, William Beach, King's College

Second Division.

Ashby, Alfred, Guy's Hospital
Beach, Fletcher, King's College
Boddy, Hugh Walter, Owens College
Buckley, Samuel, Owens College
Cane, Leonard (private study)
Crespi, Alfred John Henry, General Hospital, Birmingham
Cumberbatch, Alphonso Elkin, St. Bartholomew's Hospital
Humphreys, John Henry, Sydenham College, Birmingham
King, William Louis, University College
Marshall, Frederick, King's College
Moore, Septimus Peché, LL.B., New and University
Owen, Edmund Blackett, St. Mary's Hospital
Parker, Rushton, University College
Penfold, Oliver, King's College
Salter, Frank, University College
Samuel, Richard, St. Bartholomew's Hospital
Scott, William Joseph, University College
Smith, Richard Thomas, University College
Stanger, William, Guy's Hospital
Taylor, John, Guy's Hospital
Wardley, James, Owens College
Wood, Robert Arthur Henry, Liverpool School of Medicine

Chemistry and Botany only.

First Division.

May, Lewis James, King's College
Thorne, William Bezly, St. Bartholomew's Hospital
Yeo, Isaac Burney, King's College

Second Division.

Carter, Jabez, University College
Milson, Richard Henry, St. Mary's Hospital

APOTHECARIES' HALL. On July 26th, 1866, the following Licentiates were admitted:—

Anderson, D. H. B., Edinburgh
Beales, B. D., Queen's College, Birmingham
Connock, C. J., Mount Street, London
Dolan, T. M., Cashel
Jackson, F. W., Broadstairs
Schuetté, Rudolf, Gottingen

At the same Court, the following passed the first examination:—

Guy, J., Guy's Hospital
King, D., King's College, London
Saul, W. W., St. Bartholomew's Hospital
Wallace, F., Guy's Hospital

APPOINTMENTS.

HARTLEY, E., Esq., elected one of the Honorary Medical Officers of the Royal Pimlico Dispensary, *vice* E. Ellis, M.D., resigned.

*MACKENZIE, Morell, M.D., appointed co-Lecturer on Physiology at the London Hospital.

*MATTERSON, W., M.D., appointed Honorary Physician to the York County Hospital, in the place of Dr. Swaine, resigned.

ARMY.

DAVIDSON, Staff-Surgeon W. A., M.D., to be Surgeon 65th Foot, *vice* Surgeon-Major T. E. White, M.D.
HARE, Assistant-Surgeon R. W., M.B., Supernumerary in 80th Foot, to be Staff-Assistant-Surgeon, *vice* F. Powell.
ORR, Assistant-Surgeon W., Supernumerary in 18th Foot, to be Staff-Assistant-Surgeon, *vice* P. B. Kearney.
WHITE, Surgeon-Major T. E., M.D., 65th Foot, to be Staff-Surgeon-Major, *vice* Staff-Surgeon W. A. Davidson, M.D.

ROYAL NAVY.

BUCKLEY, John, Esq., Assistant-Surgeon, to the *Implacable*.
CAMPBELL, Samuel, M.D., Assistant-Surgeon, to the *Nassau*.
FISHER, William S., Esq., Assistant-Surgeon, to the Woolwich Division of Marines.
M'BRIDE, Alexander, M.D., Surgeon, to the *Cruiser*.
MORTIMER, Edward T., Esq., Surgeon (additional), to the *Caledonia*, in lieu of an Assistant-Surgeon.

VOLUNTEERS, (A.V.=Artillery Volunteers; R.V.=Rifle Volunteers):—

BARRIE, J. T., M.D., to be Honorary Assistant-Surgeon 101st Lanarkshire R.V.
MACKENZIE, J. G., Esq., to be Assistant-Surg. 1st Elginshire R.V.
SQUAREY, C. E., Esq., to be Honorary Assistant-Surgeon 1st City of London A.V.
TAYLOR, D., Esq., to be Assistant-Surgeon 8th Lancashire R.V.

BIRTHS.

CLAPTON. On July 27th, at Queen Street, Cheapside, the wife of William Clapton, Esq., Surgeon, of a daughter.
FRANKLYN. On July 28th, at Maidstone, the wife of H. D. Franklyn, M.D., Depôt Royal Horse Artillery, of a son.
HAYWARD. On July 28th, at 18, Harley Street, the wife of *H. Howard Hayward, Esq., of a daughter.
MAXWELL. On July 26th, at Stickney, near Boston, the wife of Peter Maxwell, M.D., of a daughter.
WALES. On July 28th, at Downham, the wife of *T. Garneys Wales, jun., Esq., of a daughter.

MARRIAGES.

LE FANU, Henry, Esq., B.A., of the Madras Civil Service, Scholar of Trinity College, Dublin, to Catherine Mary, daughter of *W. D. MOORE, M.D., of Dublin, at Madras, on June 13.
REED, Frederick G., Esq., of Hertford Street, to Laura Ann, widow of M. DE SALIGNAC, of Cognac and the Courand, Charente, France, at St. George's, Hanover Square, on July 31.
WILLIAMS, Hutchins, Esq., Surgeon, to Ellen Harriet, daughter of the Rev. John COLDHAM, M.A., of Snettisham, Norfolk, on July 26.

DEATHS.

*HASTINGS, Sir Charles, M.D., D.C.L., at Worcester, aged 72, on July 30.
M'KECHNIE, Alexander, M.D., Inspector-General of Hospitals and Fleets, at Southsea, aged 63, on July 12.
PURSELL. On July 22nd, at Brighton, aged 60, Mary Reeves, wife of *John Pursell, M.D.
STEWART. On July 30th, at 12, Weymouth Street, aged 17, Bessie, eldest daughter of W. E. Stewart, Esq., Surgeon.

AN OPHTHALMIC DISPENSARY has been lately established in Worcester.

DR. HIGGINS, a highly respected medical practitioner, died in Paris on Saturday last, in his 61st year. (*Times.*)

THE HYDE PARK DISTURBANCES. About sixty or seventy persons were so injured last week during the disturbances in Hyde Park as to require hospital treatment. One death only is reported in connexion with these casualties.

ST. GEORGE'S HOSPITAL REPORTS. The staff and others educated at St. George's Hospital have commenced the publication of a series of Reports. The publication will be continued yearly, and will be issued shortly before the commencement of each winter session.

DEATH OF DR. ANSELL. We regret to announce that Dr. Thomas Ansell, of Bow, has fallen a victim to cholera. He was chairman and a member of the Apothecaries' Court of Examiners for upwards of twenty years. He was also Medical Officer of Health for Bow district. He was in his sixty-eighth year. He had been in attendance on cases of cholera, and seems to have suffered from premonitory diarrhœa.

THE MEDICAL BENEVOLENT FUND. Dr. Sieveking, Physician to H.R.H. the Prince of Wales, has accepted the office of treasurer to the Medical Benevolent Fund, vacant by the death of the late Joseph Toynbee, Esq., F.R.S.

PERIL OF ARMY SURGEONS. Surgeon-Major Esdra of the Italian army was killed at Custozza on the field of battle, whilst dressing the wounded. Three other Italian surgeons were seriously wounded, and twelve were made prisoners.

NEWCASTLE COLLEGE OF MEDICINE. The annual meeting of the members was held on Wednesday, the 1st instant, and the following gentlemen were elected the Council of Management for the ensuing year. *President*—Rev. Canon Whitley, M.A., F.R.S.; *Registrar*—Dennis Embleton, M.D.; *Treasurer*—Thos. Humble, M.D.; *Secretary*—G. H. Philipson, M.A., M.D.; *Other Members of Council*—Edward Charlton, M.D.; C. J. Gibb, M.D.; Charles Gibson, M.D.; Wm. Murray, M.D.

ARMY AND NAVAL MEDICAL SERVICE. In the House of Commons, on the 26th ult., a vote of £5926 having been proposed for medical officers in the Royal navy, Mr. Childers said that it was at present extremely difficult to obtain duly qualified medical officers for either our army or our navy. The gentlemen engaged in that service seemed to be dissatisfied not so much with their pay as with the rank and status which they occupied; and they generally left their situations as soon as they were entitled to a pension. He would suggest that an attempt should be made to remedy that inconvenience by getting young men trained with a special view to the service, and conferring their rank upon them at an earlier age than had hitherto been the practice. General Peel said that a warrant had been passed in the year 1858 regulating the rank and position of those officers. That warrant had shortly afterwards been altered, and a certain amount of dissatisfaction had created by that change. Now, he could not help thinking that they must incur an additional amount of difficulty, if they were to introduce another alteration in the service of the character contemplated by the hon. member. He believed at the present moment that there were more vacancies than candidates to fill them. The object of the government was to obtain the best medical men, and he thought that that object would be gained by open competition. Mr. Henley said if they were going to tempt medical men into the service by the prospect of an early retirement the natural result would be that as soon as they had learned their business they would leave.

MEDICAL OFFICERS IN INDIA. In the House of Commons, on the 27th ult., Mr. Bazley asked the Under Secretary of State for India the number of candidates who presented themselves at the last competitive examinations for the fifty appointments as assistant surgeons in her Majesty's Indian army, which were announced to be vacant on the 19th March, 1866, and the reason why medical officers of the Indian army were granted, when incapacitated for the further performance of their duties through ill-health contracted in the tropics, half-pay pensions of one-third less than those sanctioned for medical officers of the British army of five, ten, fifteen, and twenty years' respectively? Sir J. Fergusson replied that for the fifty vacancies in the medical service for India only thirty-six candidates presented themselves. With regard to the other part of the question of the hon. gentleman, he begged to say that the rates of pensions in the India service were, on the whole, more favourable than those in the British service, inasmuch as they were granted for a much shorter period of service, and the pensions were permanent instead of temporary. The advantages of the medical service in India seemed not to be well understood. The promotion was very rapid, as in some cases the medical officer, after only two years' service, received emoluments reaching to £500 or £600 a year.

MR. BEANEY, who was committed to take his trial for the murder of Mary Lewis, whose death he was alleged to have caused by procuring abortion, has been made the subject of a series of legal complications. The body of the deceased has been exhumed and re-examined at the request of the counsel for the defence, with what result, or indeed with what object, we are quite unaware. (*Australian Med. Journ.*)

A NEW PILLOW. The Crown Princess of Prussia has suggested a new kind of pillow to lay wounded limbs upon. Very small bits of paper, torn so as to offer uneven sides, are put into a linen case, and this again into a covering of thin leather. This simple and inexpensive invention, which is said to be cooler than an ordinary pillow, has employed thousands of little hands in schools and families, enormous patience being required to tear up enough of the tiny shreds to make one cushion.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....Metropolitan Free, 2 P.M.—St. Mark's for Fistula and other Diseases of the Rectum, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TUESDAY. .... Guy's, 1½ P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.

WEDNESDAY... St. Mary's, 1 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.

THURSDAY.....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Great Northern, 2 P.M.—London Surgical Home, 2 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.

FRIDAY..... Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

SATURDAY..... St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1·30 P.M.—Charing Cross, 2 P.M.—Lock, Clinical Demonstration and Operations, 1 P.M.—Royal Free, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

REGISTRATION OF DISEASE.

RETURN of new cases of disease coming under treatment in public practice. (A.) Manchester and Salford (Sanitary Association). (B.) Preston (R. C. Brown, Esq.). (C.) St. Marylebone, London (Dr. Whitmore). (D.) Birmingham (Dr. Alfred Hill).

In the 4 weeks ending April 28th, 1866.

Diseases.	A.	B.	C.	D.
Small-Pox	17	13	11	4
Chicken-Pox	3	1	2	1
Measles	19	34	45	89
Scarlatina	39	2	8	20
Diphtheria	1	—	5	4
Hooping-Cough	71	25	60	165
Croup	2	1	1	9
Diarrhœa	129	18	334	131
Dysentery	3	5	2	8
Cholera	—	—	—	—
Erysipelas	13	3	18	6
Insanity	24	1	17	6
Bronchitis and Catarrh	875	139	992	680
Pleurisy and Pneumonia	59	11	36	27
All other diseases and accidents	4405	521	4017	4664
Totals	5660	774	5553	5814

TO CORRESPONDENTS.

*** *All letters and communications for the* JOURNAL, *to be addressed to the* EDITOR, *37, Great Queen St., Lincoln's Inn Fields, W.C.*

COMMUNICATIONS.—To prevent a not uncommon misconception, we beg to inform our correspondents that, as a rule, all communications which are not returned to their authors, are retained for publication.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

MR. TRUSTRAM.—The letter contains matter so much of a private nature, that we think it unadvisable to publish it.

RINDERPEST.—Fracaster speaks of no cutaneous affections; but he observes that, in some animals, the disease descended into the legs and the feet, and that nearly all of these recovered, most of the others dying.

SIR: Can any of your readers inform a country practitioner where he can buy an earthen-ware stove, similar to those which are in common use through Germany and Switzerland?

I am, etc., E. EVANS.

Nether Stowey, Somerset, July 31st, 1866.

THE BROMPTON HOSPITAL.—A correspondent writes: "The paragraph in the JOURNAL of July 21st, copied from the daily papers, respecting the Madeira patients, was not authorised by the physicians of the Brompton Hospital. The account in the *Times* of to-day is correct; and is as follows:—

"*Consumption Hospital, Brompton.* According to the report of the Medical Committee, the effect of the climate of Madeira upon the twenty patients who were sent out by this charity in November last to winter in that island, may be briefly summed up as follows:—Five of the invalids left England in the first stage of the disease, four in the second, and eleven in the third stage. As regards their general health, two out of the twenty returned much improved, seven were slightly improved, four were not so well, and one died suddenly in Madeira from rupture of a blood-vessel (in April), though he had done well up to a certain point. In two cases the chest-symptoms improved; in twelve they remained stationary; and in five they appeared to have advanced. Four patients increased in weight during their absence; thirteen lost weight; and two experienced no change in this respect. The Committee of Management do not consider that the result of the patients' residence in Madeira is sufficiently encouraging to justify them at present in repeating the experiment."

GRATUITOUS MEDICAL SERVICES.—SIR: The following notice is extensively placarded in the neighbourhood of the Westminster Hospital:—"All persons suffering from diarrhœa are urgently requested to take immediate steps to have the disorder arrested. Medicines may be had gratis at the Westminster Hospital any hour of the day or night. July 24th, 1866."

Much has been said lately about unnecessary gratuitous advice. I consider the above to be a gross injustice to resident medical men. Had the notice been addressed to the poor and destitute only, no one could have complained. Would the clerical or legal profession work for all (or any) without fee or reward? Trusting you will give this a place in your JOURNAL. I am, etc.,

July 27th, 1866. MEDICUS.

THE RICHARDSON TESTIMONIAL.—SIR: I think it is pretty well agreed that a fitting testimonial should be presented to Dr. Richardson for his very great labours in physiology, etc. The only point to consider is, when and where the first meeting, to appoint a committee and other officers, ought to be held for so desirable an object. As the annual meeting of the Association is so soon to take place at Chester, I beg most respectfully to name it as a proper place to hold the first meeting; as doubtless, if publicity were given to it, a large number of medical men, associates and others, would attend. There will, moreover, be members of our profession from all quarters, a thing not likely to happen if a meeting were convened for London, owing to travelling, etc. Many who would like to attend the meeting there, have, no doubt, made up their minds to be present at one of the largest gatherings of medical men—*i.e.*, the annual meeting of the British Medical Association; it would consequently be a double expense to a great many. I am, unfortunately, only a poor country practitioner, but intend giving my mite to the fund, as I consider Dr. Richardson one of our greatest benefactors, and I feel the greatest pleasure in knowing him, and having been one of his pupils at the late Grosvenor Place School of Anatomy.

Dr. H. Day of Stafford being the proposer of the step, under the anonymous title of "Physician", I beg to name him as a most eligible gentleman to advertise for a meeting, and also to act as honorary secretary. I enclose my card.

Lincolnshire, July 31st, 1866. I am, etc., M.D.

[Our correspondent will be glad to hear that a preliminary meeting has been called by Dr. Day; and met in London on the 2nd instant. EDITOR.]

THE GOVERNMENT AND THE MEDICAL PROFESSION.—SIR: Having read the official announcement made by General Peel and Sir J. Pakington in the House of Commons, to the effect that they purpose carrying out fully the recommendations of the Committee which sat last December to investigate the condition of the Medical Services, I think it will be right to invite attention to the following facts. That the Conservatives were in power, and General Peel and Sir J. Pakington at the head of the War Office and Admiralty respectively, when the Warrants of 1858-59 were issued, which caused so much satisfaction; that, during the following years, commencing with 1860, under the administration of the "so-called" Liberals, very many of the advantages conferred on medical officers during 1858-59 were rescinded, and the conduct of the authorities towards the medical officers of the army and navy such as to cause very general dissatisfaction, resulting in the appointment of a Committee to investigate the alleged grievances, and suggest remedies; that, although that Committee made their report early in the present year, no intimation was given by the late Government of their intention to adopt the recommendations unanimously made (more especially as regarded the army); and that within one month of the return of the Conservatives to power, General Peel and Sir J. Pakington announce, without evasion or hesitation, their determination to carry out fully and fairly, from a given date, the recommendations of the Committee.

Verily, sir, we have occasion to be grateful to the present heads of the War Office and Admiralty for their enlightened and liberal conduct towards our profession, as represented in the public services over which they preside. It is worthy of note that the naval and military medical officers thus a *second* time receive substantial benefits from the *same* distinguished gentlemen.

I sincerely trust these facts will not be lost upon the profession.

I am, etc., AN ADVOCATE FOR LIBERAL ACTS.

[It is worthy of note, that the authorities promise to give to army and navy medical officers even more than was asked for by the Admiralty Committee. EDITOR.]

COMMUNICATIONS have been received from:—Mr. RICHARD GRIFFIN; Dr. GIBBON; Mr. TRUSTRAM; Dr. J. EDMUNDS; AN ADVOCATE FOR LIBERAL ACTS; MEDICUS; Dr. J. GARDNER; Mr. MAY; Dr. G. HARDIE; Dr. G. GRIFFITH; THE SECRETARY OF THE BROMPTON HOSPITAL; Mr. T. L. WALFORD; Dr. MATTERSON; Dr. W. D. MOORE; Dr. SAMELSON; Mr. E. EVANS; Mr. HAYNES WALTON; Dr. BROADBENT; Dr. M. MACKENZIE; Mr. T. WATKIN WILLIAMS; Dr. J. C. MURRAY; Dr. ROBERTSON; Mr. PROPERT; Dr. PHILIPSON; Mr. HUNT; and Mr. R. HARRISON.

ADVERTISEMENTS.

ESTABLISHED 1848.

Mr. J. Baxter Langley, M.R.C.S. Eng., F.L.S. (late of King's College, London), PROFESSIONAL AGENCY, 50, Lincoln's Inn Fields, W.C.

At the sea-side in a lovely spot, a small unopposed Practice for transfer. Income £200. Easily and inexpensively worked. House rent £25, free of all taxes. Good society. Lovely scenery.—Address "T., 901," Mr. Langley, as above.

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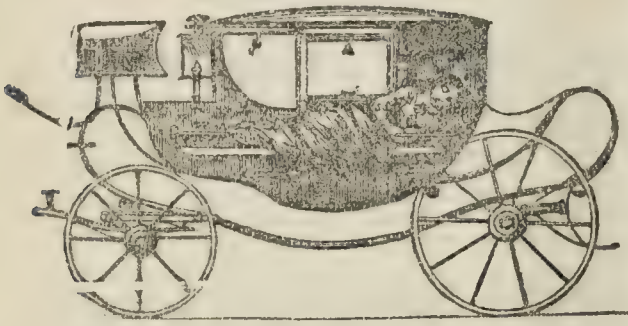
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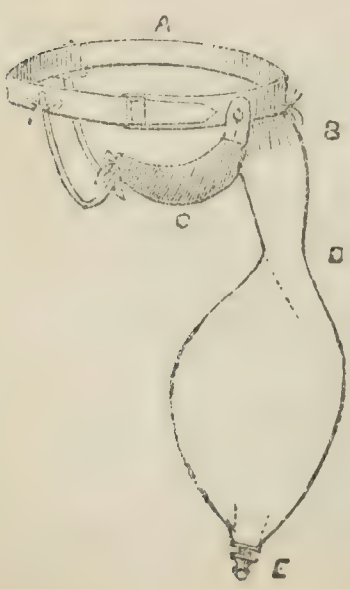


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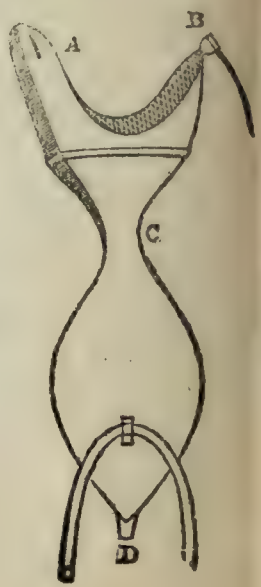
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DRAFT CHARTER OF THE BRITISH MEDICAL ASSOCIATION.*

VICTORIA, by the Grace of God, of the United Kingdom of Great Britain and Ireland Queen Defender of the Faith.

To all to whom these presents shall come greeting.

Whereas, Sir Charles Hastings, of the City of Worcester, Knight, Doctor of Medicine, hath, by his Petition to Us in Council, stated that he is the President of the Council of the British Medical Association. That the Association was founded in the year 1832, under the name of "The Provincial Medical and Surgical Association"; and the objects of the Association were, the promotion of Medical Science and the maintenance of the honour and interests of the Medical Profession. That the means by which the Association endeavoured to carry out these objects were, the holding of annual meetings of the Members in the principal towns of the United Kingdom; the appointment of special Committees of the Members for the purpose of scientific investigations and inquiries connected with the social and general welfare of the Medical Profession; the publication of an annual volume of Transactions; the publication of a Journal as the official and scientific organ of the Association; and the establishment of a Benevolent Fund for the assistance of distressed Members of the Profession generally and their families. That, in the year 1856, the Association consisted of many Medical Practitioners resident in the Metropolis, as well as of Practitioners resident in the country districts; and at the Annual General Meeting of the Association held in that year, it was resolved that the title of the Association should be changed from "The Provincial Medical and Surgical Association" to "The British Medical Association"; and that the Association has since been called and known by the latter name. That a very important feature in the organisation of the Association is the formation of District Branches, consisting of the Members residing in such districts. That these Branches are now spread over the greater part of England and Wales; and, although in general subordinate to the Parent Association, have their individual organisation and mode of action. That the British Medical Association consists, at the present time, of nearly 2500 Members, including a large proportion of the Physicians and Surgeons of the various Public Hospitals and Infirmaries. That the stability of the Association would be secured, and the important objects of its institution would be more efficiently promoted, by the Incorporation of its Members under the sanction of a Royal Charter. And the said Sir Charles Hastings, on behalf of himself as the President of the Council of the Association, and of the President, Vice-Presidents, the Members of the Council, and the other Members of the said Association, hath prayed that We would be graciously pleased to grant to the Members of the British Medical Association Our Royal Charter incorporating the said Association. Now, therefore, know ye, that We, of Our special grace, certain knowledge, and mere motion, do, by these presents, for Us, Our heirs and successors, grant and ordain as follows; that is to say—

1. *Incorporation of Association.* The said Sir Charles Hastings, and all and every other of the persons who are now Members of the said Association, and also all and every of the persons who shall or may, as hereinafter provided, become or be Members of the said Association hereby incorporated, so long as such Members shall continue to be Members of the said Association, shall be and are hereby constituted one body politic and corporate, by the name of "The Royal Medical Association of Great Britain". And the Members for the time being of the said Association shall by that name have perpetual succession, and shall and may by the said name sue and be sued, plead and be impleaded, in all our Courts, whether of law or equity; and have a Common Seal, with power to change and make new the same as shall be thought fit.

2. *Objects and Purposes of Association.* The objects and purposes of the Association shall be the promotion of Medical Science and the maintenance of the honour and interests of the Medical Profession.

3. All the present Members of the Association, including Honorary and Corresponding Members,

* This Draft Charter is published, as approved by the Committee of Council previously to the lamented death of Sir Charles Hastings.

and all persons hereafter to be elected Members, shall be Members of the Association, and shall continue to be such so long as they respectively shall, in all things, conform to the provisions of this our Charter, and of the Laws, Bye-laws, and Regulations, to be from time to time made in conformity with this our Charter; and (except as to Honorary and Corresponding Members) so long as they respectively shall duly and punctually pay the subscriptions and other sums of money to become due and payable by them respectively under or by virtue of the said Laws, Bye-laws, and Regulations, for the time being, of the Association, which are, or ought to be, by them respectively paid, observed, and performed; but subject, nevertheless, to such right of expulsion as is hereinafter provided.

4. *The Members thereof.* Any qualified medical Practitioner, who shall be recommended as eligible by any three Members, may be admitted a Member by the Council or the Executive Committee of the Council, or by any District Branch assembled in general meeting or by the Council of any such District Branch. Honorary Members may be elected by the general body at any Annual Meeting, on the recommendation of the Council; and gentlemen residing in the Colonies or in Foreign Countries, may be elected at any such meeting Corresponding Members on the like recommendation. Honorary and Corresponding Members shall not be entitled to any further privilege than that of attendance at the Meetings of the Association, and the receipt of a copy of every memoir or communication which shall have been communicated by them to the Association, and which shall have been printed by order of the Association. The qualification for Membership shall be prescribed by the Bye-laws for the time being of the Association.

5. *Officers of the Association.* The Officers of the Association shall be a President, a President-elect, Vice-Presidents, President of the Council, a Treasurer, and a Secretary.

6. The President, President-elect, and Vice-Presidents, shall be elected yearly at the annual General Meeting of the Association; and the qualification for the said respective offices, and the duties thereof, shall be prescribed by the said Bye-laws.

7. *The President of the Council.* The first President of the Council shall be the said Sir Charles Hastings, who shall continue in office for his life, or until he shall resign or become unable to discharge the duties of the office; and, in the event of his death or resignation, or inability to discharge the duties of the office, the President of the Council shall be from time to time elected by the Council. The qualification and tenure of office of all future Presidents shall be prescribed by the said Bye-laws.

8. *The Treasurer.* The first Treasurer of the Association shall be the said Sir Charles Hastings, who shall continue in office for his life, or until he shall resign or become unable to discharge the duties of the office. In the event of his death or resignation, or inability to discharge the duties of the office, the Treasurer shall be from time to time elected by the General Meeting. The duties and tenure of office of the future Treasurers shall be prescribed by the said Bye-laws.

9. *The Secretary.* The Secretary of the Association shall be from time to time elected at the Annual or a Special General Meeting; his duties and tenure of office shall be prescribed by the said Bye-laws.

10. *The Council.* There shall be a Council of the Association; and such Council shall consist of the President of the Association, the President-elect, the President of the Council, the Treasurer, the General Secretary, being Members of the Association, and the Honorary Secretary of each district Branch within the United Kingdom having ten members and upwards, and the Members elected by the district Branches, as hereinafter provided. The Members so elected shall continue in office for one year, or until their successors are elected. The place and times of holding the Meetings of the Council, and the duties thereof, shall be prescribed by the said Bye-laws.

11. *The Executive Committee.* There shall be an Executive Committee of the Council; which shall consist of the President of the Association, the President-elect, the President of the Council, the General Secretary, being Members of the Association, and twenty Members of the Council, to be appointed by the Council, or such other number of Members of the Council as shall from time to time be prescribed by the said Bye-laws. The Executive Committee shall have the general management of the affairs of the Association, and all the powers and authorities of the Council in the interval between the General Meetings, except when the Council are sitting. Five Members of the Committee shall form a quorum; and all Meetings of the Committee shall be presided over by the President of the Council, or in his absence by a Chairman appointed by the Meeting. The Committee shall meet at such place and times as shall be prescribed by the said Bye-laws or by the Council.

12. *Annual Meetings.* There shall be an Annual General Meeting of the Association; which shall be held at such time and place, and be summoned in such manner, as shall be prescribed by the said Bye-laws. At every such Meeting, the Council shall present a Report, detailing the general state, proceedings, and pecuniary condition of the Association; and such general and scientific business shall be transacted, and in such order as the Council may determine.

13. *Special Meetings.* The Council or the Executive Committee may at any time convene a Special General Meeting of the Members of the Association to be held at such time and place as they may see fit, and shall convene such a Meeting upon such a requisition as shall be prescribed by the said Bye-laws. The notice calling any Special Meeting shall state the objects for which it is called, and no other business shall be transacted thereat.

14. *District Branches.* Any number of Members of the Association may form themselves into a District Branch; and each such Branch may appoint a President, Treasurer, Secretary or Secretaries, and such other Officers as it may think proper, and may make Rules for its own government; but no such Rules shall be valid until approved of by the Council of the Association or the Executive Committee. Every Branch, whose Rules have been approved of by the Council or Executive Committee, having not less than Twenty Members, may elect one of its Members to form one of the Council of the Association; and if the Branch consist of more than Twenty Members, then they may elect an additional Member as one of the Council for every additional Twenty Members. Every Branch shall appoint an Honorary Secretary; and if the Branch, being within the United Kingdom, shall consist of Ten Members or upwards, and the Rules thereof shall have been approved of by the Council or Executive Committee, such Honorary Secretary shall be an *ex officio* Member of the Council.

15. *Vacancies how to be Filled up.* Any vacancy which shall occur among any of the Officers of the Association, shall be filled up in such manner as shall be prescribed by the said Bye-laws; but every person so appointed shall retire from office at the same time as the person in whose place he shall be so appointed would have retired under the said Bye-laws.

16. *Chairman of Meetings, and Voting thereat.* At all General and other Meetings of the Association, the President thereof, or, in case of his absence, the President-elect, the President of Council, any of the Vice-Presidents, or, in case of their absence, any Member of the Executive Committee, and, in the absence of all such persons, then some Member of the Association, to be chosen at the Meeting, shall preside. At all such Meetings, every Member, except an Honorary or Corresponding Member, shall be entitled to one vote, and no more; and no business shall be transacted at any such Meeting, unless Nine Members be present, or such other larger number as may from time to time be prescribed by the said Bye-laws. Provided always, that no Member shall be entitled to vote at any General or other Meeting of the Association, unless he shall have paid all Subscriptions and Sums (if any) due or payable by him to the Association. And provided always, that the Chairman presiding at all such Meetings shall, in addition to his vote as a Member of the said Association, have a casting vote in case of an equality of votes.

17. *Subscription to Association.* The Subscription to the Association shall be One Guinea annually, or such other sum as shall be fixed by the said Bye-laws. The Subscription shall date from the 1st day of January in each year; and shall be considered as due unless notice of withdrawal be given in writing to the Secretary on or before the 1st of December previous.

18. *Expulsion of Members.* The Council or the Executive Committee shall have power to expel any Member for such cause, by such proceedings, and with such notice to the Member, and by such a majority, as shall be respectively prescribed by the said Bye-laws. The resolution for any such expulsion may be rescinded by any General Meeting of the Association.

19. *Bye-laws.* The Members of the Association shall, at a General Meeting to be specially summoned for that purpose, to be held within Twelve Calendar Months from the granting of this our Charter, or at some Adjourned Meeting or Meetings thereof, make such Bye-laws, Rules, and Regulations, as to them, or the major part of them, shall seem proper for the regulation and good government of the Association and of the Members and affairs thereof, for the management and disposition of the property, estates, and effects of the Association, the investment and disposition of the monies or funds of the Association, and for the editing, printing, publishing, and selling of such Publications, serial or otherwise, as may be thought proper for promoting the objects of the Association, and for fixing and determining all matters and things, provision for which is herein directed or authorised to be made. Provided always that, until the making of such Bye-laws, Rules, and Regulations, and notwithstanding the Incorporation of the said Members of the Association, the Rules, Bye-laws, and Regulations of the Association now in force, so far as the same are not inconsistent with the provisions of this our Charter, shall continue in force, and, so far as the same may be applicable, apply to the said Association. Provided always, that the Bye-laws, Rules, and Regulations of the Association, so to be made as hereinbefore mentioned, shall not at any time be altered or repealed, or any new ones be added thereto, except at an Annual or Special Meeting, and by such a majority, and with such previous notice of such alteration or new Bye-law, as shall be prescribed by the said Bye-laws.

20. *Power to Hold Lands.* And we do hereby, for Us and Our heirs and successors, further give and grant unto the said Association full and lawful power and authority to hold, possess, and enjoy, for the use and benefit of the said Association, any lands, tene-

ments, rents, or hereditaments whatsoever, so as that such lands, tenements, rents, or hereditaments, shall not at any time exceed in value the clear yearly value of £2000 above all reprises, according to the value thereof when respectively acquired by the said Association.

21. *Power to Convey Lands to Association.* And we do hereby, for Us and Our heirs and successors, further give and grant unto every subject or subjects whatsoever of Us, Our heirs and successors, whether Incorporated or not Incorporated, special licence, power, faculty, and authority, to give, grant, sell, alien, assign, dispose of, devise, or bequeath unto the said Association, for the use and benefit of the said Association, any lands, tenements, rents, or hereditaments whatsoever, so as that the same do not at any time exceed in the whole the clear yearly value of £2000 above all reprises, according to the value thereof respectively when acquired by the said Association.

22. *Power to Invest Funds upon Mortgage.* And we do hereby, for Us, Our heirs and successors, further give and grant that it shall be lawful for the said Association, from time to time, to lend and invest their Funds, consisting of money, upon the security of any lands, tenements, rents, or hereditaments, either by way of mortgage, lien, or otherwise, and to take and hold any lands, tenements, rents, or hereditaments, granted, released, assigned, or conveyed to the said Association, by way of mortgage or for securing the payment of any principal or interest of money, or for securing or indemnifying the said Association in any manner against any payment, loss, or damage whatsoever. And that the said Association shall not occasion or incur any forfeiture or penalty whatsoever, by taking and holding such lands, tenements, rents, or hereditaments, or accepting of any grant, release, assignment, or conveyance thereof, for any such purpose as aforesaid.

23. And we do hereby, for Us, Our heirs and successors, grant and declare that these Our Letters Patent, or the enrolment thereof, shall be in all things valid and effectual in the Law, according to the true intent and meaning of the same, and shall be taken and construed in the most favourable view for the said Corporation, as well in Our Courts of Law as elsewhere, notwithstanding any non-recital, mis-recital, uncertainty, or imperfection in these our Letters Patent. In witness, etc.

Addresses and Papers

READ AT

THE THIRTY-FOURTH ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION.

[*Held in CHESTER, AUGUST 7th, 8th, 9th, and 10th*, 1866.]

THE PRESIDENT'S ADDRESS.

BY

EDWARD WATERS, M.D.,

PHYSICIAN TO THE CHESTER INFIRMARY.

GENTLEMEN,—In the year 1859, when I filled the post of President of the Lancashire and Cheshire Branch of this great Association, on the occasion of its meeting for the first and, as yet, only time in Chester, I gave expression to my gratitude for the signal mark of regard and confidence then conferred on me; then, as now, I stated that "the esteem of my professional brethren, as it is one of the most worthy, so has it ever been one of the most cherished objects of my life."

I have an undoubting trust that this same feeling will ever animate me; it burns within me now as vividly as in the most sanguine period of existence when, rich in the possession of that priceless appanage of youth, a warm, confiding heart, unchilled by the trials of life, the future spread itself out before me bright and unclouded.

The present is an occasion when I may, perhaps, be excused saying some few words of myself. In doing so I am not actuated by any vainglorious spirit, but for those who have to follow the older members of any profession there is not unfrequently some little advantage to be derived in the way of guidance and instruction from those who have preceded them. The maxim I would seek to establish is, that, though there is much of uncertainty and of accident in the career of most men, steady and persevering application, however unassuming, generally reaps all, and not unfrequently more than it is strictly entitled to; but above all, without referring to the delights incidental to extended knowledge and increase of intellectual power, it confers rewards of which no instability of fortune can deprive the possessor.

During the course of my professional career, marks of great kindness have been conferred on me by the teachers under whom I studied, as well as by those in community with whom I worked, for which I scarcely dared hope, but which, for that very reason, I value the more highly.

Gentlemen, standing before you in my present position, one of the highest and most honorable to which any man whose lot is cast in the provinces can aspire, while dreading the responsibility devolving on me, and which, but for a conviction that your kind consideration and forbearance will pardon my shortcomings and more than supply all my deficiencies, I must have hesitated to accept, it may readily be believed that I regard this day as the proudest of my life. The personal gratification incidental to the day is, however, alloyed by a deep and solemn feeling of profoundest grief. This, the thirty-fourth anniversary of the British Medical Association, the first held in the time-hallowed and ancient city of Chester, takes place under circumstances previously unknown in the annals of the Association. The founder, the venerated founder of the Association, is no more. Only a few days back, on the 30th of last month, in the seventy-third year of his age, the pure spirit of Sir Charles Hastings winged its flight for a higher existence, leaving us to regret and lament his absence. As is the grief of a loving son mourning the loss of a wise and good father, to whose fostering care and affection, to whose untiring devotion, he is indebted for all of happiness and prosperity with which he is blessed, such is the deep pervading sentiment of sorrow experienced by every member of the Association for the death of him we now deplore, who will no longer cheer us by his genial presence, elevate us by his noble aspirations, stimulate us by his achievements, and guide us by his wise counsels and great experience.

During the past year death has, indeed, fallen heavily upon us in removing many a valuable member. Without attempting to enumerate all, some names I cannot refrain from mentioning. The mortality amongst medical men from contagious diseases is so heavy as to raise their death-rate to a height which, if it fell on the general body of the people, would soon solve the difficulty of disposing of our surplus population. The disease, which of all others specially decimates their ranks, is typhus. All members of the profession are, of course, subject to it; though it necessarily falls with greatest weight on the medical officers of public institutions. With respect to other contagious diseases, for instance, cholera, intervals sometimes of great duration occur during which the disease is scarcely met with, but our public hospitals are never free from typhus. In greater or less degree, cases always present themselves; and owing to the length of time over which they extend, those in charge of them are peculiarly exposed to take it. Drs. Stokes and Cusack have shown that in Ireland, during the twenty-five years prior to 1843, 560, out of 1,220 medical men who were attached to public institutions, suffered from typhus fever; of whom, 28 had it twice, and 9 three times. The tables from which these facts are drawn do not extend over a period of exceptional mortality, for they stop short of the fatal epidemic of 1847, when, out of every three deaths occurring in Ireland amongst medical men, about two were from typhus, the exact proportion being 1 in 1.55. In Chester, during little more than a twelvemonth, we have lost Dr. Hutchinson Powell, one of the physicians to the Chester Infirmary; Dr. Lewis Brittain, house-surgeon, the eldest son of Mr. Brittain, senior surgeon to the Infirmary, and our valued associate; and Dr. Hughes, also house-surgeon; together with Mr. Jones, one of the pupils. All four have fallen a prey to typhus!

Gentlemen, it was in discharge of the holy and self-sacrificing ministrations for which our profession is so pre-eminently distinguished, that these our brethren, free from the taint of worldly gain, wholly unrewarded for their priceless services, were thus

immolated. One only, Dr. Brittain, was a member of our Association, but all intended to have joined it. Amongst the victims of fever I would, however, specially mention our associate, the late Dr. Barker of Bedford. It has in numerous instances been observed that those whose studies have been directed to any special disease, or any distinct organ or portion of the frame, have themselves experienced the suffering incidental to it. In this way Laennec succumbed to pulmonary consumption; Reid, of St. Andrew's, to the most painful of diseases which afflict mankind, and involving, in his case, the very nerves whose influence his numerous experiments had done so much to elucidate. So Dr. Barker, in dying of typhus, also succumbed to one of that class of diseases which it was his effort to prevent. A short time only elapsed after the celebration of last year's anniversary at Leamington, where Dr. Barker received from the hands of him whose name it bore, the Hastings medal for his prize memoir on disinfectants, ere we all heard of his being stricken by fever and perishing under it—another martyr to professional duty. Alas! in one short year, both he who received and he who presented the valued reward of competitive merit, have been lost to us by death! The recent death of Mr. Toynbee has deprived us of another of our most valued associates, one who helped to sustain the reputation of England by the high rank he attained in that department of the profession to which he devoted himself. Still, high as were his professional attainments, and in these no man excelled him, he was no less remarkable for his open-handed charity.

There is one charitable institution specially connected with the British Medical Association—one which in no way interferes with the Royal Medical Benevolent College at Epsom. The establishment at Epsom founded by our respected associate Mr. Propert, who, as a Welshman, is an honour to the Principality, exercises a wide and most beneficial influence, and enjoyed the distinguished honour of having the late and ever-lamented Prince Consort as its patron. It affords a sound education, such as will bear comparison with the best of our public schools, to the sons of medical men at a very moderate charge, and to a certain number of orphans and fatherless free of all expense. It also supports as pensioners superannuated and disabled medical men or their widows. The numerous applicants to fill the vacancies that occur, far exceeding the resources of the institution, were incontrovertible evidence of the urgent necessity for its existence. Acting as I have done for several years as one of the Honorary Local Secretaries to the Epsom College, I need not say that it has my warmest support, and that I hope not only for its continuance on its present scale, but that I look forward to its great extension. To secure the great advantages offered by the Epsom College, a system of arduous and expensive canvassing is resorted to, which, when continued year after year, is almost heartbreaking, and crushes those whose influence is not sufficiently great to insure success. This charity, however, is not specially connected with the Association, as is the Medical Benevolent Fund, which is conducted on a plan different to that of the Epsom College, and occupies an entirely different field. The chief object of the Medical Benevolent Fund is to grant temporary rather than permanent relief; to obtain assistance from it, all that is required is to have the case of distress well authenticated and recommended by two or more members of the profession. The application is then at once considered, and relief granted. No canvassing and no publicity are necessary, and if the saying, *bis dat qui cito dat*, can ever apply, most unquestionably it attaches to the aid granted by the Medical Benevolent Fund.

It is with reluctance that I have trespassed on your time with these details, but, though well known to many of us, they may not be equally so to all our associates; and I have been influenced to do so by the fact of the late Mr. Toynbee having devoted much of his valuable time, abstracted from incessant professional demands, to enlarge the sphere of its operations. The unobtrusiveness of the method in which this Fund dispenses its relief, accorded with that pursued by Mr. Toynbee himself in the exercise of his private charity. Hence his special support of it, on one occasion giving, I believe, £500 towards it; but, above all, bestowing on it his time, more valuable even than his pecuniary munificence. The melancholy accident by which he met his death was in harmony with his life: while seeking, by experiments on himself, to discover means for alleviating the sufferings of others, he sacrificed his own life in its fullest prime.

In Dr. Conolly we have lost another chief, who, as long as health permitted, always attended our meetings, and by his exquisite literary taste, his high professional attainments, and graceful urbanity, contributed largely to their attractions. In him society has lost a true and practical philanthropist; but the influence of his life will remain in all that he has effected for the humane treatment of the insane, and for the aid he afforded in founding the first asylum in this country for the reception and education of idiots, awakening and training their affections, developing their feelings, and opening a new world to those whose existence before was a dark and dreary blank. Dr. Conolly was one of the earliest members, and one of the pillars of the Association; and, with Forbes, Johnstone, and others, aided Sir Charles in founding it. One by one these early friends passed away, leaving Sir Charles almost their only survivor; and it became painfully evident to all who attended the later anniversaries, that the conviction was deepening in his mind, that the day was not far distant when he also would be summoned.

At the Leamington meeting, he appeared so much like his former self, so much better and stronger than the years before, and spoke with so much vigour and power, that, when he accepted for Lady Hastings and himself my proffered hospitality for this meeting, I fully calculated upon the pleasure of receiving them. I know that Sir Charles Hastings had for many years looked forward to a meeting being held in Chester; but little did I imagine at Leamington that, when we assembled, he would be absent, and that I should not only lose the ever ready counsel of him, the grand object of whose life was the promotion, the growth, and the increase of the influence for good of this Association, but that I should have to mourn his death. This is the first occasion on which the person who has to preside over your proceedings, has not been aided by the experience of him who had never missed one of its gatherings. The ship he built is fairly launched, and the pilot who so long guided it has departed. It now remains to be proved whether others can safely navigate it,

and whether his great ambition to fix this Association on the firmest possible basis has been realised.

Gentlemen, as I have before stated, in accordance with our founder's wish, we are met together in Chester; and, in the name of the profession, I give you a most cordial welcome, and hope the meeting will prove a successful one. In objects of interest, Chester can be nowhere surpassed. It is no modern town; it boasts an antiquity of nearly two thousand years, dating from the occupation of the Romans, when the 20th Legion of the Empire was encamped here. The remains of Roman antiquities are extremely numerous; but of these, in your perambulations through the city, you will acquire a far better knowledge than from any description of mine. The most important fact for us, is the existing unmistakable evidence that the Romans built their city, with a view to the health of its inhabitants, on a foundation of new red sandstone, at an elevation admitting of easy and effectual drainage. The city was clearly characterised by a high state of civilisation. It possessed at least two sets of public baths, and many fine public buildings, the remains of which are occasionally disinterred where least suspected to exist. These remains generally lie from four to five or more feet below the present surface of the ground, such being the accumulation of soil during the time that has elapsed since their erection. The remains also show that pure drinking-water was much valued, and that hygienic measures were carefully carried out; better, probably, than they have been at any subsequent period. With the Roman occupation and civilisation, Christianity undoubtedly came in. The theory has been maintained, that existing savages are the descendants of civilised races. In some cases, this may be the case; in others, however, much more probably not; but in no way should we be justified in terming the Saxons savages, though it is certain and very remarkable that, under their rule, the arts and comforts of civilised life were replaced by earthen floors strewed with rushes, and Christianity by Paganism. In Wales, where the Saxons did not penetrate, Christianity remained. In the neighbourhood of Mold, a town twelve miles distant, the Christians under Germanus gained the Hallelujah victory against the Picts; and about twelve miles up the river Dee, where no vestige of a monastery now remains, but simply a church that replaced it, an establishment numbering two thousand monks existed, who resided there when Saxon England was Pagan. I would also mention that, in the neighbourhood of Chester, Delemere Forest is situated, which, under the rule of Ethelfleda, daughter of Alfred the Great, was the site of an important station. The hundred in which it is situated is named Eddisbury, obviously a corruption of Ethelfleda's borough. Anyone now visiting it, and perceiving no trace of ruins of any kind, would never imagine it to have been the seat of a large population, though yet an undoubted fact.

That a civilisation of so high an order, and marked by that special attention to the preservation and promotion of good health which characterised the Romans—a civilisation which could not merely have occupied this portion of the kingdom, but which palpably extended wherever the Roman rule prevailed, and was moreover refined by the softening influence of Christianity—that such a civilisation should have been absolutely extinguished and replaced by barbarism and paganism, and that we should now have the proof of the change at our own doors, is in the highest degree worthy of attention and reflection, and should make us, who, by our calling, are the conservators of the public health, carefully guard against the influences which tend to deteriorate it, for degeneracy of body and degeneracy of mind unquestionably coincide. In Chester, it took years of suffering, during which the penalty for neglected hygienic measures was paid in the form of fearful mortality from the sweating sickness, and from repeated attacks of plague, before the inhabitants again awoke to the necessity of drainage, of water-supply, and of public baths, all which have only very recently been attended to.

Whatever may be the causes that bring together large bodies of men, whether the mustering of great armies, or the demand for labour resulting from manufactures or from commerce, neglect of hygienic rules is, under such circumstances, inevitably followed by sickness and premature death. The terrible lesson experienced by our army in the Crimea, where a mortality of 35 per cent. from disease in the short space of seven months, extending from October 1st, 1854, to April 30th, 1855, decimated its ranks, is still fresh in the memory—a rate of mortality which by disease alone, without reckoning the casualities of the battle-field, would in twenty months have swept away every living soul of one of the finest armies that ever left our shores. The mortality above given does not comprise the numerous men whose health, broken by the privations under which their comrades, happily for them, more speedily fell, have since their return succumbed, or are still dragging on a weary suffering life of hopeless illness. That this sad state of things might have been prevented, is unquestionable; for the officers, who, from their private resources, were to some extent independent of government care, did not suffer equally with the men; and when the reclamations of the medical officers (for our professional brethren did not allow our noble soldiers to die from disease without pointing out the neglect that occasioned it) at length succeeded in obtaining their demands, then the mortality rapidly diminished. The French profited in their Italian campaign by the experience of the Crimea; for, owing to the admirable arrangements directed by the Emperor, at the instigation of the distinguished surgeon Baron Larrey, notwithstanding the monster armies assembled, notwithstanding the heat, which was excessive, and the unfavourable telluric influences incidental to a campaign in Lombardy, neither hospital gangrene, typhus, nor other contagious disease, prevailed to any extent. If the English nation, equally with the French Emperor, should thus profit by the Crimean lesson, then our gallant men will not have died in vain; but it is a lesson that the English nation seems too frequently to require; for in 1809 the same feeling of horror, that was engendered by the Crimean losses, thrilled through all England at the result of the Walcheren expedition, when, out of every 1,000 men, 16.7 only were lost by wounds, and 332 by disease. The medical profession in this country is, however, year by year increasing in influence, and bringing its weight to bear upon questions of public health, although it has but scant encouragement afforded it.

Since our last anniversary, Cheshire has been

heavily visited by the Cattle-plague. Well do I remember how the alarm was sounded by our associate Dr. W. Budd at Leamington this time last year. No one who then heard him can forget the deep impression he stamped on the minds, and not only on the minds but on the feelings, of those who listened to the moving, eloquent language in which he predicted the sad results which would inevitably follow the neglect of the precautionary measures which experience had too surely proved could alone avail. The preventive measures he advised were of no hypothetical character; they had been tested and found effectual in countries actually adjoining infected districts, and with entire success; they were carried out in France, where the disease had actually penetrated, and with equally good result; they were peculiarly easy of application in England, girt as she is by the sea, and capable of complete isolation. The measures suggested were marked by no taint of novelty; but, as with the Walcheren, as with the Crimean expedition, the teaching of past experience was disregarded. A century back, the plague had passed over the herds of this country, carrying desolation in its track—desolation, the effects of which, in the ruin it entailed, it took a generation to erase. With all this knowledge pressed upon the authorities, no adequate measures of repression were enjoined. Step by step the disease advanced, until at last it invaded our Cheshire herds. Gentlemen, I did my best at that sad and anxious time to have the disease stamped out; I addressed one of our county members, and urged the impropriety of attempts at cure, and showed that no amount of private success could be otherwise than injurious to the public weal; for that the very process of cure must entail the spread of the disease. I urged that the visitation was a national calamity, and should be met by a national tax; that it was not the agricultural interest which was alone involved; but that every member of the community, from the labourer upwards, would, in the price of meat, be affected, and that the drain on the public purse would be insignificant, if not imperceptible, if the pole-axe were resorted to in time. I endeavoured to impress upon him that it was the duty of the executive to anticipate and to guide public opinion, rather than be governed by it; and that, at the expense of present unpopularity, it should at once enforce such measures as superior information and intelligence dictated, and allow subsequent events to justify them. The gentleman to whom I thus applied endeavoured to influence others. Time, however, travelled on; the disease extended; and the reply he then generally received was, "We are not going to pay for your losses in Cheshire."

The pole-axe system was then put in force, and killing was adopted with a view to compensation; but in very many, if not the majority of instances, this was only done when the animals were at the point of death. As far as Cheshire was concerned, all the misery and loss the disease could effect was accomplished; the infection was so general that no killing could save the remaining stock. The pole-axe system in Cheshire at that time could only be of advantage to those parts of the kingdom not yet invaded by the disease; and those gentlemen who replied to my friend, "We are not going to pay for your losses in Cheshire", may yet pay the penalty of their selfishness in the loss of their own herds.

One consequence of the disease has been the selling off of a large quantity of hay, which has been forwarded to other parts of the kingdom. As yet, no ill results seem to have followed; it may be that the hay, owing to the abundance of grass at this season of the year has only been used for horses, and not for cattle. It is highly probable that much of this hay contains the fomites of the disease. Let us, however, hope that no ill results will occur. The face of Cheshire is completely altered by the disease; farms where cattle abounded are now stocked with sheep, for which our pastures are ill adapted. A loan of £300,000 has been obtained from the public purse to compensate those whose cattle were killed, and rates extending over thirty years will be levied to pay off interest and loan. Such a proceeding is simply a loan to the sufferers, to be returned by instalments. For two years nothing is to be repaid, for the simple reason that the farmers have not wherewithal to pay. Such is a short sketch of the progress and effects of the Cattle-plague in Cheshire by an eye-witness.

The subject of contagious diseases has always excited interest in Chester. The late Dr. Thackeray, whose name is connected with our principal charities, especially the Infirmary and Blue-Coat School, who was one of the early members of this Association, and to whose memory a monument has been erected by his fellow-citizens in our picturesque cemetery, placed £50 at the disposal of the Association as a prize for the best essay on fever. Another of the medical celebrities of Chester, Dr. Haygarth, at the end of the last century, with a view to the prevention of infectious diseases, inculcated the necessity of isolation in their treatment, and the adoption of fever wards. It is one of those matters of which the profession in Chester is naturally proud, that the views he so strenuously advanced and maintained, and which at the time were met by uncompromising opposition from many, are now generally adopted.

The cholera at present, more than any other disease, occupies public attention. On its last occurrence in Chester, the worst possible course was adopted with regard to it. The cases were treated, as they occurred, in the localities where they originated, spreading the disease around, and so continuing until it wore itself out. The authorities at present are fully warned against the danger of pursuing a similar plan, and are taking steps to insure, as far as practicable, the isolation and separate treatment of the disease. There is one point of deep interest connected with Chester as regards cholera, and has a direct connexion with the conclusions arrived at by Dr. Snow in his pamphlet on Cholera published in 1849 and again in 1855, and by the Registrar-General in the reports on the epidemics of cholera in 1848 and 1854. Dr. Snow showed that the cholera in London was more general in districts where the population drank water contaminated by sewerage than elsewhere. This was particularly the case with the notorious Broad Street pump, which, as supplying water of a pleasant, bright, sparkling character, though thus contaminated, was in general request. It was mentioned in the papers recently that the handle of this pump had been repaired, but happily Dr. Lankester has since interfered and ordered its removal.

The supply of water to Chester is derived from the

ver Dee within the tidal influence, the spring tides owing some miles above the point whence the water pumped. The water, however, is only pumped nto the reservoirs, which immediately supply the ity when the tide is out. This constitutes a source f objection to the present source of supply; there , however, a still graver one to be urged, and this ffects the very body in whose hands the interests of he community are lodged. In reference to this oint I must mention that in the reports I have re- erred to the following facts are stated. I shall select rovincial towns as specially bearing comparison with hester. During the epidemic of cholera in 1832, 000 cases occurred in Exeter, of which 347 were tal; the water supply at that time was derived om the river, and was contaminated. In 1834 the ater-supply was improved, being drawn from the iver two miles above the town, and when the epi- emic of 1849 occurred there were only 44 cases, and ose chiefly amongst strangers. In Dumfries in 832 and 1849, when the supply of water was both anty and impure, the disease raged with fearful irulence; after the second visitation, a better sup- ly, perfectly free from taint, was procured, and in 854 the place was very lightly visited by cholera. might multiply similar cases, but those I have given fficiently show the importance of pure drinking ater.

In Chester, as in most other towns, we are de- endent on a water company for the convenience and dvantage of our water supply. The water, at the me of their establishment, was drawn from a point f the river above the city; but, with the extension f the city, houses have now been erected beyond it, nd the company are at present laying down pipes xtending above them. Complaints have not unfre- uently been made against the Water Company, and is has been done by members of the Town Coun- l, although there is a source of pollution of our river r which I believe the Town Council is responsible. ome fifteen years back, the sewerage of this city as remodelled. Difficulties present themselves in ll undertakings; and the difficulty in this instance as the disposal of the sewerage. We have a sandy lluvial soil within easy reach of the city, thirsting r all the manure we can bestow on it, and ertain to repay it in abundant crops; but, be this s it may, obstacles existed to obtaining an outlet, nd, in consequence, the Town Council decided on ischarging the sewerage of the city, yearly in- reasing in population, into the River Dee, but a ort distance below the point whence the present ater supply is obtained. At the point where the ewer enters the river, a bank of deposit is rapidly rming, and the tide passing over it necessarily arries upwards beyond the water works the nfluence to be exerted by the excreta of he inhabitants. I have ventured to call ttention to this subject, because, after the ex- erience of Exeter and other places, it will be in- eresting, should cholera invade the city, to watch s influence, and learn what, if any, may be the ffect on the citizens resulting from this pollution f their river. I have often seen the dark iridescent ellicle due to it floating on the surface. The water- upply of Chester is trammelled by the restrictions hich ever apply when an article of such prime ecessity for private individuals or the public good ests in the hands of a private company. The occu- piers of low-rented tenements, unless the water be supplied through their landlords paying the water-rate (and this is by no means generally done), are dependent on surreptitious supply, or supply from private pumps and fountains; and the very houses and localities which, for the sake of the public health, stand most in need of cleansing and purification, are thus left without the means of effecting it. All sanitary reformers maintain that the supply of water should be free as air and light. The window-tax being abolished, the time has arrived when, wherever practicable, the supply of water should, for the public good, be taken up by the local authorities, and a general water-rate levied, which would bring all the property of the city under contribution, and make the supply a profitable one. In the interest of the public health, the plan of proceeding might be well urged on the Government, which would thus do something to counteract the ill effects resulting from the great facilities afforded for obtaining less innocent beverages.

When the diversion of the sewage from our lovely river is effected, and when the City takes into its own hands the supply of water to its citizens, so as to supply it to all, a great and most beneficial advance will have been made in our sanitary arrangements.

Gentlemen, in the remarks—the discursive remarks—with which I have opened this anniversary, I have avoided touching on the subjects to be treated by the readers of the addresses, who are so much better equal to dealing with them than I am. I have touched on some matters of local interest, but the more important business of the meeting I resign into other hands, and again thank you for the kind manner in which you have received me.

Dr. Vanderbyl has been elected member for Bridgewater. He is a graduate of Edinburgh University, and a member of the Graduates' Club. He some years since left the practice of medicine, in which he much distinguished himself as a scientific writer, for a merchant's life, in which he has, we are glad to find, been successful.

Dr. M. Sims. The *Philadelphia Medical and Surgical Reporter* thus speaks of a part of Dr. M. Sims' work, a work which we confess we have never had the courage to notice in these pages. "Dignified as the part of the obstetrician may, in safely guiding, through suffering, the process of delivery, we confess we see no dignity in such chambering as the above. Rather the words of Hamlet come to mind: 'To what base uses may we come, Horatio!' Other curious things are told of in this book; most so, perhaps, Dr. Sims's history of his experiments in 'mechanical impregnation.' This is the injection, by an instrument for the purpose, of semen directly into the uterus, when, from displacement or contraction of the os, or some other defect, intercourse had proved fruitless. Such experiments Dr. Sims has performed fifty-five times on half a dozen patients in two years, with one conception following. He has now given up the practice, which has also failed in the hands of Dr. G. Harley. We are not surprised at its abandonment; the wonder is, that the three parties necessary in each case—a man, a woman, and a physician—could ever, by any 'fortuitous concourse,' have found themselves together for such an operation. It proves that it does, indeed, take 'all sorts of people to make a world.' We had thought to have seen and known, before, something of almost all kinds of practice; but this out-Simses Sims."

Notes
ON THE
PATHOLOGY AND TREATMENT OF CHOLERA.

BY
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THE CONDITION OF THE LUNGS DURING COLLAPSE AND AFTER RE-ACTION.

THERE have been during the last fortnight many opportunities for examining the condition of the lungs after death from cholera. And so far as I have seen or heard or read, the result of these observations has been to confirm the statements long since published by Dr. Parkes and others, to the effect that, when death has occurred during the stage of collapse, the minute tissue of the lung is remarkably deficient in blood; whereas, after death in the stage of reaction, and more especially if there have been consecutive fever, the lungs are exceedingly gorged with blood.

The appearance of the lungs in cases of collapse has been somewhat differently described by different observers. One condition which appears to have excited the surprise of practitioners in India, is the extremely small size of the lungs as they are found collapsed when the chest has been opened. This shrinking of the lung into so small a bulk is evidently due to the emptiness of the minute vessels. Such an extreme collapse of the lung-tissue is impossible when the small vessels are gorged with blood; and it may be stated, in general terms, that there is an inverse ratio between the degree of pulmonary collapse and the fulness of the capillaries of the lung. Emphysema and adhesions between the lung and the walls of the chest will, of course, interfere with the collapse of an anæmic lung.

My friend Dr. Massey has favoured me with the sight of some manuscript notes made by medical officers of the army in India in the year 1823. There I find it stated that, in seven cases of rapidly fatal cholera-collapse which had occurred in quick succession, "the thorax appeared to be entirely empty, and what might be termed lungs were found lying close to the vertebræ in a complete state of collapse, each lung not being the size of a small hand."

Scot (*Report on the Epidemic Cholera, Madras* 1824) states that some observers suspected that this extreme shrinking of the lung must be due to the pressure of air in the cavity of the pleura during life. And, in order to test this view, they opened the chest in some instances under water; but they found, of course, that no air escaped when the chest was punctured.

The degree of pulmonary collapse, when the lungs are structurally sound, is an accurate measure of the emptiness of the minute capillary vessels. In cases of extreme pulmonary collapse, the air is almost entirely expelled, so that the lungs are non-crepitant on pressure. In most cases, the lungs are of pale colour, more especially at the anterior and upper parts; and if the examination of the body be made immediately after death, the pale colour may extend throughout the whole lung. In most instances, there is more or less engorgement of the back parts of the lungs, owing to *post mortem* gravitation.

The anæmia of the lung has generally been observed to be greatest in the most rapidly fatal cases of cholera-collapse.

The weight of the lungs is the most accurate measure of the emptiness of the minute vessels. This is generally much below the normal standard. The mode of ascertaining this is to weigh the lung after cutting through the root and allowing the blood to escape from the large vessels, where it is usually accumulated in large quantity. Dr. Parkes found the average weight of both lungs in twenty-two Europeans who died in collapse to be 26 ounces 6 drachms. Dr. Clendenning estimated the normal weight of the lungs of adult males to be 46 ounces. Dr. Reid makes it 43 ounces. Taking either estimate, the lungs of patients who have died in the collapse stage of cholera are remarkably reduced in weight. This reduction of weight is evidently connected with a great deficiency of blood in the minute capillary vessels. And, inasmuch as the larger branches of the pulmonary artery contain an unusual amount of blood, it is evident that the blood has suffered arrest in the minute branches of the arteries before the capillaries have been reached.

The defective aëration of the blood during collapse is explained by the fact that only a small proportion of blood passes through the pulmonary capillaries where it can be exposed to the air. It has often been supposed that the blood of a cholera-patient has suffered some change which unfits it for undergoing the respiratory changes. This is an unnecessary and a baseless hypothesis. The blood is not aërated simply because it is arrested before it reaches the air-cells. When the lung is incised, the cut surface, immediately on exposure to the air, becomes of a florid red colour; showing that the blood in its vessels is apt enough to undergo the usual respiratory changes when it has access to the air.

Two patients have died of cholera in the hospital during the last few days—one in collapse; the other with pulmonary engorgement, drowsiness, and convulsions after reaction. Each case affords a good typical example of the condition of the lungs in collapse and during reaction respectively; and a few particulars of these cases may perhaps be interesting and instructive.

J. B., aged 46, was admitted at 4.30 P.M. on the 1st August. He lodged at Old Boswell Court in the Strand; and on the morning of the 1st, at 12.30, he was seized with cramps; then he vomited; and between that time and 8 A.M., he vomited four times and was purged three times. The stools were not examined. At 8 A.M., his face became blue, the eyes sunken, and the fingers shrivelled. It could not be ascertained whether vomiting and purging had continued during the day. At 4.30, when admitted, he was in extreme collapse; cold, blue, pulseless, with sunken eyes; the voice a scarcely audible whisper; temperature of axilla, 92; respiration 44, very shallow; heart-sounds inaudible; no vomiting or purging. At 5 P.M., his breathing suddenly be-

ame slower and more gasping. Dr. Fenn, the assistant house-physician, tried to bleed him, but arcely half an ounce of blood flowed; and he died t 5.15, three-quarters of an hour after his admis-on.

The body was examined two hours after death. he lungs were collapsed, small, and pale. The right eighed eight ounces; the left nine ounces. Both des of the heart were empty. The right cavities ere flaccid, and had evidently emptied themselves rough a wounded vein when the chest was being pened. There was the usual choleraic secretion in he small intestines.

In this case, death occurring during the stage of ollapse, the anæmia of the lung was extreme. In he next case, death occurred after reaction, and an ntirely different condition of lung presented itself.

M. P., aged 15 months, was seized with vomiting nd purging on the 30th July, at 10 A.M. The ools were at first green; then like rice-water. In he course of the afternoon, the surface became blue nd the eyes sunken. Admitted at 11.30 P.M. here was then marked collapse. The surface was old and clammy; the pulse extremely feeble. There as neither vomiting nor purging. At 1 A.M., on the 1st, the general condition was the same; the tem-erature in the armpit was 96⅗. At 10 A.M., the emperature had risen to 99⅘; the stools were green-h; the child was drowsy, and lay with the eyes artly open. At 10 P.M., the temperature had again allen; it was now 97⅖. Respiration 32; pulse 144. he drowsiness continued during the night; and eath occurred at 10 A.M. on the 1st August. There ere two attacks of convulsions shortly before death.

The lungs were very much gorged with blood, and here was a considerable amount of yellow bile in he small intestines.

In this case it is evident that death occurred after eaction had set in. And it is probable that the im-ediate cause of death was an accumulation of car-onic acid in the blood consequent on the capillary ngorgement of the lungs. The order of events pro-ably was this. During the period of collapse there as a partial arrest of blood in the minute branches f the pulmonary artery, and the defective oxygena-ion was indicated by the temperature falling to 96⅗. f death had occurred at this stage, the lungs would ave been found anæmic. The occurrence of reac-ion was indicated by a rise of temperature to 99⅘. he blood was now passing more freely through the inute pulmonary arteries, and a more rapid com-ustion began, but with this there occurred some apillary engorgement of the lungs, a consequent ccumulation of carbonic acid in the blood and drow-iness; at length convulsions and death. The fall of emperature again after reaction was a result of in-reasing capillary engorgement and consequent im-eded circulation through the lung. If the child had ot been closely watched, it might have been sup-osed that death had occurred during collapse. The ccurrence of reaction, however, was distinctly roved by the rise of temperature, and by the bundance of bile in the small intestines after death.

This case affords an illustration of one of the most ommon sources of danger after reaction has set in, amely, capillary engorgement of the lungs, and in consequence of this, an accumulation of carbonic cid in the blood. During the stage of collapse here is an accumulation of combustible material in the blood; when the circulation again becomes free, there is a rapid oxidation of this accumulated fuel, and an abundant formation of carbonic acid, bile, and urine.

The safety of the patient now depends upon the uninterrupted elimination of these excreta. In some instances, as in this case, capillary engorgement of the lungs supervenes so rapidly upon the occurrence of reaction, that great care is required to distinguish between the two stages. When a patient, apparently in collapse, has a warm skin, with a temperature above 98 degrees; when there is decided and increasing drowsiness, with hurried breathing and crepitation over the lower lobes of the lungs, we may be sure that capillary engorgement of the lungs has supervened after reaction, and that the drowsiness results from an excess of carbonic acid in the blood. When death occurs at this period, the lungs will be found excessively gorged and heavy, and the contents of the small intestines will be tinged with bile.

This pulmonary engorgement after reaction is a very common and a very serious and often fatal complication. I believe that the most hopeful mode of treatment consists in the application of turpentine stupes to the back, and the abstraction of blood by cupping over the lower lobes of the lungs.

ANÆSTHETICS. The editor of the *Cincinnati Journal of Medicine* reports the performance of Chopart's amputation of the foot under the influence of nitrous oxide gas.

DR. LAYCOCK. We regret to hear that Dr. Laycock has suffered lately amputation of the thigh. The operation was performed by Mr. Spence. The cause of the operation was, we believe, some old affection of the knee-joint.

ASYLUM FOR INSANE SOLDIERS AT NETLEY. On the 26th ult., Mr. Floyer asked the Secretary of State for War whether his attention had been directed to the proposed arrangements at Netley for the care and treatment of insane soldiers; whether, considering that there are at the present time in a private asylum at Bow 195 male and female patients belonging to the military service, he considered the proposed provision for 60 patients adequate to the wants of the army; and whether, in the event of its being considered necessary to provide for a much larger number in buildings under the control of the government, he thought that it was wise to make that provision in the grounds of the hospital at Netley. General Peel said the building now being erected at Netley, for the care of insane soldiers, was placed there in consequence of the report of the committee that sat in 1863, on the removal of the establishment from Chatham. The patients were only placed there for the purpose of observation, and would, after a short period, be removed to their friends or to private asylums. Certainly accommodation for only 60 patients would not be sufficient for a lunatic asylum for the whole army; neither was it intended that it should be. The reason for providing accommodation for 60 was that the committee reported that that was the greatest number placed at one time in the old lunatic asylum at Chatham. The great advantage of having at Netley a connexion with the marine establishments, was, that the lunatics who came home from abroad could be at once taken charge of there. Another advantage was, that the medical students of the hospital at Netley had an opportunity of studying the cases of lunacy in the asylum.

Transactions of Branches.

METROPOLITAN COUNTIES BRANCH.

PRESIDENT'S ADDRESS.

By Henry Lee, Esq., Surgeon to St. George's Hospital.

[*Delivered July 18th*, 1866.]

The subjects which have been noticed in the Report of the Committee which has now been read, and which have occupied the attention of this Branch of the British Medical Association during the past year, are among the most interesting and important which can influence the health of this or of any other country. By the assistance and advice of medical men, and especially of members of our Association, the Government have had under its consideration the River Waters Protection Bill, the Capital Punishment within Goals Bill, the Sewage Utilisation Bill, the Contagious Diseases Prevention Bill, and other subjects which tend to produce very important alterations and improvements in the well-being of our population.

There are three measures especially to which our attention may at present be directed in a particular manner, because they have been read a second time and passed through Select Committees in the House of Commons. These are the Public Health Bill, a Bill for the Improvement of the Poorer Quarters of Towns and the Dwellings of the Labouring Classes, and a Bill for the improving the System of Public Vaccination. Two of these subjects have been so ably discussed at the scientific meetings of the Branch, that I feel any word from me upon the general merits of the measures proposed would be quite unnecessary here; but there is one point with regard to them all to which I may perhaps allude with advantage, and which we may with propriety bear in mind in our future deliberations. All these measures, more or less, affect "the liberty of the subject," and there is, I think, a little danger, that, while the legislature looks, perhaps, too exclusively at the measures which may be deemed necessary in a legal point of view, we, on the other hand, may consider these subjects too exclusively in their medical or their sanitary aspects. When we are told that three years ago small-pox killed in London alone two thousand persons, and that at the present moment another epidemic may be beginning; that cholera is raging as an epidemic upon some parts of the continent, and that some cases have occurred in isolated spots in England; and when we are informed that a very large proportion of our soldiers and sailors are incapacitated from duty by infectious diseases, the importance of the measures which are likely to check these evils cannot be looked upon as unimportant, or as admitting of unnecessary delay in their application. But in order that these should be of any real efficacy, they must be sufficiently stringent to affect in a greater or less degree the liberty of the subject. Now, in endeavouring to frame acts which shall not interfere with this, the measures which have been passed have often proved to be quite ineffectual. With the existing sanitary laws, the Report of Dr. Hunter last year informs us that, practically, in many cases, we might as well possess no sanitary law at all. He describes the most various accumulations of filth in closest proximity to dwellings, entire absence of drainage, or drains inoperative and offensive; ponds and ditches equivalent to open cesspools, drinking water polluted and made poisonous by refuse; and many other things of a like kind. We, as medical men, say these things ought to be remedied at once. Those who favour legislative measures, and the local authorities who are to carry them out, on the other hand, are afraid of encroaching upon that liberty which every Englishman is supposed to possess. It is not an easy thing to compel a parent to have his child vaccinated, and it is no easy matter to compel the father of a family to relinquish the liberty, which he holds so dear, of sitting by day, and of sleeping by night, over ordure which may have been accumulating for months. The task of forming legislative enactments upon these subjects is evidently a very delicate one, and it is notorious in how many cases the attempts have been unsuccessful.

The Government cannot advance a step in the right direction without medical advice, and medical men are often powerless without the assistance of efficient laws. Now the point to which I wish to bring my argument is this, that in performing our part of this great duty we shall, in a measure, defeat our own objects if, in giving our advice, we do not weigh well the difficulties with which those who frame our laws have to contend. Our advice, to be of any real value, must be such as can be practically carried out. We must weigh well our conclusions before we venture to advise that they shall be made law. We must be very cautious how, in our endeavours to get rid of acknowledged nuisances, we urge the Government to take measures which in other respects would be unpopular, or even contrary in spirit to the principles upon which the constitution of our laws is based. And here I would draw a broad distinction between the fact of our talking over subjects among ourselves, forming our own opinions upon them, and putting those opinions, in the shape of resolutions, on the one hand; and what has been termed "taking action" upon them, or recommending their adoption by the legislature, on the other. We may be, as an Association, or as the Branch of an Association, quite satisfied that a thing is right, and we may pass a resolution to that effect; but it is in my opinion a very different thing for us to recommend to Government by what means the desired end should be attained. The difficulty in the practical working of a measure which has to do with the well-being of the community, will, perhaps, be best illustrated by an example. We have so long been accustomed to hear of compulsory vaccination, and of the power of the Board of Works to enforce the formation of proper drains, that the necessity of the case appears at once to justify any measure which aims at the accomplishment of these objects. The liberty of the subject is for a moment forgotten. But then comes the Contagious Diseases Prevention Bill. Under this a policeman may apprehend and take before a magistrate any suspected person in certain districts, and the magistrate may commit the person to a hospital, and in case of insubordination to prison. Now, the necessity here may be great, but our minds are not yet accustomed to the idea. If this act were attempted to be enforced at all generally, it would give to the police an inquisitorial and arbitrary power which would be resisted to the utmost by most Englishmen. As an instance of how far enthusiastic views may sometimes extend, I may mention that in a neighbouring country it has actually been proposed to syphilise all soldiers and sailors for the benefit of the public service. We are in no danger at present of having a Contagious Diseases Bill which will attempt to enforce this in England. But the ex-

ample may serve to show that men of science sometimes overstep the bounds of common sense; and when they do so the lawyer is not slow to see their failings, and he often judges their science accordingly. If our advice is to carry its proper weight, it must not be hastily given. We must not be among those who darken counsel by words without knowledge. Discretion must attend our deliberations, and sound judgment must guide our conclusions.

Now, gentlemen, we have the means of obtaining the united opinion of the great body of the medical profession, and we have the means of making that opinion known. A system has already been commenced, and would require very little to make its organisation perfect, of intercommunication between different Branches of our Association. Any important point may thus be submitted to every Branch of our Society, and the voices of between two and three thousand medical men, if we be only agreed, would carry their due weight. Those voices would, it is true, be uttered in different places, but they would find an expression in one organ which has sometimes been wielded with consummate skill, viz., the British Medical Journal. In such intercommunication, this Branch of the Association, from its position, would naturally be the centre.

When this Branch was first established the Chairman said, and, in my opinion, with great propriety, that we should be careful not to make it a London Society. We have already societies enough in London, and I believe that the members of this Branch will always wish to see it in due subordination to its parent head; but, nevertheless, to London the communications of the different Branches flow, and from London, constituted as the Association is, must many ideas emanate. Our Branch can lay no claim to be what the Americans, I believe, call the "head centre," but inasmuch as all the ideas which are communicated to the Society at large, must circulate through London, this Branch may fairly represent the heart of the Association.

There is one subject which has been touched upon at the meetings of the Metropolitan Branch of the British Medical Association during the past year, upon which I would beg your permission to dwell for a short time. It is the mode of administering Poor-law medical relief, and that which is in some measure connected with it, namely, gratuitous medical services generally. Those points have, perhaps, not been dwelt upon during the past year as much as their importance deserves; and I may therefore take the present opportunity of going a little more fully into them, especially as I conceive that they are subjects with which this Branch may deal with the greatest propriety.

When the old Poor-law was originally made, some people flattered themselves that pauperism was abolished, and that every poor man was provided for. Pecuniary aid was freely given in the way of out-door relief, and the natural result was that half the labouring men of every parish became paupers. Having once lost their independence, and tasted the sweets of living at other people's expense, many of them became permanent burdens upon the parish in which they happened to be born, and which wholly, or in part, had to keep them and their families. Thus, instead of pauperism being diminished, it was directly increased by imperfect legislation. Now, it will be my object to show that something very like this has actually taken place, and is in active operation in medicine. As formerly many children grew up without any other idea than that of depending upon the parish for support, so now thousands are practically educated in the idea that they have a *right* to gratuitous medical services — an idea which the conduct of some of our own medical brethren has, I fear, tended to foster, and an idea which is fast taking hold of the minds of some who are classed among the more educated, but who are in reality, perhaps, among the most thoughtless classes of society. It has often happened to me to hear a person apply for hospital relief, on the ground that he could well afford to pay for his medicine, and only wanted "advice", or because his "governor subscribed to the hospital". One man of very considerable property, who actually did subscribe to a public hospital, was in the habit of boasting that since he did so he had had no more doctors bills! Nay, I have heard it proclaimed in the board-room of one of our most influential hospitals, that if the Duke of Cambridge himself were to bring a letter of recommendation he would be entitled, as a matter of right, to gratuitous relief. We have here the fundamental error of the old Poor-law reproducing its natural fruits in indiscriminate gratuitous medical services. Nor is this growing evil confined, by any means, to public institutions. It has most extensive ramifications among our own medical brethren in private practice. The following case came under my own notice: a medical man had been in the habit of attending a family in easy circumstances. The housekeeper, a person very well to do in her way, was taken ill, the family doctor was sent for, and attended the housekeeper as a part of the family; one day this good lady fancied she should like another opinion, and knowing that Mr. — gave his advice gratuitously on certain days, she went to him and obtained his assistance. His opinion differed from the opinion which had previously been given. The housekeeper told her mistress her own story, and the result was that the ordinary medical attendant, without ever having an opportunity of stating his own views, either to the consulting surgeon, or to the family, was relieved from any farther attendance at that house. Now far be it from me to say a word that would check for a moment genuine liberality in our profession. Here as elsewhere—

> "The quality of mercy is not strained;
> It droppeth as the gentle rain from heaven
> Upon the place beneath: it is twice blessed.
> It blesseth him that gives and him that takes.
> It is enthroned in the hearts of kings;
> It is an attribute of God Himself,
> And earthly power doth then show likest God's,
> When mercy seasons justice."

Whenever any act is done which has for its object the benefit only of a patient, we must all claim as members of a learned and liberal profession, a common interest in the spirit by which such an act is dictated; but there are many counterfeits; and I would now enter my protest against medical men giving gratuitous advice in order to obtain some collateral object on the one hand, and against our poorer patients thinking that they may claim that assistance as a matter of right on the other. In no other profession are gratuitous services given as a rule. The clergyman who takes his neighbour's duty is either repaid in kind, or he expects his two guineas for his services. The lawyer in a most business like way never even professes to give gratuitous advice or assistance. From my limited experience, I should say that the very first principle of law is that the lawyer should be paid. This principle is one, I believe, of universal application. I remember indeed to have read a description of Sir Walter Scott's, in which he mentions an eminent barrister, who always spoke the truth, and who took no fees on Saturday nights; but this was manifestly an exception to the general rule.

I would again remind you that it is not against

private acts of benevolence that I am speaking. It is against gratuitous services being claimed as a right, a growing disposition on the part of the public to enforce that gratuitous attendance, and a disposition shown here and there to punish the members of the medical profession if that attendance be not freely given.

Under the old Poor-law it was not an uncommon thing for able bodied men in various ways to compel the overseers to give them relief. The state of things is thus described by an overseer in the years 1817 and 1822. "Every upstart boy if he does not obtain all the relief he wishes, tells you openly that he will become the father of a family, and put you to greater expense by obliging you to keep them." "No country," the same author observes, "could in days gone by boast of a peasantry equal to that of England—industrious, skilful, independent, sober, honest, and universally ashamed to ask for parochial relief; but, under the indiscriminate parochial out-door relief, the lower orders of society had gradually lost all respect for the sacred rights of property." Having given up their independence, they claimed and demanded upon every occasion, whatever might have been their improvidence or misconduct, adequate support for themselves and families. At the time to which I refer, pauperism had become well nigh universal, and there were very few among the lower orders of society who did not constantly, or occasionally, apply for parochial relief. By the system then existing morality was outraged; not only were improvidence and idleness universally encouraged, and the earnings of prosperity consumed in riot and debauchery, but from the absurd plan too generally adopted of equalising the wages of labour from the poor rates, all idea of character or of motive for its preservation was set aside. Skill and industry were being replaced by ignorance and idleness. Honesty had ceased to be duly appreciated, and the families of those who were imprisoned or transported were as well provided for as the families of honest and industrious labourers. Not only were the most improvident marriages daily contracted, but bastardy, with its numerous evils, was legally encouraged, and inundated the country with a degraded and vicious population. Even in the year 1847, under the new Poor-law, a return moved for by Mr. Buller, M.P. showed that the total number of boys and girls in the workhouses of 614 unions in England and Wales on March 18th in that year, amounted to 51,237. Of these, 18,230 were illegitimate, 8,500 were orphans, and 8,658 had been deserted by their parents, 1,586 were the children of convicts, 4,502 the children of able bodied persons in the workhouse, and 1,229, the children of able-bodied persons not in the workhouse.

The author to whom I have before referred, asks, in 1822 (before the new Poor-law came into action), whether any benefit had been effected by the unnatural system then in operation, involving as it did the violation of prosperity, justice, and morality. Had the Poor-laws ameliorated the condition of the lower orders of society? Directly the reverse. The then existing system had completely demoralised them, and plunged them into the lowest degree of poverty. That the poor-laws, having placed the lower orders of society in a most unnatural position, did frequently afford relief to distresses of their own creation (as the debauchee often allows a small pittance to the victim of his seduction), was not denied; that they had occasioned misery to millions was apparent; that they ever afforded relief to an individual pauper, whose pauperism was not of his own creating, or who would not have been otherwise relieved, was considered extremely doubtful.

Now, the educated classes in England have seen the evils which the impolicy and inefficiency of the old system of Poor-laws was gradually introducing into the country, and they have in a great measure corrected them. Their attention was practically drawn to the subject by the poor-rate, which had "gradually increased from a very small amount to a most enormous sum." But they have not seen and have made no attempt to remedy the corresponding evils in medical affairs. The reform here must begin with ourselves, and in order that it may be in any degree effectual the subject must be clearly understood by the public as well as by the profession. Under our present system we are in no danger of making a nation of paupers, but we are in some danger of making a nation of patients—patients who resign their independence and are educated from their cradle to look upon gratuitous medical relief as their right. The numbers of patients annually advertised as receiving gratuitous out-door medical assistance, may be compared with the number of paupers, and of pauper children in different parishes, under the operation of the old Poor-law. The advantage in respect of numbers is, however, greatly in favour of those who receive gratuitous medical assistance. If in old times it could be said that nearly a whole parish had become paupers, one may now point to institutions which boast that they relieve more patients in a year from separate individual parishes than those parishes contain. This is of course explained by the same persons applying more than once in the year for medical relief; but still the figures shew that those parishes are becoming pauperised in a medical point of view. If it were asked fifty years ago if the Poor-law then in existence did not produce more poverty than it relieved, may we not ask now whether indiscriminate out-door gratuitous medical relief does not make a far greater number of patients than it cures.

If it were formerly said that the principle had been gradually engrafted in the minds of the lower orders of society, that the parish was bound as a matter of right to provide for them and for their families in every case of emergency, may we not now ask whether the same idea, as a matter of right, is not taking possession of the public mind in medical affairs.

Were they formerly hungry, the parish was called upon to feed them; did they want clothing, the parish was to provide it; were they destitute of a home, the parish was to provide house room, bedding, fuel, etc.

The public have now in great measure relieved themselves from these burdens; but they, at the same time, show a constant disposition to throw additional burdens upon medical men, and to enforce the gratuitous services of those medical men sometimes even by legal proceedings. It is an easy way of being benevolent to make others do the work.

It was once thought that those in power had a right to command the labour of the poor without giving them a fair remuneration; this idea has for ever been abolished in England, and slavery has ceased to exist; every man now has a right to be paid for his labour; the converse of this—viz., that no man has a right to eat unless he is willing to work, is equally true; but the idea is still maintained in some measure that he has that right. The poor, as a matter of right, are no more entitled to demand the assistance of the rich, than the rich are to demand, as a matter of right, the labour of the poor.

Among rich and poor there are not wanting many examples of those who from a higher motive give their assistance on the one hand and their services on the other, without any adequate immediate reward. These men are the real links which bind society together; they act upon another principle than that of

abstract right; more is naturally demanded in this respect from the rich than from the poor, and no country can compare with England in the amount of public benefit, or of private charity, which has flowed from this source. Our public hospitals and our care for the poor generally, are lasting monuments, of which every Englishman may well be proud; and so free have medical men been generally to give their assistance to institutions which have the good of the poor for their object, that the principle has been abused. That has been claimed almost as a matter of right which commenced with a feeling of charity, and medical men have too often I fear lent themselves to the counterfeit. Among hospital surgeons and private practitioners alike it is to be feared that some have been found to trade upon charitable principles, and to give their services, apparently gratuitously, from some collateral and less worthy motive. Did time permit, I might shew that these observations are not without their point in the operation of the Poor-law medical relief as at present practised. But the point to which I wish particularly to direct the attention of this Branch of the British Medical Association is that, with an erroneous idea of benefitting the poor, and as a very inexpensive mode of doing good as they conceive, a considerable section of the public are ever willing to lay fresh duties upon medical men, and to take it for granted that those duties must be performed, and that, if a poor person complains that they are not, the medical attendant is necessarily to blame. I will give but one illustration of this injustice, and it is a striking one. Not long ago a Pole was admitted into St. George's Hospital, with symptoms of piles; the surgeon ordered that he should sit over some warm water, which he accordingly did. No complaint was made for several days, when it appeared that he had been scalded either while sitting over the water or at some other time. Being a man of impaired constitution, the sores assumed an unhealthy aspect, and spread. When they were nearly healed, the Pole suddenly left the hospital, and brought an action against the medical men who had attended him. In the witness box he swore that his flesh had been left upon the pan at the time when he had been directed to sit over the hot water. The counsel asked him distinctly whether it was the flesh or the skin that had been so left, and he maintained that it was the flesh. So much for the case. And now to come to the point of my story. The counsel in the first place told the surgeon that he had better compromise the action. Luckily the surgeon, and those who advised him, were made of sterner stuff than to think of that for a moment. Secondly, the defence set up by the counsel was not a simple statement that the surgeon, not being present when the Pole sat over the hot water, had nothing whatever to do with the fact as to whether he was scalded or not. Knowing, as he had every right to do, the animus by which a jury is often influenced, and knowing that that animus must have some vent, in order to protect his client, the counsel directed a virulent attack against the hospital, and said that it was shameful in them not to protect their own officers. The climax of the story remains to be told. At the very time the counsel made this attack upon the hospital, he knew very well that it was the hospital authorities who had retained him, and he had their money then in his pocket. Now, this man no doubt knew something of English prejudices; he feared to state the simple facts, and thought it necessary to make a feigned attack in order to ensure a verdict in favour of his clients. In almost every case in which a similar attempt to extort money has arisen, it has been from a party who has been attended in the first instance without affording any remuneration; and when such a scene as the one described could be enacted in Her Majesty's Court of Queen's Bench, it is time for us to inquire whence this prejudice against "the doctors" arises, and whether it is not in some measure due to our having sometimes put ourselves in a false position with regard to the administration of gratuitous medical services.

READING BRANCH.

PRESIDENT'S ADDRESS.

By T. L. WALFORD, Esq., Reading.

[*Delivered July* 25th, 1866.]

THE duty I have undertaken, gentlemen, seen from a distance, is one thing; seen from a period of time, close to the period when it must be performed, is another and to me a very different thing. One's estimate of the work to be done, and of the ability to do it, differs at the two named periods of time; and it is well when the latter connects the former. The very liberty you allow me by no means lightens the sense of obligation which attaches to the honour you have conferred upon me. Perplexity, child of this liberty, has held me doubting which course to adopt; and which anxiety not to waste the time of those who are present did nothing to decide. Past addresses, and such as are in course of delivery this year, have been revolved by me; but one and all appear to occupy a height I fain would but cannot reach. I have floundered on; and must beg you to bear in mind under what circumstances this address has been prepared.

Permit me, then, to congratulate the members of this Branch on the position they have taken, as members of an Association formed for no selfish objects, but really to increase their efficiency as members of the healing art, and so their greater usefulness to their fellow creatures. Could I utter anything new on the subject, the chances are it would not be true. I must, therefore, at the risk of being thought homely, venture some remarks upon the fealty we owe that profession to which we belong, and which stands nearest to that of the highest, the sacred ministry. I think you will not consider me rash when I assert, that the more free and frequent the intercourse between the members of the medical profession for the purpose of discussion, so much the better; first, for the members themselves, and then for the public who need our care. If this were not true, the Reading Medico-Chirurgical Book Society had never been born; and those minds who first conceived the idea (one and the most active of whom it is our privilege to have amongst us still) would have nothing now to rejoice over, for it would soon have expired as a thing having no vitality. The birth of this Society was anterior to that of the Provincial Medical and Surgical Association; and amongst the members of the Reading Society, the Provincial found some of its earliest friends and supporters. This principle of association, historically looked at, would be most interesting; but it is beyond my power to sketch. So valuable is it, that one cannot claim it as the child of civilisation, as the narratives of explorers and missionary enterprise show. There is this difference, however, in the two cases. In the latter, the instinct of self-preservation led to its adoption; whereas

civilised society, whose life and property were protected by the state, had no need of it for such purposes. When, therefore, it adopted the principle, it did so rationally, not instinctively; from a conviction that the objects desired could only be secured by the principle of association.

Now, what has this principle done for us at Reading? I mean us, as medical practitioners, in relation to the public; *i.e.*, have the public been benefited by us in consequence of this principle having been in operation here or not? This principle has given us the Book Society and the Pathological Society—the first which ever existed in the provinces. It has made us a Branch of the British Medical Association, and so brought us as a body into connexion with its Executive Council. It has given to some of us to be associated—in a small number, it is true—as a social and ethical society, under the name of the Astor Key Club. These are the forms in which we have embodied this principle of association; and what are the fruits? Our intercourse with one another is an object of desire and enjoyment—assistance to one another is cheerfully given—as in sickness also, I can truly say, being a large debtor to many of you.

Our conduct towards each other is that which is rarely complained of; whilst the public, I believe, have reaped material advantages in the season of sickness. If your estimate of the value of association be the same as my own, and your presence to-day asserts such to be the case, you need no persuasion on my part to cultivate this principle.

If I draw your attention to what the British Medical Association has done for the profession, I may mention, first, that it is no longer a Provincial, but a British Association—the provinces and the metropolis—England, Scotland, and Ireland. The heads of the profession are honoured by it, and do honour to it; of which one cannot but feel proud. The volumes of *Transactions* published by this Society may be appealed to as a proof that it has promoted the art and science of medicine and surgery; whilst the continued existence of the weekly JOURNAL, under the able editorship of Dr. Markham, attests the vitality and power of this Association to influence the mind of the profession; to defend its honour; to assert its claims upon the Government, as seen in the Medical Bill, in some improvement in the position of Poor-law medical officers, and of the medical officers of the army and the navy. The amount of medical information which the JOURNAL contains, evidencing, generally, judicious selection, makes it a trustworthy record of what is going on to those of us who see only it. As instances of its discernment, I may mention the discussion on Iridectomy in Glaucoma, conducted as that discussion was by the heads of the profession in ophthalmic surgery; and more recently, and not less opportunely, the discussion on the Nature and Treatment of Cholera; by which, if I may so speak, the profession has been dragged into thinking about and reasoning upon that disease. Another instance of its discernment and watchfulness, is its views on the question whether Government shall undertake the licensing of prostitutes, free from gonorrhœa and the venereal disease, for the use of the army and navy—views which deny the reasonableness and show the absurdity of such a proposition.

Looking at the JOURNAL financially, it pays its cost—I am not aware that the Association has anything on its credit side from that publication. But the basis on which it stands, and the objects it is bound to keep in view, at once disassociate it from others, ably as they are conducted, and without which we would not be. The question whether this Association shall be incorporated by means of a Royal Charter, will come on again for discussion at Chester, when it will be desirable that the opinions of the various branches should be known.

One of the earliest adjuncts of the Association was the Benevolent Fund, originated by men distinguished no less by their virtues than by their attainments; the loss of two of whom, Mr. Newnham and Dr. Conolly, we have been recently called to bear; but to speak of either of whom I must not attempt—so completely incompetent am I for such a duty. But the Benevolent Fund lives, and grows, and will grow; and may it be our happiness to help its growth, whether any one of us or not come to need its help—feeling of this assured, that to such an one, if anything can support his arm when holding out his hand to receive its bounty, it will be the consciousness that, in health and prosperity, he realised the necessities of others, and did what he could for their relief.

Dr. Alexander J. Lizars of Aberdeen, and formerly of Edinburgh, surpassed by none as a teacher of anatomy, has recently paid the debt of nature. I had the honour of being the holder of the first ticket for his lectures, under circumstances which he was pleased to refer to. And still more recently has fallen, accidentally, by his own hand, Mr. Joseph Toynbee, a man of great reputation, usefulness, and honour. This event, anticipating the course of nature as it does, is deeply to be lamented. On personal grounds I mention the former; whilst the melancholy circumstances of the latter demand from all a tear of sympathy.

Of the last adjunct to the Association—the Provident Fund—I cannot say anything for or against. That our life should be assured, is right; and no less right is it that one should have something to depend on when disabled for duty. Those who have recently entered the profession, and who are to enter, are the classes who can take advantage of it. Those of us who have turned the scale of our professional course, and of life still more surely, and who need it, are the individuals who cannot afford it; and one advantage of our meeting to-day is the bringing under the consideration of all the desirability of joining some such assurance society. Had I had the opportunity of joining one, and been urged by my professional brethren to do so, more than a quarter of a century ago, the probability is, I should have done so.

There is one thing our Association has still in hand, and that is the position of the Poor-law medical officers. I alluded to their improved condition; and now specify one view of the case which should be, I think, pressed upon Government: it is the appointment of a Medical Poor-law Commissioner; the fixing by Government of the rate of remuneration of the medical officers—in fact, bringing the medical officers into connexion with the Government—the Government looking to them for certain information—obtaining from them certain medical returns—making them an army of observation at home on sanitary matters—having their attendance when the medical commissioner makes his inspection—apportioning a retiring allowance after a certain number of years' service. That such appointments should be held after competition or special examination, is not asked; but that the care of upwards of two millions of sick poor is a duty worthy of being discharged in the best possible manner (and, to be so discharged, must be properly remunerated), is a subject of so much importance to the ratepayers, to the poor themselves, and to the medical profession, that I think our Association has something to do for us yet in urging upon the Poor-law Commissioners the

assistance of a medical Poor-law Commissioner. I do think these appointments should be so remunerated that every member of the profession would be willing to hold them; and that it should no longer be a question whether these appointments do a man harm or not. By some it may be contended that *only* the commercial principle of supply and demand is the correct one; to which I must reply, that this principle is not the only one that is needed; and, in proof of the truth of this reply, it will be admitted that it fails to attract men of standing and experience; so that what is needed is, that there should be a demand for such a class of men. A demand which does not correspond with the necessities of the case is imperfect—incomplete; and the consequence is, the supply is drawn from a section of the profession. In brief, the demand is defective; and for this the Poor-law Commissioners are responsible. Let that be made such that any can compete, and there will be objection no longer to the argument, "that demand and supply are sufficient to secure the efficient discharge of the duties of Poor-law medical officers."

One other duty I think our Association should undertake, and that is the consideration of the fees payable by Government for the examination of individuals proposing themselves for life-assurance under the Government Annuities Act. In March 1865, a deputation from the Metropolitan Counties Branch waited on the Postmaster-General, to urge the adoption of an uniform fee of five shillings; but unsuccessfully. I think, therefore, the General Council might take the matter up, and communicate with the College of Physicians, the College of Surgeons, etc., and endeavour to convince the Postmaster-General that he, in offering 2*s.* 6*d.* for an insurance under £60, is undervaluing the work required to be done; and perhaps an additional reason for taking up the matter may be found in the circumstance that we have a new Postmaster-General, who, it is to be hoped, would prove open to conviction.

I have not said anything of the Pathological Society, all-important as that is to us in Reading and its neighbourhood. This day we are privileged to get a retrospect of our proceedings during the preceding twelve months, which will sufficiently explain how it is we differ from many Branches of the Association, in that papers are not read and discussed at this meeting. This work is done by us at the monthly meetings of the Pathological Society. All honour to the founders of that Society, which gives us an opportunity of meeting each other every month, and to which meeting we owe so much.

I have not a heart to pass over that body which is destined to be foremost in effecting those changes which are so generally considered desirable in respect of the education of the future practitioners in this kingdom. The *vis inertiæ* of vested interests has rendered rapid progress impossible. The presence of members of the Council at the examination-boards is a most important step, and one which will enable the Council to proceed further, should the observation of those members indicate the necessity. The *Medical Register*, which the Medical Act gives us, is worth a great deal; and of that Act, it is not too much to say that, but for the British Medical Association, it would not have been passed. And, if the Medical Council is to get an amended Act, and to proceed to carry out its powers in anything like a satisfactory manner, it must be encouraged to do so by the voice of the profession: and how is that voice to be uttered so distinctly as by the British Medical Association? It cannot be that the highest members of our profession, who, in virtue of that position, have been dignified with the trust of carrying out the Medical Bill, will abnegate their responsibility. Still they need the support of the profession; and we can in no way aid in remedying acknowledged grievances so effectually as by joining this Association, and doing each one his share of the work to be done by it. I must confess it does strike me that, when the profession shall awake to the value of the *principle of association*, and band itself together, with the aid of a Charter, that "all things may be done decently and in order," then, and not till then, will it have power to do the good I have been speaking of; then, and not till then, will its voice be listened to.

I cannot forbear noticing one or two medical subjects, if for no other reasons than the personal gratification it affords me. The discovery, by Dr. Richardson, of a means of producing local anæsthesia, at once simple, elegant, and scientific, appears to me of such value, that to let even a Branch meeting pass without mentioning it, would be an omission not creditable to the speaker. The other subject is the papers on nutrition, and the lectures on inflammation, by Dr. Lionel Beale, published in the *Medical Times and Gazette* of last year, in opposition to the doctrines of the physicists and chemists, founded on microscopic observations, and supported by arguments, unanswerable to my mind, as far as the physicists and chemists are concerned. Of the importance of knowing the truth in this matter we shall all agree, so fundamental is it that we cannot take a step without being led to that step by the one doctrine or the other. If our physiology be wrong, our pathology and therapeutics must be wrong also, an illustration of which one has seen within the last week or two, in the circumstance that Dr. O. Rees has abandoned the limited diet principle of the chemists in the treatment of diabetes.

The only other subject I shall allude to is the defence of bloodletting, in a limited degree, in pneumonitis, by our esteemed editor, Dr. Markham. Personally, I thank him for the views he has expressed, believing that cases do occur in which venesection, rightly used, will be of essential service.

The mention of a particular remedy leads me to venture a remark of a general nature on the subject of medicines. I mean this, not making the medicine we prescribe the first and last subject of direction or inquiry with our patients at every interview. Important as medicine may be there are other things of as great importance, *e. g.*, the physiological rest, so beautifully taught us by Mr. Hilton. In fact, what we want is, that our patients should have as much faith in the conditions necessary in sickness, as we ourselves have, and that the least thing, I had almost said, a medical man has to do, is to prescribe what medicine shall be taken. One matter of a local and sanitary nature I may mention to this meeting, and that is, the Board of Health have resolved on proceeding to obtain a plan for the sewerage and drainage of the borough, and which I hope all of us may live to see in operation. It only remains that I should crave your indulgence for the way in which I have occupied your time for a few minutes. If one could but have realised one's idea of what the address might have been, then such a request might have been only a formal one, but it is not so. I shall offer no excuses or explanation of how it is that it is not such as I could wish. My position is known to you, and you are in a better position to calculate correctly what you may expect. My surroundings at this moment tell me I am in a port near the end of my voyage, and somewhat startle me by the announcement. Well, be it so—"To labour, and to hope,"—that is our portion, remembering that "The night is, but the morning cometh."

NORTHERN BRANCH.

PRESIDENT'S ADDRESS.

By Sir JOHN FIFE, M.A., F.R.C.S., Senior Surgeon to the Newcastle-upon-Tyne Infirmary, etc.

[*Delivered at the Annual Meeting, June 22nd*, 1866.]

GENTLEMEN,—I believe that the most emphatic way in which I can show my sense of the honour you have conferred upon me will be to proceed to fulfil, to the best of my ability, the duties of the position in which I am placed. In attempting to do so, I cannot forget that I succeed one who has not only for many years stood high in his profession throughout the north of England, but who was equally distinguished in general science, liberality, and benevolence.

Let me now congratulate you on the progress of the British Medical Association (numbering as it now does nearly three thousand members), and of our own local Branch, with its accession of nineteen members within the last few months. We have lost three by death, and many of you can testify to the qualities of heart and mind which enhanced their value. When a professional man has the magnanimity to set aside occasionally his private and individual cares, and enter upon the responsibilities and exertions incidental to such a Society as this, he is a loss when taken from us, not only to the Association, but to science and to the community.

What, then, are the objects to be gained, and the advantages to be derived, from our united labours? The harmonious social state amongst men of the same profession; the honour and the interests of that profession; and the advancement of the noble science in which we are engaged. The question, or rather the principles of medical ethics, were admirably treated in a work on the subject by Dr. Percival half a century ago, in which he described the peculiar and morbid sensitiveness of medical men regarding their character and attainments; and since that time it has been often satirically remarked, that there did not exist the same jealousy amongst the professors of the law. In my opinion, this may be easily explained; the differences of opinion amongst the latter being settled by courts of appeal, instead of being left to careless conversation. Besides, when medical men differ in opinion, it is a mutual misfortune; when lawyers differ, it is a mutual profit. But in how many instances are we misunderstood and unfairly judged! When, for instance, a sufferer has been long in a state of uncertainty and misery, and consultation is determined upon, the sufferer and the friends build their hopes upon something new to be discovered, and something new to be done; they catch at every expression favourable to their wishes; they form opinions, and express them to others in their own language, till a consulting physician or surgeon is astonished and shocked at the opinions and expressions attributed to him. When we meet together as we do now, we are less likely to believe each other capable of unfairness; or we have an additional facility for explanation, which will generally show that the interest of the sufferer has been, as it ought, the first consideration—the honour of the preceding practitioner the second.

Now, as an instance of the working of our Society in assisting the interests of the profession, not long ago it was considered very desirable by the Association that Fellows of the Royal College of Surgeons residing in the country should be placed upon an equality with those residing in London in voting upon important questions. A memorial was drawn up, circulated, considered, and signed, and in forty-eight hours transmitted to the Royal College; and it is to be hoped that its object will yet be gained. Gentlemen, without the organisation of this Society, such influence could not have been so rapidly brought to bear.

It is time now to commence a short sketch of advances in science materially pressed forward by this Association; and it cannot be denied that, during the last twenty-five years, this progress has been great. Every practitioner who continues (as he ought to be) still a student, must candidly acknowledge that he gains as much knowledge from professional conversation as from books; and he must feel that in the British Medical Association an active and persevering mutual tuition is constantly going on. It would occupy a volume to make even a rapid survey of scientific attainments within the last few years; but I glance at a few which have come peculiarly under my own observation. The diseases of the kidney, as demonstrated by Brodie, Prout, and Bright, have received still further elucidation from Johnson and Hassall; and many diseases, apparently unconnected with the kidney, are now attributed to its morbid action. Time will show whether I am right in attributing the partial and temporary paralysis following diphtheria to the absorption of urea; but, in all the cases of this curious disease that have come under my observation, I have had evidence of this peculiar condition. In lithotomy, much has been done to improve the safety of the operation; and I regret that a most distinguished operator, Mr. Teale, is not here to-day. I may, however, refer you to my correspondence with him, which was published in the *Lancet* two years ago, on the secondary hæmorrhage after lithotomy, and also on a new mode of making the first incision, which I was obliged to adopt in operating upon a deformed perinæum. One hip-joint being anchylosed, one side of the perinæum only was available; therefore the first incision was made by passing the scalpel about one inch deep into the centre of the perinæum, a flat side to the scrotum, a flat side to the rectum, the cutting edge to the right elbow; the knife described the one-eighth of a circle, terminating near the tuberosity of the ischium. The operator will feel, as soon as this is done, that he can with more ease pass his left forefinger to the prostate gland, and complete the operation without wounding the artery of the bulb. Delpeche of Montpellier told me in 1831 that he had operated upon five hundred cases, and lost only twenty-five; and that the most distressing or formidable consequence of the operation he met with was secondary hæmorrhage. He operated with the *bistouri caché*, as was usual in France at that period, and sometimes practised in this country. Now, when you consider the action of this instrument, cutting from within outwards, you will immediately perceive that many large arteries, even the pudic itself, must have been endangered, even in dexterous hands. Contrast this mode of operating with the caution now exercised in the partial incision of the prostate, and you at once acknowledge the greater safety of the present operation.

The opium treatment of violent nervous corneitis is an extraordinary fact, as it often succeeds when other modes have failed, as well as when other treatment has not preceded it.

We have a wonderful auxiliary in the hot-air bath; and, when you reflect upon its action in opening the pores of the skin, allaying spasm, determining the arterial circulation to the surface and extremities, you will feel no longer surprised at the vast number and endless variety of cases to which it may be applied. In diseases of the kidney, the joints, the bladder, and in cases of dangerous biliary obstruction from concretions—in short, wherever there is

spasmodic constriction and unequal circulation, there is something to be gained by that venerable and time-honoured institution, the hot-air bath, brought home to us by the extraordinary efforts and sacrifices of Mr. Urquhart. An enthusiast in any cause is the only man to advance it; and, if Mr. Urquhart had spoken and written on the Turkish bath in cold terms of therapeutic science, we might not now in this country have had the luxury of its enjoyment in health, nor the efficacy of its restorative influence over disease. Six hundred of these baths were found in Constantinople by the victorious Turks, who were taught to use them by the surviving slaves of the conquered Romans, to whom the hot-air bath had appeared an ordinary comfort and almost a necessary of life, established as its use had been for two thousand years.

Gentlemen, we have to anticipate much interesting and instructive matter in several communications to be laid before us to-day, and I feel that I have already occupied more of your time than I ought to have done; but, before I sit down, let me remind you of the social part of our meeting to follow, when we ought to assemble in numbers, and when we may hope to see as visitors any qualified members of our profession who may honour us with their presence.

REPORT ON A CASE OF SINGLE KIDNEY (RIGHT): WITH SPECIMEN.

By JOHN C. MURRAY, M.D., Newcastle-on-Tyne.

[*Read at the Annual Meeting, June 22nd*, 1866.]

A LUSUS NATURÆ is always regarded with interest; but when Nature, in one of her humorous moods, dispenses with an organ of vital importance in the animal economy, it demands the attention and interest of the naturalist and physiologist, and becomes worthy of being chronicled by the medical historian. It is, therefore, a duty incumbent upon the anatomist, who is the discoverer of any remarkable freak of Nature, to make what she has revealed to him a public possession. In accordance with this principle, I have the honour to submit to your notice and inspection a case of *single* kidney, which recently occurred in my practice, in order that it may be recorded through the medium of this Branch of the British Medical Association. The case is as follows.

E. F., a strong muscular man, of florid complexion, aged 65 years, five feet nine inches in height, born in the seventh month of utero-gestation, had always passed less urine, but of a deeper colour, than normal. Nevertheless, he enjoyed good health until 1846 (his forty-sixth year); he then first suffered from nephralgic pain in his back, which lancinated down the course of the right ureter to the testicle and thigh of the same side, but ceased on his being cupped. From that time, after fatigue and exposure, he frequently felt pain in the right lumbar region, accompanied by dysuria, and sometimes hæmaturia; but never any similar pain in the left side. He was a free, but regular liver; had been a blacksmith until 1858, when he received a government appointment, which had the effect of suddenly increasing his weight from 10½ to 13 stones, at which weight he remained, without variation, until his death.

On the 27th of May, 1866, he was seized with enteritic symptoms in the right iliac fossa, but continued his employment until the 30th, when he was obliged to relinquish duty and obtain professional aid. I was sent for, bled him, and administered appropriate remedies; after which he did very well until the 3rd of June. An unfavourable change having occurred subsequent to my morning visit on that day, I was requested to see him again, which I did in the evening, in conjunction with Dr. White; but the patient was then so low, that our efforts were fruitless to save him. He sank rapidly, and died on the morning of June 4th. At this untoward event I was much surprised, as he had been progressing so favourably. I now, however, attribute it to his solitary kidney becoming, from its close relationship to the inflamed colon, too congested for the continuance of its functions.

In compliance with my request, permission was granted to make an autopsy. Twenty-five hours after death, Mr. James Douglas Murray and I found *post mortem* appearances of enteritis, which had evidently commenced at the caput cæcum coli, and extended along the ascending and part of the transverse colon. The rest of the bowel was in its natural state. The liver was not *fatty*, or otherwise diseased. Upon taking out the right kidney for inspection, we were astonished at its unusual size and weight; but, thinking it only enlarged from recent fatty degeneration, I made an incision from its convex border to the hilum, to see its internal structure; and also cut off a thin slice for subsequent examination. We then proceeded to inspect the left lumbar region, for the purpose of comparing the right kidney with its fellow. In this, however, we were disappointed. No trace of a left kidney, collapsed, atrophied, nor yet rudimentary, existed; nor was there any semblance to renal vessels. The kidneys being occasionally variable in their relations, and often mobile, we were mindful to examine very carefully the whole of the abdominal cavity, and even pelvis; but the left kidney was *non est*. Our attention was then directed to the right kidney with increased interest. It was in its natural site, immobile, and deeply imbedded in fat. It is, as you will observe, of normal form, exaggerated in all its parts; is somewhat firmer and less friable in texture than natural. It shows some fatty deposit in its cortical part, but not enough to materially impair its functions. This, I think, may be accounted for by hyperæmia, consequent upon its having double duty to perform. It was deeply injected where in relation to the ascending colon, the congestion penetrating its entire diameter. Part of the surface was of its natural colour; and its original division into three lobes is seen. The investing tunic peeled readily off. After the kidney had been carefully washed and pressed, its proportions and weight, allowing for the quarter of an ounce cut off, were:

Length, 6 inches	Diameter, 2½ inches
Breadth, 3⅝ inches	Weight 10¼ ounces

In this interesting case we have a beautiful instance of that compensation which Nature always endeavours, and so frequently succeeds in establishing, when she has lost or omitted an organ essential to the continuance of life; and it is very important, in treating renal affections (not blood-diseases), to remember that this congenital irregularity has occasional existence, as it might account for the grave nature of symptoms which would of necessity arise from disease of one kidney, if there were no second organ to carry on the secretion. This, I think, is the more to be insisted upon, as the occurrence of this phenomenon is not sufficiently noted in our text-books, although more than fifty cases are on record.

On referring to a lengthened review of M. Rayer's *Treatise on the Diseases of the Kidneys, and the Morbid States of the Urinary Secretions*, published in the *British and Foreign Medical Review* for 1843, I find the following paragraphs.

"Numerous are the cases of three kidneys in the human subject described by authors, nor are ex-

amples of the existence of four of these organs wanting. The only point of physiological interest connected with this superabundance of kidney is, that no evidence exists of its ever being attended with unnaturally great secretion of urine."

In the case before you, however, the urine was less in quantity than usual. Again:

"Numerous authentic cases are to be found of absence of one kidney. The remaining organ has generally been found larger than natural, and sometimes double its natural weight. It is either found in its natural place, or a little higher or lower. When a single kidney has been described as seated crosswise on the spine, there no doubt existed two kidneys fused as it were into one."

This is known as the horseshoe-kidney. Further:

"The total absence of kidneys has been several times noticed in the fœtus, occasionally in the infant at birth."

And, more wonderful still, a case is recorded by M. Moulon, of a girl who died in her fifteenth year, of chronic enteritis, who had no kidneys or urinary bladder. In this remarkable deprivation, M. Moulon thinks that the liver performed the office of the kidneys by vicarious secretion; for the umbilical vein was enlarged; and there was a constant flow of fluid from the umbilicus, having the properties of urine.

SOUTH-EASTERN BRANCH.

CASE OF OVARIOTOMY: PRESENCE OF FŒTAL DÉBRIS IN CYST.

By Blackall Marsack, Esq., Surgeon to the Tunbridge Wells Infirmary.

[*Read June 14th*, 1866.]

I propose to give you a short account of a case of ovariotomy which I think presents several points of interest. The patient, a girl aged seventeen, was admitted into the Tunbridge Wells Infirmary on the 11th of April last year, under the care of Dr. Wardell, and was afterwards transferred to myself for operation. The tumour had been noticed for about eighteen months, and, except for size, had not caused any inconvenience or disorder of health. When I first saw her, the abdomen was somewhat larger than is usual at the end of pregnancy, but the actual measurement at this time was, I am sorry to say, not taken.

Feeling satisfied that the tumour consisted, for the most part, of one large cyst, I tapped it on the 26th of June, and drew off about five gallons of clear straw-coloured fluid. From this operation she suffered no inconvenience, but the cyst rapidly refilled. On the 26th of July, that is one month later, the measurement was thirty-five and a-half inches, and ten days after that thirty-eight inches. The removal of the tumour was now decided upon, and on the 5th of August, with the assistance of my colleagues, I proceeded to operate. The patient being placed under the influence of chloroform, I made an incision of about three and a-half inches in the median line, extending from two inches below the umbilicus towards the pubes. On introducing my hand I found numerous adhesions on the anterior surface of the tumour; these were, however, easily broken down: I tapped and drew off a large quantity of fluid. Mr. Trustram caught hold of the sac with a pair of vulcellum forceps, and the walls being very thin a rent was made, and some portion of the fluid escaped into the abdomen. The greater portion of the emptied sac I drew out easily, but when close down to where I expected to find the pedicle I found a hard mass, which at first I thought to be the uterus with something inside. This, however, I soon found to be the lower portion of the tumour, but hard, bony, and irregular in shape, and of such a size as to cause some difficulty in turning it out. In addition to this, the pedicle was very short. Under these circumstances I extended the incision another inch downwards and turned out the mass, applied the clamp, and brought the edges of the wound together with eight silver wire sutures.

From the operation she rallied well, the principal point of note being a constant dragging pain from the loins apparently caused by the tension on the pedicle.

On the following morning, during the temporary absence of the nurse, she got out of her bed and walked across the room; for some hours after this she had occasional vomiting. The pulse had gradually risen from eighty, just after the operation, to one hundred and sixty on the third day, when the vomiting had ceased, but collapse appeared about to set in, the dragging pain continuing.

Wine and beef tea, with fomentations over the abdomen, somewhat mended matters.

On the fourth day the sickness returned with hiccough; dragging pain still complained of; wound discharging serous fluid. Pulse one hundred and sixty-two. Under these circumstances, feeling convinced that the strain on the pedicle could not be borne longer, I removed the clamp, and ordered the wound to be kept constantly moist with water-dressing. In the evening the pulse had gone down to one hundred and fifty, and as might have been expected the pedicle showed signs of disappearing within the wound.

The following day the pulse had sunk to one hundred and twenty; the pedicle had completely disappeared; the wound was discharging freely. She seemed better in the evening, the vomiting had ceased, and food was taken tolerably well; the hiccough, however, continued at times.

On the next day (the sixth) the discharge from the wound assumed more of a purulent character, and was very copious. Diarrhœa to the extent of four or five liquid olive-coloured stools in the day set in, and continued several days. Menstruation came on and lasted two days. The pulse ranged from one hundred and thirty to one hundred and forty. This state of things continued with little variation, in spite of wine, quinine, catechu with opium, nourishment, &c., till the 22nd (the seventeenth day after the operation), the wound now gaping and discharging freely from the lower part. Considering the pus in the cavity of the abdomen to be the exciting cause of this state of things, I ordered her to be placed on her side in order to favour its escape.

The next day the diarrhœa had much abated; and, as she bore the alteration of position well, she was directed on the following morning to lie on the abdomen. The escape of pus from the wound seemed now much more complete, and I again began to hope that a favourable termination might be attained, as in many respects she was much more comfortable and satisfactory; but on the 2nd of September fæces were observed passing through the wound, and from this time she gradually sank till she died on the 17th, just six weeks and one day after the operation.

Autopsy. The external wound had to a great extent healed; but at the lower part for about an inch it was slightly gaping, and through this part there was oozing a purulent fluid mixed with fæcal matter. Internally there were adhesions all over the peritoneum; some were old and fibrinous; others were more recent, and consisted of yellow lymph. The transverse colon was by these glued perpendicularly along side of the wound for about three-fourths of its extent, and here were found two small perforations through which evidently it was that the fæcal matter had escaped. The uterus was firmly attached to

the posterior part of the bladder, and the remaining ovary to the side of the pelvis. There were also numerous small independent abscesses in various parts of the omentum and beneath the peritoneum. One larger than the rest contained about half a pint of pus, being beneath that portion which covered the quadratus lumborum and communicating externally with the wound. The kidneys and other organs were healthy. No bleeding had taken place from the pedicle.

Remarks. As far as my reading extends, it is not often that a case that ends fatally is so protracted, and it is interesting to notice the causes which, one after another, seem to have prevented recovery. I have not, in my own mind, decided to what extent the escape of fluid into the peritoneal cavity predisposed to unhealthy action, nor how far the getting out of bed so soon after the operation may have added to the mischief, but that the latter at least must have done so to a certain extent can hardly be doubted. The first obvious source of danger was the wearing pain and the irritability of the stomach caused by the shortness of the pedicle, and its dragging upon its attachments to the rest of the peritoneum. That this was really so seems proved by the great relief obtained by removing the clamp. But now, instead of serum only, or even plastic lymph being secreted by the peritoneum, the unhealthy state of that membrane caused pus soon to be formed. Why this should have been so I cannot determine. I do not believe that it was due to the admission of air through the wound, for even after the retraction of the pedicle the edges to all appearance remained in close apposition. Why the pus should not have given rise to acute and rapidly fatal peritonitis, as in the case of an abscess bursting into the cavity, must have been owing to a partial matting together of the intestines around the wound, so that it was only in contact with a portion of the cavity, the remainder being thus shut off, and if the discharge could have found a ready exit, this attempt of nature might have been successful. To attain this, the lateral and afterwards the prone position was adopted, and I think it interesting to notice how very well it was borne, although it must have involved a considerable amount of pressure. But there is a tendency for any irritation in the near neighbourhood of the bowels to be accompanied by irritation of their mucous surface and diarrhœa, and this is a very serious complication where it is of the utmost importance to maintain the strength. If this irritation continues, not only diarrhœa, but ulceration follows, and, as in the present case, this may go on to perforation, while under the peritoneum, abscesses, probably somewhat allied to pyemic formations, take place. But even after this we see nature still carrying on the struggle, but the combined effects of such serious lesions of important structures were too much to be withstood, and it is only a matter of astonishment to me that the attempt to accommodate the system to such a state of things should be so long sustained.

There is one point on which I am not prepared to offer any opinion, but which I very much hope will receive some light from wiser heads than mine before we leave this room. I refer to the connection between such tumours and ordinary impregnation,—whether it is possible for such *débris* to be formed in cases where, from non-intercourse, it would be impossible for a more perfect fœtus to exist.

The Cholera: Donation from the Queen. The sufferings of the poor in London from cholera have most painfully attracted the attention of her Majesty, who has commanded £500 to be forwarded to Messrs. Herries for the Cholera Fund.

We are requested to remind members of the Association that the Annual Subscriptions became due on the 1st of January. They can be paid either to the Secretaries of the Branches; or to the General Secretary, T. Watkin Williams, Esq., 13, Newhall Street, Birmingham.

British Medical Journal.

SATURDAY, AUGUST 11th, 1866.

ARMY MEDICAL CANDIDATES.

The statement of degrees, etc., held by candidates for the Army Medical Service during 1865, as well of those who passed and were rejected, lately presented to the Medical Council by the Army Director-General, is worthy of notice. It gives us hints as to the condition of medical education in the country; and as to the standard of examinations of different licensing bodies. It indicates to the student, also, where he may most readily obtain a licence to kill or cure according to law.

Of Colleges of Surgeons, admission (so far as these statistics can guide us) seems easiest into that of Ireland. Of 38 men holding the Dublin College qualification, 21 passed and 17 were rejected at the Chelsea examination. Of the 24 London surgical diplomas, 16 passed and 8 failed. To the credit of the Edinburgh College, it appears that of 13 of its surgical candidates only two failed.

Of University degrees, Edinburgh sent 6, and all succeeded. Queen's University of Ireland sent 13, of whom only 2 failed. From Aberdeen, 10 diplomas in medicine or surgery were presented, and were all accepted.

The Edinburgh College of Physicians does not shine; in fact, with one exception, it figures blackest on the list. Of 28 diplomas, only 12 passed and 16 failed—more blanks than prizes. The unenviable exception belongs to Bachelors and Masters of Surgery of the University of Dublin. Of 12 of these, only 4 pass muster.

The University of Glasgow in a small way does not shine; 2 of its Doctors of Medicine and 2 of its Masters of Surgery apply, but only 2 of the 4 apply successfully at Chelsea.

The London Apothecaries' Society does well; of 12 applicants, 10 succeed. The Dublin Apothecaries' Society sends 2, both of whom prove failures.

The King and Queen's College of Physicians of Ireland send 16 diplomas, of whom 6 fail.

This document, therefore, corroborates a statement made (we believe by Dr. Parkes) highly complimentary to the University of Aberdeen. It also speaks well of things at the Edinburgh University

and Edinburgh College of Surgeons. The number of candidates for army medical honours during 1865 was 89; of whom 56 succeeded and 33 failed. The Director-General gives no returns as to the actual numbers of English, Scotch, and Irish candidates. But we conclude from these returns, that Ireland carries the day in number of candidates and rejections. Of the 182 qualifications held by these 89 candidates, 84 were Irish, 61 Scotch, and 37 English; and of rejected diplomas, 35 were Irish, 20 Scotch, and 10 English. In justice, however, to Scotland, it should be remembered that 16 of its 20 rejected diplomas hail from the Edinburgh College of Physicians. If we were to strike off the 28 Edinburgh College of Physicians candidates altogether, we should find that of the remaining 33 Scotch diplomas, only 4 were rejected.

One great defect is manifest in this return; it does not tell us where the candidates were educated. It shows, however, that the Edinburgh College of Physicians examinations stand first as requiring setting in order; that next in deficiency stands the Irish College of Surgeons; next the King and Queen's College of Ireland; and next the College in Lincoln's-inn Fields. But there is, as we have already said, a grave deficiency in this return, which does great injustice. We are not told where the examined were educated. That most of them were educated in Ireland, we may, however, assume as certain, because at the present time about seventy-five per cent. of the candidates are admittedly from Ireland. It is also well known that many of our Irish medical brethren take diplomas at English and Scotch Colleges. When we read in these returns, that out of 89 candidates 33 failed, we ask, Where were these 33, and where were the 56 who succeeded, educated? The Army Medical Department may perhaps, from motives of delicacy, wisely decline to give the individual schools where these gentlemen were educated; but surely there can be no reason why they should not tell us how many of the 56 and of the 33 were educated in England, Ireland, and Scotland. We hope that the Medical Council, in common fairness, will apply to the Director-General for such information. If any general conclusions are to be drawn as to the condition of medical education in the country from returns of this kind, plain justice demands that we should know the exact number of the candidates supplied by the three divisions of the country.

A PROPOSED NEW ASSOCIATION.

Dr. J. C. Murray has published a pamphlet, "On the Necessity of Organising a Universal Medical Association for the Advancement, Unity, and General Weal of the Profession; with Remarks on its Claims to Equal Preferment with the other Learned Professions." Dr. Murray states the objects of the Society to be as follows.

"1. To support the dignity of the profession, pr e vent members and others from being guilty of any practices derogatory thereto, and to give the laity a proper respect for our noble art. 2. To cherish good feeling in the profession, and settle points in etiquette when necessary. 3. To protect the pecuniary interests of the profession. 4. To defend members against unjust actions and libel. 5. To suppress quackery and imposture. 6. To guard the interests of the profession in Parliament; to place medical men there; also to assist in the election of medical men for the office of coroner. 7. To assist our brethren in the army, navy, and militia, in their just claims for increased pay and more consideration from Government. 8. To bring the influence of unity to bear upon the Poor-law and other boards. 9. To assist brethren when embarrassed from ill-health or misfortune; grant annuities to the aged requiring such; and to assist widows and orphans of deceased members. 10. To enrol medical students, in order that they may recruit the society, and be acquainted with the principles of our etiquette before entering the profession. 11. To obtain state recognition and preferment. 12. To foster a more exalted *esprit de corps.*"

Every medical man will wish success to any Society which promotes such desirable ends. But members of our Association will at once recognise in these ends the especial business of the British Medical Association. More than this, most members well know that there is not one of these objects (except the tenth) which our Association has not actually promoted. The Association will, therefore, naturally ask, Why does not Dr. Murray take the Association—an established fact—as a starting point on which to base his development of an "Universal Medical Association."

Dr. Murray says that his proposed Society would advocate the claims of army and navy medical officers. He is perhaps not aware that the action which has resulted in such great advantage to our army and navy brethren, was initiated by our Association; and that the success is mainly due to the action of the Association.

Dr. Murray also refers to Dr. Armstrong's case. If he had fortunately heard the eloquent language of that gentleman at the last annual meeting of the Metropolitan Branch, he would have learnt how deeply Dr. Armstrong had felt the sympathy and support of the Association in the cruel trial to which he had been subjected. No "Universal Medical Association", Dr. Armstrong will, we are sure, readily admit, could have rallied more earnestly or effectively around him on that occasion than this Association did. In fact, our Association can show a vast deal of real work done and perfected. But such good deeds are apt to be forgotten. "The good is oft interred, etc." Dr. Murray refers to our having a Medical Council. Is he not aware that its existence is due to our Association? We sincerely hope that Dr. Murray will study our organisation

and our actions a little closer; and we are satisfied that if he will do so, he will see that by attempting to raise another association, he is not fulfilling the motto on his pamphlet, "*Cor unum via una.*"

Dr. Markham has been appointed Poor-law Inspector for the Metropolitan District by Mr. Gathorne Hardy.

The objections urged, and, what is more unfortunate, practically adopted, against the admission of sisterhoods as nurses into certain medical institutions, seem to us very regrettable, as well as ill-founded. Every one admits the difficulty at this time of obtaining efficient, and, above all, educated nurses; and the difficulty does not seem likely to diminish, the demand for a fitting supply of attendants on the sick being continually on the increase. We may conclude, for example, from the Poor-law Inspector's Report, that paid nurses must soon become general in our workhouses; and the number required for the metropolitan district alone would be very large. Taking the proportion suggested by Mr. Hart, of one nurse to fifty patients, and supposing there are more than 6,000 sick poor, there would be required a constant supply of 120 nurses for the metropolitan workhouses alone. In the face of facts like these, and of the admitted general want of nurses, it really seems sad that religious feelings should step in to reject the services of those who desire to perform the most religious of duties—viz., attending upon the sick—and mainly on the ground of their holding certain sectional views of religion. Has it ever been shown that, in those cases where sisterhoods are in operation, there has been going on a system of proselytism, such as seems to be so much dreaded? No such denominational proceeding would, we are convinced, be any where permitted; and, as regards any particular religious character which nurses may present, we are inclined to agree with the author of *Sam Slick*, who came to the conclusion, that "people had better have a little too much than none at all of that ere article."

We do not approve, says *Wien. Med. Woch.*, of the uncommonly elegantly dressed and perfumed ladies who make our hospitals like a theatre, who bring to the wounded all sorts of hurtful trash, disturb the sick, and hold themselves forth ostentatiously as directresses and protectresses. But deeply do we respect those ladies who move silently about, acting with tact and discretion, saying and doing the right thing at the right moment. The same journal adds that, notwithstanding the peace preliminaries, hospitals for the reception of more wounded are being hastily prepared at Vienna.

The regulations as to the pay, etc., of naval medical officers, which have just been issued from the Admiralty, deviate in some particulars from the recommendations of the Admiralty Committee, which have already appeared in the Journal. The following are the differences. The clause of the Committee respecting prize-money has been omitted. The staff-surgeon "period of retirement" is put at sixty, instead of fifty-five, as in the Committee's recommendations. The eleventh and twelfth recommendations—viz., "that naval medical officers be considered equally eligible to honorary distinctions as army medical officers; and that they should have equal consideration for Greenwich Hospital pensioners with other officers of the service"—have been omitted from the new regulations.

The pay of medical officers in the Italian army is as follows: President of Council of Health, with grade of Major-General, 9,000 *francs* (£360) per annum; Inspector, with grade of Colonel, 7,000 *francs* (£280); Surgeon-in-chief, 5,500 *francs* (£220); Surgeons of Regiment, first and second class, with grade of Captain, 3,100 *francs* (£124) and 2,800 *francs* (£112); Battalion-Surgeons, with rank of Lieutenant, 2,000 *francs* (£80) and 1,800 *francs* (£72).

At a late meeting of the Medical Society of Pennsylvania—the *Medical Record* tells us—

"The subject of *female practitioners of medicine* was discussed, and threatened to disturb the harmony of the members. A resolution was offered, to rescind a former resolution which declared it unprofessional to hold consultation with the professors and graduates of the Female Medical Colleges as then organised. Dr. Traill Green and others discoursed eloquently upon the increasing sphere of woman's usefulness, and in favour of encouraging females to practise medicine; and especially alluded to the delicate hand, the flexible wrist, and the sympathy of sexual organisation, all of which fit them preeminently for the practice of obstetrics. The resolution was negatived only by four votes. The lady doctors now know where their friends reside, and ought to go out in the country to practise; the majority of country physicians want them, and the city physicians generally would be glad to get rid of them. Another resolution was then proposed, and occasioned a great deal of excitement. Finally, the subject was put to sleep for a year."

Dr. Newman of Stamford has performed the operation of Cæsarean section, local anæsthesia being successfully maintained by Dr. Richardson's ether-spray method. The application of the local anæsthesia was perfectly satisfactory. All that the woman felt was a "little scratching."

Mr. Solly (*Lancet*, 1865) considers that Scriveners' Palsy depends upon granular degeneration of ganglionic cells of the spinal cord in the brachial division of it.

A MODERN HASHISH-EATER.

Under this title, Dr. G. Riedel of Berlin relates a case of poisoning by the officinal extract of the leaves of Indian hemp.

Of this, two scruples were taken at 9.30 on a Saturday night in last February by a druggist's apprentice, with the object of securing for himself that condition of "indescribable bliss far exceeding all earthly delights", which, as he had read in Dr. Pfaff's book *On the Immortality of the Human Soul*, were held to be procurable within an hour or two by the ingestion of two or three *grammes* of hashish. Soon after ten o'clock, the attention of an assistant was aroused by the singular conduct of the youth, especially his fidgety and aimless movements about the shop. He openly confessed what he had done; and immediately after hastened, with an apparently unsteady gait, to his bed-room on the first floor of a back building. Here he was, a few minutes afterwards, seen lying on the floor and partly under the table, wallowing about like a madman.

Dr. Riedel, when he appeared at 10.30, found him in bed, with his head and chest bent forward and his knees drawn upwards, motionless in a sitting posture, in which he was supported by a wooden chest placed behind his back. The head was hot, the face intensely red, the eyes half open and staring at vacancy, the conjunctivæ moderately injected, the pupils active and of normal width, the expression somewhat diabolical, more malicious than anxious. Both his hands he held firmly pressed against the epigastrium; and it appeared that the extremely vehement impulse of the heart—perhaps also pain in the stomach—caused him to adopt this attitude. The respiration was in no wise abnormal; the radial pulse, moderately full, beat but ninety-six times in the minute; the heart-sounds were normal. The temperature of the hands and feet was below par, but they, especially the former, were very red. There was no priapism.

It was obvious that the patient saw and heard what happened, and that he recognised the persons about him; but his psychical reaction on these outward impressions was inordinate. He swore, chided, and threatened to beat those who approached and touched or examined him; and even to his principal, whom he called correctly by his name, his expressions were harsh and rude. However, he did not offer any actual resistance to what was ordered for him. When told to do so, he put out his tongue, which was clean and moist; and obediently he swallowed what was poured into his mouth.

Mustard poultices were applied to the extremities and a bladder of ice to the head. He received a powder of one scruple of ipecacuanha and one grain of tartar emetic. When asked whether he knew the remedy given him, he called it jalap; so his taste and smell appeared to be alienated. It was not until he had taken nearly four such powders at intervals of ten minutes, that he began to vomit abundantly; and this was kept up for a while, camomile tea being administered for the purpose. The result was everything that could be wished. At the bottom of the white basin into which he had vomited, there appeared a pretty considerable quantity—at least fifteen or twenty grains—of the evidently not very soluble resinous hemp-extract, which had been taken an hour and a half previously. Soon afterwards, the whole condition showed a decided improvement. There was a change in the physiognomy; he no longer swore and threatened; became more affable; and his answers were more composed. The heat and redness of the face had abated, the hands and feet were warm, the heart quieter; but he said that his head felt still heavy, and he wished the cold applications to be continued. There was still a feeling of oppression in the cardiac region. After a copious motion had been produced by an enema of dilute vinegar, and he had slowly sipped a small cup of strong coffee without milk, he placed his body in a natural and semi-extended position on one side, and appeared inclined to sleep.

The next morning at eleven o'clock, Dr. Riedel found him still asleep; the skin moist and generally warm; the pulse quiet, of seventy beats; the appearance that of a sound sleeper. When awakened, he stated that he felt his head still somewhat benumbed. In the afternoon, he took a long walk with a friend, when he felt yet a little dizzy and confused; but the following morning he was able to attend to his duties in the shop as usual.

A week later, Dr. Riedel made some inquiries from his patient, in regard to the subjective symptoms. The first signs of the poisonous effect were said to have been an inclination to laugh and an irresistible impulse to move about. This increased *pari passu* with an obnebulation of his senses, making him feel giddy and as if he were intoxicated. In this condition, he had totteringly made for his bed-room, where he ran round the table which occupied the middle of the room, until he fell on the floor, as he thought, without consciousness. How he had got into his bed he did not know; but remembered that the summoning of his master and of the medical attendant had filled him with anger, and that he had great difficulty to withstand the impulse to swear and knock about him. Of the lovely and delightful sensations hoped for, he had experienced none—not any, even in his sleep. Instead, the fear of death and the feeling of repentance had harassed him, and caused him the keenest pangs of conscience. It is, further, worthy of note that a variety of subjective colours, with a preponderance of blue and green, but without coalescence to harmonious shapes or images, had for a while disturbed his beginning sleep.

The effects of the poison were doubtless complicated with and qualified by those of psychical emotion. Besides, but a relatively small portion of the article was absorbed, and thus, by way of the circulation, allowed to affect the system. The case does not, therefore, warrant any definite conclusion regarding the sphere and mode of action of the cannabis extract. It may, however, safely be inferred that a peculiar excitation of the brain, not unlike that produced by intoxication, is one of the essential and primary phenomena of the poison's action. Whether the symptoms of great cardiac anguish, much resembling those of angina pectoris, without any commensurate acceleration of the respiration or dyspnœa, justify the assumption of an elective affinity of the extract to the cardiac plexus, however plausible it appear, Dr. Riedel prefers to leave in abeyance. (*Deutsche Klinik*, No. 19, May 12th, 1866.)

University College, London. At a session of Council, on the 4th inst., the following appointments were made: Mr. Erichsen, Holme Professor of Clinical Surgery, in succession to Mr. Quain, who was invited to assume the title of Emeritus Professor; Mr. J. Marshall, Professor of the Principles and Practice of Surgery, as successor to Mr. Erichsen; Dr. Harley, Dr. Wilson Fox, and Dr. Ringer, hitherto assistant-physicians, physicians to the hospital; Dr. Ringer, Examiner for the Filliter Exhibition for proficiency in Pathological Anatomy; Dr. Rickards resident medical officer of the hospital. The Liston medal was awarded to Mr. C. B. Laxon.

THE CHOLERA.

A case of rapid death from cholera last week came before the Middlesex coroner at the London Hospital. A woman in Whitechapel saw a mechanic, about 55 years of age, walking on the pavement. He suddenly gave a loud exclamation of "Oh!" and made a run across the road and fell. A policeman came up, and, finding him insensible, ran for a doctor; some passers-by took up the prostrate man and carried him to the London Hospital, which was not far off. On admission, it was found that he was quite dead. Dr. Jackson, resident medical officer, said that death was so sudden that he at first supposed the case to be one of apoplexy, but a *post mortem* examination undeceived him. The brain and the organs generally were quite healthy. In the stomach were the remains of a meal. The intestines were found to contain the peculiar whitey substance indicative of cholera, and the livid appearance of the body also denoted cholera. There had been no time either for vomiting or diarrhœa. The deceased had been killed by Asiatic cholera before either vomiting or diarrhœa had set in—say within an hour. Except in the East, cases of such extraordinary suddenness were hardly known. It was very unfortunate that nothing was known of the habits or history of the victim in the present instance. A verdict of "Death in the street from Asiatic cholera" was returned.

At an inquest in Poplar, a nearly similar instance of the rapidity of the fatal effects of cholera was disclosed. It appeared that a seller of tools, who was in good health on Saturday, did not make his appearance on the Sunday; and on the Monday his landlord called in the police and broke open the door. He was found dead, kneeling by the side of his bed, as if he had been praying. One hand was clasped on his stomach, as if he had been suddenly seized with the fatal cramp while praying, and had spasmodically put his hand to the seat of the pain and died instantly. In this case, however, a cup with some cayenne pepper mixed in water was found on the table; and it was thence inferred that he had been attacked with some premonitory symptoms which he had endeavoured to cure. The medical evidence conclusively proved that death had arisen from Asiatic cholera.

The Rev. G. Driffield of Bow says, in a letter: "If anything could have had the effect of paralysing local exertion, it would have been the removal of two such men as Dr. Ansell and Mr. Ceely; but their removal has only stimulated others to still greater efforts in the cause for which they may literally be said to have laid down their valuable lives." Mr. Ceely is, we believe, a brother of Mr. Ceely of Aylesbury.

Dr. G. Beaman recommends now, as he did in 1849, "common table salt as an antidote against susceptibility to cholera." The chlorine is evolved in the stomach, and acts upon the germs of the disease, which are seated in its lining membrane! One-sixth of an ounce a day will be effective for an adult. Peppers, also, are good in cholera time.

The reports from Liverpool continue favourable. The number of both deaths and admissions to the cholera-wards continue at the lowest average since the commencement of the outbreak. The cholera-sheds at the north end are now receiving patients.

A rumour that two deaths had occurred from Asiatic cholera in Birmingham is contradicted.

Two fatal cases of cholera occurred on the 3rd inst. in the Inner Temple. The authorities have caused the three pumps belonging to the society to be chained up.

As might have been expected from the intensity with which the cholera has raged in the East London district, the localities attacked are found to be very defective in all sanitary arrangements and in the water supply. The past researches of Dr. Snow and Mr. Simon, as to the influence of poisoned water in spreading the cholera, have caused special attention to be directed to this part of the etiology of cholera, for it is only one element of the causative influences, although probably the most important. The engineer of the East London Water Company has vindicated the sources of their water supply from some of the imputations of the Registrar-General. But it is remarkable that the cholera district seems, according to the Registrar-General, nearly to correspond with the field of distribution of that Company's water.

Mr. A. Brady, writing of the cholera at Bow, says: "The medical men have done wonders; one (Dr. Ansell of Bow) has died in the discharge of his duty, and another (Dr. Elliot, our officer of health) is very ill. More noble and disinterested labours than those of the medical men of this neighbourhood are not on record."

Mr. Thomas Buxton, speaking of the cholera in the London Hospital, said they had given up one-third of the hospital to cholera patients, and one nurse to every three patients. The number of cholera patients admitted from the 10th of July to the 4th of August was 365, of whom 299 were suffering from cholera, and 66 from diarrhœa. Of these, 97 had recovered, or 48 from cholera, and 49 from diarrhœa; 158 had died from cholera, and 8 from diarrhœa, or 166 in all; and 102 remained in the wards, 93 of them afflicted with cholera, and 9 with diarrhœa. The number of out-patients during the same period was 6,251. The cholera staff of the hospital consisted at present of five resident medical officers, thirty-five day-nurses, thirty-five night-nurses, and four men. It had been perfectly astonishing to witness the zeal of the medical staff. At first there was a good deal of fear of contagion, but much of that had been abandoned; and all the authorities of the hospital, with many others, had volunteered their services in the emergency. Two nurses had died, and one was ill now; but the former were extra nurses, and had slept out in the neighbourhood of Bethnal Green, or other places where there was cholera; so that the authorities of the hospital hoped the death of the two nurses was no absolute proof of the disease being contagious.

The cholera has broken out in the Prussian camp, on the flat land which borders on the Danube; several men and officers are already down with it, and great fears are entertained that the hot weather may cause it to increase. The cases are not very numerous, but they are not confined to one particular regiment or one particular locality, which makes it appear as though the disease were lurking all through the lines, ready to burst forth every where if a day hotter than usual or a slight failure of good water should occur.

Practice Medical in Mexico. Dr. Morse, Surgeon of the 117th U. S. Coloured Infantry, at Brownsville, Texas, was waylaid near the city, by the Mexicans, who lassoed him, dragged him into the chapparel, and there murdered him.—Dr. A. W. Webb and his son were murdered in bed, at Little Rock, Ark., on the 14th ult., for the sake of the plunder in the house.

Association Intelligence.

THIRTY-FOURTH ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION.

The meeting was opened on Tuesday last, in the Music Hall at Chester. At 2 o'clock P.M., the Board of Directors of the Medical Provident Society met and agreed on a report. At 3 P.M., the Committee of Council held a meeting; and at 4 P.M. the General Council assembled and agreed on the report to be presented.

At 8 P.M., the public proceedings were opened by the Retiring President, Dr. Jeaffreson of Leamington; who, on taking the chair, addressed the members present in the following words.

Gentlemen,—At a meeting of the Council of this Association this morning, it was unanimously agreed that we should proceed to no general business connected with the Association until we had passed some resolution of condolence with the family, and regret at the loss which we have sustained in the death, of Sir Charles Hastings. [*Hear, hear.*] If I had a thousand times the eloquence that I have—or rather that I never had—nothing that I could say would express one-half of the feelings which I entertain towards the memory of our inestimable founder, Sir Charles Hastings. In every relation of life he was a man to be loved, to be respected, and, I may say, to be venerated. I was invited by the family, as the representative of your Association, to attend the funeral of Sir Charles Hastings; which I did yesterday. It was a painful duty to me; but it was made to me a happy and noble one, because I felt that by my attendance I represented the feelings of every single member of our Association. [*Hear, hear.*] I think it may be a satisfaction and a pleasure to you to know that, apart from the feelings which every member of our Association must retain of his memory, I never was more staggered than I was by the demonstration of feeling towards him as a man and a neighbour, in the town of Worcester. Short of any very great public character, or any member of the Royal Family itself, it was impossible that more respect could be shown. It was wonderful to see the number of places—both shops and private houses—that had their shutters up out of respect to the memory of our founder. I may mention one little anecdote, which I am authorised by his son, Mr. George Hastings, to mention. So much was Sir Charles attached to the Association, that the last words connected with any matter of business which he used previously to his death—either on the day before or on the morning of his death—were words connected with his ardent desire and hope for the prosperity of this Association. Up to his last breath, he retained his loving and kindly feeling towards the members of this Association, and his desire for its permanency and its prosperity. [*Hear, hear.*] The resolution suggested by the Council has been put into my hands, as your President; and I shall call upon Sir Charles's dear friend, neighbour, and medical attendant to the last, Mr. Carden, to be kind enough to second it. I should not wish to see any kind of discussion upon it. It will be passed unanimously; and it is intended that the resolution should be forwarded to the family. The resolution is as follows.

"That the British Medical Association, assembled at the general meeting at Chester, desires to express its deep sorrow at the loss the Association has sustained in the death of its much loved and highly esteemed founder, President of Council, and Treasurer, Sir Charles Hastings, who, from the period of its establishment to the present time, has, with singular courtesy and fidelity, exerted his highest powers for the promotion of the best interests of the Association; and that a copy of this resolution be forwarded by the President to the family of the late Sir Charles Hastings, with the condolence of the Association on the bereavement they have sustained."

Mr. Carden (Worcester) said: I can assure you that this is to me a most melancholy and, at the same time, satisfactory duty. I have been called upon by Dr. Jeaffreson and yourselves, who knew the value of our late friend, the founder of our Association; and I do most cordially second every word that has been said. But I feel it is unnecessary for me to enlarge upon the character of Sir Charles Hastings. It is well known to you. But I might perhaps say that, having known him intimately through a long and serious illness—more intimately than we can know any one during his appearances in public—throughout that long illness, and at the close of his long, useful, and earnest life, his great wish was for the success of your Association. The last words he said to me were: "When is the meeting at Chester?" I repeated, as I had done before, when it was, and he said, "I may not be able to go to Chester." Fancy a man with no pulse below the elbow, his soul, entering into the occasion, going beyond his body! Then he added: "If I am not able to go this time, it is just possible, perhaps, that I may never join the Association again. If so, I shall only say, as I have always said in my greatest disappointments, 'God's will be done!'" He could say no more; but this spoke volumes. It was the character of the man—a high and mighty soul, finding his bodily weakness so great, that he began to feel as if his soul should cast away the body that could not carry out his intentions. It was a beautiful sight! You have seen his buoyant manner, and heard his cheering voice, and seen his countenance, which you will never see again, except in recollection; but I can tell you his soul was with you, and I think it my duty, in so many words, to tell you so. I second, most cordially, the vote of condolence and the expression of the feeling of deep regret at the loss we have sustained; and I know, further, that the feeling of condolence thus expressed, when received by the family, will be one of the most consoling expressions of feeling that they could possibly receive from any quarter. [*Hear, hear.*]

Dr. Richardson (London). I think, sir, before this resolution is passed, those who have worked with Sir Charles Hastings during many years past should give expression to those feelings to which he would have listened with respect and love. I cannot allow this resolution to pass with a silent vote. I must bear my testimony to the kindness, the geniality and goodness, of Sir Charles Hastings. There were three great attributes in his character which especially call for our attention: first, the wonderful power which he possessed, and which should be diffused through us, of amalgamating men of contrary opinions on many subjects, but of one opinion on those things which most pertain to us as a profession. The more we recognise this particular feature in his career, and feel the spirit in him which welded us together, the more we shall advance in the path of unity and progress. [*Hear, hear.*] Nor can I fail to recall his untiring industry. I have often thought that for the correspondence of the Asso-

ciation, which he performed alone, many a man would have required a secretary; and he would have been insufficiently remunerated, whatever his salary might have been. [*Hear, hear.*] For thirty-five years, since he commenced his work, his energy, his industry, through the whole time, is a great and marvellous model to us. And, lastly, I think of that quietness with which he proceeded through all. He went on through the long vista of thirty-four years, always doing something, and least of all presenting through himself that something was done. If we progress, using these three attributes, and sustaining the Association which he founded, we shall best perpetuate his memory. [*Hear, hear.*] I could not avoid saying these few words with reference to my dear and lost friend.

The resolution was passed unanimously.

The retiring PRESIDENT, after making some business announcements, said: And now, gentlemen, I make my bow. I shall not attempt to make a long speech; but I have to thank you for all the kindness I have experienced from every member of the Association during my year of presidency, and to express the feeling that, though I entered upon my office with great dread and fear that I should not be able to go through all the work in the manner I should wish, yet I owe so much to my good friend our Secretary, and to every member of the Association, that I hope I have not disgraced myself. [*Loud applause.*] With a loving feeling for the Association over which I have had the honour to preside during the last year, it is no small pleasure, no small consolation, for me to feel that I am succeeded in my office by one so well deserving of your confidence. [*Applause.*] I am quite sure that Dr. Waters will not be wanting in zeal and kindly feeling; and I feel that he will do more than justice to the office to which you have elected him. [*Applause.*] Certainly, my year of office has been one of great pleasure in many respects, and of great pain in others. I could wish that at some future time—perhaps when my friend Dr. Waters retires—the dying effort of the President should be to give some little sketch of the history of the year past—some little testimony to the memory of those dear friends we have lost during the year. In this respect, this year has been a very painful one to the Association, as we have lost many valued and very much esteemed friends. I might name amongst them my own cousin, Mr. Jeaffreson of Framlingham, the originator of the ovariotomy operation; my very dear friend Mr. Toynbee, an exceedingly useful member of the Association; and also our most worthy President, Sir Charles Hastings. I have not had the leisure or health to do this; but I do think that, if in future some retiring President should give some slight sketch or memorial of those who have been lost during his year of office, it would be a very valuable addition to the transactions of our Association. With these remarks, gentlemen, I wish you farewell; but I shall continue to hold all of you "to memory dear". [*Loud applause.*]

The Chair was then taken by EDWARD WATERS, M.D., of Chester, who delivered an address, which is published at p. 145.

The Retiring President. Dr. FALCONER (Bath) then proposed a vote of thanks to the retiring President. The motion was seconded by Mr. JOHN HARRISON (Chester), and carried unanimously; Dr. Jeaffreson being at the same time elected a Vice-President of the Association.

Report of Council. Mr. WATKIN WILLIAMS, the General Secretary, read the following Report.

"Your Council has much pleasure in meeting the Members of the British Medical Association in the ancient city of Chester. From the subjects for discussion, from the papers announced, as well as from the distinguished position of the gentlemen who have undertaken to deliver the Addresses in Medicine and Surgery, a very successful meeting may be confidently expected.

"The Committee of Council has held its usual quarterly meetings at Birmingham; at the last two of which they have had to regret the absence of their esteemed President of Council, Sir Charles Hastings, in consequence of his severe bereavement and the failing state of his health.

"On the 5th of July, Sir Charles resigned the office of treasurer, feeling himself unable any longer to perform its duties. On this occasion, the Committee of Council passed an unanimous resolution, which was ordered to be forwarded by the President to Sir Charles, expressive of their deep sympathy with him under his affliction, their regret that his declining health obliged him to resign the treasurership of the Association, and their hope that his life might long be spared to fulfil the less onerous duties of President of Council. This hope is now lost. Sir Charles Hastings, the Founder of the Association, and for thirty-four years its leading spirit, died on the 30th of July last. The Council feel, that in no way could they better express their recognition and remembrance of their late friend and founder, than by vigorously sustaining the greatest effort and object of his life, the British Medical Association; which, so long as it shall last, will perpetuate his honoured name.

"It will be necessary for this meeting to elect some gentleman to fill the office of Treasurer.

"Your Council has much pleasure in congratulating you upon the continued improved condition of the Association. The number of members in 1865 was 2,368. Notwithstanding the unusual number of deaths last year, there are now on the books 2,462. Since the 1st of January last, 167 new members have been admitted.

"Your Council very gratefully acknowledges the valuable services of the Branch Secretaries.

"Your Council would suggest to some of the larger Branches the desirability of holding more frequent meetings, or of holding district meetings, such as have been established by that most admirably-managed Branch, the South-Eastern. A considerable increase in the number of members has resulted from these meetings.

"The following is the Financial Report for 1865; the accounts have been audited by the Auditors, Dr. Melson and Mr. Hadley:—

"'*Financial Statement for* 1865. The improvemen in the finances of the Association, which was reported with so much satisfaction last year, still continues, and is increasing. The subjoined cash account shows that the balance in favour of the Association on the 31st of December, 1865, was £318:14:8½, against £243:16:8½ in December 1864. It should be observed that a sum of £50, due for distributing the JOURNAL in 1864, has been paid during 1865, in addition to a like sum due for the latter year.

"'1865.—RECEIPTS.	£	s.	d.
Balance from 1864	243	16	8½
Subscriptions	2229	3	0
Arrears	105	0	0
Advertisements and Sales	655	9	3
	3233	8	11½

"'1865.—PAYMENTS.

	£	s.	d.
JOURNAL EXPENSES:			
Mr. Richards (Printing and Stamps)	1807	10	6
Mr. Richards (Directing, etc., *two years*)	100	0	0
Mr. Honeyman (Office Expenses)	108	4	6
Mr. Davidson (Commission)	63	1	9
Mr. Orrin Smith (Engraver)	15	16	0
Editor of Journal	200	0	0
Dr. Henry (Sub-editor)	50	0	0
Contributors	230	7	6
Dr. Henry (Salary, for work at Office)	50	0	0
EXECUTIVE EXPENSES:			
Secretary and Clerk	167	0	0
Secretary's Petty Cash	37	3	2
Branch Secretaries and Collectors	30	4	9
Leamington Reporter	16	16	0
Mr. Moore (Gold Medal)	21	0	0
Anniversary Expenses	3	17	3
Birmingham Stationer	18	8	10
Bank Cheque-Book	0	4	0
	2914	14	3
Balance	318	14	8½
	£3233	8	11½

"'CHARLES HASTINGS, *Treasurer.*'

"Your Council, in August last, caused a memorial to be presented to the Council of the Royal College of Surgeons, urging the justice of allowing provincial fellows to vote by voting papers in the election of members of the Council of the College. In the early part of this year your Secretary procured about fifty memorials on the same subject, signed by a very large number of the fellows resident in the provinces, and which were presented by Mr. Paget, of Leicester. Notwithstanding this, the Council of the College returned the same answer, an *excuse* having been found this time by the presentation of a counter memorial. Your Secretary has endeavoured to ascertain the number of memorialists on each side respectively; but even this scanty information has been refused. Your Council leave it to the members of the British Medical Association to draw their own conclusions as to the value or importance of the counter memorial. The efforts of your Council having hitherto been unsuccessful, the Association should decide what further steps ought to be taken. Your Council recommends that a deputation be appointed to lay before the Home Secretary the injustice under which the majority of the fellows of the College are placed by the present charter.

"Your Council has observed with much pleasure the desire of the Medical Council to obtain an amendment of the Medical Act, and recommends that a deputation be appointed from this Association to wait upon the Home Secretary at the proper time.

"Your Council hopes that, at length, the medical officers of the army and navy have received at the hands of the authorities that measure of justice for which your Association has contended; warrants for increased pay and rank having been signed by Her Majesty the Queen.

"Your Council desires to offer its warmest thanks to Dr. Markham, Dr. Stewart, and Dr. Sibson, who for more than two years have so energetically worked for the good of their brethren in the united services.

"*The Charter.* The Charter Committee has, by direction of the Committee of Council, published in the JOURNAL a copy of the draft charter, which will be submitted to the General meeting for approval.

"*Medical Provident Society.* A Report will be presented by the Directors of this Society.

"*Scientific Witnesses Subcommittee.* A Report will be presented by this Committee.

"*Registration of Diseases Committee.* A Report will be presented by this Committee.

"*The Medical Benevolent Fund* continues a prosperous career, dispensing the blessings of charity among our less fortunate brethren and their widows and orphans.

"Your Council has to deplore the death of Mr. Toynbee, whose services to this valuable charity have been beyond all praise.

"Your Council bears willing testimony to the continued improvement of your JOURNAL under the editorship of Dr. Markham.

"*The Hastings Medal* has been awarded by the adjudicators—Mr. Carden of Worcester, Mr. Hilton of London, and Mr. Southam of Manchester—to Mr. Furneaux Jordan of Birmingham, for an essay on Shock after Surgical Operations and Injuries.

"The introduction of subjects in scientific and state medicine for discussion having proved so very successful at Leamington last year, your Council has decided upon continuing such discussions; and your Council has good grounds for hoping that such discussions will this year be equally successful."

On the motion of Mr. STEELE (Liverpool), the Report was unanimously adopted.

Medical Provident Society. Dr. HENRY, Secretary of the Society, read a report, the adoption of which was moved and seconded, but was opposed by Mr. Steele and Dr. Morris (Spalding), who proposed and seconded an amendment in favour of the severance of the Society from the Association. After some discussion, in which Mr. Husband, Mr. Heckstall Smith, Dr. Davey, Dr. Richardson, and other members, took part, the amendment was withdrawn, and the motion for the adoption of the report carried.

The Secretary. On the motion of Dr. JEAFFRESON, seconded by Dr. RICHARDSON, Mr. Watkin Williams was unanimously elected General Secretary of the Association.

On Wednesday morning, the new Council assembled, and elected the following ten gentlemen as members of the Committee of Council for the ensuing year: E. Bartleet, Esq.; J. C. Burrows, Esq.; E. Charlton, M.D.; M. H. Clayton, Esq.; R. W. Falconer, M.D.; W. D. Husband, Esq.; B. W. Richardson, M.D.; T. H. Smith, Esq.; G. Southam, Esq.; and A. T. H. Waters, M.D.

Dr. Sibson was elected President of Council in the room of Sir Charles Hastings.

Letters were read from Dr. Stokes and from the University of Dublin and the Colleges of Physicians and Surgeons in Ireland, cordially inviting the Associating to hold its annual meeting in 1867 in Dublin. A numerously signed invitation to meet in Brighton in 1867 or 1868 was also presented; and Mr. Nunneley stated that the Association would at an early date be invited to hold its meeting in Leeds. It was decided to recommend to the general meeting the acceptance of the invitation to meet in Dublin, under the presidency of Professor Stokes.

It was also determined to recommend Dr. Falconer for election as Treasurer of the Association.

At 11 A.M., the members again assembled in general meeting.

Dr. WATERS (Liverpool) proposed, and Dr. SIBSON (London) seconded, the election of Dr. Falconer of Bath as Treasurer of the Association, in the room of Sir Charles Hastings. The President, in putting the motion (which was unanimously carried), announced the election of Dr. Sibson as President of Council.

Auditors. Dr. WADE (Birmingham) then moved and Dr. RUSSELL (Birmingham) seconded, a vote of thanks to the auditors for the past year, Dr. Mel, son and Mr. Hadley. On the motion of Mr. HADLEY (Birmingham), Dr. Marshall of Clifton and Mr. Church of Bath were elected auditors for the next year.

The Hastings Medal was presented by the President to Mr. Furneaux Jordan of Birmingham, for his essay on "Shock after Surgical Operations and Injuries".

Medical Representation in Parliament. Dr. Mackesy proposed the resolution regarding the representation of the medical profession in Parliament, of which he had given notice. After some discussion, however, the resolution was withdrawn.

Dr. Hughes Bennett of Edinburgh read the Address in Medicine.

A more complete account of the preceding, as well as of subsequent proceedings of the meeting, will appear in the next number of the Journal.

READING BRANCH: ANNUAL MEETING.

The annual general meeting of the Reading Branch was held at the Council Chamber, Reading, on Wednesday, July 25th; T. L. Walford, Esq., President, in the Chair. There were also present Drs. Cowan, Walker, Wells, and Woodhouse, Messrs. Barford, Brewer, Harrinson, Hayes, Izod, O. C. Maurice, G. May, jun., Moore, Mixhay, Taylor, Vinen, Young, and two visitors.

President's Address. The President delivered an able and instructive address, which will be published in the Journal.

New Members. Dr. Walker of Reading, and Mr. Barford of Wokingham, were elected members of the Branch and of the Association.

President-elect, etc. Mr. Barford was selected for the office of President-elect; Dr. Woodhouse as Representative in the General Council. The Branch Council and Honorary Secretary were re-elected.

Retrospective Address. Mr. Barford read the retrospective address of the Reading Pathological Society, which will be published in the Journal.

Dinner. The members dined at the George Hotel. The President, T. L. Walford, Esq., occupied the chair; and Mr. Barford, the President-elect, the vice-chair. After the usual loyal and patriotic toasts, the proceedings terminated at an early hour.

YORKSHIRE BRANCH: ANNUAL MEETING.

The annual meeting of this Branch was held in the Library of the Yorkshire Philosophical Society's Museum, on Thursday, July 26th, when the following members were present: J. Braithwaite, M.D., C. Chadwick, M.D., T. M. Greenhow, M.D., S. Hey, Esq., S. Smith, Esq., and T. P. Teale, Esq. (Leeds); F. Collin, Esq., J. H. Gibson, M.D., W. D. Husband, Esq., H. Keyworth, Esq., W. Matheson, M.D., S. W. North, Esq., and G. Shann, M.D. (York); J. Teale, Esq. (Scarborough); J. Ness, Esq. (Helmsley); J. Abraham, Esq. (Harrogate); J. H. Aveling, M.D. (Sheffield); G. Ord, M.D. (Brixton).

S. Hey, Esq., of Leeds, occupied the Chair, in the absence of the President, Mr. B. Dodsworth, who was prevented by indisposition from being present.

Report of Council. Mr. North read the Report of the Council, of which the following is an abstract.

"Since the last meeting of the Branch, Mr. S. Hornby has resigned the office of Secretary, which he has held for several years. Mr. North has been requested to perform the duties of Secretary prior to the Council meeting.

"By the death of Mr. Garlick of Leeds, and more recently of Mr. H. Jackson of Sheffield, the Society has lost two of its earliest members, both of whom ever took a lively interest in the welfare of the Association. Mr. Jackson was one of the original members of the Branch. His genial disposition, courteous manners, and extensive acquirements, long endeared him to all who had the pleasure of his acquaintance. The Council feel that, in expressing their high sense of the many virtues and high character of their departed friend, and their sympathy with his family in their bereavement, they do but express the general feeling of regard and sympathy entertained by every member of the Association.

"But two topics of professional interest seem to call for any observation from your Council; viz., the status of the medical officers of the army and navy, and the question of Poor-law medical reform. As regards the first of these questions, the members will have observed with pleasure that there is every reason to believe that the suggestions of Sir A. Milne's Committee for improving the pay and promotion of the medical officers of the two services are likely to be carried out.

"On the wide question of Poor-law medical reform, your Council feel that every endeavour ought to be made, whilst the public mind is so strongly directed to the question, to urge on the authorities the necessity there is for extensive alteration in the existing arrangements.

"In the opinion of your Council, the best method to obtain at once a better position for the medical officer and better treatment for the poor, would be the establishment, in every town and village of sufficient size, of an efficient dispensary system, the drugs and a competent dispenser being in all cases provided by the guardians; in workhouses, the relief of the medical officer from all connexion with the supply or dispensing of medicines, and, if possible, a large diminution of the amount of desk-work which he is at present called upon to perform. By these means, more time would be placed at his disposal; and his position would more closely approximate to that of the medical officers of our public medical charities. By this method, your Council think the status of the Poor-law medical officers would be materially improved, and the poor largely benefited. Your Council think that, if the attention of the profession were directed as much to the improvement of the status of the medical officers of Poor-law Unions as to the mere question of pay, better results might be accomplished than have hitherto followed efforts in this direction."

Next Annual Meeting: President-elect. The Report having been received and adopted, it was resolved that the next annual meeting should be held at Sheffield; J. C. Hall, M.D., of Sheffield, being the President-elect.

Council of the Branch. The following members of the Association were elected to form the Council of the Branch for the ensuing year; viz., B. Dodsworth, Esq.; W. D. Husband, Esq.; H. Keyworth, Esq.; W. Matheson, M.D.; G. Shann, M.D.; W. E. Swain, M.D.; C. Williams, M.D. (York); C. Chadwick, M.D.; S. Hey, Esq.; Wm. Hey, Esq.; T. Nunneley, Esq.; S. Smith, Esq.; T. P. Teale, Esq. (Leeds); W. Favell, Esq.; J. C. Hall, M.D.; J. Haxworth, M.D. (Sheffield); J. Ness, Esq. (Helmsley).

Representatives in the General Council. The following members were elected to represent the Branch in the General Council: J. C. Hall, M.D.; S. Hey, Esq.; W. D. Husband, Esq.; W. Matheson, M.D.; T. Nunneley, Esq.; T. P. Teale, Esq.; C. G. Wheelhouse, Esq.; and S. W. North, Esq. (Secretary).

Secretary. Mr. S. W. North of York was unanimously elected Secretary of the Branch.

Communications. 1. Mr. Hey (Leeds) exhibited a

specimen of Fibro-cystic Tumour of the Heart, which presented some difficulties in the diagnosis.

2. Mr. S. Smith (Leeds) described an Improved Method of inducing Premature Labour. The method consisted in the introduction, through the os uteri, of a full sized male catheter, by the cautious rotation of which, without rupturing the membranes, the decidua might be easily detached to a much greater extent than could be accomplished by the finger. The author detailed the history of several cases in which he had adopted this method with the most satisfactory results.

3. Dr. Greenhow read a paper on Cholera.

4. Dr. J. Braithwaite read an account of a singular case, in which a large amount of Iodide of Potassium was excreted in the Urine, with subsequent disappearance of the Glucosuria which existed at the time.

Votes of Thanks to the Retiring President; to Mr. Hornby for his valuable services as Secretary to the Branch; and to the authors of papers, having been adopted, the meeting separated.

Dinner. In the evening, the members and visitors dined together at the Royal Station Hotel; Mr. S. Hey in the chair.

Infection. Practically, any diseased person scatters his infection broadcast almost where he will, typhus or scarlatina, typhoid or small-pox, or diphtheria; and, under present circumstances, if cholera were in a district, the patient with choleraic diarrhœa would form no exception to the general licence. In the case of any dangerous contagious disease the local authority, I submit, ought to have the power of requiring from the diseased person that, in regard of residence and otherwise, he shall so conduct himself as not unnecessarily to multiply the the chances of extending his infection to others. Subject to the condition that proper hospital accommodation can be afforded, the authority ought to be able to enforce, in regard of any dangerous contagious disease, that the sufferer should not be in circumstances which promote the spread of disease to the general population. This power, exercised in seaport towns in relation to the poorer classes who might arrive infected from abroad, would, in effect, work thus: Such persons would be debarred from resorting to the common lodging houses and crowded tenement houses of the town, and would (as much to their own advantage as to that of others) be constrained to go to the local hospital, there to remain till cured.....Conditions of lodgment are not all that require consideration. Complaints are often made of the freedom with which persons imperfectly convalescent from contagious fevers (as, very notably, from small-pox) expose themselves in places of common resort, and a careless sending of sick children to school often does much to spread diphtheria, scarlatina, and other contagious diseases; the careless transmission of infected things to common laundries, and, of course, the traffic in infected rags imply dangers of the same sort; so, too, the use of public carriages by persons contagiously diseased. Against all such sorts of action the public ought to have some ready means of protecting itself. Other dangers are for personal rather than municipal precautions. I may observe, for the consideration of those whom it concerns, that Turkish baths are now among recognised means of treatment for persons with constitutional syphilis, who in some cases have local symptoms by which the disease can be communicated; and the question whether such patients take the general run of public baths, and are among the numbers who nakedly occupy the seats and couches of common sweating-rooms, is one which may greatly concern other frequenters of such establishments. (*Mr. Simon's Public Health Report.*)

Reports of Societies.

OBSTETRICAL SOCIETY OF LONDON.

Wednesday, May 2nd, 1866.

Robert Barnes, M.D., President, in the Chair.

Seven gentlemen were elected Fellows. Professor Lazaréwitch, of Charkoff, was elected an honorary Fellow of the Society.

Specimens. Dr. Willshire showed a new form of uterine tent, composed of sponge and laminaria, the sponge forming an outer casing to the laminaria.

Dr. Barnes exhibited an uterus, with its appendages, which were affected with colloid disease. He also showed a specimen, which he had received from Dr. Brunton, of abscess in the placenta. The abscess contained about an ounce of pus. There had been no symptoms of pain during gestation; but there had evidently been inflammation of the decidua. Dr. Barnes considered these cases very rare, and exceedingly interesting. He knew of but two or three on record, and they were described by French authors.

CASES OF LACERATION OF THE UTERUS, WITH REMARKS. BY THOMAS RADFORD, M.D.

The author, after briefly alluding to the views of Hunter, Denman, and Douglass, on this most dangerous complication to labour, related minutely the histories of nineteen cases which had fallen under his notice. Of this number, in eleven the ages registered were from 21 to 40 years, and it was found that the accident occurred more frequently between the ages of 39 and 40. The number of labours which each woman had undergone, varied from the first to the eleventh; and it was shown that laceration of the uterus happened most frequently in women pregnant for the eighth time, and that in those *enceinte* for the first time, the accident took place quite as often as it did in any of the other cases which were registered. The duration of the labour, from its commencement to the occurrence of laceration (though in some cases not exceeding three or four hours) was generally from ten to thirty hours. Of the various causes or conditions mentioned as producing laceration, slight contraction at the brim of the pelvis appeared to have been the most frequent. The author considered that when the form of the pelvis was only slightly contracted, the os and cervix uteri partially descended during labour into or a little through the aperture of the pelvis, so that, as the head of the infant was forced down, the uterine tissues became fixed between this body and the pelvic bones. The fixity of this structure actually formed a *point d'appui* from which the uterine fibres during contraction forcibly pulled; and the great probability was that sooner or later the tissue either directly tore, or, being first contused and softened, yielded. As regarded the situation of the laceration, the cervix uteri was the part most frequently affected, and sometimes with it the body of the organ was also implicated. In eleven cases the laceration was longitudinal, in three transverse, in three oblique, and in one circular. Of the nineteen cases, three recoveries took place, or nearly sixteen or seventeen per cent. Dr. Radford, in his concluding remarks, observed that when we contemplated the frequent fatality of laceration of the womb, we were led to inquire whether there were no symptoms which showed themselves as universal precursors of this dreadful catastrophe; and if there were, were we possessed of the means of prevention. In all the

cases he now brought before the Society, there could not be found any with premonitory symptoms which of themselves would warrant any operative measures being taken, in order to avert the impending danger. Nevertheless, he thought we should carefully consider all the contingent circumstances of protracted labours, and especially of those which were prolonged by mechanical impediments; and whether they were produced by relative disproportion of the capacity of the pelvis to the size of the fœtal head; if so, we should adopt measures of timely delivery.

Dr. Graily Hewitt acknowledged the great value of Dr. Radford's paper, but could not agree in the antiphlogistic treatment mentioned by the author. He (Dr. Hewitt) concurred in the opinion that there was an absence of uniformity of symptoms in these cases; and strongly urged the necessity for early artificial aid in some cases of protracted labour. He related a case of concealed hæmorrhage, in which the symptoms were closely allied to those observed in ruptured uterus.

Dr. Playfair could not approve of the treatment which had been adopted in those cases where the fœtus had escaped into the peritoneal cavity. He thought a much better line of treatment would be to perform gastrotomy. He knew of twelve cases in which this operation had been performed, and in some with satisfactory results.

Dr. Braxton Hicks said that, with respect to the symptoms of rupture, it was generally asserted that recession of the head was a constant symptom, but that he had never seen a case where this had taken place. He believed there were many more cases of ruptured uteri than we were cognisant of. Dr. Hicks believed that one of the greatest safeguards against rupture was the use of chloroform.

Dr. Eastlake observed that, in the diagnosis of rupture of the uterus, some data were furnished by auscultation, the fœtal heart-sounds becoming inaudible after the rupture. This point Dr. McClintock strongly insisted upon; as also that in these cases there is very little hæmorrhage.

The President regretted that, through indisposition, Dr. Radford was unable to be present. He considered that the first great cause of rupture was protracted labour, and the object to be had in view was to remove the obstruction as speedily as possible. A second cause was rigidity of the os uteri, and he agreed with the author as to the necessity of incising the os. A third and a fourth cause existed in the obliquity of the uterus, which caused it to become jammed in the pelvis; also, when there was a dead fœtus *in utero* there was a want of the resiliency which a live child possessed, and the action of the uterus rather tended to squash than to expel it. He also mentioned disease of the uterine tissue as another cause leading to rupture. He thought that softening of the tissue might depend upon degeneration, either before labour, or during labour, by the pressure of the fœtal head against the pelvis. With respect to gastrotomy, he would say that Dr. Radford had urged the operation, but that it had been overruled by others. The late President of the Society objected to any operative measures whatever when the fœtus had escaped into the abdominal cavity; and he (Dr. Barnes) had seen a case where it was left, and the woman recovered.

Dr. Brunton observed that the cases which Dr. Radford had collected, were attended by midwives, and he knew that midwives were in the habit of giving very large doses of ergot. He believed that this was one of the great causes of rupture of the uterus; and when it did not cause rupture, the placenta was often retained, owing to the irregular contractions of the uterus produced by that drug.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, June 12th, 1866.

P. Black, M.D., Vice-President, in the Chair.

A CASE OF PREMATURE MENSTRUATION.

BY T. C. ALLBUTT, M.B., LEEDS.

The patient, M. A. W., was seen in the summer of 1865, and was reported to have menstruated within the last few days. Her age was one year and six months. The child was then suffering from emaciation, weakness, quick pulse, and other symptoms of hectic fever. These symptoms passed off in a few days, and the child partially recovered her health. On examination, the anal and genital regions were found free from discharge, and quite healthy in appearance. On the following month the discharge again appeared, and after it had passed away the author found the child, as before, in a state of hectic, and still presenting a perfectly healthy appearance about the anus and pudenda. He was unfortunately unable, being absent from home for a while, to see the child during the continuance of the flow. In about a fortnight the child had again recovered some degree of health. On many occasions the author carefully examined the child for disease in other organs, and did not find anything of importance. At the third monthly period he actually saw the child in a menstruating state. The discharge appeared with curious accuracy at the month, and lasted about two days and a half. The discharge was sanguineous, and in every way resembled that of a girl at puberty, but was more scanty in quantity. A return of the hectic fever followed, and the child's life was endangered. She recovered, but only to be again prostrated by a fourth appearance; and after a fifth she died, wasted and exhausted, without any effort to rally. There were no other signs of premature puberty. A *post mortem* examination could not be obtained. Among many cases of premature menstruation on record, there are two in which the menses appeared at the age of nine months, and one in which the discharge appeared at the age of two years. The first two cases are reported in the *Transactions of the Royal Medico-Chirurgical Society*, vol. ii, p. 116, and in the *Lancet* for November, 1828, from Meckel's *Archives*. The former cases were seen by Dr. Martin Wall. The third case is reported by Mr. Embling in the *Lancet*, 1848, p. 137. In these three cases obvious signs of puberty were seen in the genital organs, mammæ, and elsewhere, and these signs formed a great part of the interest of the cases. In other cases of premature menstruation, exhaustion and death had occurred as in this.

CASE OF MYELOID TRANSFORMATION OF THE LUNG.

BY T. C. ALLBUTT, M.B.

The present perhaps unique case of complete myeloid transformation of the lung occurred under the author's care in the Leeds Infirmary. During life there were found complete dulness and stillness all over the left chest, and absence of vocal sounds and fremitus, or at least these, from the feebleness of the subject, and the distance of the voice, were indefinable. The heart was seen to beat under the right nipple. Cough was almost absent, and there was no great dyspnœa. The intercostal spaces were not bulged, and the circumference of the left chest only exceeded that of the right by three quarters of an inch. There was some degree of emaciation, and of hectic fever present. The duration of the disease was uncertain, but certainly of eighteen months' standing. There was no marked cancerous cachexia

of appearance, and the progress seemed to have been slow. The boy was fourteen years of age. He remained in the house about eight weeks in the autumn of 1865, and becoming more and more exhausted and short of breath, he left the hospital for home, where he died in a few weeks. Mr. Jessop performed the *post mortem* examination for the author. The whole of the left chest was found filled with solid substance, thrusting the heart out of sight on the right side, and pushing down the diaphragm to the left kidney. The solid contents were of two kinds. The upper portion, which appeared on opening the chest, was of a dense fibrous character, of a greenish-white colour, and presented the form of an enlarged lung. Below this, occupying the whole back of the chest, and in contact with the costal pleura, was a considerable quantity of true myeloid matter, soft and sanguineous. Both substances contained myriads of little bones, varying from the size of a pea to that of the thumb. These, being densely packed in the upper and firmer mass, made it almost impenetrable. The origin of the disease was probably in the chest walls, and had thence impregnated the lung. No attachment could be found, however, nor disease of ribs or spine. The friends of the lad stated that he had been short-winded since his earliest age, and had presented some prominence of the chest for many years.

AN INQUIRY INTO THE INFLUENCE OF PREGNANCY, THE PUERPERAL STATE, AND LACTATION ON THE DEVELOPMENT AND PROGRESS OF CHRONIC DISEASE OF THE SKIN. BY BALMANNO SQUIRE, M.B., F.L.S.

(*Communicated by* WILLIAM JENNER, M.D., F.R.S.)

Mr. SQUIRE related several cases of psoriasis (lately under his notice) in which the development and progress of the disease appeared to be influenced in a remarkable manner by pregnancy, the puerperal state, and lactation. From the data afforded by these cases he drew the following conclusions.

1. Lactation is an exciting and sustaining cause of psoriasis.

2. The period occupied by pregnancy and its sequel, the puerperal state, is unfavourable to the manifestation of the disease.

Why the puerperal state should exert the same influence as pregnancy on the eruption, and why the effect of lactation should be of the opposite kind, might not at first appear. The explanation, Mr. Squire thought, was to be found in the fact that the uterus, either when gravid or when undergoing the process of involution, was at its maximum of functional activity; whereas during lactation its functions were more in a state of abeyance than at any other period of its functional life—more so than when menstruation was regularly taking place, and more so certainly than when the organ was either gravid or undergoing involution. He arrived, therefore, at the following proposition: "That, when a woman has exhibited a predisposition to psoriasis, her liability to an eruption of the disease at any time during the catamenial era will be inversely as the functional activity of the uterus at that time. In further support of this view he adduced the details of two more cases of psoriasis, which showed that the development of the disease may be connected with amenorrhœa. Of these examples, the one occurred at the commencement, and the other at the close of the catamenial era. In the former, the first appearance of the disease coincided with the first molimen menstruationis. In the latter, the sudden and apparently premature arrest of the catamenia was promptly followed by the appearance, for the first time in the patient's life, of an eruption of psoriasis. The cases he had brought forward, it would be observed, were all of them cases of psoriasis. This was owing to his having preferred, in the first instance, following out his inquiry in one channel. He was, however, by no means prepared to say that psoriasis was the only chronic disease of the skin that exhibited the peculiarities he had described, but thought it extremely probable that further inquiry would show that other chronic diseases of the skin besides, were similarly influenced by the state of the uterine functions. That pulmonary consumption might be arrested by pregnancy was well known, as well as that its course became unusually rapid shortly after delivery. But similar observations, so far as he knew, had never as yet been made on psoriasis; and it might be that there were many other instances of chronic disease, whether of the skin or of other organs, in which the control exercised by uterine influence, in determining their commencement, and in modifying their progress, has, in like manner, escaped observation.

WESTERN MEDICAL AND SURGICAL SOCIETY.

FRIDAY, JUNE 1ST, 1866.

GEORGE POLLOCK, Esq., President, in the Chair.

On General Paralysis of the Insane. By G. F. BLANDFORD, M.B. The author, in this paper, simply confined his attention to the diagnosis and pathology of this disease; and the prognosis was involved in the diagnosis, the disease being terribly fatal. The typical paralytic patient had delusions of exalted position, riches, and grandeur, together with some slight difficulty in articulating his words. He was very happy and elated; and thought he was about to be made a king or become very rich. Such a man, with a delay or stutter in his words, was a paralytic and incurable. All cases were not, however, so well marked. The stutter might exist without the exalted ideas, or *vice versâ*; or neither one nor the other might be discernible.

The author was called to a gentleman who had no stutter, and whose ideas were but little exalted. There was, however, a general air of self-satisfaction and hilarity, incompatible with his position in an asylum, and not characteristic of ordinary monomania; his memory was, moreover, incorrect. Losses of memory, in recent cases of insanity, when the mental disturbance was not very great, were unfavourable symptoms. This was the chief symptom in another case, in which no exalted ideas or stutter existed. This patient varied much; being often as much depressed as at other times elated. His memory was, however, very bad, and he had irregular pupils; which caused his disorder to be diagnosed as general paralysis, of which he eventually died. Another patient was much depressed, being more melancholic than elated. He had a slight hemiplegic affection; but maintained that he was quite well and strong, although he had but little use of his hand. The self-satisfied contentment of this patient, even in his despondency, and his assertion that he was quite well, betrayed the paralysis. Another patient showed no mental symptom of the disease. His gait was tottering and uncertain; his mind weak and incapable of effort. The previous history indicated the complaint, which was for the time arrested. Another was hilarious; irritable when opposed; thought himself very rich, and was reckless with money. This was diagnosed not to be a case of general paralysis, because the speech was quite clear, memory quite perfect, and the intellect keen and acute. A similar case was pronounced not paralytic

on account of the lapse of time. More than three years had elapsed since the commencement without any great alteration of symptoms. He considered himself neither well nor unwell.

Where the delusions of grandeur, or the stutter, were not found, we must look for losses of memory, a childishness of action or speech, a precursor of the imbecility to follow; without any prominent delusions, the patient might be quite unequal to any mental work.

It had been said that general paralysis might be confounded with certain disorders of the muscular system, as "ataxie", lead and mercurial palsy, ordinary paralysis, or chronic alcoholism. In the first three, however, mental symptoms would be wanting; neither would they be at all similar, even if they existed in ordinary paralysis. Chronic alcoholism, in an advanced stage, was more like it, and was also marked by great loss of memory; but there was not the hilarity and delusion of the early stage of general paralysis.

In opening the head of a case of general paralysis which had run the usual time of three years or so, the chief alteration would be in either the membranes or cortical structure of the brain. The skull-cap must be vascular, or thickened, or indurated, indicating degenerative change. The arachnoid was usually thickened, with fluid effused beneath it; jelly-like layers might also there occur, called by some false membranes, colloid exudations, etc. But such effusions were not peculiar to this disease alone. The pia mater was also thickened, and very adherent to the cortical portion, which tears and bled when the membrane was separated from it. The convolutions often appeared shrunken; the grey matter thin and atrophied, more vascular than usual, at times discoloured; its texture was more friable and less transparent than usual. The specific gravity was increased. The white matter was harder than usual and more vascular, with coloured stains. The choroid had often minute cysts in it.

The pathology of the disease was supposed, by Dr. Franz Mischede of the Schwetz Asylum, to be a parenchymatous inflammation of the brain beginning in the inner layer of the cortical substance. This set up degeneration of the nerve-cells, which he had found in all stages of turgescence and annihilation. The stages of the disease were first hyperæmia and parenchymatous swelling of the inner layer, and then fatty and pigmentous degeneration of the nerve-cells.

This much must be concluded from the symptoms during life and the *post mortem* examination. 1. The seat of the disorder we term general paralysis, is the same as that of ordinary insanity—viz., the grey matter of the hemispheres; but the disorder which in ordinary insanity is cured or arrested, progresses in general paralysis to degenerative destruction of the part. 2. The difference is to be illustrated by the difference between innocent and malignant tumours. There is a greater departure from the healthy structure in the one than the other, just as in the kidney we sometimes find a transient stage of congestion and inflammation which passes away, while in others this condition of degeneration once commenced never ceases till disorganisation is completed. It would seem, then, as though general paralysis is the special degenerative disease of the grey matter of the brain.

MORTALITY AT HONGKONG. The Select Committee appointed to investigate the late mortality of troops at Hongkong have brought their deliberations to a close. Its general purport is that nobody is particularly to blame.

Correspondence.

THE PATHOLOGY AND TREATMENT OF CHOLERA.

LETTER FROM J. S. LAVIES, M.D.

SIR,—The writer of two leading articles on the above subject in one of your contemporaries offers to his medical brethren some "food for reflection". I have tried it, and find it so very indigestible, that I have been forced to reject it at once, and now proceed to subject it to partial analysis.

The love of "facts" is a commendable love; but then it is necessary that so-called facts should be really such; that conclusions should be drawn from logical premises—analogies be true analogies—parallels not clearly divergent. For example, "a medical man has sickness and diarrhœa after exposure to the smell of a cholera-room": is it a fact "that he has necessarily imbibed the cholera-poison, and his whole body and blood become impregnated with it"? Again: "It is asserted," says the writer, "that elimination by copious serous (?) bowel-discharges is necessary for the safety of persons who have imbibed the cholera-poison". By whom? Certainly not by Dr. Johnson, against whom the article is plainly directed. Is it also a "fact", that "the nineteenth century is prepared to *smash* the idea of the *vis medicatrix naturæ*"? Can any one pretending to know anything of disease fail to recognise this wonderful power in the progress of *every* acute disease towards recovery, and to deny that the physician's science and art would be well-nigh powerless without it?

Next, let me inquire who it is that has proposed to vomit and purge all the serum (?) out of a poisoned patient's blood, and strip the epithelium off his small intestines, in order to assist in the removal of an unhealthy discharge. "If a rat," says the facetious writer, "gets into a kitchen, shall we set the house on fire?" Certainly not. But are we to let the vermin remain and do his worst? Is there no medium—no milder course—either by means of the domestic cat or otherwise, for the elimination of the nuisance? Does the surgeon amputate a patient's limb, that he may remove a piece of carious bone? Would it be necessary to exterminate a journal, in order to get rid of a writer of articles on cholera?

The question of the treatment of a fearful disease which has again fallen upon us, and which may destroy thousands, as it has done before, is one of vital interest; and it is under a deep feeling that no one able to bring upon the subject the light of experience or of sound pathological argument ought to be silent at such a crisis, that I consider it my duty to address you, more particularly at the present time, when there seems a strong tendency among very many to deride, and cast away as unworthy of serious thought, any views opposed to those which run in the old beaten track.

If I had time, and you could afford me space, I would examine sentence by sentence the articles to which I have been referring. As it is, I can only commend them for careful perusal to our patient profession; and I am persuaded it will be admitted on most, if not on all hands, that the main arguments directed against the eliminative treatment of Asiatic cholera are really strong ones in its favour; and that the suggested analogies and parallels tell directly against the writer's own case.

I would make one observation here on the confusion with which the writer of these articles alludes to ordinary summer diarrhœa and Asiatic cholera; and to the expression "lesser grades", as implying that the two diseases are the same in essence. Nothing can be more

mischievous than such an assumption, more likely to lead to the very worst practical consequences. It is the belief of all men who have had large experience in Asiatic cholera, and have compared it with ordinary summer diarrhœa, that the two diseases are radically different, though they happen to have some symptoms in common. It is not necessary that I should enter here on the question of the treatment of the ordinary summer diarrhœa, though I trust much that is said on this subject in the course of the "articles" will be received with great caution; but, keeping to Asiatic cholera and to my very large and close experience of it in 1849 and 1854, I have no hesitation in asserting that I never treated a case with opium, brandy, or both, that I did not soon regret having done so. The brandy was by far the less harmful of the two; because, as a rule, it acted as an emetic, and returned immediately. The opium in some cases remained in the stomach; when it did so, the state of the sufferers became worse and worse; they soon sank into a condition of hopeless collapse, expressed themselves "very comfortable", and died. This occurred over and over again; and it was not until mustard emetics and small doses of aperient medicines were resorted to, that any good results seemed to follow. The mustard emetic proved to be a most valuable remedy. Not only did it empty the stomach, but it seemed to give a stimulus to the heart. Cramp under it was frequently relieved; the suspended pulse would often reappear; and then, if no further sickness took place, and *purging went gradually on*, the patient recovered quickly and surely. Indeed, the contrast with former treatment was so marked as to lead to a firm belief in my mind that in similar cases, which had been formerly treated with opiates and astringents, the offending matter was forcibly retained, perhaps reabsorbed; and the patient either sank gradually into a state of collapse, or, if he recovered, did so through a long and painful course of what is known as consecutive fever.

The following were the conclusions at which I arrived with regard to the treatment of Asiatic cholera, derived from my experience of it in the epidemics of 1849 and 1854.

1. That the disease is one *sui generis*, and has nothing but an accidental symptom or two in common with ordinary summer diarrhœa.

2. That the safest method of treatment consists in a steady and careful evacuation of the stomach and bowels; and that, until this has been effected, restoratives are worse than useless.

3. That the worst cases come on in a moment, collapse supervening almost immediately.

4. That in such cases there is often very little sickness, and sometimes no purging at all.

5. That in bad cases—not of the very worst kind, but when all the characteristic symptoms are present—there is no treatment so efficacious as that by mustard emetics, repeated frequently; and by small doses of some gentle aperient medicine. By the use of these, the choleraic poison poured out into the stomach and bowels is most speedily got rid of; the patient has to endure for as short a time as possible its depressing influence; while its chance of reabsorption becomes proportionately lessened.

6. That brandy and stimulants of all kinds do harm, unless they act, as they usually do, emetically.

Lastly. That opium is the most pernicious medicine that can possibly be administered, hindering the relief without which recovery cannot take place, and increasing all the worst symptoms.

I have only to add, that it is most satisfactory to me to find this experience of mine quite confirmed by that of Dr. Johnson; while much that I was unable to explain is now made quite clear by the masterly exposition given to us in that gentleman's book. Every difficulty to my mind is now removed; and I venture to predict that the day is not far distant when these views will be generally accepted as truth.

I may mention supplementarily, that, on revisiting Edinburgh in the late autumn of 1849, after I had spent nine weeks within the walls of a great metropolitan establishment containing more than a thousand inmates, where cholera was raging, one of the most distinguished of the infirmary physicians told me that "in bad cases he had found blood-letting followed by excellent results". The announcement, I confess, startled me at the time; but the point is beautifully elucidated in Dr. Johnson's treatise.

Sir, I am ashamed to have trespassed so long upon your space. The journal to which I refer is read by many both in and out of the profession; it is conducted by men of high character and exalted scientific attainments; and I am really sorry to read in it such articles as those to which I have called your attention. I think you will agree with me that, when a writer of Dr. Johnson's distinguished position gives to the profession and to the world the benefit of his experience, together with a philosophic explanation of his views, he should be met by calm and dignified discussion, and not with levity. I am, etc., JOSEPH S. LAVIES.

11, Warwick Square, Belgrave Road, July 1866.

THE TREATMENT OF CHOLERA.

LETTER FROM JAMES GARDNER, L.R.C.P.ED.

SIR,—A year has nearly elapsed since I sent two letters to the BRITISH MEDICAL JOURNAL on the Treatment of Cholera, with which disease we were then threatened. I then invited the opinions of others, and gave my own experience of the disease. My object was to elicit from those who had formerly had some experience of the disease the best method of treating it in a practical way.

Much that is valuable and instructive has since been written in the JOURNAL, from men of high standing and practical worth; and I trust that we are in a better position to treat the disease with which we are now again threatened—nay, there can be no doubt of its being already established amongst us. Dr. Skinner, who has written some excellent letters on the subject, asks the very question in the number of July 14th that I did a year ago. I wait for his treatment. In the last number of the JOURNAL, Dr. G. Johnson has favoured us with advice on the practical treatment of the disease. I trust that the cases now occurring will be faithfully reported, with the treatment pursued; as "one grain of practice will be worth a ton of theory", as Hunter said.

My principal object, however, in addressing you, is to draw attention to what I mentioned in my former letters, as, in my opinion, the true cause of the collapse—viz., the poison of cholera acting with deadly force at once upon the great sympathetic system, first in the great solar plexus, the pneumogastric and cardiac branches being secondarily affected. Therefore, the spasms of the smaller branches of the pulmonary arteries (Dr. G. Johnson) are the effects of the collapse, not the cause. With your permission, I will quote a few remarks from some of the late writers in the JOURNAL who are of the same opinion.

Dr. Greenhow of Leeds (JOURNAL of July 14th last) says: "All the processes of life depend upon the healthy action of the nervous system. We know how instantaneously it may be affected by other deadly poisons; and is it not in accordance with analogy, and in agreement with the subsequent train of symptoms—namely, the suspension of secretion in the most important organs—to conclude that interrupted nervous energy, and not a depraved condition of the blood, is the immediate effect of the poison of cholera." Again, Mr. C. Trustram of Tunbridge Wells, in his excellent

practical address to the South-Eastern Branch, reported in the last number of the JOURNAL, in speaking of cholera, winds up by saying, "What if, in the end, we should find it to be modified typhus, which, instead of attacking the brain, tries conclusions with the sympathetic?" If so, spasms of artery and engorgement of veins may be more dependent on the sympathetic than on the direct action of a morbid agent. After all, is it not perfectly true what Mr. Frith of Macclesfield says, in the last number of the JOURNAL, under the head of "How shall we Treat Cholera?": "Until we know more of the nature of these zymotic poisons, I do not think we are in a position to treat cholera or choleraic diarrhœa otherwise than as practical experience shall direct us. No two cases can be safely dealt with alike," etc. And, as with all other diseases, so must it be with cholera in a certain measure—no two cases of any disease are exactly alike, and therefore require some modification in treatment. When I am asked the question, how I would treat fever, or any other disease, my answer is, Show me the case before I can answer. In cholera, it is true, there can be but one opinion as to the employment of sanitary measures and attention to diet in warding off the disease; but, so far as the actual practical treatment of the disease is concerned, each case must be taken on its own merits and treated accordingly.

I am, etc., JAMES GARDNER.

Bungay, July 25th, 1866.

THE BROMIDES.

LETTER FROM EDWARD LONG FOX, M.D.

SIR,—A letter from Dr. Drysdale in a late number of the JOURNAL, on the uselessness of the bromides, is calculated somewhat to mislead practitioners who have had little experience of these remedies.

I have used the bromide of ammonium in between forty and fifty cases of whooping-cough; and, although I have only in six cases seen the rapid success which Drs. Harley and Gibb have met with, where the spasmodic affection has ceased within the first week, yet I consider the drug most useful. In some few cases, the bromide has no effect at all. In the majority of instances, it seems to diminish the number and violence of the attacks very rapidly, and, if steadily persisted in, will generally cure the disease in three weeks. In eighty cases of whooping-cough in which I noted the effects of small doses of prussic acid, the average duration was twenty-two days; but the bromide is a safer remedy, especially amongst the poor.

I have tried the bromide of potassium much more extensively in various kinds of convulsions. It is certainly very useful in all forms of infantile convulsion, especially where laryngismus stridulus is the prominent symptom; but, of course, in these cases it is often wise to combine it with cod-liver oil. I cannot say that I think the bromide a sure remedy in idiopathic epilepsy. Indeed, this complaint should be seen from the commencement, if any remedy is to have a fair trial. But the bromide of potassium checks the frequency and the severity of attacks for a longer period than most of the other reputed remedies; and I believe it does so by diminishing the sensibility of the nerves to external impressions, and so saving the nerve-centre from being constantly excited through eisodic nerves. For the last fourteen months I have had a woman, aged 61, under my care, who for some months previously had had severe spasmodic attacks, with violent clonic convulsion of all the muscles of the face, arms, and hands, and with intense shaking of the head from side to side, but without any loss of consciousness. The attacks were most distressing to witness, and most exhausting. They occurred many times a day. Under the bromide, they are almost altogether absent; and, when they do occur, they are not nearly so violent. If she leaves it off for three days, they recur as before.

This drug seems also to benefit many obscure forms of headache; but I cannot say that it can be taken for a long time with impunity. After a period which varies much in different individuals, it seems to produce a sensation of debility and *malaise*, and must either be intermitted or combined with cod-liver oil.

Let me say, then, that the bromide of ammonium is a good remedy in whooping-cough; and that the bromide of potassium is sufficiently useful in convulsive diseases to warrant us giving it a far more extended trial before we condemn it as utterly as Dr. Drysdale does.

I am, etc.,

EDWARD LONG FOX,
Physician to Bristol Royal Infirmary.

July 1866.

THE CAUSE, PREVENTION, AND CURE OF CLUB-FOOT, OR TALIPES.

LETTER FROM WILLIAM PARKER, ESQ.

SIR,—The deformity of club-foot is disfiguring and often painfully distressing. The subject may, therefore, well come under discussion. No deformities of the human frame, perhaps, seem to be more simple and easy of remedy than this, if correct anatomical and physiological views are carried out. I, therefore, submit them for the profession to consider dispassionately, especially as sufficient attention has not been paid to this class of sufferers at the earliest period of life, before the present surgical operations of cutting are resorted to.

It appears to me that this deformity is evidently the result of a greater mechanical power of muscles overcoming a lesser power of muscles, thereby causing contraction of several tendons at the further extremity of muscles. Also, that the deformity is not detected before muscular action is, or should be, established for the purpose of walking. We thus see the beginning of the deformity at the earliest period of life; which can easily and readily be treated with success in the course of three or four weeks on each foot—instead of employing years under the iron system, or months under the plan of division of the tendons with the knife and extension of the tendons with a curiously contrived instrument. Experience, the best teacher, in three or four cases, has supplied this desideratum by the use of tin-plate splints and leather strap, which were invented by myself, to fit any and every part of the body.

The object of these appliances in club-foot is to overcome the action of the gastrocnemii and other muscles and flexors of the foot and toes, which draw up the heel and bring the toes to bear on their upper and outer surfaces, according to the severity of the case. By fitting these splints to the calf of the leg, heel, and ankles, and fastening them by the aid of the leather strap, and keeping them constantly applied for three or four weeks, thereby giving time for the weaker muscles to gain strength and their tendons to elongate, prevention of club-foot is effected; and the cure is thus accomplished in bringing the sole of the foot to bear flat on the ground with little or no pain to the patient.

It should be observed that at two years of age hitherto much difficulty has arisen how to assist nature, when some surgeons occasionally recommend well-padded wooden splints, whilst others recommend the use of irons that are manufactured by surgical instrument makers to be applied on either side of the leg, extending from the knee to the ankles, and fastened by a hinge at the ankles into a stiff-made shoe. The latter is directed to be removed at night; and it is obvious that neither one nor the other plan can oppose specially the action of the gastrocnemii and other muscles, and

the removal of splints at night would give those muscles full power of action, and thereby greatly undo the previous day's work. It also frequently occurs that such mechanical contrivances cause very painful and troublesome sores, obliging them to be left off for a time.

In stating this brief plan of practice, though omissions may be made, yet it will, I think, be allowed that a vast field for improvement is evidently opened for others to work in to relieve human sufferings. Only picture the patient undergoing the severe torture of the division of one or more tendons, and their extension by means of the tightly adjusted instrument employed for months to keep the foot in a proper position for walking after the division of the tendons, and the sympathy of every one must be keenly excited. Although this operation has been in vogue some twenty-five years, we should not hesitate to put forth other plans, when such difficulty in procuring relief still exists.

The primary, or remote, cause of club-foot may be attributed to dentition, or some other infantile disease affecting the nervous system. It will be allowed that the joints of infants can be adjusted easily to any necessary form without distress to the patient, and that an early habit of exercising muscular action can be also safely and advantageously maintained without injury. Consequently, waiting until the child shall be six or seven years old before mechanical means shall be adopted, would be attended with much more difficulty and pain. These considerations of themselves would direct us to immediate treatment at two years of age, when the deformity always first shows itself. As no disease exists in the joints, we have only to attend to the mechanical action of muscles and extension of their tendons.

The various forms of talipes are produced by the same cause—viz., contraction of tendons—which have been often treated unsuccessfully with the iron system and ultimately have been divided with the knife, and the limb has been kept in proper position for walking by means of an instrument to elongate the tendons; whereas the adoption of the simple and painless remedy I have above suggested, would obviate entirely the necessity of resorting to either of these plans, attended as they must be with severe and protracted torture. The cases above referred to in my own practice can be given to any who may require them. I am, etc.,

WILLIAM PARKER.

2, Lynard Villa, Bath, July 24th, 1866.

THE SALARY OF DR. TRENCH, the energetic and talented Medical Officer of Health of Liverpool, we believe, is to be raised from £700 to £1,000 *per annum*.

SISTERHOOD NURSES AND THE CHOLERA. We heard with some surprise that the services of a sisterhood had been declined by the persons charged with providing nurses for the cholera patients at Liverpool. Now that we are favoured with the reasons for that refusal our surprise is still greater, and we cannot but remember the story of Lord Thurlow getting his brother a living, though George III refused it. "He refused me at first," said the Chancellor, "but he gave me his reasons and I beat him." The reasons of the Liverpool special cholera committee are, that the cholera hospital will be provided for people of all religious denominations, and that these patients "ought not to be placed under the sole charge of persons who, rightly or wrongly, will be generally considered as a portion of an agency of a character distinctively religious." We should have thought it the part of an agency "distinctively religious" to act on the principle, "I was sick and ye visited me." (*Pall Mall Gazette.*)

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND. The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at a meeting of the Court of Examiners, on July 24th.

Ash, Robert Vacy, Stratton, Cornwall
Bell, John Hougham, Caroline Street, Bedford Square
Burton, Thomas Beard, Barbadoes, West Indies
Clarke, Edward, M.D., Philadelphia
Coles, Charles George, Blenheim Crescent
De la Cour, George Francis, Chatham
Dodsworth, George Henry, Turnham Green
Eager, Reginald, Guildford
Evans, Owen, L.S.A., Panby Trifriev, near Conway
Foxon, Foxon, Maddox Street, Hanover Square
Jackson, Frederick William, Broadstairs, Kent
Moore, George, Birmingham
Parks, John, Bury, Lancashire
Power, Frederick Douglas, Queen Square, Bloomsbury
Pringle, James Marr, Tynemouth
Richardson, John Ashton, Hull
Ridout, Charles Lyon, Egham, Surrey
Robbs, Charles Henry Denny, Grantham, Lincolnshire
Trimnell, Edward Alfred, L.R.C.P.E. & L.S.A., Lewisham Road
Turner, Thomas Aubrey, Wellington Square, Chelsea
Watson, Frederick Hastings, Norwich
Wilson, Henry Grattan, Great Malvern

At the same meeting of the Court—

Beale, George Bewsher, H.M.S. *Excellent*
Bett, Robert Longstaff, Royal Naval Hospital, Haslar, passed their examinations for Naval Surgeons. These gentlemen had previously been admitted members of the College; their diplomas bearing date respectively January 7th, 1858, and April 15th, 1859.

Admitted on July 25th—

Bainbridge, George, Harrogate
Cardozo, Frederick Vinay, Madras
Chaldecott, Horace, Dorking
Flint, Frederick, Canterbury
Hallowes, Adolphus Henry Blackwood, Canterbury
Hay, Thomas Bell, L.S.A., Caledonian Road
Lambert, Frederick William, Farsley, near Leeds
Langmore, John Wreford, Sussex Gardens, Hyde Park
Moon, Robert Charles, Brighton
Reilly, Maxwell Francis, Dublin
Salzmann, Frederick William, Brighton
Stedman, John, Islington
Taylor, Alfred Claude, Nottingham
Taylor, Frank Askwith, Romsey, Hants
Vaudagne, Jean Baptiste Polyxen, Mauritius
Ward, John Lewis William, Cardiff, South Wales
Wheatcroft, Thomas Charles Croose, Cannock, Staffordshire
Williams, Evan Elias, Bangor, North Wales
Wilson, Thomas, Longford, Ireland

Admitted on July 26th—

Carruthers, James Gurney, Northampton
Chester, John Charles, Redruth, Cornwall
Coombs, Rowland Hill, Bedford
Hallett, Lyttleton, Bedford Place, Russell Square
Harris, William, Carshalton, Surrey
Hayne, Frederick Greaves, Northfleet, Kent
Marsh, Thomas Charles, Brixton, Surrey
Moore, Joseph, M.D. McGill College, Montreal
Norris, Henry Frederick, Charmouth, Dorset
Pryce, Richard Matthews, L.S.A., Caersws, South Wales
Rumsey, John Henry, Fulham
Smith, Samuel Hignett, L.S.A., Weaverham, Cheshire
Taylor, Henry Shinglewood, Alton, Hants
Waller, John, Jattingstone, near Ipswich
Williams, Evan, Llechylchid, North Wales
Young, Frederick William, Salisbury

At the same meeting of the Court—

Roche, Thomas, Royal Naval Hospital, Haslar
Fisher, William Shute, M.D.Dub., Royal Marines' Infirmary, Woolwich, passed their examinations for Naval Surgeons. These gentlemen had previously been admitted members of the College; their diplomas bearing date respectively July 24th, 1854, and June 12th, 1857.

UNIVERSITY OF EDINBURGH. List of candidates who received the degree of Doctor of Medicine, the degree of Bachelor of Medicine, and the degree of Master of Surgery, in the University of Edinburgh, on August 1st, 1866, with the titles of their theses. [Those whose names are printed in CAPITALS, passed

the examinations with honours; *a*, those who have obtained prizes for their dissertations; *b*, those deemed worthy of competing for the dissertation prizes; and *c*, those commended for their dissertations.

Candidate who received the Degree of Doctor of Medicine under the New Statutes.

Groves, Charles Henry, B.A., M.B., and C.M., England.

Candidates who received the Degree of Doctor of Medicine under the Old Statutes.

Allshorn, Adolphus Hahnemann, England. On Tubercular Meningitis.
*c*Briggs, Edwin Adam, England. On Mercury, its Cholagogue Action.
*c*Cowie, Robert, M.A., Shetland. On the Inhabitants of the Shetland Islands.
Crane, Charles Albert, England. Some Remarks on French Hospital Practice.
Henderson, Wm. Patrick, Tuscany. On Acute Hydrocephalus.
*c*Hewan, Archibald, Jamaica. On Malarial Poisoning.
Jones, James, England. A Report of Certain Cases in the Clinical Wards, Session 1865-66.
M'Dowall, Thomas Wm., Scotland. On Tumours of the Jaws.
*b*M'Nab, W. Ramsay, Scotland. On the Development of Leaves.
Miller, Andrew, England. On Uric Acid Gravel.
Moniot, Jno. Adolphe, East Indies. On the Diseases of Joints.
Murray, William Berkeley, Barbadoes. On the Hereditary Transmission of Disease.
Rawlings, J. H., England. On some Cases of Albuminuria.
Ritchie, Alexander Ramsay, Scotland. On a New Modification of *Ecraseur*, and its application to Decapitation of Fœtus in Crossbirths.
*c*Thomson, John Robert, Scotland. Clinical Observation, illustrating some Forms of Hepatic Disease.
Watson, George, Scotland. On Ovarian Dropsy.
Weston, George Blyth, South Carolina. On Yellow Fever.
Whittle, Alfred, England. On Typhus Fever.
*c*Williams, William Jones, Wales. On Wasting Palsy, or Progressive Paralysis.
Wright, Robert Temple, England. On the Fœtal Pulse-rate, as a Means of Predicting the Sex.

Candidates who received the Degrees of Bachelor of Medicine and Master of Surgery.

Aldren, Robert, England. On an Epidemic of Small-pox.
*c*Anderson, David Hawley Burn, Scotland. On the Action of Remedies.
*c*Anderson, Francis Henry, Jamaica. On Pyæmia.
Andrew, James, Scotland. On Apoplexy.
*c*Bent, John Francis Vincent, England. On Diphtheria.
Brown, Joseph, Scotland. On Enteric Fever.
*a*Brunton, Thomas Lauder, Scotland. On Digitalis, with some Observations on the Urine.
Cadell, Francis, Scotland. On Cataract, and the Operations for its Removal.
Downie, Kenneth Mackenzie, Scotland. On Excision of Joints.
Drummond, Alexander, Scotland. On Tedious Labour.
*c*Fulcher, George Frederick, England. On the Change of Type in Disease.
Gell, Thomas Silvester, England. On Urethritis, and its Complications.
Gordon, John Mackenzie, Scotland. On Acupressure.
*a*Hair, Philip, Scotland. Observations on the Arrangement of the Muscular Fibres of the Alligator.
*c*Howells, Thos., England. On the Excision of the Knee-joint.
Hunter, Wm. Brown, Ireland. On Hygiene.
*c*Husband, Henry Aubrey, Jamaica. On the Treatment of Nervous Affections following Gun-shot Wounds and other Injuries.
*c*Lowe, George May, England. On the Structure, Relations, and Functions of the Ligamenta Rotunda Uteri. On the Diagnosis and Treatment of the Retained Menses. On the Occurrence of a peculiar Crystalloid Substance in a certain form of Dilatation of the Bronchi.
*c*Macbeth, John, M.A., Scotland. The Influence of the Nervous System on Nutrition.
MacLaren, George Gilbert, Scotland. On Rheumatic Fever.
*c*Malins, Edward, England. On Fatty Degeneration of the Placenta.
*c*Moir, John Wilson, Scotland. On Excision of the Knee-joint.
Moon, Charles, Scotland. On the Pathology, Symptoms, Diagnosis, and Treatment of the Gastric Ulcer.
Munro, Wm., Scotland. Moral Insanity, with Especial Reference to its Manifestation as Kleptomania and Dipsomania.
Paterson, Alexander, M.A., Brazil. On Typhus Fever.
*c*Pullar, A., Scotland. On Glaucoma, its Nature and Treatment.
*c*Ramsay, James, M.A., Scotland. On Syphilisation and the Syphilitic Virus.
*c*Rhind, John, England. On Stricture of the Urethra.
*b*Sharp, David, England. Additions to the Catalogue of Scottish Coleoptera.
Shaw, Robert, Scotland. On Cutaneous, or Exanthematic Typhus Fever.
Smith, John, Scotland. On Aneurism.
Steven, Alexander, Scotland. On Angina Pectoris.
Stewart, William, Scotland. On Fistula in the Genito-Urinary Organs of the Female.
Stolterfoth, Henry, M.A.Cantab., England. On the Influence of the Mental Faculties both as a Cure and Cause of Disease.
Sykes, Walter John, England. On the Human Voice.
Symes, Wm. Henry, England. On Accommodation of the Eye.
Treutler, Wm. John, Bengal. On the Evolution of Light from the Living Bodies of Man and the Lower Animals.
*c*Watson, Jno. Douglas, Scotland. On the Poison-resisting Power of the Hedge-hog.
Yarrow, Thomas, Scotland. The Pathology, Complications, and Connections of Rheumatism.

Candidates who received the Degree of Bachelor of Medicine.

Buchan, Peter, Scotland. Ileus, its Pathology and Treatment.
*c*Haughey, Alexander Richardson, Ireland. On Asthma.
*c*Wigg, Henry Carter, England. On the Physiological Action of Nitro-benzole.

A Gold Medal has also been awarded to Mr. Franklin Gould, for his Thesis "On the Thermometer in Disease"; but as he has been unexpectedly called to go abroad, the conferring of his degree, and the presentation of the medal, are unavoidably postponed.

Apothecaries' Hall. On August 2nd, 1866, the following Licentiates were admitted:—

Argent, Samuel, 25, South Molton Street
Charlton, Alfred, Tunbridge
De la Cour, George Francis, Chatham
Folkes, William, Dukinfield

At the same Court, the following passed the first examination:—

Burroughs, Thomas John, Guy's Hospital
Davies, William Richard, University College Hospital
Dukes, Clement, St. Thomas's Hospital

BIRTHS.

Chisholm. On April 28th, at Camden, New South Wales, the wife of Edwin Chisholm, Esq., Surgeon, of a daughter.
Foster. On August 7th, at Edgbaston, Birmingham, the wife of *B. W. Foster, M.D., of a son.
Howell. On July 21st, at Great Dunmow, Essex, the wife of H. S. Howell, M.D., of a son.
Leadam. On July 29th, at Iver, Bucks, the wife of W. W. Leadam, M.D., of a daughter.
Lichtenberg. On August 1st, at 47, Finsbury Square, the wife of George Lichtenberg, M.D., of a daughter.
Weber. On July 30th, at 49, Finsbury Square, the wife of *Hermann Weber, M.D., of a daughter.

Royal Medical and Chirurgical Society. The Library will be closed from Monday August 13th to Saturday September 8th, both days inclusive.

Lithotomy under the Ether Spray. The *Cincinnati Medical Journal* gives a case of lithotomy, in which local anæsthesia was produced during the operation (medio-bilateral of Civiale) by means of Richardson's spray ether douche. The douche was used for two minutes and a half, and the incision into the bladder gave no pain.

Poisoned Water. Dr. Lankester reported to the vestry of St. James's, Westminster, a case of a young woman who had been down to Poplar and brought the disease from that quarter. He says, "What we have to dread is an outbreak or spread of the disease by poisoned water such as is now occurring in the east of London. Our pumps are manifestly unsafe. A rat finding a connexion between a cesspool and one of these wells might repeat the catastrophe of 1854. The Marlborough Mews pump I have directed to be shut up. The water in the pump in Duke Street has suddenly disappeared. I only wish that every other pump in the parish may be thus providentially closed if the vestry will take no steps in the matter." The Works Committee having reported to the vestry that the sewer in Broad Street was constructed half a brick in thickness, and that the sewage would easily percolate into the well of the pump there, the surveyor had been instructed to chain up the handle of the pump in Broad Street, and recommended that it be not re-opened until the water be chemically tested by some eminent chemist. The vestry approved the report.

Royal Medical Benevolent College. The Founder's day was held at Epsom College, on July 19th, Earl Manvers presiding. The Rev. Dr. Hessey, Master of Merchant Tailors' School, gave the prizes, and addressed the pupils.

The Way to do it. The Boston people know how to prepare for the reception of a dangerous enemy. Those of the emigrants who are well, are disembarked on Galloupe's Island, where are commodious barracks, and plenty of room for exercise and amusement. The barracks are the same which were built for the accommodation of the United States troops, and are sufficient to comfortably lodge five thousand persons. They have been put in perfect order, and are ready for immediate occupancy. Both these islands are isolated from the main, and from the other islands in the harbour, so as to be sufficiently exclusive to intrusion from without, or escape from within.

Workhouse Nursing. Miss Twining has addressed a letter to the President of the Poor-Law Board concerning the treatment of the sick and incurables in workhouses. She "cannot but rejoice that the time has at length arrived for a complete exposure of a state of things that could not have existed so long had it been known or realised." Eight years ago she called attention to the evils of pauper nursing. She lays great stress upon the importance of a higher and constant supervision by educated, conscientious, and responsible women. We may, with some hope of success in Miss Twining's opinion, call upon women of education and a high sense of duty to come forward to aid us in this great work of caring for the sick and afflicted in hospitals; but not to act under the present matrons. She earnestly hopes that the claims of the sick and incurable may be considered apart from all other classes of inmates, for whom, indeed, not more indulgence, but far stricter discipline and treatment are as urgently called for. Mr. Hart must welcome the accession of testimony so trustworthy, and extending over so long a period, to the reality and extent of the evils which he has exposed, and the approval of his plans by witnesses so competent and disinterested. (*Pall Mall Gazette.*)

Sanitary Reform in the Army. Earl Fortescue said formerly the average death-rate in the army was seventeen, and in the Guards twenty; but for some little time it had been reduced to nine per thousand. In India the death-rate was formerly about sixty, but it had been reduced to twenty per thousand. The Duke of Wellington stated that the average illness in the army might be reckoned at ten per thousand; but complaints were now made that the Herbert Hospital at Woolwich, which was built to hold seven per cent., had been constructed on too large a scale, that it was not occupied. The frightful mortality experienced in Hongkong showed that much remained to be learnt. The average death-rate in the French army was formerly nineteen per thousand, but it was now as low as nine. In Algeria it was in one part once one hundred and forty per thousand; but for some time it was sixty-four, and now the average was seventeen per thousand, which, it would be seen, was lower than the mortality in our Indian army. He concluded by asking whether any arrangements had been made for carrying on observations as to the application of sanitary science in foreign armies. The Earl of Longford said he could assure the noble earl that the Army Medical Department was fully competent, and kept pace with medical knowledge at home and abroad. He could not say whether a medical expedition had visited Algeria. In 1865 a medical officer of eminence was sent to the United States to study and report upon matters connected with army medical science; his report had not been received. Application had been made to the Foreign Office to send medical officers to Germany; the departure of these officers had been delayed only by the change in the government; from their reports, however, much valuable information might be expected. The general reports of the Army Sanitary Commission are circulated. The report of the Royal Commission on the Indian Army, and a pamphlet drawn up by the Army Sanitary Commission in connexion with it, have also been circulated. The engineers have also the advantage of an annual course of lectures by the Professor of Hygiene to the Army Medical School. £30,000 a year has been now authorised for some years for sanitary improvements. He could assure the noble earl that the Army Medical Department fully appreciated the necessity of progressing in a sanitary direction; he thought he could also assure him that the officers of the Royal Engineers were competent to conduct the necessary inquiries.

OPERATION DAYS AT THE HOSPITALS.

Monday.....Metropolitan Free, 2 P.M.—St. Mark's for Fistula and other Diseases of the Rectum, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

Tuesday. .... Guy's, 1½ P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.

Wednesday... St. Mary's, 1 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.

Thursday.....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Great Northern, 2 P.M.—London Surgical Home, 2 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.

Friday. ..... Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

Saturday..... St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1·30 P.M.—Charing Cross, 2 P.M.—Lock, Clinical Demonstration and Operations, 1 P.M.—Royal Free, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TO CORRESPONDENTS.

*** *All letters and communications for the* Journal, *to be addressed to the* Editor, 37, *Great Queen St., Lincoln's Inn Fields, W.C.*

Communications.—To prevent a not uncommon misconception, we beg to inform our correspondents that, as a rule, all communications which are not returned to their authors, are retained for publication.

Correspondents, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

Fenestratus asks: "Is Mr. Baxter Langley, whose advertisements about practices to be disposed of apppear in your advertising columns, the speaker whose name has lately been mixed up with the meetings in Hyde Park?"

New Regulations.—A correspondent writes: "Are we not in a fair way of being made April fools of? General Peel makes certain promises, says that he will fulfil them next April; and as he is an honest man, no doubt he intends to do so. But all the world knows that next February, at the latest, Lord Hartington will be back at the War Office, not at all bound by his predecessor's pledges."

A Cure for Itch.—Sir: Will some of your readers kindly give me the benefit of their experience as to the best treatment for itch in an Union Workhouse. According to my experience, benzine seems to be the quickest and most effectual means of cure when applied to each spot after the head has been removed, but this remedy is scarcely applicable to Poor-law practice when there are others far less costly. With regard to sulphur, I have used it both in ointment and made into a lotion, with slaked lime and water, heated over a fire, forming a liquid, which is called by some "Liq. calcis sulph.". With either of these remedies, the patient is rubbed over where required, and put to bed with it still on the skin—bed and rubbings being continued as long as is requisite. Of the two, I am inclined to prefer the ointment. What I want is an inexpensive yet certain and quick cure; and, if possible, less nasty than the old sulphur plan. I am, etc., L.R.C.P.

Addresses and Papers

READ AT

THE THIRTY-FOURTH ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION.

[*Held in CHESTER, AUGUST 7th, 8th, 9th, and 10th*, 1866.]

THE ADDRESS IN MEDICINE.

BY

JOHN HUGHES BENNETT, M.D., F.R.S.E.,

PROFESSOR OF THE INSTITUTES OF MEDICINE, AND SENIOR PROFESSOR OF CLINICAL MEDICINE IN THE UNIVERSITY OF EDINBURGH.

GENTLEMEN,—In discoursing before such an audience as I have now the honour to address, on the Science and Art of Medicine, nothing would be more gratifying for me than to dwell on the unquestionable benefits which mankind has derived from the practice of the healing art—praise and hold up for imitation the great men whose genius and labours have assisted its progress—describe the improvements which have been made in recent times—expatiate upon some doctrine which, at the present moment, strongly excites attention—or repel the covert sneers or open attacks which have been made upon its dignity, honour, or utility. Able addresses of this kind, however, have been so frequently brought before you; the names of Harvey, Hunter, Jenner, and Bell, have done such good service; graphic illustration, sound reasoning, and vivid eloquence have been so well and forcibly employed on these topics, that I trust you will forgive me if, on this occasion, I venture to regard the future rather than the past; and, while admitting that much has been done, contend that more remains to be accomplished. I propose, then, to inquire, from the present aspect of medicine, theoretical and practical, how we can best assist its onward progress, and establish more firmly its claim to scientific eminence and public confidence.

And here allow me to observe that my position as a teacher of Physiology in the University of Edinburgh obliges me to review annually the incessant labours of the histologists, naturalists, chemists, physicists, physiologists, and pathologists, who are seeking to determine the laws which regulate vitality in all its phases. From such a survey, it is now manifest that the theory of medicine during the last twenty-five years has been completely changed, that most of the principles which governed its practice as an art are no longer applicable, and that during this period our science has advanced with such astonishing rapidity as to have imposed upon those who kept pace with its progress a task of no ordinary difficulty and labour.

On the other hand, as a physician in active practice, and as a Professor of Clinical Medicine engaged in teaching the art at the bedside, I am surprised at the indifference with which this great advancement in the science is regarded by the majority of medical men. I see an army of practitioners scattered over the country, without organisation or central government, engaged in efforts to cure disease and alleviate suffering. In this they are mainly guided by a knowledge, partly traditional, partly acquired by themselves, called experience, which is not only often opposed to the exact observations and careful inquiries of modern times, but is too frequently most contradictory in itself. The greatest differences consequently prevail among intelligent medical men as to the best methods of treating many important diseases; theory and practice—advanced science and past authority—scepticism and blind faith—often being arrayed against each other.

What, then, seems to me desirable in the actual condition of medicine is to bring the scientific and practical departments of the profession into harmony with one another, and to produce such co-operation among practitioners that their methods of treatment should assume more of a fixed and uniform character. To assist us in arriving at this end, I propose shortly to describe what seems to me the actual stand-point or condition of Medicine, both as a Science and as an Art; and, in doing so, point out how one necessarily influences the other. I shall then consider how far, by greater union among its cultivators than has hitherto prevailed, professional advancement may be best secured.

PRESENT STATE OF THE SCIENCE OF MEDICINE.

1. It must be admitted that the Descriptive Anatomy of the human body is perfect—a fact in itself of the highest importance in the consideration of medicine as a science. It is in determining its ultimate structure, by means of magnifying instruments, that the greatest progress has been made in recent times; and it is now determined that vital phenomena are essentially dependent on the minutest particles of which every tissue consists. The organs and textures, in fact, are but aggregations of fine molecules, an acquaintance with the properties of each of which can alone lead us to a knowledge of the whole. All attempts to restrict vital action to a cell, to a nucleus, or to any particular element of structure, appears by me to be opposed by an overwhelming series of facts; the truth being, that growth, contractility, and spontaneous movement are as capable of being demonstrated in a molecular vibrio one twenty-thousandth of an inch in diameter, as in the largest cell or muscular fibre. Neither is vital action confined to a so-called molecular or germinal mass, but may exist in perfectly hyaline intercellular substance, as in cartilage, where those changes primarily occur that transform it into bone. It follows that those views whereby, according to some, organic matter is always evolved from within, while, according to others, it is always superimposed from without, are too exclusive, Nature sometimes acting in one way and sometimes in another,—here within, and there external to cells.

So far, then, as our present magnifying instruments will allow us to judge, the ultimate structure of a living body is composed of molecules. These possess independent physical and vital properties, which en-

able them to unite and arrange themselves so as to produce higher forms. In this way nuclei, cells, fibres, tubes, and membranes are produced, the union of which in their turn constitutes the various tissues and organs of the body. Not unfrequently the breaking down of one substance is the necessary step to the production of another ; so that, either directly or in solution, the histolytic or disintegrative molecules of one period may become the histogenetic or formative molecules of another. This theory of organisation not only reconciles the conflicting views of those who still found their notions of development upon the powers of a cell, of a nucleus, or of intercellular substance, but seems to me consistent with all the known facts yet discovered in the organic world.

As an illustration of this process, we can trace with tolerable accuracy the structural history of food as it passes into, through, and out of the body. Thus, an organic mass—say a piece of bread or a beef-steak—first undergoes the histolytic process of disintegration, partly by the mechanical action of the teeth, stomach, and intestines, and partly by the solvent action of the salivary, gastric, and other juices, until it is reduced by a molecular pulp called chyme. From this pulp a fluid is prepared, which, passing through the villi, enters the chyle-ducts, and in the lymph-glands and thoracic duct, by a histogenetic or formative action produces the blood-corpuscles. These become coloured in the lungs, circulate for a time, and in their turn undergo histolytic solution, and thereby serve to elaborate the liquor sanguinis. This viscous fluid, drawn out through the capillaries, supplies the various tissues, molecule by molecule, with the histogenetic or constant formative material which keeps up their substance. Such substance having served its purpose, is constantly undergoing a histolytic or disintegrative process—is again reduced to a finely molecular fluid, and once more joins the liquor sanguinis of the blood. From this it is finally removed through various channels by the process of secretion and execretion, which in their turn only present still further evidence of this law of molecular organisation. Thus the bread or beef-steak, having entered the frame, may be shown structurally to have undergone successive histogenetic and histolytic changes ; enjoyed, as it were, life for a time, and ultimately been discarded as inert or dead matter. Compositions and decompositions, however, are not only structural but chemical, and to these we must next pay attention.

2. The great impulse communicated to Animal Chemistry in recent times dates from the labours of those who, by careful analysis, have followed the chemical transformations which plants and animals undergo during their development, growth, and decay. These have shown the relations which exist between the atmosphere, the soil, and the plant—what the latter takes from the two former, and what it gives to the animal who feeds upon it. In the same manner that plants can only grow in those soils which contain the substances necessary to form their tissues, so animals can only be nourished upon those compounds which contain the chemical elements they themselves require. All this being ascertained, what next interests us is the relation which exists between the supply of food and waste of the tissues during their exercise.

Viewed chemically, food may be regarded as a mixture of albumen, fat, and mineral matter, all of which pervade the economy, although the first is most abundant in the fibrous tissues, the second in the adipose and gland tissues, and the third in the bones and teeth. These substances, prepared by the molecular disintegrative process formerly alluded to, are but little changed chemically before passing into the tissues. But in leaving them in order to be excreted, remarkable chemical combinations and decompositions occur, whereby they produce different compounds, such as carbonic acid, water, urea, numerous organic salts, and so on. The nature of these chemical actions within the body is not yet fully understood ; so that, although we know the composition of the ingesta and egesta, how the one is transformed into the other by the animal is not so clear.

The view put forth by Liebig—namely, that food should be regarded as nitrogenous and non-nitrogenous—the former being sanguigenous or flesh-forming, and the latter respiratory or heat-giving—has long appeared to me erroneous on histological grounds. Every tissue requires both principles. Even chemists themselves have shown by experiment that the idea of the tissues being oxidised during action, and yielding a proportionate degree of refuse like a steam-engine, is not correct. Recently, Messrs. Fick and Wislicenus of Zurich went to the summit of the Faulhorn, one of the Swiss alpine peaks, an ascent which occupied eight hours. During this period, as well as for eighteen hours previously, and for six hours subsequently, they only ate hydro-carbonaceous food, yet a chemical analysis of all the renal secretion passed showed that during and shortly after the ascent the urea excreted was only slightly increased. These facts are irreconcilable with the prevailing chemical theory ; for, had muscular exertion increased the oxidation of albuminous material, urea should have been largely augmented, but it was not so ; muscular energy in this experiment having been carried on, without fatigue, at the expense of the carbonaceous substance of the tissue.

Indeed, numerous observations now being prosecuted prove that much has to be accomplished before the chemistry of food becomes the physiology of food, and before the slice of bread or beef-steak can be traced in its progress through the body with the same exactitude chemically as it has been structurally. Even when this is accomplished, we shall have much to learn which chemistry cannot teach us; for, as has been pithily observed, although in the laboratory a pound of flesh is enormously superior in nutritive power to a pound of cabbage, yet, to a rabbit the cabbage is the superior food, whilst to a dog the cabbage is no food at all (Lewes, p. 115). It follows that, though chemistry can teach us much, nutrition, like all other vital processes, can only be rightly studied by the physiologist.

3. The researches of naturalists, it is now admitted, have thrown much light on the Laws of Germination and Reproduction, and have demonstrated to us the nature of several obscure diseases. The observations of Bassi as to the cause of death in certain epidemics affecting the silkworm led to the discovery of the vegetable parasites causing favus, pityriasis, mentagra, and other diseases of man; while the observations of Sars, Von Siebold, Steenstrup, and others, have determined the laws which govern the production of animal parasites. These

in turn are related to several interesting facts and generalisations, all of which have tended to augment our knowledge of the animal economy. Need I allude to the doctrine of alternate generation by Steenstrup, of parthenogenesis by Owen, of the origin of tapeworm by Von Siebold, of the economy of the hive by Dzierzon, of pisciculture by Coste, of the formation of the coral reefs and islands of Florida by Agassiz, and the origin of species by Darwin—all of them noble examples of physiological generalisation, several of which have already found important practical applications, while not a few have been of direct service to medicine.

4. A study of Natural Philosophy has led in recent times, perhaps more than that of any other branch of science, to an elucidation of the functions of living beings. What are physical and what are vital actions has long been a subject of discussion. The attraction which the sun exerts upon the earth, that which the earth has upon the magnetic needle, and that which one chemical substance has for another, though differing entirely in their nature, are called physical; but the attraction which the intercellular substance of cartilage exerts upon the lime-salts dissolved in the blood, or that by which any other tissue selects and draws from the liquor sanguinis what enters into its substance, is called vital. Again, the conduction of electricity along a wire is physical; the conduction of nervous influence along a nerve is vital. We know nothing of the nature of any of these actions, which constitute ultimate facts in science; but, inasmuch as they are not identical, we call those which occur in living beings vital. Some of these are altogether peculiar,—such as growth in particular directions, muscular contractility, nervous excitability, and mental acts. We observe, however, in a living being, that these properties are more or less dependent upon, mixed up with, and give direction to physical properties. It is the determination of what is due to the one class of phenomena and what to the other, as well as their mutual relations, that has for some time engaged the attention of what is called the physical school of physiology.

And here it must be confessed that, just in proportion as the physical have been made to encroach upon what were supposed to be vital actions, our knowledge has advanced. It has now been proved that much of what was mysterious must be considered due to gravity, imbibition, endosmose, or chemical, electrical, and mechanical operations. Now, as the laws regulating these physical forces are better known to us than such as govern the vital ones, not only in this way can we comprehend them better, but, when required to modify them by art, we are enabled to do so with more effect. We cannot, therefore, too strenuously urge forward all that physical research can do for us, although still conscious that, while in this way we may learn much, physics, no more than chemistry, will ever wholly clear up the mysteries which surround the great fact of life.

It is curious, however, to observe that while chemistry has succeeded in manufacturing in the laboratory many of the excretory products of the body—such as urea, taurine, allantoin, formic, oxalic, lactic, butyric, and other organic acids; so the histologist, by the mechanical union of oil, albumen, and mineral matter, has succeeded in forming artificial molecules, nuclei, cells, membranes, and concretions, very similar to what we find in the animal. True, in both cases we must take the proximate principles, which can only be formed by nature; but, these given, we learn much of the structural mode of formation and of the chemical decompositions occurring in the animal from what physical experiment has taught us.

Of the numerous ingenious instruments now invented, which have enabled us to determine with rigorous exactitude the time, area, and intensity of phenomena in the living body, whether applied to the velocity of the circulation, force of the pulse, production of electrical currents, rapidity of the nerve-force altered, curves of the crystalline lens, and many other most important facts, I have no time to speak. I have requested my assistant, Dr. Rutherford, to bring with him to this meeting the very ingenious myographion of Du Bois Reymond, with which he will show, what may prove interesting to many present, how the rapidity of the nerve-current can be accurately determined. The inspection of such an instrument, an idea of its construction, and the witnessing one of the experiments which have given such reputation to the name of Helmholtz, will do more than any feeble description of mine to convince you of the great talents and ingenuity of those who now prosecute our science in this direction.

5. Experiments upon the lower animals, I need scarcely say, have added largely to our knowledge of the vital functions. On the propriety of this kind of research I agree with what was stated by Dr. Sharpey in the able address which he read to this Association in 1862; viz., that "when we consider the countless myriads of the brute creation that are daily slaughtered for man's sustenance, or are left to perish from hunger or the severity of season, or fall a prey to their nutural enemies, to say nothing of the multitudes killed for sport, surely it is not too much to claim that an infinitesimal share of this vast sacrifice be applied towards the extension of human knowledge and the alleviation of human suffering." It is unnecessary, however, to dwell upon the brilliant results which have been derived from this method of investigation. I would only point out, that a reluctance to engage in it when necessary has vitiated the most important conclusions, of which we have an excellent example in the ideas formed by Sir Charles Bell as to the functions of the anterior and posterior columns of the spinal cord. Having cut the anterior and posterior roots of the spinal nerves in a living animal, and shown that thereby voluntary motion and sensation connected with the parts which received nerves from them were paralysed, he supposed that the columns of the cord were continuations of these roots, and that section of them would also destroy motion and sensation. But when Brown-Séquard cut across the posterior columns in a living animal, which he did with a knife made for the purpose, it was found that, so far from sensation being prevented, pressure on the leg of the animal gave rise to increased pain. The cause of this is now thoroughly understood from the admirable histological researches of Mr. Lockhart Clarke, who has demonstrated, among numerous important facts for which science is his debtor, that the nerve-tubes of the spinal roots, instead of turning up towards the brain, as had been generally

supposed, pass directly inwards to the grey matter, and are there so distributed that no single section of those columns can destroy their power of conducting influences to the brain. Indeed, experimental and histological research have been so well combined in recent times as to throw a flood of light over the functions of the nervous system. In proof of this, I need only refer to the labours of Bernard as to the influence of the vaso-motor nerves over animal heat.

6. Lastly, the pathologists, who seek to discover, from an inspection of diseased organs after death, the relations existing between morbid conditions and the symptoms or phenomena they occasion during life, have also added largely to the science of medicine. In the same manner that the healthy body has been explored to obtain a knowledge of its structure, so has the diseased body been scrutinised to ascertain the changes produced. As the descriptive anatomy of man is perfect, so is his morbid anatomy; and pathological is as far advanced as physiological histology. Indeed, they may be said to constitute one science. If the organic chemistry of the healthy processes is imperfect, the pathological chemistry of the body is still more so, the latter necessarily being dependent on the former. Such, however, is the activity with which morbid phenomena have been investigated during the last quarter of a century, that in no department of the science, probably, has greater progress been effected.

The meanings of the old terms, inflammation, tubercle, cancer, and so on, are still discussed; but the morbid processes themselves are now well known. These consist of congestion of the blood-vessels, and, as a result of this, serous effusion, exudation of the liquor sanguinis, or extravasation of blood. Each of these products undergoes subsequent changes, whereby they are again absorbed into the circulation, either directly, as in the case of serous effusion; or through cell-growth, as in the case of exudation; or by disintegration, as in the case of internal hæmorrhages. Not unfrequently morbid growths occur, which may originate from irritation of the existing textures, which they more or less resemble; or they may spring up in exudations giving rise to tubercle, pus, and cancer. The tissues also atrophy or degenerate, and in this last case may undergo the fatty, albuminous, pigmentary, or mineral transformations. Concretions of various kinds are deposited in cavities, and obstruct ducts, giving rise to formidable lesions. There may be animal and vegetable parasites. Lastly, the blood itself may undergo alterations from an excess or diminution of its structural or chemical constituents, or it may be contaminated by noxious poisons derived from without, or generated within the body.

A knowledge of these morbid states has now made great progress; and our general ideas of their nature have, in consequence, undergone a remarkable change. It has been shown that the same general laws which regulate growth and other vital functions in health, also influence them when so disordered as to constitute disease. The same theory of organisation which has changed our views of physiological processes, has had a similar influence on pathological ones. It is not so much the peccant humour or the vascular action of our forefathers to which we attribute structural effects, as it is to the altered chemical, electrical, or vital condition of the ultimate molecules of the tissues themselves. This being the organic cause of disease, our efforts are no longer engaged in the mere study of symptoms, and the grouping them together in accordance with artificial nosologies, but in endeavouring to determine with accuracy the character of the lesion itself, and the precise texture and organ which is involved.

Only a limited idea, however, can be formed of the position of scientific medicine from viewing what has been accomplished by these six methods of investigation separately. It is their union, the assistance that one gives to the other, and the necessity which exists for knowing them all, that require attention in founding a proper basis for medical education. So long as it was supposed that diseases were groups of external symptoms, and that the removal or alleviation of these was the great object to be attained, the rules of art flowing from past experience were easily acquired. But now that every practitioner is expected to ascertain the nature and seat of the morbid change, not only must these be previously understood, but he must be capable of using all those means whereby they can be detected. A knowledge, therefore, of certain sciences, and of the laws which regulate their course, and their relations with one another, has now become imperative as an introduction to practice.

This mutual relation of the sciences has led to generalisations of the highest importance to our knowledge of vital action both in health and disease. Thus, it having been shown by Grove that the various physical forces—such as heat, light, electricity, gravity, and chemical action—are all correlative, it soon became apparent not only that there was a similar relation between the vital forces—such as those governing growth, nutrition, contractility, and excitability—but also between these and the physical forces. It has further been shown that, just as matter is indestructible, only changing its condition, so is there a conservation of force which only alters its form. In the same manner that heat, light, electricity, gravity, and chemical action are capable of being perpetuated in an incessant round one to the other, so we must regard growth, contractility, sensibility, and even the exercise of the mind, as only varieties in form of that chemical force generated in nutrition, as this in its turn is only an altered manifestation of some other force.

It is by studies in this direction, and in this spirit, that we shall do most to advance the science of medicine, in proof of which I would for a moment refer to the assistance which the sciences referred to have given to one another in advancing our knowledge of disease, and its detection in the living body. How anatomy and physiology aid pathology, and how this in its turn confirms and extends physiology—of this we have an excellent example in the discovery of leucocythæmia, which has proved to us that the views of Hewson, which were so long neglected and held to be doubtful, as to the functions of the spleen and lymphatic glands, are correct, and that they do, as he maintained, form the corpuscles of the blood. Again, many alterations of texture, which morbid anatomy has made us acquainted with, would only have been suspected, but for the help which physical science has furnished in various ways; more especially by chemical tests and analyses, and nu-

merous ingenious instruments. Need I refer to what we now accomplish by means of percussion and auscultation, and to the use of the microscope, speculum, laryngoscope, ophthalmoscope, sphygmograph, thermometer, etc.?

The present stand-point of scientific medicine, therefore, may, I think, be summed up as follows.

1. That the descriptive anatomy of the human body is perfect, and has been thoroughly worked out.

2. That the structural and general anatomy of the human body is very nearly so.

3. That physiology, though greatly advanced, has yet much to teach us as to the functions of the human body, and is at this moment apparently waiting (1) for the organic chemists who are investigating the transformations which food undergoes in passing through the economy; and (2) for the physicists who with newly invented and delicate instruments are investigating the vital functions with a care and exactitude only recently arrived at.

4. That pathology has demonstrated to us the structural alterations produced by morbid states; but is still very deficient in a knowledge of the chemical alterations these occasion. It must necessarily be dependent, however, on the progress of physiology, so that the laws which regulate many diseased processes have yet to be ascertained.

5. That the diagnosis of diseases, owing to our combined knowledge of physiological and morbid states, and the cultivation of physical exploration in conjunction with observations of symptoms, is rapidly becoming more exact, and losing its conjectural character. What John Hunter effected for surgery by placing it on a scientific basis, is now the object of the well informed physician with regard to the practice of medicine.

PRESENT STATE OF THE ART OF MEDICINE.

I now turn to the practical side of medicine, by which is to be understood an available knowledge of all those means which contribute, directly or indirectly, to the cure of disease, prolongation of life, or alleviation of suffering.

The long discussions that formerly occurred as to whether the practitioner should be guided by dogmatism or empiricism—theory or observation—deduction or induction—have lost their interest. There are more observers than reasoners, although it may be questioned whether a really perfect observation is not more rare than a sound theoretical conclusion. It is now recognised that science must prevail in the schools, practice at the bedside; and that the more we acquire of both, so much the clearer it is seen how good observation corrects and perfects theory, and how science improves and extends observation. Both have added largely to our resources. Thus it will be admitted that the doctrines of the circulation of the blood, of the independent functions of nerves, the reflex function of the spinal cord, cell-growth, and so on, have been directly serviceable in practice. It by no means follows, however, that great physiological discoveries are often immediately available in this way. The practical value of the discovery of Harvey was not recognised for several years after its publication; and the recently established doctrines of the functions of the pancreas and of the lymphatic glands, and of the glycogenic functions of the liver, have not taught us as yet how better to regulate digestion, influence the formation of the blood, or cure diabetes. But that every physiological truth adds largely to our conceptions of the correct treatment of maladies, is a proposition I must not occupy your time with attempting to demonstrate.

On the other hand, many of those remedies which have been proved to be directly curative of disease—such as quinine, sulphur-ointment, lemon-juice, cod-liver-oil, and so on—are entirely the result of empirical observation. With regard to these, it is our constant aim to determine the *rationale* of their influence. Up to this moment, notwithstanding, there is an uncertainty about the action of numerous powerful drugs in daily use, which is a constant reproach to us, and which we should make a strong effort to remove. It cannot be correctly said, in face of the researches and additions constantly made to our knowledge, that we have been altogether supine on this subject. But it is unquestionable that no vigorous attempt is being made, nor does any organisation, so far as I can perceive, hold out a prospect that any is likely to be made, of advancing our knowledge in this direction. In the excellent paper read at the annual meeting of the Association by Dr. Handfield Jones, in 1862, the conflicting opinions which prevail with regard to the action of some of our most valuable drugs, more especially of digitalis, opium, and quinine, were pointed out. The settlement of these differences is certainly within the reach of scientific investigation, and all that is required are capable workers to solve the difficulties they present. Numerous other agents, however, might be mentioned, the power of which is great, though as yet we know little of their effects. Among these is electricity, the operation of which upon the nerves and muscles has recently been studied by the physical school to a great extent, without, as yet, furnishing us with any exact principles for its application. Duchenne and Remak, it is true, have made many valuable observations, but their views are much opposed to each other. The first considers that an interrupted current should be applied directly to the muscles, while the latter believes that a powerful continuous current sent along the nerves is most beneficial. This and many similar questions require to be solved by investigation.

There are few, however, I fear, who have clearly placed before themselves the great difficulty, labour, and sacrifice of time which therapeutical inquiries necessitate. Indeed, it may be questioned whether any one man, however talented, is capable of such investigation. The wisest among us is apt to be biassed by accidental circumstances. A case, or series of cases, which have done well under a particular management; the unexpected recovery of an apparently hopeless disease following the administration of a particular medicine; or the fascination which lingers about some plausible theory, may all tend to mislead. The influence of one mind should be corrected by that of another; and the best knowledge in all the departments of the science and art of medicine should be concentrated on the solution of the question proposed. A committee, therefore, would be requisite, which should combine the skill of the anatomical operator, the analytical power of the chemist, and the varied knowledge, theoretical and practical, of the histologist, physiologist, physicist, pathologist, therapeutist, as well as of the physician whose knowledge of diagnosis is unim-

peachable. It would be also advisable to temper the energy and sanguine character of youth with the caution and reasoning power of age. A physiological laboratory, with every necessary instrument, appliance, and chemical, together with a hospital, would be necessary adjuncts.

But when such a committee have completed their labours, published their report, and made their suggestions, even with the assistance of one or more hospital physicians, the co-operation of a large number of practitioners becomes necessary to give it that general and varied trial which is necessary to test its value. No one practitioner, even with the assistance of a large hospital, can hope to examine and carefully record such a number of cases of any one disease as will render his trials of great value. Such, at the same time, is the want of union among medical practitioners, and so difficult is it to impress them with the advantage of working in concert to advance medicine, that several years may elapse before any investigation is finally completed and receives the authoritative sanction of numbers.

And here I would observe that there is only one way in which, as it seems to me, any particular treatment can ever become, for the future, really authoritative and entitled to the confidence of the profession at large. It is, that the facts connected with it should be carefully observed, and the results so recorded that they may be easily compared with similar results obtained by other methods. For this purpose the age, sex, general vigour of the body, and other facts necessary to be known, under the circumstances, should accompany any general statement as to the good effects of the remedy or treatment, so that all may judge of its value for themselves. This would be the crowning proof of its utility, for it need scarcely be pointed out that even the general adoption of a remedy and a particular practice, or an universal belief in its efficacy, is no guarantee that it is really the best that can be followed. Of this, the practice of bleeding and an antiphlogistic treatment for acute inflammations, and that of a six-weeks' course of mercury for the removal of syphilis, both of which prevailed between thirty and forty years ago, offer illustrations.

It is a fact which cannot be disputed, that the mortality of a strictly antiphlogistic practice in acute pneumonia was one death in three cases, and that simply by leaving off a lowering treatment the mortality was diminished to one in seven. In the same manner it has been satisfactorily proved that a general non-mercurial treatment of syphilis cures the disease on an average in two-thirds of the time, and with only one-half the number of secondary cases. Whether there are any cases of pneumonia that still demand blood-letting, or some cases of syphilis that still require mercury, is a question not yet decided, but there can be no doubt that we owe to statistical research the important results to which I have referred. Tabulated facts and numbers therefore, which correctly estimate the amount of benefit obtained, are what is necessary, instead of vague generalisations, mere opinion, and too often unfounded assumptions. To this end co-operation among members of the profession is necessary, but the difficulty of attaining it may be estimated by the result of a trial in this direction which was commenced by the Association in 1862.

At the annual meeting of that year in London, a committee was appointed, who recommended that various subjects should be proposed for investigation by this Association. Certain members of that committee each agreed to prepare a schedule, to be circulated with the JOURNAL, to receive the returns and reports on or publish the results. Accordingly, four such schedules were so circulated, and you may feel curious to know the results of this appeal to upwards of 2000 medical practitioners.

Eighteen schedules were returned to Dr. Fleming, of Birmingham, containing 100 cases in which tapeworm was treated by the male shield fern.

Twenty-one schedules have been returned to myself, containing 152 cases of acute pneumonia, mostly treated on the restorative plan.

Nine schedules were returned to Dr. Harley, containing 23 cases of jaundice, treated by benzoic acid, mercurials, and podophyllin.

Three schedules were returned to Dr. Handfield Jones, containing 3 cases of non-syphilitic psoriasis treated in various ways.

The only report published is that by Dr. Fleming, who informs us, that the cases returned to him "establish beyond doubt the great efficacy of the oil of the male shield fern in tapeworm, and its superiority to the other known remedies of this disease. Further," he says, "our report points very decidedly to the most efficient mode of exhibiting the drug; and the whole inquiry has, as I have reason to know, rendered excellent service to therapeutics by making the virtues of the oil of male fern more widely known and employed throughout the profession" (BRITISH MEDICAL JOURNAL, January 15, 1864, p. 26).

It will therefore be seen that this report of Dr. Fleming has been of great advantage, and so far fully justifies the proposal of the Association. One hundred cases also, where the problem is so simple as the expulsion of a worm, may perhaps be regarded as data amply sufficient to establish the therapeutic virtue of the remedy. Where, however, the problem to be solved is more complex, as in the three other cases, it must be admitted that the returns are by no means sufficient, and that this effort to obtain extensive data for determining the best treatment of acute pneumonia, jaundice, and psoriasis, has as yet been unsuccessful.

Notwithstanding, I still entertain the hope, that through this great Association of medical men something may be done to settle doubtful modes of treatment. If instead of 21 schedules, for example, as to the treatment of pneumonia, yielding 152 cases, it were possible to get 200 schedules with 1500 cases, I think all the vexed questions concerning the treatment of that disease might be permanently solved. Even this only supposes that one-twelfth of our number should fill up a schedule with such cases of the disease as they may encounter for twelvemonths.

For any scientific investigation, funds must be raised to remunerate the talent and toil which an extended and useful inquiry will necessarily involve. With such aid, properly applied, we have good evidence that much may be done. The recent Government Report on the Cattle-Plague, for instance, points out how the cooperation of various individuals may be so directed as to exhaust a medical inquiry. The annual Sanitary Reports of Mr. Simon, conducted on a similar plan, exhibit a series of investigations which are invaluable to the medical man. A like series of reports on diseases, or as to the actions of

remedies on the healthy or certain morbid states of the economy, there can be no question, would not only greatly tend to the advancement of medicine, but would gradually exert an authority which would be generally respected. When, also, we regard the advanced condition in which we find the science of medicine, there can now be little fear that such inquiries would conduce to the exclusive systems of treatment, into which some men were formerly led.

It was in every way worthy of the position held by Professor Acland of Oxford that he should have proposed to the Medical Council that a sum of £250, to test the properties of drugs, be granted out of the contributions levied from the profession. But notwithstanding it constitutes one of the duties of that Council to publish from time to time a Pharmacopœia, the application was refused on the ground that it constituted no part of its business to make such investigations. Exactly the same thing may be said by the government, by the corporations, by scientific societies, and indeed by each medical practitioner. In this way, we arrive at the familiar paradox, "That what is everyone's business is nobody's business."

From all the consideration that I can give this subject, the present stand-point of practical medicine appears to be—

1. That the empirical method of treating disease has reached its utmost limits, and that little further improvement is to be anticipated from it.

2. That the great advance which has taken place in the science of medicine has led, and is leading, to various modifications in the rules of medical practice, which only lately were in general use.

3. That these modifications principally consist in putting more confidence in the powers of nature, having recourse more frequently to the assistance of diet and other hygienic influences, and in employing more sparingly blood-letting and other so-called heroic remedies.

4. That the value of many remedies in certain diseases is unquestionable, and that their judicious employment confers invaluable benefits upon mankind; but the utility of others is disputed or little known, and with regard to these a careful investigation is imperatively required.

5. That such investigations demand great labour, advanced knowledge, and much valuable time, and that experience has demonstrated the impossibility of carrying them out satisfactorily without funds to remunerate the investigators.

6. That all applications of scientific treatment require the cooperation of medical men at large, and that no trustworthy results are likely to meet with general confidence in future, unless founded on extensive data, and formularised by a correct statistic.

FUTURE PROGRESS ONLY TO BE SECURED BY COMBINED LABOUR.

From the foregoing survey of what appears to me to be the actual condition of the science and the art of medicine two considerations are suggested,—1. That the greatest development and encouragement should be given to all those methods of investigation, the united results of which constitute what may be called medical knowledge; and 2. That the determination of how far this knowledge is useful, when practically applied to the cure or relief of diseases, demands the more cordial union and co-operation of the profession at large.

I would only observe, on the first head, that if, as we have endeavoured to show, science ought to be made the foundation of medicine, then, so far from clinging to a past authority, we ought boldly to reinvestigate everything that does not repose upon an exact and solid basis. Hitherto more weight has been given to expressions of opinion or of belief than to what can be proved or demonstrated. Hence the opposing views of even eminent authorities on the plainest procedures, not only as exhibited in their diagnosis and treatment of disease, but in their evidence on all litigated questions. Should we not make an effort to settle these differences? But past authority is here wholly incapable, for such is its inherently conflicting character that no one can suppose it to be available for solving any existing difficulty whatever. What then is required is fresh research and correct reasoning, and every one acquainted with the resources of modern science must feel persuaded that, if combined and put into operation, they are amply sufficient for the purpose. Indeed I trust it will be apparent from what has been previously said, that the different branches of medical science are now so advanced as to be capable of solving difficulties which formerly they could not. All that seems requisite is, that their cultivators should unite to obtain the end in view.

Some maintain that our profession ought to be a learned one, and the Medical Council have recently resolved that, while a knowledge of Greek shall in future be imperative on students, an acquaintance with natural philosophy and logic shall be altogether optional. It is with the greatest deference I venture to think that such a decision has not been made with a full comprehension of the tendencies of our science, or of its future requirements. It may be doubted also whether the habits of mind acquired by cultivating a literary taste and an appreciation of the classic authors, are such as will best fit the intellect for grappling with those difficulties which the severe study of vital action in health and disease involves. To this end mathematics, logic, and physics are absolutely essential.

With regard to the second head, I would remark that the British Medical Association numbers among its members many who are eminently well qualified to unite, both in scientific investigation and in practical observations. Will they do nothing in their collective capacity to solve satisfactorily one doubtful point as to the action of a medicine or the treatment of a disease? At this moment we are called upon to cope with a formidable epidemic, the numerous individual observations that have been made concerning which still leave us in doubt whether it be or be not infectious, what is its pathology, and whether it is better treated by laxatives or by astringents. What a noble spectacle would it present, if the 2000 members of our Association would only now agree during the ensuing year to direct their energies to an investigation into the nature and treatment of Asiatic cholera! Might not a central committee be appointed, which, operating through the many branches scattered over the country, would secure chemical, histological, and pathological research, combined with accurate, uniform, and extended observation? Would any of us grudge a small contribution that might serve to re-

munerate the labours, talent, and consumption of time involved in such an inquiry?

Whatever you resolve on, gentlemen, to me it is certain, that we have arrived at that epoch in the history of medicine which demands that truth in science and truth in art should no longer be kept asunder; that the traditions of old and less enlightened times should give way to the advancing spirit of inquiry that characterises the age we live in; and that the separate, and, because separate, too frequently opposing efforts of individuals should merge into the catholic endeavour of solving by union and mutual help those questions which it has been demonstrated have baffled solitary research. The whole scope and tendency of the modern science and art of medicine indicate that future progress can alone be secured by combined labour: and I can conceive no more worthy, as there is no more appropriate, object for the consideration of this Association, than the manner and methods by which this great work could, through its agency, be prosecuted and accomplished.

THE MEDICO-PSYCHOLOGICAL ASSOCIATION. This association held its twenty-second annual general meeting in Edinburgh, under the presidency Dr. W. A. F. Browne, Commissioner in Lunacy for Scotland; Dr. William Wood being the retiring President. The Chairman then delivered the inaugural address. In concluding, he spoke of those who had died during the past year, and who had contributed largely and lovingly to the promotion of medico-psychology, of Jean Parchappe de Vinay, Sir A. Morison, and John Conolly. Of Conolly he said that he was sensitive in his rectitude, gentle and genial, he was to all men conciliating and courteous; to his friends he was almost chivalrously faithful and generous; the insane he positively loved. Dr. Harrington Tuke read a letter which he had received from Baron Mundy, presenting to the Association a handsome marble bust of the late Dr. Conolly. The Association resolved to request the Royal College of Physicians of London to become the permanent custodiers of the bust, and place it in their Library Hall. On the motion of Dr. Henry Monro, a committee was appointed to procure subscriptions for a memorial of Dr. Conolly. Dr. Charles Lockhart Robertson was unanimously elected President of the Association for the meeting of the Association next year, which will be held in London. The following gentlemen were elected as honorary members:—The Hon. W. Spring Rice; Sir James Young Simpson, Bart., M.D.; W. Seller, M.D., F.R.C.P., Edinburgh; F. H. Laehr, M.D., Berlin. Dr. Webster described a recent visit to the insane colony at Gheel. Several members expressed their regret that personal restraint was not altogether abandoned at Gheel, and their opinion that the results of the system adopted at Gheel did not hold out any inducement for its adoption in this country. Some doubt was expressed by Dr. J. Browne as to the possibility of any medical man deciding whether an insane patient would continue to be harmless. He had allowed ten of the best and most harmless patients, out of an asylum of 120 patients, a great measure of freedom, by way of experiment, and he had been obliged, in four cases out of the ten, to withdraw the privilege, because it had been grossly abused. Dr. Robertson, of Glasgow, on the other hand, said that, in a number of cases, patients had been sent from the asylum of the Parochial Board which he superintended to lodge in cottages in the country; the result had been so satisfactory that it was proposed to extend the system.

THE

ADDRESS IN SURGERY.

BY

WILLIAM BOWMAN, Esq., F.R.S.

MR. PRESIDENT AND GENTLEMEN,—Surgery has always been that department of the Healing Art which most strikes the imagination of mankind, and secures their admiration, by prompt, dexterous interposition, in obvious and great perils, where life or limb is jeopardised, when the ignorant or timid are ready to despair, or the disease seems too terrible and deadly to be controlled. One now steps in, holding in his hand the talismanic charm of knowledge, with skill to find and courage to touch, for their correction, the hidden springs of life, and in a few moments how altered is the scene! The poor sufferer, a weeping family, or, it may be, a nation in deep anxiety, is relieved; and gratitude, the most precious human tribute for so great a benefit, so opportunely conferred, mingles with the respect and almost veneration that greet the successful operator.

Pardon me, if I avow, arrived at middle age, that my boyish ambition—not far from this Castrum of the old Romans, and under the inspiration partly of one still among us (my father's friend), partly of others to whom I am even more deeply beholden—was to be a great surgeon. And though I am able thankfully to acknowledge a gradual diversion of my lot in life away from this dream of earlier days, I yield to none in my regard for the eminent dignity of the Surgical Art, concerned, as it is, with some of the dearest earthly interests of mankind, and certain to rise more and more in their esteem as they become more capable of weighing things and men by the true and real standard of *their usefulness*. For I see no reason to doubt that future ages will still accept the pious saying of one of old, that Surgery is the Hands of God: the Human Hands, apt images and reflex of Man's whole Being, from his morning hour of puling helplessness, when the

> .... "tender palm is prest
> Against the circle of the breast;"

through all his working day of time, until they at last shall be upraised once more in joy and adoration, to hail a brighter and an eternal dawning; the Human Hands, permitted now, through insight into God's laws, to be the saving instruments of that earthly life and organisation, which His power, wisdom, and love, having first brought into being, still alone both sustain and cause to perish when their part is played; of that organisation which dies every hour it lives, which indeed dies by living and lives by dying, and which wondrously transmits ever its own prerogatives and dark secrets to a succeeding life, destined apparently to remain a marvel and a mystery impenetrable to all generations.

A general survey of the present state of the Healing Art in those countries that most represent the recent progress of mankind, may well incline us, on an occasion such as this, to outstep the narrow limits of the Speciality of Surgery, to which, indeed, our

precedents do not confine us, and to inquire whether we be not in some danger in England now, amid the multitudinous divergencies and details of modern practice, of losing sight, in some measure, of the essential Unity that pervades our whole work of Healing in the world; and further, whether we do not need to hold more to this central idea of unity, in order, by greater concentration of our powers and agencies for good, more effectually to promote the proper objects of our great profession, by better directed common efforts than in times past.

And can such a theme be more appropriately handled, than before an Association which is, up to the present moment, the only visible upholder and representative of the comprehensive unity of all ranks and degrees of Healers in this country, and which has been for many years working towards the realisation of it?

Let us, then, spend a short time in tracing, if we can, the scope and meaning of this work of ours, which interests ourselves so very closely, and our fellow men hardly less. And for this purpose, our past history shall first be adverted to, so that we may gain, as from a distance, a more general and a juster view of our whole position.

With the earlier developments of the Art in remote ages we are little concerned, except to observe, that the same simplicity of conception which we now find among our less instructed countrymen, implied in their respectful customary epithet of "Doctor" addressed to us all alike, regardless happily both of University-acquired titles of too motley import and of modern Acts of Parliament—this same simplicity of conception would probably more apply to the Healers of a dawning civilisation; who, though they then, as now, must have failed in any instance to embrace all knowledge and all the powers of treatment, yet could hardly have been other at first than general practitioners.

Probably the state of the Healing Art (if so it can be called) in various savage tribes, and among the antique and decrepit communities of the East, only now being awakened out of the torpor of tens, perhaps of hundreds, of centuries, by the rude shock of contact with modern European forces, may exhibit to us, not inaptly, what it once was among ourselves. Certainly the early growth and moulds of our profession must have been natural, not fostered by artificial means; except indeed where the policy of chiefs, or the craft of a pagan priesthood, may have warped them to their purposes. But generally, where individuals evinced or professed an aptitude, opportunities of experience would be rife enough; and according to the nature and variety of these, would be the developments of knowledge and the divisions of practice.

In later ages, the elaborate civilisation of the Greeks and Romans, and subsequently of the Arabians, was manifested scarcely less in their knowledge of Healing than of other useful arts, as their extant writings attest; it being reserved, however, undeniably for Christianity to elicit first among mankind the true spirit, as well as the right exercise of the Art, in the institution of hospitals and asylums, and of nursing brotherhoods and sisterhoods, for the sick and maimed.

But, indeed, although the practice of Surgery in particular must have reflected, like other arts, the prevalent temper and ideas of those times, and may have been often rude, coarse, and undiscriminating, based on loose surmises, false analogies, or on prejudices or fancies altogether absurd, hence becoming what we might now be inclined to call unfeeling, even cruel; yet always, its aim being beneficent, its tendencies must have been so too; a humanising art, intervening on the side of mercy and pity, even in the wildest hours of savagery or war.

Turning to Britain and the dark ages, haply our Chirurgeons were a sorry set, who carried out lamely the despised manual part of treatment, under the direction of an order of men, by priestly office, or by education and social rank, above them, to whose authority they bowed; a set of men misnamed learned, ready in every difficulty to quote Galen without understanding him, and generally more ignorant than the poor handicraftsmen they controlled; men whose word could seldom be questioned, never gainsaid, though, from the falseness of their principles, they could never advance one step in true knowledge.

It was probably war, ever recurring war, that raised a few individuals from time to time into greater prominence and credit as surgeons; for the powerful leaders of armies must have often experienced the benefits of surgical treatment; and in extremities of danger the surgeon must needs have taken a position in the esteem of multitudes, which those would miss who could not or would not staunch a wound or save a life by operation. And it is inconceivable that, even in those half barbarous times, the greater sort of minds among the body-Chirurgeons of emperors and kings should not have emancipated themselves from the obviously absurd relationship implied in their being merely the manual executors of the dictates of other men, whose fantastic pedantry and real ignorance of the practical part they must necessarily have contemned.

And in civil life a counterpart was seen. Isolated students in convents, cullers of simples, ignorant travelling quacks and mountebanks, bone-setters and leeches, flitting formless creatures in the twilight time. Then came the guild of Herbalists and Barber-Surgeons. Then, from our universities, especially on the revival of learning, Physicians, with a truer scholarship and more open minds, to whom all mankind must ever acknowledge themselves indebted; men competent to hold their place even in that age of erudition, with the most exalted dignitaries in Church and State, and still maintaining, probably on that very account, their old superiority in station over their less learned chirurgical brethren.

But now, here and there, a real Surgeon rose; bold, perhaps prudent also; successful in grand ventures; startling the popular imagination by some marvellous cures of deep painful disorders or of portentous aspect, till then deemed incurable. Thus, Operative Surgery in great cities became the surgery of the greatest practitioners, and oftentimes overtopped and overshadowed the reputation of learned *medici*; causing, no doubt, jealousies, which we know to have been keen, but which we may now all the more afford to smile at, as we are certain none such exist amongst ourselves. Surgery thus became studied more and more by a class, as its prizes were great, and some men seemed by tastes and natural gifts more fitted to shine in it. It became an elaborated art, founded on observation of anatomical relations, both healthy and morbid; it began to have

a distinct literature, and a body of rules and precepts, which were the subject of public debate and were traditionally transmitted. Its professors increased in numbers and breadth of aim; they even shared with the most skilful physicians in cultivating the knowledges (hardly sciences as yet) which pertain to the Healing Art; and to draw nearer to our own day, they have, within the last hundred years, in this as well as in all civilised countries, borne an equal, in some instances a transcendent, share in enriching and extending the whole field of medicine.

But I am not here, gentlemen, to say flattering things of one department of our art to the disparagement of another. Nothing could be more remote from my intention. On the contrary, I desire to speak the truth only; to show our common aims and victories, and to vindicate the common bond that unites us all.

And for this, I must still ask you to revert with me for a moment to Tudor times.

We are tolerably well acquainted with the state of practice in our own metropolis in that day, when some of the most eminent revivers of learning, of whom England is rightly proud (though some of them were favourites of a court, paid by Church sinecures), established an Institution, since become venerable, which in those days fought a hard and, it must be added, a successful battle with the surgeons before the Lord Mayor of London and other of the Queen's Delegates (the more enlightened Master of the Rolls and the Bishop of the Diocese bringing, we are told, many opposing arguments on the surgeons' part) for the right and privilege of alone prescribing in surgical cases inward medicines—and such medicines!—when the apothecaries' shops, no less than the chirurgeons' instruments, were still to a large extent under their control; and when, for example, one unhappy John Luke, *ocularis medicus*, receiving a faculty to treat diseases of the eye, was strictly limited to the use of external means, and forbidden all internal remedies, by whatever avenue they might be introduced, except under the advice of some learned and experienced physician accredited by the College.

All these grave and learned men played their part well, however, according to their light. They upheld among the highest and most cultivated of the land, as we gladly acknowledge their successors do at this day, the dignity of the profession and pursuit of healing. And if they did not plant this dignity in its true seat, knowledge of the frame that is most noble on this earth, and knowledge for the sake of usefulness to suffering man; if they sometimes stifled thought, as when they caused one of their number to recant, who had had the temerity to maintain that Galen was capable of error, we may remember what they did to introduce Anatomy into England, and to advance Surgery itself. Receiving from Lord Lumley an endowment under the Great Seal for a Surgery Lecture in the College, they "most thankfully accepted so honourable and generous a donation, and built rooms more ample and spacious for the better celebration of this most Solemn Lecture". And from among them sprang one, whose well known services to our common calling and to mankind can never be adequately honoured, particularly for the prescient, penetrating, comprehensive character of his intellect, and the clearness of his perceptions; whose name will descend to the latest posterity among the greatest of English worthies.

William Harvey was Professor of Anatomy and of *Chirurgery* to the College of *Physicians*. His character was every way grand. The main feature of it was a supreme Love of Truth, and an intense longing to penetrate the secrets of organic nature; and for this he asserts always the right and the duty of going straight to the fountainhead of nature herself, acknowledging no master in things natural, but facts and the evidence of the senses. Modest, gentle, unselfish, courteous, not covetous of honours, he was fearless in asserting new truths, believing in their own native power to live and fructify; slow to controvert errors, knowing that they would disperse of themselves, and that narrow and prejudiced minds would cease to cavil, when the clearer light should have time to blaze forth. Withal he had that deep reverence for the Author of Nature which springs unbidden from the contemplation of man's own littleness amid works so mighty and so minute. How profound a truth he beautifully proclaims, when he says:—"If you will enter with Heraclitus in Aristotle into a Workhouse (for so I will call it) for inspection of viler creatures, come hither, for the immortal gods are here likewise, and the Great and Almighty Father is sometimes most conspicuous in the least and most inconsiderable of His Creatures!"

The torch of Harvey was lighted in Italy, where, while the fine arts were already waning rapidly, Science was rearing erect her standard; and at Padua, where he listened to the teaching of the greatest masters of anatomy, medicine, and surgery, Fabricius ab Acquapendente, Minadous and Casserius, he must doubtless have discoursed with, and caught the spirit of one still greater, Galileo. At home he may probably have known personally, certainly by his works, the immortal author of the *Advancement of Learning*. Thus is Science exhibited as not of a country, but of the world.

But tracing onwards the progress of the Healing Art in England, we shall find the institutions which had been founded at first on the traditions and customs which represented the convenience of an imperfect and transitional stage of society, not less than individual tastes, growing rigid under the influence of forms and titles, and gathering around themselves clustering personal and corporate interests, not always in harmony with those higher objects by which alone they could have been at first justified; and tending to keep apart, though with decreasing force, the two great bands of a common profession.

The Physicians, it must, I think, be said on the whole, though with some remarkable exceptions, receded during the last century from the spirit and the traditions of Harvey, while they maintained orations to his memory. It is not surprising that Anatomy and Surgery should have ceased to be actively promoted by a College, which was gradually losing its hold on the surgical domain of practice, in proportion as surgeons were becoming independent of the old restraint.

The Physicians were now, by their abstinence from all manipulative treatment, in a position of increasing isolation as regards a great domain of the field of experience; they were specialists by a great defect, by a self-negation; and the consequence was that many of the higher intellects among them betook

themselves to a too exclusive clinical observation of disease, analogous to that of some of the ancients, and not sufficiently seconded by deep and personal study of the organic structure, and the laws of life; while others distinguished themselves by learned or philosophical labours, more or less important, and more or less connected with the immediate work of their calling.

The result has been, that the medical world has seen several systems or schemes of treatment promulgated on insufficient bases, but with much pretension of a simplicity, for which nature gives no warrant; and which have yielded one after another at the first summons of reason and common sense; not without grave discrediting of the whole profession in the public eye, and not without giving a sort of countenance to that easiness of belief with which, within our own century, have been received by the public the flimsy follies of the shallowest and barrennest, the most credulous and the most boastful of medical phantom sects, that of the self-styled homœopaths. In the more recent times, however, of John Richard Farre, of Matthew Baillie, and of Richard Bright, they have laboured afresh in the patient study of disease, not only during life, but have themselves, with their own hands and scalpels, sought real knowledge by the personal examination of the organs after death. They have also taken a large and important share in advancing the physical, chemical, and physiological sciences; in these and other ways thus setting a splendid example, and redeeming a position which might otherwise have been jeopardised.

For the Surgeons had approved themselves the truer followers of Harvey. Holding always to Anatomy, as by the very nature of their function they found themselves more and more constrained to do, and also finding apter materials for study in the more exposed, and less recondite diseases falling to their care, as well as in the open results of wounds, including those of their own making, they have joined Anatomy, Pathology and Surgery in a natural alliance, most favourable to progress and always abounding in new fruits, and have gradually risen in influence; establishing in our great hospitals, and in our fleets and armies an equality of rank with their more erudite, but (must we say it in all kindness?) unhandy brethren; and unostentatiously but surely asserting more and more the claim of the Surgeon's Hand to be guided by the Surgeon's Mind and Conscience, from which, henceforth, it can never again be unholily divorced.

In the last century, in our own country, two men stand out from the rest; two Scotchmen; who gave a great impulse to the Healing Art. Brothers by blood, the Hunters were also of like tastes and industry, and nearly of equal genius, though John excelled by the acuteness of his penetration and the universality of his views. Both when young were Surgeons and Anatomists, toiling in Harvey's "workhouse", and William acquired his fame in practice as an Accoucheur. Both were illustrious by the Museums they created; one of which has since become, by state-purchase and the subsequent labours of Richard Owen, indeed of more than one kindred mind, supported by the liberal subsidies of the College of Surgeons, the most glorious appanage of a great Profession that the world has yet seen; and the other is in the City of Glasgow, to which the munificence of its Founder bequeathed it, with an endowment for its maintenance.

John Hunter was so largely employed during many years in applying his knowledge to the relief of human ills, that it is indeed marvellous how he could have at the same time laboured so hard in the general field of the Sciences of Life. But (given his mental capacity, zeal for his subject, and the pauseless industry that sprang from that zeal, and overbore the instincts which must have often yearned for repose in a life of great anxiety and suffering) this double labour, which since the time of Harvey had hardly been seen united in any one man, is to be explained by the mode in which his mind ever carried physiological principles into the details of daily practice, and sought in return, by the study of those details, to illustrate and advance his general views of the processes of life. Had the two fields of thought been in his estimation distinct and separate, he could not have achieved in each so great a victory; in each, it will be found on examination, his success depended largely on the real union which he more than any of his contemporaries, or even of his predecessors, recognised to exist between them. English surgery and English medicine, in all their departments, have been since strongly coloured by this principle. This indeed is the abiding lesson which his life and labours have imparted to those who succeed him in the noble function of ministering to the wounded and sick, in his own country and throughout the world.

The Hunters may both be regarded as types of what the great masters and leaders of the Healing Art should be. They were anatomists; they were physiologists; they were pathologists; not by second-hand learning from the tongues or pens of other men, though this they did not despise, but by truth-loving observation and interrogation of Nature herself, in all her haunts of health and of disease; admitting no veils of limitation to be drawn by fashion, or caprice, or selfish interests between provinces and things essentially akin, but taking in the whole scope of the Art as one great and ample field of noble study and beneficent activity,—one by the unity of man's body, to which it yields a voluntary and loving service; one by the identity of the methods of research by which the secrets of that body (whatever secrets, and of whatever part) are to be disclosed; one by the common aim and intention of all treatment, internal or external, remedial or preventive; one, lastly, by the simplicity of the moral attitude which should stamp us all as members of one body, in our relations towards one another, to individual patients, and to the community among which we labour.

Gentlemen, I look upon the present meeting, comprising native members of every branch of our profession (and would that we could welcome, in future years, many more brother members from other lands!), as one representing the idea most needing to be insisted on amongst "doctors" at this time and in our own country, and which, I am persuaded, men like Harvey and the Hunters would have been foremost to assert and act upon—the idea of *the oneness of our common calling*. And can we aver that there is no need to advance this idea? For, could we imagine these great ones of the past to be still with us, what special encouragement or opportunities for his cherished pursuits, we may ask, would Harvey

now find in his own favoured College of Physicians, whose welfare and improvement, we are told, "was the chief object that occupied his mind for several years before his death," but where "solemn lectures on surgery" are no longer given; where there is no anatomical or chirurgical work performed; and where no "repository for simples and varieties" exists, such as he fondly hoped by his benefactions and his example to have founded; even no museum of morbid anatomy, such as Baillie and Bright would have longed for. On the other hand, should we be likely to find Harvey, a Fellow of the College of Physicians, admitted to demonstrate the motion of the heart and blood in the Hunterian Theatre? Could William Hunter, having become, as he did at the age of thirty-eight, a Licentiate of the College of Physicians, and not being longer "in actual *bonâ fide* practice as a Surgeon," share in the Councils of the Hunterian College, or in the love-labour of its Museum? or could he adorn its chair by his eloquence? Finally, could his greater brother, immortal by his *Treatise on the Blood*, but being "only a surgeon," find entrance, consistently with existing usage, to discourse on that great theme within the walls which derive their chief glory from the Discoverer of the Circulation of the Blood?

It would ill become me, humble as I am, and feeble in grasp of thought, to utter or imply anything in the way of censure of these venerable corporations, which, with all their human imperfections, have done, are doing, so very much to adorn and advance, each its own side of our common profession; and, if neither of them has yet found itself at liberty to esteem of subordinate importance those class and college interests, those "rights and privileges", which a former age fenced in by forms of oath now generally disapproved of, whatever useful purposes they may once have served, it must be freely acknowledged that much has been effected by both in many ways, in recent years, to approximate to a policy more liberal and large, and certainly one more likely to secure the class interests themselves by engaging for them, so far as they are good and useful, the support of the whole profession.

Some minds abler than my own may indeed doubt whether the time be yet fully come for any large attempt at consolidation or union of these and other kindred bodies. We may be deemed to be still in a transition period, in which we must be content to work a little here and there, as we may, towards a better organisation and truer views. I know not. But I must express my own conviction that the old rivalries of "physicians" and "chirurgeons" are now laid asleep in the breasts of all men of sense; or that, if they survive at all in our ampler day, it is only in some remnants of the traditional policy of the council-chambers of corporations, the vast majority of whose members are now too enlightened to harbour them much longer, against the broad and well understood interests of a whole profession. I am persuaded that the leading minds of both the more powerful corporations are in accord with the great bulk of thoughtful medical men throughout the three kingdoms, that these great and noble foundations, so far as they retain, in their constitution or in their forms, traces of the antiquated prejudices and narrow notions of an age long since past, should mould themselves afresh to suit the wants of a more instructed time, when the medical world, being older and much larger in numbers, is also more highly educated and wiser than before. The whole professional body has a perfect right, most of all in our progressive England, to see the Institutions which are its own made conformable to the wants of a period of unexampled social activity and advancement, when all the old impediments to intercourse are vanishing day by day as by the touches of an enchanter's wand; and when there are spread every where over the land able and intelligent members of our profession, whose cooperation should be invited and carefully organised, not only for the satisfaction of their own just wishes, but still more for the sake of the immense impulse that would thus be given to the prosecution of those common objects, which it so much imports us, as a scientific and professional community, to pursue.

And here I trust it may not be out of place to call before us for a few moments the memory of four men, from whom, had they been spared to us, a comprehensive view of all interests, judicious counsels, and a liberal course of action, might have been expected. It cannot, indeed, be truthfully said that their loss is irreparable; for in England, no man, however valuable, can long be missed. Their room will doubtless be supplied; but to allude to the living might be invidious.

Benjamin Collins Brodie was eminently a man belonging to us all. A great Surgeon, he was also a great Physician, though probably he could not have been placed on the *Register* under that title. But he was a great Medical Surgeon, able to take in all the aspects of every complex case, to prescribe or to withhold physic, to operate, or to advise against operation. This capability arose primarily from what has been already suggested as its natural and legitimate source: he had zealously, as a young man, pursued the paths trodden by Hunter. He knew the body and its functions by the evidence of his own senses; he had meditated deeply on the inner phenomena of life; he had experimented on animals; he had enlarged the knowledge of his day. When the cares of an almost overwhelming practice pressed heavily upon him, he still did not desert Science, and we owe to him, in addition to his many practical works, some most thoughtful contributions to physiological psychology. His scientific fame, reaching every where, is an honour to the medical profession, not alone to the Surgeons, but to us all.

Joseph Henry Green was of too much capacity to be a Surgeon only. Early devoted to metaphysical speculations, for which his grand and subtle intellect peculiarly fitted him, he was also a wise, prudent man of action. His views of our Art were always extended and liberal. He embraced within his range all the world of life: he saw that *pure surgery*, so called, was a narrow and impossible speciality; he looked on disease as he found it in Nature, not capable of classification by any such test as that of the applicability to it or otherwise of one special kind of treatment, the chirurgical or manual. This last was to him a noble portion, but a portion only, of the whole Art. He was always anxious, like Brodie, to enlarge the basis of our profession, to elevate the standard of acquirement in its members, and to promote the sciences which belong to it.

I recall with gratitude the converse—in later years, the intimate and friendly intercourse—I enjoyed with both these considerable men. The third

to whom allusion shall be made was in a nearer sense my loved and honoured friend and workfellow. Bred a Surgeon as well as a Physician, and always fond of surgical pursuits, a teacher of anatomy, a professor of physiology and of general and morbid anatomy, an ardent worker in the physiological laboratory, mastering in a real and practical manner all the details of his subject, Robert Bentley Todd was both a voluminous writer himself, and a zealous promoter of literary and scientific work in other men. Then he became a clinical teacher and practical physician, indefatigable in the hospital wards, excelling some of his English contemporaries by the constant reference he was able to make in his teachings to anatomical and physiological facts and principles. Overburdened with engagements of various kinds, he yet always strove earnestly to promote in his own College, as well as elsewhere, the study of his favourite sciences; and he delighted to speak of those distinguished men, the associates or early successors of Harvey, who had shed lustre on the College by their anatomical researches; particularly Francis Glisson, *omnium anatomicorum exactissimus;* Thomas Willis, the author of the still classical work, *Cerebri Anatome;* and Clopton Havers, known chiefly by his *Observations on the Bones.*

One who followed thus closely in the footsteps of Harvey and the later British anatomists, whose mind, too, was remarkably sagacious and practical, and whose character was of force to leave a considerable impress on his generation, could not have failed to take an active and useful part in promoting union among us. I venture to think that, as his brethren come to look from a little greater distance on his career, he will rise yet more in their estimation; and his friends will add their testimony to the excellence of his heart and life, as his name and fine countenance are revived in their memory by the marble statue erected in his honour in the hospital which he largely contributed to found.

You will anticipate me as to the fourth name I would mention—that of Charles Hastings, so lately lost, so justly dear to the members of this Association. His great merit has been, that he first conceived an union of all the classes of our profession for common objects, and bore a principal part in advancing that union, under many discouragements, to the point we have already reached. I trust that his spirit of wisdom and conciliation, his large heartedness, his breadth of view, will prevail in the counsels of our whole profession, and guide us all to a more complete concord of thought and action in whatever concerns the advancement of the objects he deemed so precious.

Let us now inquire, by glancing for a moment at one or two characteristics of the age in which we live, whether the time itself does not ask us to take a wide view of our calling, and to break through the trammels of a period of comparative immaturity. We see mankind every where becoming more and more *one family*, chiefly by the increase of man's dominion over Nature, through augmenting knowledge of her laws.

It is but a little while ago that Galvani and Volta, experimenting on harmless frogs, in the highest spirit of Science, opened up new provinces of research, in which Davy, and Oersted, and Ampère, and Faraday, were soon to astonish the world by the rapidity and brilliance of their discoveries. And it seems to me but yesterday, for I was there, that our Wheatstone, under the approving eyes of Daniell, passing the wire of his battery beneath the Thames, in presence of the now lamented Prince whom we had just welcomed to our shores as the Consort of our Queen, proved the possibility of the subaqueous transmission of those subtle vibrations, whose rate of travel we now know to exceed in a very high degree that of the mandates of the will along the nerves. Yet already, by a combination of enterprise and skill unparalleled, the magic twine unites two continents; and man's thoughts, cyphered with unerring truth by silent-speaking symbols, in the last degree refined, and borne onwards by tender tremors of the metal, fainter yet far fleeter than Æolian whisperings, are traversing every moment—even as I speak—the awful solitudes of Atlantic depths, under miles of ambient water; where no sound, hardly light itself, can ever penetrate; all heedless of the fogs and icebergs and mimic storms of the surface, 15,000 feet above. And soon the very globe itself will be woven over with a time-annihilating network;—a blessed harbinger, as well as sure eventual promoter, of good will and peace, of peace and goodwill to all mankind; and certainly a fulfilment, of which we can none of us as yet appreciate the full meaning, of the loving purposes towards our race of the eternal and infinite God.

From the bed of these watery deeps, too, abysses no longer unfathomable, the finger of man has picked up evidences of teeming life *there also*, such, probably, as he now knows to have built up, by slow and gradual accumulation, in geological ages of unassignable remoteness, strata of the earth's now solid crust, tens of thousands of feet in thickness; and these in their turn contain the fragmentary but faithful records of series of organisms that have preceded the existing forms; and which seem to intimate, with other collateral proofs (though I prejudge nothing), that life has been *continuous* on our planet from the first origin of organic being, through successive *generative* links of evolution, even down to, and into, the very times in which we live.

Again, while we consider all this, and descry through Harvey's "optick glass" of higher power, in the tiny elements of the gland of the insect or the gigantic quadruped, an identity of essential structure with the corresponding parts of our own frame; and while we call to mind that, when our yet uncharactered members were seen already by the All-Seeing, every one of us consisted wholly and merely of such tiny elements of structure; who shall say that the touch, the very touch of a mysterious organic kinship is not there, though it be as yet untraceable with certainty, as yet unproveable? The pedigree of man himself seems to be on trial before the Court of Science, and a true verdict may be given at no distant period. Let whoever loves Truth, and the God of Truth, await it with perfect calmness, though it should possibly fail to coincide with some prejudices of the timid. I may incidentally express an earnest hope, that our profession, which beyond others is brought to the threshold of such questions by the nature of its studies and by its habits of thought, and which I aver to be signally remarkable for its love of truth and regard for religion, notwithstanding some vulgar echoes of old charges against us, will play an useful and moderating part, by reassuring

less informed persons and quelling groundless alarms. Let us cast aside the foolish thought so flattering to our pride, that man's dignity depends in any the least degree on the mode of origin of his material organisation, whether in the individual or the race, any more than on the structure of his mature material organs; and not rather on that capacity for the reception of the Divine Spirit, and for elevated commune with God and His Works, which comes with growth, but with which, at the earlier moments of his origin, he has not yet been endowed. It may come to be worth considering, that man's nature may derive comfort from an inversion of the dictum of the witty orator of the Sheldonian Theatre; and that it may be a nobler, even a more Christian and a less Pagan view of our destiny, to find ourselves belonging from the first, in the Divine counsels, to an ascending rather than to a descending series of the scale of being. We may come to acknowledge by Science, as we now accept by Revelation, that our bodily organisation has sprung in the past from the dust of the ground, though only through ascending forms; and as to our hereafter, although we know not yet what we shall be, we have the assurance that we shall one day share the Angelic Nature, in seeing God as He is.

Would that the Divines of England, and their Venerated Leaders, under the difficulties of their position, could be always mindful, not in words only, of the noble principle, so congenial to this spirit of her Church, that such questions, so far as they belong to the domain of man's intellect and sense, must and will be followed up according to the laws of his being and the onward current of human thought, in the interests of Truth only, regardless of all consequences! Would that they would all have faith in Science, that they would meet her, embrace her, and not mistrust her! being firmly convinced that her true results, when well proven and finally accepted by all competent minds, after full inquiry, become, so to say, *vox Dei!* That they would remember that such a Voice may be so potent as to rise to the height of that, which once summoned an Apostle to cast off his most rooted prejudices, and to exclaim, "What was I that I could withstand God?" Without in any degree prejudging pending questions, it must surely be prudent, in the interests of both truth and religion, to hold an even mind; not yielding to unworthy fears of the divine faculty of reason, nor abusing those who are honestly employing it within the sphere of its proper activity; but having a faith, above fear, in the certain victory that awaits both Reason and Religion:—both God's precious gifts to man in his darkness, and both certain to harmonise at length in Him!

Turning now to touch lightly on some of the advances of medical science in recent days, let us remark how inseparably they blend with, and mutually illustrate, the general progress outside our own immediate province. They may be conveniently comprised in two words, *scientific insight* into our Work of Healing, the actual conditions of the body, in health or unsoundness, having become more easily distinguishable; their mutual play and connexions better understood; and our means of profitable interference at once more numerous, more definite, and more manageable.

Before a Society so completely informed as you are, Gentlemen, I feel it unnecessary to attempt to make good this part of my programme by laboured argument or lengthy illustrations; examples are only too abounding. Harvey had heard the healthy sounds of the heart, but its morbid sounds inform us now of the nature of its structural defects. The sounds of breathing must countless times ere this have met the ear, but it was reserved for our own days to study them, so as often to enable every tyro to say, what is the state of those great organs, hidden from our view, but so indispensable to life. And so with percussion. Nay, with our eyes we can now behold for the first time in its living acts, that marvellous mechanism in its most exquisite and joy-inspiring movements, as well as when it is oppressed by disease, which stands as a sentinel at the orifice of the air-passages, and on which the voice and speech primarily depend. And need I advert to other applications of optical mechanism, or recount how one has called forth another, until the various internal surfaces and structures, particularly those of the organ of sight itself, are now opened to hourly survey, to scrutiny most exact and delicate, so that often even the pulsation of the smallest arteries or veins and the physical conditions of the capillary bloodvessels, with almost the earliest and slightest signs of morbid change may be detected and made available as guides to treatment? Much might be said under this head. Diseased states thus submitted to the faithful eyesight are seized on by the mind with a vividness that is of inestimable value to the practitioner, in framing his conclusions as to treatment; and he can judge, too, by the direct evidence of sense, how far to continue to follow up these. In a word, all the advantage the surgeon has hitherto had, over him who deals with concealed diseases, in that he has had ocular demonstration of his facts, the Physician now enjoys in regard to many internal organs. The Surgeon also participates largely in this expansion of our field of view, while a collateral result is that the Physician in many instances finds himself under the dilemma, either of undertaking operations strictly surgical, or of abandoning some departments of treatment and some important organs, that custom has hitherto assigned to him. Many have had the good sense to consider simply their patients' advantage, and not the punctilios of a class; and thus there has been a considerable, and as I regard it, a very satisfactory demolition of old and artificial barriers between different grades of practitioners, which the future progress of Physical Diagnosis must still further tend to promote.

Take another example. By means of that modern optical triumph, the Compound Microscope, which takes us, as it were, among the very elements of form and the rudiments of organic structure,—a world we are apt to lightly regard, though it has infinite uses for us, as it has infinite beauties,—by this an instructed practitioner, even one not highly gifted, but only conscientiously alert and observant, can say with confidence of an organ deep in the wasting frame before him, beyond his touch, out of his sight, which emits no sound, and is the seat of no pain, "This gland has been certainly passing insidiously through this, or that, important destructive change, it is now so and so, I can accomplish this, or probably only this, for its relief, and this, or this, will be the end!"

And not to weary you, Gentlemen, with more examples from the field of diagnosis, the results of Chemical Examination, frequently seconded by the microscope, need only to be alluded to in order to

take their eminently important place in this imperfect sketch, by the side of the other aids to physical investigation of the signs and footsteps of disease, conferred upon us by modern science.

As to the intimate nature of disease and of health, modern Physiology is a platform, on which all Practitioners have an almost equal footing; where they meet and cross each other at every turn, and find everywhere the opportunity of a community of thought and action. All admit that disease is such a departure from a state of health as oversteps those undefinable limits which the organisation will bear, without strain, or curtailment of its perfection. But these are not now such vague words as they might once have been; for vivid light has been thrown upon many of the abstruser problems that formerly perplexed us; the details of the interwoven structures and of the complex functions of our composite frame have been zealously and perseveringly traced by some of the acutest observers and of the keenest intellects that have ever lived; with a harvest of results so plentiful, so reliable, so mutually illustrative, and on the whole so marvellous, as to make very much of the knowledge of even the last generation seem antiquated and obsolete. And we may accept it as a truth, that every step forwards in our knowledge of the healthy body, so it be real, must lead us right onwards, too, towards a better understanding of disease; and if of disease, then also of our power of counteracting it, whether in the way of prevention, alleviation, or cure.

As to modern treatment I shall only remark, that the direct and obvious tendency of all modern progress has been to make it more rational and more simple; that is, more appropriate, first, to the precise conditions, more correctly recognised in each case; and next, to the degree in which interference on our part is found likely to be advantageous or otherwise to the sufferer.

No conceit of our great advances in the *Medical Sciences*, however, must beguile us into assuming that *Medicine itself* is *a Science*, or can ever become one, in the sense of our being ever likely to be able to practise it on principles unerring and exact. It is not in any true sense a Science, but *the application of many sciences, and indeed of all appropriate and available knowledge, of whatever kind, to the relief of suffering.* It is really an *Art*, as the Father of Medicine long since styled it; and woe be to those patients who fall into the hands of men, aiming at treating all who come to them and all diseases on some single, so-called simple, principle, which can really be no other than the negation of all good sense and of all the well-understood conditions of our Art. It is an Art, however, which, while it must always be pursued with the very closest regard to the individual facts of the case, must in the interest of each patient be pursued in a *Scientific Spirit*, for thus only can the facts be duly interpreted and our treatment suitably applied.

And it seems the special glory of the advances in Healing knowledge in our own day, that they are of a kind to supersede those vague, general observations by which a few rarely-gifted men could formerly, as now, make sagacious, pertinent, sometimes true guesses as to the nature and more latent relations of diseases (though these gifted men oftentimes fell into lamentable mistakes), while the generality steered without accurate chart or compass,—or worse, under the deceptive guidance of some false delusive though vaunted theory. Although still, in the uncertain and ever-varying phases of practice, we can none of us afford to disregard the aid of our own unwritten experience, or those general impressions left on our minds by a long series of Empirical observations, in which as yet no clue to a satisfactory explanation has been descried, these late advances are at the command of all, who, being honest enough to desire to detect the nature of a disease committed to their care by a suffering fellow-creature, will, with ordinary intelligence, instruct themselves in the requisite, and usually simple, physical tests. So far as they extend, they are to be most highly prized. They bear the stamp of all true knowledge in being useful, available, and not apt to deceive; and having been once acquired, they become henceforward the inalienable inheritance of all mankind, and doubtless the starting point for future conquests.

The subject of Anæsthetics is one which cannot be altogether passed over in this place, though it is hard to mention it and not to pursue it to the exclusion of all else.

Dim notices of the use of medicinal agents to prevent pain in surgical operations are not altogether wanting in very early times; and the desire and hope of finding some means for effecting this was certainly felt by more than one person during the last century. Even a method by compression of the nerves was actually tried in one of the London hospitals. But our present universal use of this eminent blessing to suffering human nature is the result, first, of the progress of pure science, not medical; then, of the applications of pure science by men devoted to particular specialities of practice; and both hemispheres share the glory of it.

Let us look at Cavendish, Priestley, and Lavoisier, at work in their pneumatic laboratories; at Beddoes, with young Davy, in Bristol, trying to make inhalation of gases useful in medicine, inhaling laughing-gas, and noting its effects; at a public lecturer at Boston, in America, nearly fifty years afterwards, exhibiting its well known effects to an audience, among whom was a Surgeon-Dentist; at the sudden idea of this one to apply it as a remedy in his own case, for he was tormented with a toothache. It succeeded; but afterwards, when he had urged its adoption on a great operating surgeon, and it had been actually tried several times, the uncertainty of its effects caused it to be completely abandoned. But the idea had been too intensely impressed on some lookers-on to be ever again lost sight of. Faraday had already long since shown the great similarity of the effects of laughing-gas and of the vapour of ether, and this was familiarly taught to students in chemistry. But nearly two years still elapsed ere another Surgeon-Dentist, who had been present on the former occasion, tried the ether, and found it to succeed so perfectly, and to be so manageable, that he at once proclaimed it to the world; and it was soon adopted by the surgeons of all countries.

But now a Pharmaceutical Chemist of Liverpool, at the instance of a more gifted mind, suggested another substance, a product of modern chemistry, discovered simultaneously in Europe and America sixteen years before, which had been medicinally used, and even its name philosophically settled according to the analogy of its exact constitution, by one of the first Chemists of France. The gifted

man was an Obstetric Practitioner of Edinburgh, whose fame, already world-wide, will not rest hereafter solely even on so great a fact. After applying it in his own department of practice, the adoption of chloroform by surgeons, to the gradual exclusion of ether, rapidly followed; and all mankind will profit by it until, in the sure progress of the Art, some other anæsthetic shall be found, without even the slight inconveniences of this one.

In reviewing the subject of anæsthetics, we cannot fail to be struck by two pregnant facts. The first is, that while Surgery has chiefly felt their influence, and its practice has been modified by them in a remarkable degree, Surgeons have been but passive recipients of the boon, which has been brought to them from other quarters, and even from a side branch of their own specialty, which some great ones among us have sometimes thought scorn of. The other is, that the noble sister Art of Physic, (considered also as a specialty) has had no part or lot in this greatest of the applications of modern science to the alleviation of man's bodily pangs. I must, however, except Dr. Beddoes, and cannot omit to mention with grateful appreciation the important share borne by the late able and amiable Dr. Snow, both in the theoretical and practical parts of this great subject, as well as the recent labours of Dr. Richardson.

In this instance, as in almost, if not quite, all that most distinguish the modern Art of Healing, we see it fostered and advanced, not to say transformed, by the influences of General Science in departments apart from, and beyond ourselves, combined with those of the Special Sciences, which may with some propriety be called medical and practical, because they are prosecuted mainly by men engaged in practice, and with the object of applying them in the treatment of disease. Let not, however, individual promoters glory, or indeed a great number leagued as a Profession, for that would be even less reasonable. It would almost seem that as "the Earth bringeth forth fruit of herself, first the blade, then the ear, then the full corn in the ear," so the world in our time is reaping results all valuable for the good of mankind, which have been long, and in various modes and places, a preparing, and in contemplating which our feeling should be rather one of thankfulness than of exultation; and this feeling may induce us sometimes to ask ourselves, "Can we do anything now, and in the future to help on, by united action, the harvests of a still brighter hereafter?"

This leads me to refer to the actual distribution, at the present day, in this and other civilised countries, of our professional power or force.

The immensity of the field of Medical Science and Art is such, that no one mind has ever been able to embrace it all, and the daily enlargement of it in all directions must render it more and more difficult to do so. Hence the great specialties of Medicine and Surgery, however impossible it may be to draw a precise line between them, have long existed and must continue to prevail. The grounds for them lie; 1. In the necessity for a division of labour in large communities (large by concentration of numbers or by ready means of intercourse); 2. In the somewhat equal proportions of grave and serious medical and surgical diseases, so called, under the circumstances of human life; 3. In the varying tastes of individuals, causing men to confine themselves, more or less, to one or other of these divisions of practice. But the great majority of medical men must be ready to undertake all treatment, since the exigencies of society require it of them.

Now the very same causes which have developed the Healing Art for ages under two principal divisions, have within a century, and especially of late, led to the multiplication of subordinate branches, often just as impossible to define by strict limits. On these a very few remarks are all that the time admits of.

Specialties, then, are natural products of a period of progress, and of certain favourable external conditions of society, and as such should be allowed free course to develope themselves according to their tendencies. The policy of the profession towards them should be always to retain them within its bosom, to hold them to their connexion with the whole, of which they form a part, and only to seek to restrain their growth and action, when it disposes them to an isolation, pernicious as regards their own usefulness, alien to the comprehensive spirit of our Art, and a violation of our unity as one body.

Medical men, acting under some common impulse, are apt, like any others, to take a one-sided, or what is sometimes called a professional view of whatever new proposal seems to affect them as a class, or in a large number. Let us, however, consider that our ends coincide with the good of mankind, and that in estimating the good or the evil likely to be done by new specialties, we should appeal to no other standard than the public benefit; Is this or that suggestion for the advantage of the community in which we minister? Our own credit as a body, and generally our individual prosperity will be found in the general good; and if otherwise, we should gladly yield it up to this.

Hence there are strong grounds for allowing specialties, whether promoted by smaller or larger numbers, to make progress according to their natural divergencies and powers of maintaining themselves. Some may originate on an insufficient and unreal basis, started, perhaps, by some supposed individual interest, and sustained by some strong personal bias, talent, or local circumstance; these will fail of themselves if they be left alone; and whatever harm they may do in diverting benevolence from more healthy channels, or wasting time and opportunities, these are probably smaller evils than the creation of a feeling in the public mind, with any degree of reason, that we are narrow, or opposed to the progress of our Art.

What may be styled the Natural Specialties, are those devoted to mental maladies, the obstetric, ophthalmic, and some others. These generally have reference to the natural distribution of organs in the frame, or are such as men readily accept, and see the propriety of, in their being manifestly for the convenience of patients as well as practitioners, and conducive to the advancement of knowledge. These are likely to increase in number, and to strengthen their footing. They should be held bound to the professional body by every available tie. Two things have given me pleasure in this point of view; the one that the College of Surgeons saw the wisdom some years ago of allying the surgeon-dentists of England to themselves by suitable links of connection; the other that the great library of the College of Physicians was lately the scene, under the auspices of its beloved and honoured President, of

one of the most astonishing historical displays of the mechanical appliances of the obstetrical branch of the Art ever collected in one room. A happy augury, I thought it, of a larger and grander union, in time to come, of all branches and all departments, under some single spacious noble Portico!

Were the whole profession thus at one with itself, there are many weighty objects which it might labour for with tenfold vigour and effect. I am content, for my part, to regard as of very secondary importance all attempts to obtain political influence or the recognition of merit by titles, whether personal or corporate. For I am well convinced that, whatever may be worthy of our ambition in this respect (and it does not seem much), will follow of itself, and without our efforts, if we are true to ourselves in a higher, and indeed our proper, sphere; by striving to become more useful as practitioners, wherever we may be, either in our private rounds, where most must toil, or in some more public station.

With regard to our own better organisation, it must of course be worked out by ourselves. We alone understand our needs; and the State cares little or nothing for what does not directly concern the public health, although we must acknowledge that it has shown itself, on many occasions, ready to forward our wishes, when these have been suitably advanced. The institution of the Medical Council is a transitional step of immense import for our future unification, no less than the work performed by that body in the preparation of a common register of all qualified practitioners, and in the publication of a *Pharmacopœia* for the whole kingdom. Its beneficial influence will likewise be gradually felt in better arrangements for admission into the profession on an uniform basis.

But there are many functions, in connection with the Government, which so great a profession as ours might rightly ask to perform through its own well-appointed organs; in which, as a body, it now takes no share whatever; which are at present accomplished irregularly, almost as chance or caprice may determine, by a reference, either to one or other of the corporations, or to some individual selected by the minister, whose very name, perhaps, is not known, and who, therefore, practically, is not responsible to his own profession for the advice he may tender. By degrees, indeed, of late years, as the care of the public health has more and more engaged the attention of Parliament, this want has been in part supplied by the appointment of medical officers for special duties in governmental departments; and most ably have these performed their duties, as the documents from time to time issued by the Board of Health, under the Privy Council, among others, amply testify. And the labours of the Army Diseases Prevention and Cattle-Plague Commissions illustrate in another way how the services of medical men may be most usefully elicited on special occasions or emergencies. More might be added to the same purport. A complete and recognised organisation of the entire profession, however, would apparently be a measure of great importance in reference to our relations to the State.

But leaving these more public questions, and looking at the whole nature of our position, we may fairly ask ourselves whether in our corporate capacity, as a body of men concerned with such great human interests, we may not hope to do more than we have hitherto done to help forward those interests, for the advantage of our own day and of those who are to follow us. We have a grand inheritance from the past: we should hand it down much amplified to our successors.

Individuals have done, are doing, will continue to do much. But I speak of the direction of a common endeavour, devised by forethought, tending to well considered objects, and sustained by the united will of an enlightened, numerous, and, on the whole, powerful professional body, to promote and advance those branches of knowledge which lie at the foundation of a rational Art of Healing.

I am not here to flatter any man, least of all to commit the little less than crime of the huge flattery of my own class, to the lowering of what should be our higher aims; and I say, with all love and respect for my fellows, and with a deep sense of my own shortcomings, that we are not doing, as a body, what we might do in Britain to extend and deepen the scientific foundations of our Art.

In our corporate capacity, we ought to foster especially those departments of research which are least likely to be undertaken by individuals without such encouragement; which, indeed, can hardly be prosecuted at all without means and appliances beyond the ordinary reach of individuals. We need in England the public open establishment of means and apparatus for original research and observation, *especially for our younger men*, in the sciences ministerial to medicine, particularly physiological and pathological laboratories and for organic chemistry. These should be in part connected with Museums, Medical Schools, and Hospitals. The lay governors of great hospitals should be moved to consider it as one of their most urgent functions, to see that no unnecessary waste of the precious means of improving knowledge, placed under their keeping, occurs.

The progress which recent years have witnessed, points with sufficient clearness to the direction in which the next steps may be most profitably taken. It is in the field of exact scientific investigation into questions and problems which the latest advances have opened to view. Here each new fact and principle, patiently grounded on previous knowledge and established beyond dispute, though it may for a while appear an idle and unimportant addition to the common store, may fructify hereafter into some solid and useful generalisation, applicable, in the most unexpected and startling manner, to human happiness and the success of our cures.

In any step taken by the whole professional body for the encouragement and promotion of the medical sciences, we should not, of course, look for immediate results of that kind termed in common language *useful;* that is, having an immediate and obvious application to some present use. We remember that great uses may long lie dormant, and at length overpower us by their splendour. *Witness chloroform.* Individuals are naturally prone to pursue studies which appear to them most likely to be crowned by an early result. Few have time or opportunity to labour for any result very far off, and for mere love of knowledge; but those who do should be most of all helped on and sustained. As a body, we might have a settled policy, and look further and deeper. Such is the nature of our studies, that at present real advances are to be sought in depth rather than in extent of work. It is only by going deep that we

can hope to reach central relations, and such principles as may be at the same time simple and reliable; not simple by the fallacy of an incomplete view. We should encourage the less immediately useful matters of scientific research, such kinds as experience reasonably shows to give promise of great and wide, though more remote benefits. The Royal Society was founded simply "for the promotion of natural knowledge", and what results for mankind has it not aided in achieving!

In a word, we have the certainty, from all history and from the nature of the thing, that out of knowledge will flow useful application; and well instructed men now-a-days will not cavil or sneer at even the least advance, so it be real, into the realms of the unknown in natural phenomena, because it bears no immediate fruit, or gives no present earnest of profit. The torch which illumines will ever be found also to warm and to cheer man's life upon the earth; and this is especially true in the medical sciences, prosecuted as they are by men whose whole habit and tendency is *to apply knowledge.*

The time is too short for me to attempt even to enumerate the lines or provinces of research that might be thus encouraged; but there is one subject on which a few words may not be inopportune at the present time.

There is a sentimentalism, which I shall venture to characterise as in some of its developments not robust or manly, and therefore not morally sound or grounded on right reason, which is inclined to bring popular indignation, excited by speeches at public meetings and by essays produced under an artificial stimulation, to bear on men of science desiring to investigate great principles in the doctrine of life, by experiments on living animals. Having formerly, when circumstances led me into this region of inquiry, and in the performance of my duty as a Professor of Physiology, taken part in such experiments, and knowing well how vast an accession of knowledge useful to man has accrued, and will certainly hereafter accrue, from such experiments, I should be ashamed of myself, and deem myself to be neglecting a moral duty, if I omitted to take this opportunity of protesting with all my force against the imputation of "cruelty to animals" sometimes raised against medical men on this ground.

As inheritors of the labours, and, let us hope, of the scientific spirit, of Harvey, whose works abound with evidences that the discovery of the circulation itself was largely due to such experiments, we should be untrue to our ancestry and to our convictions, if we hesitated to uphold, publicly if need be, the lawfulness, the expediency, nay, the desirableness, of such experiments; and, as it seems also to me, if we failed in our corporate character to take more active steps than at present to promote these in their proper place and degree, among other kindred pursuits.

A society, respectable and praiseworthy when directing its shafts against the meaningless and selfish acts of vulgar and brutal natures, or when striving in various ways to diminish the pain inflicted on animals put to those human uses which general consent, no less than the widest view of all nature, sanctions, is no longer to be commended when it ventures to raise a prejudice against the refined and honourable inquiries of educated men, seeking to advance legitimately a branch of knowledge most nearly touching human interests of a lastingly high order. For every really forward step taken in the science of man's life, is a part of that progress which is indisputably adding to the sum of human happiness, not only in the present time, but in the future. It is only those well-meaning persons who are little acquainted with the necessary elements, and the excessive difficulty, of such researches, and apparently still less with the motives of the higher class of scientific inquirers, who can presume to endeavour to thrust themselves into a province where no present abuse calls for interference. I think it would be wiser for the excellent persons in question to confine themselves to those spheres of exertion in which all good men and scientific men must heartily bid them God speed, rather than wear the appearance of attempting to add to their *éclat*, as a popular society, by a foolish crusade against what can certainly be justified, and must even be applauded by all well-wishers of their own kind, if we admit, as society seems inclined to do at present, that to apply animals to purposes useful to man, is one of the manifest ends of their mutual relationship on the earth.

In the country of Harvey, and in the bosom of the profession which derives so much glory from his name, in the country of John Hunter, of Astley Cooper, and of Brodie, there should be no doubt as to the free allowance of dissections of living creatures for the advancement of knowledge, whenever the course of investigation demands it, of which those only can properly judge whose minds are occupied with the pursuit. To the conscience and human feelings of these may safely be committed the discretion as to how far this exercise of man's prerogative over all the lower organisations may be carried, without the abuse of inflicting unnecessary pain.

Now that anæsthetics are in common use, physiologists, we may be sure, will be the first to employ them whenever the nature of their inquiry allows; and the public may be satisfied that—in Britain, at least—those who know most of the interior structure of the animal frame, and of the movements, of whatever kind, that are the manifestations of its wondrous life, would be the first to denounce the causeless infliction of one pang on the lowest of God's creatures. Let the indecorum not be committed of dragging such questions before public audiences, for which they are quite unsuitable. Let the opponents of legitimate experiments on the lower animals (and I believe they are few, even in the Society to which I have alluded) desist from a course which, however well intended, cannot be required for their chief objects; and which may expose themselves to the charge once brought against persons of an altogether different stamp, of stopping the gates of knowledge, neither going in themselves, *nor suffering those that are entering to go in.*

I intended, Gentlemen, had my limits permitted, to have adverted to several additional ways in which, as it appears to me, an united profession could find opportunities of promoting scientific culture; of which a principal one might be the employing more speedy and extensive means of making us acquainted with the productions of foreign medical literature than have hitherto been attempted. Men of science have a common field and common objects of pursuit, but not now as once, a common language; for most of us, translations only can supply the defect; and

translations, unless promptly brought to us and tolerably full, are of comparatively little value. Nor can our weekly and quarterly journals, conducted as they are with constantly increasing ability, and all of them, I think, comprising a foreign section, do much to satisfy this particular want.

Our New Sydenham Society is worthy of all praise, but its sphere is too limited and its publications are restricted to its own subscribers; and these only 2500, too small a number out of so great a profession. The original memoirs and works in medicine and the allied sciences bear a considerable proportion to the whole of the scientific productions of the world; and some idea may be formed of the number of these, from the fact that the separate scientific memoirs and works of all countries, of which the distinct titles could be ascertained as having appeared between the years 1800 and 1863 inclusive, brought together under the authority of the President and Council of the Royal Society, reach the astonishing total of 120,000, while every year's produce is becoming greater than the last.

The medical literature of Germany, France, Holland, and other continental countries, abounds in materials of great value to us, both as scientific men and as practitioners (as ours, no doubt, does to them). But unless we are kept fully aware, in each department, of the additions as they accrue, we are in danger of lagging in the race of improvement, and can hardly hope to do justice to our patients or to ourselves.

But, Gentlemen, I must conclude. I would willingly have resigned into abler hands the task unexpectedly imposed upon me by your Council. Circumstances and my tastes have caused me for some time past to desire to play my humble part noiselessly in the world; and I have been less able than I could have sometimes wished to share even in the pleasure and the profit of professional gatherings. I have, therefore (more perhaps than some men), looked somewhat as a spectator, from the outside, on many of the more public doings of our profession, whose well-being, prosperity, and honour, I yet esteem above all price, and am constrained by every motive to desire to promote. I must say that I have witnessed with delight every successive sign of a spirit of conciliation and approachment between the old, venerable, and most justly honoured, but still independent and detached, rather never-yet-united, corporate institutions, to which so many of us owe an allegiance undertaken formally by a solemn act. It has seemed to me that we have been weaker for good than we might have been; and especially for the furtherance of those beneficent objects, which no class will pursue if not our own, and none so well as our own; which, therefore, it would seem to be incumbent on us to prosecute by all the means in our power; and which have apparently been less thought of because of our divisions. Not real divisions of feeling, nor any wide or deep divergence of interests, but only a want of united action; through the continued existence, in too much of their traditional shape, of isolated Institutions, which, in their present form, we have somewhat outgrown, and which seem to need some considerable re-arrangement if not consolidation, if they are to represent the altered state of the whole profession, such as it has come to be in our own age of astonishing progress.

I have now endeavoured to convey to you, I fear at too great length, my general impressions on this head, I hope without offence to any one and with sincerity, certainly very inadequately. I have long looked upon this Association as the element in our profession out of which stronger bonds of union between all ranks, classes, and degrees, might be expected to grow, than out of any other—at least, at present; for it is framed on the most comprehensive basis, and is organised so that all interests in all parts of our common country may find their place and voice in it.

May it be more and more every year an arena where the wisely expressed objects of its Founders may be temperately, but steadily and earnestly pursued—above all, in a spirit of union! and may the leading minds of our profession, whose cooperation we so much require, and so highly appreciate, come more and more amongst us, to help forward that great and noble Art of Healing, to which, in one or other of its departments, the lives of all of us are devoted!

We are requested to remind members of the Association that the Annual Subscriptions became due on the 1st of January. They can be paid either to the Secretaries of the Branches; or to the General Secretary, T. Watkin Williams, Esq., 13, Newhall Street, Birmingham.

British Medical Journal.

SATURDAY, AUGUST 18TH, 1866.

MODERN MEDICINE.

"WHAT is the practice of medicine coming to?" asks a correspondent. "Where are gone the ancient traditions of our art? Where are to be found the modern principles to guide the hand of the practitioner to his work?" These questions are put *apropos* of the teachings which have issued in recent days from our schools, and especially from the venerable walls of Guy's Hospital. The leading physicians and professors of one of the largest and most respected schools of medicine in the metropolis teach lessons which surpass the understanding of our questioner. He has been brought up in a belief and a confidence in the power of his art to cure diseases; and now, at the end of a long life of earnest zeal and conscientious labours, he is told that all he has done in this wise has been not only useless but worse than useless. He has been busy and anxious in the skilful application, as he thought, of his remedies, and full of trust that his anxiety was repaid in benefits thereby bestowed on his patients. But all this consolation is now rudely taken from him. His confidence is exchanged for a pitiless scepticism; and his consolation of a life of well applied labour converted into an assurance that it would have been

better for humanity if his labours, his anxieties, and his skill, had never been thus employed. "What am I to think and say?" he asks. "Dr. Gull assures me, and gives the proofs of his assurance in a long list of cases, that dill-water is the best of remedies in the cure of acute rheumatism. Through a long life of practice," he adds, "I have for this disease largely bled my patients, mercurialised, purged, cupped, blistered, antimonialised, salined, alkalised them; and now it comes to this, I am taught that to have done none of these things would have been to do that which is best for acute rheumatic suffering humanity; that to have done these things was to have had in hand a very unsatisfactory business. I must put up with the wretched consolation that I did my best, according to my lights, whilst doing what was very bad. Dr. Wilks, again, has given me some bitter draughts to swallow." Our correspondent here refers to some of those bold and admirable discourses of Dr. Wilks, wherein he has what may be called "spoken his mind" about the uses, or rather abuses, of drugs, etc., in diseases.

But what most of all astonishes our country brother is the teachings of Dr. Owen Rees (lately referred to in our pages) concerning the treatment of diabetes. He seems to have in some degree reconciled himself to many of the modern inventions, which so contradict his traditionary knowledge and his past experience; but this last blow at medical practice has quite thrown him off his balance. We must omit his indignant remonstrance, as given in his own words; for they would be thought rather too strong for the occasion.

Now, to tell the truth, we are really not surprised that he should take exception to Dr. Owen Rees's statements. Certainly the profession has a right to require a further development of them from their author. It is only fair, we must candidly say, that they who flatly contradict an accepted method of treatment, a method almost universally adopted, and which has stood the test of many years of even modern criticism, should give some proofs or sufficient grounds to show the reasonableness of their contradiction. Dr. Gull says dill-water is the best cure of acute rheumatism; and he backs his statement by reference to some forty cases, which we can read and comment on for ourselves.

But Dr. Owen Rees does nothing of this sort. He says that his large and long experience as a physician of Guy's Hospital has brought him to the belief that "diabetics do better on a natural than they do on a restricted diet;" and there he leaves the matter. He flatly contradicts the treatment of this disease as carried out by, we may say, every other medical man in the country; but gives us no data upon which to comment, and whereby to test the correctness of his conclusions. True, he gives two cases in his lecture; but these, as our correspondent says, are unsatisfactory cases as proofs of his conclusion. One of them certainly backs the view that, under ordinary diet, a diabetic may live very many years; and that, under the change from a restricted to a common diet, a patient may rapidly improve. But then this case occurred many years ago, and clearly has not got all that clinical detail required in the settlement of such an important question. Moreover, it is quite neutralised by Dr. Rees' other, a recent hospital case—the case of "a young woman æt. 20, of ruddy complexion and stout figure, strong and healthy, and showing no outward signs of disease. She was passing 11½ pints of urine per day, of specific gravity 1040. She had suffered from the disease for three years." She had been under treatment before admission into Guy's, and during that time strictly dieted. Dr. Rees gave her chloride of arsenic, and ordered an unrestricted diet. "On leaving her," he says, "I spoke to those around me, and predicted the death of this apparently healthy person within a very short time; adding, that my only reason for the opinion was, that I had seen more than one such case in young girls of healthy appearance terminate fatally, in spite of every care." She went on pretty well for about three weeks, but then fell suddenly ill, vomited, and was sleepy, and soon thereupon died. "*Post mortem* appearances showed nothing remarkable." This case, as our correspondent says, surely does not do much credit, as an illustration, to Dr. Rees' non-restricted diet method. We may also add, that no details are given to show what the state of the urine was during the patient's residence in hospital.

We trust Dr. Owen Rees will produce clinical illustrations of his remarkable averment that diabetics do best on a non-restricted diet. In these fluctuating days of practice, we are prepared to receive and welcome any the most astounding innovation, provided only it come backed with a good basis of proof; but we quite agree with our respected correspondent, that all comers with novel teachings, even the very highest authorities, must be prepared to show just cause, if they expect us to listen to them. Of all modern innovations in this way, we surely have met with none which has more surprised us than this one now issued by Dr. Rees. If there was one point in the practice of medicine which we had thought to be sure of, it was, that restricting the diet of diabetics was of service to them; we had fancied to have seen patients get better and become worse, grow stronger and grow weaker, in accordance with the kind of diet they took. We nevertheless willingly admit the fallacies which attach to experience in medicine; and are ready to welcome anything, however strange, if it be but well proved. But this new doctrine of Dr. Rees we cannot accept, because it is wanting in the sort of proof required. We must, therefore, for the present, adhere to the old

method; asking Dr. Rees either to supply the clinical details requisite in such a case, or else not to disturb our faith by the high authority of his personal assertions.

"Si quid novisti rectius illis,
Candidus imperti; si non, his utere mecum."

Mr. Karkeek, House-surgeon to the Chester Infirmary, informs us (August 13th) that both the patients upon whom Mr. Spencer Wells performed ovariotomy at Chester last week, are doing as well as could be desired. The young one is perfectly comfortable. The old one had been troubled by cough, but it was relieved by simple treatment.

Twenty-four gentlemen were successful candidates of Her Majesty's British Medical Service, at the competitive examination in March last, and have passed through a course at the Army Medical School. Of these gentlemen, 18 were educated in Ireland, 3 in England, 2 in Scotland, and 1 at Toronto.

The nursing of the "sisters" during this cholera epidemic is pronounced as invaluable. In one large Infirmary (we have it from the best authority), the presence of two of these ladies allayed a positive panic. "Their services were invaluable. Everything that human beings could do, was done by them." One of these ladies through the fearful onslaught of the epidemic remained day and night at her post, inspiring confidence, until she was forced to give in through sheer exhaustion. The other sister had to retire, being seized with diarrhœa. But they had done the work; and left things in perfect order.

Dr. Ferrand, in a work on *Rheumatic Exanthemata*, endeavours to show—1. The coincidence of acute exanthematous eruptions with acute rheumatism; 2. The inflammatory character of these eruptions, as shown by an exacerbation of the special rheumatic fever; 3. The frequency of these exanthemata in a serous form; and 4. Their close relation to the disease, of which they are, in fact, only a manifestation; the rheumatism, therefore, being the immediate cause of their production.

THE CHOLERA.

The weekly return issued by the Registrar-General of deaths in London during the week ending August 11th shows a considerable decrease; the numbers from cholera for the last five weeks being respectively, 32, 346, 904, 1053, and 781; and from diarrhœa, 150, 221, 349, 354, and 264. Of both forms of disease, therefore, 1045 persons died last week, which is less than in the previous week by 362; and it is a singular coincidence, that the decrease in the deaths from all causes is exactly the same, namely, 362. The daily return for Sunday and Monday last shows that 139 died of cholera and 46 of diarrhœa, giving as the average of each day 69½ and 36, as against 94 and 31 on Saturday, showing a considerable decrease in the former, and a slight increase in the latter. The deaths on Sunday and Monday were, from cholera—west, 1; north, 2; central, 3; east, 123; south, 11: from diarrhœa—west, 8; north, 6; central, 5; east, 14; south, 13. The Registrar-General adds a warning word: "No greater mistake could be made than to relax the efforts for combating the disease, or for relieving the distress which it has already wrought."

A large hospital for the treatment of infectious diseases is about to be erected in Liverpool; £8,000 has been subscribed, and the Town Council have made a grant of £5,000 towards the cost.

A grant of money has been made by the Treasury to the Department of Health, for the purpose of conducting a special series of experiments and researches in connexion with the present outbreak of cholera. Mr. Simon will conduct the inquiry.

Sir Fowell Buxton has placed a large house in the country at the disposal of Miss Marsh, of Beckenham, for convalescent cholera children. Miss Burdett Coutts is establishing a small cholera hospital in Bethnal Green.

In the eastern provinces of Prussia, the cholera is spreading from day to day. Among the larger towns, Königsberg and Dantzic have of late been severely visited. Unfortunately, the news from the seat of war in Bohemia is likewise very alarming. Now that the excitement of battle is over, the forced marches, and the many and long continued privations, begin to tell in favour of the development of epidemic diseases, whilst, in various localities, the marshy condition of the ground at the same time exerts its untoward influence. It is to be hoped that the armistice will facilitate transfers, as well as the provision of good and strengthening aliment. Where these are deficient, we know, from sad experience, that disease becomes a far worse destroyer of armies than the most sanguinary battles. If, in regard to the commissariat, shortcomings have been complained of, it should not be forgotten how unexpectedly rapid was the advance of our armies, and the fabulous number of wounded and captured enemies should be taken into account, for whom the care has devolved upon the Prussian commanders. In this campaign, factors have had to be dealt with, which must be considered the most extraordinary throughout the history of war.

In Berlin, the course of the epidemic has, since the end of last week, been more favourable from day to day. Up to the 24th July, the total of seizures had been 3701. From noon of that day to the 31st at noon, the number of fresh cases and of deaths were respectively—186, 59; 203, 68; 172, 139; 84, 35; 131, 50. The grand total up to July 31st was as follows—4616 seizures, 2528 deaths, 590 recoveries, 1498 cases under treatment. At the four cholera-hospitals, each of which is attended by a physician with two or three assistant-physicians, there were up to the 26th July received 1159 patients; of whom 300 were discharged cured, 614 died, and 245 remained under treatment. The spread of the disease over the various districts of the town, if the proportion of seizures to the number of inhabitants is taken in consideration, appears pretty uniform. (*Deutsche Klinik*, No. 31, Aug. 4th, 1866.)

THIRTY-FOURTH ANNUAL MEETING
OF THE
British Medical Association.

Held in Chester, August 7th, 8th, 9th, and 10th.

TUESDAY.

The First General Meeting was held at 8 P.M., on Tuesday, August 7th, in the Music Hall, Chester. During the several days of meeting, the following members were present.

Alford, Stephen S., Esq., London
Allwork, C. L., Esq., Maidstone
Andrew, E., M.D., Shrewsbury
Baker, A., Esq., Birmingham
Baker, J. W., Esq., Derby
Balding, D. B., Esq., Royston
Balman, T., M.D., Liverpool
Barter, C. S., Esq., Bath
Bartleet, E., Esq., Campden
Bartrum, John S., Esq., Bath
Beales, Robert, M.D., Congleton
Bennett, J. H., M.D., Edinburgh
Bickerton, T., Esq., Liverpool
Bodington, George, L.R.C.P.Ed., Sutton Coldfield
Bott, Thomas B., M.D., Bury
Bottomley, George, Esq., Croydon
Bowman, W., Esq., F.R.S., London
Bracey, W. A., Esq., Birmingham
Bridger, John, Esq., Cottenham
Brittain, Thomas, Esq., Chester
Broadbent, R., Esq., Altrincham
Broadbent, W. H., M.D., London
Bromfield, T., Esq., Whitchurch
Brown, I. Baker, Esq., London
Bull, H. G., M.D., Hereford
Burrows, G., M.D., F.R.S., London
Burrows, John, Esq., Liverpool
Bury, John, M.D., Chester
Callon, W. T., M.D., Liverpool
Camps, Wm., M.D., London
Carden, H. D., Esq., Worcester
Church, W. J., Esq., Bath
Clark, D., Esq., Whitworth
Clay, John, Esq., Birmingham
Clayton, M. H., Esq., Birmingham
Cook, G. H., Esq., Hartford
Coveney, J. H., Esq., Prestwich
Cox, C., M.D., Maryland, U.S.
Davey, J. G., M.D., Northwoods
Davies, J. C., M.D., Holywell
Davies, P. Ll., Esq., Abergele
Davies-Colley, T., M.D., Chester
Day, Henry, M.D., Stafford
Douglas, A., M.D., London
Duncalfe, H., Esq., West Bromwich
Dunn, Robert, Esq., London
Eddowes, W., Esq., Shrewsbury
Edwards, James, M.D., Benarth
Evans, S. H., Esq., Derby
Falconer, R. W., M.D., Bath
Firth, John, Esq., Macclesfield
FitzPatrick, W. H., Esq., Knotty Ash
Flint, Richard, Esq., Stockport
Foulkes, John C., Esq., Bunbury
Fuller, W., M.D., Oswestry
Garman, J. C., Esq., Wednesbury
Garner, J., Esq., Birmingham
Garthside, J., Esq., Liverpool
Gaunt, J. S., Esq., Alvechurch
Girling, G. L., Esq., St. Ives
Griffith, T. T., Esq., Wrexham
Hadley, G. P., Esq., Birmingham
Hadley, J. J., Esq., Birmingham
Hamilton, W. T., Esq., Rock Ferry
Hardy, H. G., Esq., Byer's Green
Harper, H. L., M.D., Chester
Harrison, G. Morley, Esq., Manchester
Harrison, Job, Esq., Chester
Harrison, John, Esq., Chester
Harrison, R., Esq., Liverpool
Harrison-Colley, J., Esq., Chester
Haward, Edwin, M.D., London
Hayes, John, Esq., Trentham
Heath, Christopher, Esq., London
Henry, A., M.D., London
Hey, Samuel, Esq., Leeds
Hey, William, Esq., Leeds
Hickman, J., Esq., Brockton
Hill, George, M.D., Hooton
Hitchman, J., M.D., Derby
Holmes, T., Esq., London
Hooper, John, M.D., Aylesbury
Howitt, T., Esq., Lancaster
Hughes, J. R., M.D., Denbigh
Humphreys, J. R., Esq., Shrewsbury
Husband, Wm. D., Esq., York
Hutchinson, J., Esq., London
Jeaffreson, Samuel J., M.D., Leamington
Jephcott, S. T., M.D., Chester
Jones, Ellis, Esq., Liverpool
Jones, G. T., M.D., Denbigh
Jones, Robert, Esq., Carnarvon
Jones, Robert, Esq., Strefford
Jones, T. C., Esq., Llanesa
Jones, T. Eyton, Esq., Overton
Jones, W., Esq., Ruabon
Jordan, F., Esq., Birmingham
Karkeek, P. Q., Esq., Chester
Keener, W. H., M.D., Baltimore
Laurence, J. Z., Esq., London
Lee, Henry, Esq., London
Lees, S. D., M.D., Ashton-under-Lyne
Lingen, Charles, M.D., Hereford
Lodge, Llewellyn, Esq., St. Asaph
Lodge, R. T., M.D., Liverpool
Lord, J., M.D., Crewe
Lund, Edward, Esq., Liverpool
Lyster, C. E., M.D., Liverpool
M'Cheane, W., Esq., Liverpool
M'Ewen, W., M.D., Chester
Mackenzie, M., M.D., London
Mackesy, Thomas L., M.D., Waterford
M'Naught, J., M.D., Liverpool
Manley, John, Esq., West Bromwich
Markham, W. O., M.D., London
Marsh, J. C. L., M.D., Nottingham
Marshall, Henry, M.D., Clifton
Martin, R., M.D., Warrington
Martin, W., Esq., Hammersmith
Mather, Thomas, Esq., Ashton-in-Makerfield
Meade, R. H., Esq., Bradford
Mellor, T., Esq., Manchester
Moon, R. C., Esq., London
Moore, C. H., Esq., London
Moorhouse, J. W., Esq., Ellesmere
Moreton, J. E., Esq., Tarvin
Morgan, W. F., Esq., Bristol
Morris, Edwin, M.D., Spalding
Morris, Thomas, Esq., Marford
Nevins, J. B., M.D., Liverpool
Nunneley, Thomas, Esq., Leeds
Ogle, Wm., M.D., Derby
Owen, R. E., Esq., Beaumaris
Paget, G. E., M.D., Cambridge
Perry, Marten, M.D., Evesham
Philipson, G. H., M.D., Newcastle-upon-Tyne
Platt, T., Esq., Oldham
Pursell, John, M.D., Brighton
Rhodes, James, Esq., Glossop
Richardson, B. W., M.D., London
Roberts, R. C., Esq., Ruabon
Roberts, O., M.D., St. Asaph
Roe, John W., Esq., Ellesmere
Russell, D., M.D., Neston
Russell, J., M.D., Birmingham
Rutherford, W., M.D., Edinburgh
Sadler, P. L., Esq., Warrington
Sexton, Joseph, M.D., Sunbury
Sellar, J. L., M.D., Tarporley
Sercombe, E., Esq., London
Sibson, F., M.D., F.R.S., London
Simpson, H., M.D., Manchester
Skinner, T., M.D., Liverpool
Slyman, W., L.R.C.P., Newtown
Smith, T. Heckstall, Esq., St. Mary Cray
Smith, T. S., Esq., Warrington
Solomon, J. V., Esq., Birmingham
Southam, G., Esq., Manchester
Spender, J. K., Esq., Bath
Spratly, S., M.D., Rock Ferry
Steele, A. B., Esq., Liverpool
Steele, H. B., Esq., Stoke Ferry
Stewart, A. P., M.D., London
Stokes, W., M.D., D.C.L., Dublin
Taylor, J., M.D., Chester
Taylor, R. H., M.D., Liverpool
Thomson, J. Bruce, Esq., Perth
Thorburn, J., M.D., Manchester
Tilt, E. J., M.D., London
Tuke, H., M.D., Chiswick
Tunstall, James, M.D., Bath
Turnbull, J., M.D., Liverpool
Turner, G., M.D., Stockport
Turner, Thos., Esq., Manchester
Turnour, A. E., M.D., Denbigh
Vise, Charles, Esq., Spalding
Vise, E. B., Esq., Holbeach
Wade, W. F., M.D., Birmingham
Walker, G., Esq., Birkenhead
Walker, G. C., M.D., Bootle
Waters, A. T. H., M.D., Liverpool
Waters, Edward, M.D., Chester
Watkins, John W., M.D., Newton-le-Willows
Watson, G. C., M.D., Chester
Weaver, F. P., M.D., Frodsham
Weaver, J. D., Esq., Chester
Webster, Thomas, Esq., Redlands
Wells, T. Spencer, Esq., London
Whitfeld, Henry, Esq., Ashford
Wilkinson, Eason, M.D., Manchester
Williams, E., M.D., Wrexham
Williams, G. Harvey, M.D., Rhyl
Williams, James, Esq., Holywell
Williams, T. Watkin, Esq., Birmingham
Wilson, C. B., Esq., Liverpool
Wolstenholme, John H., Esq., Holywell
Wood, Samuel, Esq., Shrewsbury

THE LATE SIR CHARLES HASTINGS.

Dr. Jeaffreson, the retiring President, on taking the Chair, addressed the meeting in the following words.

Gentlemen,—At a meeting of the Council of this Association this morning, it was unanimously agreed that we should proceed to no general business connected with the Association until we had passed some resolution of condolence with the family, and regret at the loss which we have sustained in the death, of Sir Charles Hastings. [*Hear, hear.*] If I had a thousand times the eloquence that I have—or rather that I never had—nothing that I could say would express one-half of the feelings which I entertain towards the memory of our inestimable founder, Sir Charles Hastings. In every relation of life he was a man to be loved, to be respected, and, I may say, to be venerated. I was invited by the family, as the representative of your Association, to attend the funeral of Sir Charles Hastings; which I did yesterday. It was a painful duty to me; but it was made to me a happy and noble one, because I felt that by my attendance I represented the feelings of every single member of our Association. [*Hear, hear.*] I think it may be a satisfaction and a pleasure to you to know that, apart from the feelings which every member of our Association must retain of his memory, I never was more staggered than I was by the demonstration of feeling towards him as a man and a neighbour, in the town of Worcester. Short of any very great public character, or any member of the Royal Family itself, it was impossible that more respect could be shown. It was wonderful to see the number of places—both shops and private houses—that had their shutters up out of respect to the memory of our founder. I may mention one little anecdote, which I am authorised by his son, Mr. George Hastings, to mention. So much was Sir Charles attached to the Association, that the last words connected with any matter of business which he used previously to his death—either on the day before or on the morning of his death—were words connected with his ardent desire and hope for the prosperity of this Association. Up to his last breath, he retained his loving and kindly feeling towards the members of this Association, and his desire for its permanency and its prosperity. [*Hear, hear.*] The resolution suggested by the Council has been put

into my hands, as your President; and I shall call upon Sir Charles's dear friend, neighbour, and medical attendant to the last, Mr. Carden, to be kind enough to second it. I should not wish to see any kind of discussion upon it. It will be passed unanimously; and it is intended that the resolution should be forwarded to the family. The resolution is as follows.

"That the British Medical Association, assembled at the general meeting at Chester, desires to express its deep sorrow at the loss the Association has sustained in the death of its much loved and highly esteemed founder, President of Council, and Treasurer, Sir Charles Hastings, who, from the period of its establishment to the present time, has, with singular courtesy and fidelity, exerted his highest powers for the promotion of the best interests of the Association; and that a copy of this resolution be forwarded by the President to the family of the late Sir Charles Hastings, with the condolence of the Association on the bereavement they have sustained."

Mr. CARDEN (Worcester) said: I can assure you that this is to me a most melancholy and, at the same time, satisfactory duty. I have been called upon by Dr. Jeaffreson and yourselves, who knew the value of our late friend, the founder of our Association; and I do most cordially second every word that has been said. But I feel it is unnecessary for me to enlarge upon the character of Sir Charles Hastings. It is well known to you. But I might perhaps say that, having known him intimately through a long and serious illness—more intimately than we can know any one during his appearances in public—throughout that long illness, and at the close of his long, useful, and earnest life, his great wish was for the success of your Association. The last words he said to me were: "When is the meeting at Chester?" I repeated, as I had done before, when it was, and he said, "I may not be able to go to Chester." Fancy a man with no pulse below the elbow, his soul, entering into the occasion, going beyond his body! Then he added: "If I am not able to go this time, it is just possible, perhaps, that I may never join the Association again. If so, I shall only say, as I have always said in my greatest disappointments, 'God's will be done!'" He could say no more; but this spoke volumes. It was the character of the man—a high and mighty soul, finding his bodily weakness so great, that he began to feel as if his soul should cast away the body that could not carry out his intentions. It was a beautiful sight! You have seen his buoyant manner, and heard his cheering voice, and seen his countenance, which you will never see again, except in recollection; but I can tell you his soul was with you, and I think it my duty, in so many words, to tell you so. I second, most cordially, the vote of condolence and the expression of the feeling of deep regret at the loss we have sustained; and I know, further, that the feeling of condolence thus expressed, when received by the family, will be one of the most consoling expressions of feeling that they could possibly receive from any quarter. [*Hear, hear.*]

Dr. RICHARDSON (London). I think, sir, before this resolution is passed, those who have worked with Sir Charles Hastings during many years past should give expression to those feelings to which he would have listened with respect and love. I cannot allow this resolution to pass with a silent vote. I must bear my testimony to the kindness, the geniality and goodness, of Sir Charles Hastings. There were three great attributes in his character which especially call for our attention: first, the wonderful power which he possessed, and which should be diffused through us, of amalgamating men of contrary opinions on many subjects, but of one opinion on those things which most pertain to us as a profession. The more we recognise this particular feature in his career, and feel the spirit in him which welded us together, the more we shall advance in the path of unity and progress. [*Hear, hear.*] Nor can I fail to recall his untiring industry. I have often thought that for the correspondence of the Association, which he performed alone, many a man would have required a secretary; and he would have been insufficiently remunerated, whatever his salary might have been. [*Hear, hear.*] For thirty-five years, since he commenced his work, his energy, his industry, through the whole time, is a great and marvellous model to us. And, lastly, I think of that quietness with which he proceeded through all. He went on through the long vista of thirty-four years, always doing something, and least of all presenting through himself that something was done. If we progress, using these three attributes, and sustaining the Association which he founded, we shall best perpetuate his memory. [*Hear, hear.*] I could not avoid saying these few words with reference to my dear and lost friend.

The resolution was passed unanimously.

The retiring PRESIDENT, after making some business announcements, said: And now, gentlemen, I make my bow. I shall not attempt to make a long speech; but I have to thank you for all the kindness I have experienced from every member of the Association during my year of presidency, and to express the feeling that, though I entered upon my office with great dread and fear that I should not be able to go through all the work in the manner I should wish, yet I owe so much to my good friend our Secretary, and to every member of the Association, that I hope I have not disgraced myself. [*Loud applause.*] With a loving feeling for the Association over which I have had the honour to preside during the last year, it is no small pleasure, no small consolation, for me to feel that I am succeeded in my office by one so well deserving of your confidence. [*Applause.*] I am quite sure that Dr. Waters will not be wanting in zeal and kindly feeling; and I feel that he will do more than justice to the office to which you have elected him. [*Applause.*] Certainly, my year of office has been one of great pleasure in many respects, and of great pain in others. I could wish that at some future time—perhaps when my friend Dr. Waters retires—the dying effort of the President should be to give some little sketch of the history of the year past—some little testimony to the memory of those dear friends we have lost during the year. In this respect, this year has been a very painful one to the Association, as we have lost many valued and very much esteemed friends. I might name amongst them my own cousin, Mr. Jeaffreson of Framlingham, the originator of the ovariotomy operation; my very dear friend Mr. Toynbee, an exceedingly useful member of the Association; and also our most worthy President, Sir Charles Hastings. I have not had the leisure or health to do this; but I do think that, if in future some retiring President should give some slight sketch or memorial of those who have been lost during his year of office, it would be a very valuable addition to the transactions of our Association. With these remarks, gentlemen, I wish you farewell; but I shall continue to hold all of you "to memory dear". [*Loud applause.*]

The Chair was then taken by EDWARD WATERS, M.D., of Chester, who delivered an address, which was published at p. 145 of last number.

VOTE OF THANKS TO THE RETIRING PRESIDENT.

Dr. FALCONER, in moving the thanks of the meeting to the retiring President, expressed the gratification which he and many others felt in seeing Dr. Waters placed in the highest position which the Association had power to confer on any of its members. [*Hear, hear.*] He had no doubt that, at the end of the year, Dr. Waters would receive from the Association those cordial thanks which they had now to present to his predecessor. Those who remembered the pleasant meeting at Leamington, and how the authorities had come forward to welcome the Association, and how the citizens had contributed to their entertainment, and what an indefatigable Local Secretary they had met, would acknowledge the source of all these advantages, and that all these things must have gone astray and failed, but for their presiding spirit, the President, Dr. Jeaffreson. [*Loud applause.*] The Association would not be slow to acknowledge the merits of his presidency, independently of the vast amount of information he had given them with regard to the locality in which they met. But, whilst they recalled those pleasant meetings and excursions, he could not but remember that there was one face absent now which had been present then. It would ill become him, in moving this resolution, although much had been said on the same subject, to pass it over unnoticed; but it was impossible, after years of attendance at the meetings of the Association, during which they had constantly seen the familiar face, not to notice the vacancy caused by its absence. [*Hear, hear.*] He might apply to the late Sir Charles Hastings the quotation, slightly altered—

"Multis ille quidem flebilis occidit,
Nullis flebilior quam *nobis*."

[*Applause.*] But, to return to the more immediate subject with regard to which he had risen, he asked the meeting to accord to their late President the fullest meed of approbation for the manner in which he had discharged the important duties of his office, by passing the following resolution.

"That the cordial thanks of this meeting be given to Dr. Jeaffreson for the able manner in which he has fulfilled the office of President during the past year, and for the hospitable manner in which he received the Association at the last annual meeting."

Mr. JOHN HARRISON had great pleasure in seconding the resolution. The last speaker had so well described the grace and courtesy with which Dr. Jeaffreson had discharged the duties of President, that to add one word more would be only to detract from the eulogium so happily and worthily bestowed upon Dr. Jeaffreson. He would, therefore, pursue what seemed to be the wisest and best course—simply to second the resolution, without further remarks. [*Applause.*]

The resolution was put, and carried by acclamation.

Dr. JEAFFRESON, in reply, begged especially to thank his friends Dr. Falconer and Mr. Harrison for the kind vote of thanks they had proposed, and also to thank the members all for the very cordial and unanimous manner in which the proposal had been received. He could take very little merit to himself; for he felt that, having begun the year with much diffidence, everybody had revolved around him so completely determined to be pleased, happy, and useful, each in his situation, he had found no difficulty at all in the office. He was quite sure, from his experience of the last year, that Dr. Waters would feel, when he in turn terminated his year, that there never had been a team so easily driven and managed as the members of the British Medical Association. He again thanked them; and he expressed the hope that the friendship which had been cemented during the year between himself and many members (some of whom he had never known before), would not be terminated, but would live and grow with their life; and that he should often meet them all again. [*Applause.*]

REPORT OF COUNCIL.

Mr. WATKIN WILLIAMS, the General Secretary, read the Council's Report, which was published at p. 167 of last number.

Mr. A. B. STEELE (Liverpool) moved the adoption of the Report, which, he said, deserved on this occasion more than ordinary attention, on account of features of special interest, which were of two characters. The loss of two most eminent and useful members of the Association was amongst those circumstances which must call forth expressions of profound regret and anxiety. The loss of the Treasurer in this instance involved much more than that they were called upon to take care of their financial concerns—that they had lost their founder and the spirit of their Association, and that it was incumbent upon them to elect a competent successor to that important office. He hoped his fellow-associates would not fail to exercise all the discretion in their power in selecting a successor. The success of the Association must in a great measure depend on the eligibility of the gentleman so chosen. Much had been said upon the subject; and nothing he could say could add to the feeling of every member of the Association with regard to the melancholy event. Not only had the Association lost an able member, but every member had lost a sincere friend. In the words of the poet who "wrote not for an age, but for all time," they might say of Sir Charles Hastings:

"Take him for all in all,
We ne'er shall look upon his like again."

[*Applause.*] Another loss was the death of Mr. Toynbee, the Treasurer of that Medical Benevolent Fund, which he (Mr. Steele) had regarded as one of the brightest gems in the diadem of the British Medical Association. [*Applause.*] He hoped a worthy successor would be found for Mr. Toynbee. The Report informed them that the numbers of the Association were still increasing—a most gratifying circumstance. They had to congratulate themselves upon a financial position much better than they had enjoyed for many years: they had a balance on the right side. He was glad that the Council had not lost sight of an important matter in connexion with the College of Surgeons; and he hoped that, with further perseverance, they would succeed. They had also taken care to look after the Medical Act, the amendment of which would give much satisfaction to the profession at large. He thought the Association might take credit for having done all that had been done for the amelioration of the medical officers in the army and navy. ["*Not all.*"] Well, for a great deal, at all events. ["*Yes.*"] When he had asked medical friends of his own to join the Association, they had often asked him, "What is the nature of the Association? and what does it do for the profession?" In this matter was an answer to such questions. It had done much for one branch of the profession, at all events. [*Hear, hear.*] He joined the Council most cordially in thanking Dr. Markham, Dr. Sibson, and Dr. Stewart, for having worked so energetically for their brethren in the two services. [*Applause.*] But, if it had not been for this Association, he thought it doubtful whether the profession would have been called upon to thank those gentlemen or anybody else for what had been done. He

believed they had worked much more cordially, energetically, and effectually, as members of the Association, than they could have done as isolated members of the profession. [*Applause.*] All the other subjects mentioned in the Report commended it to their favour, and he urged its cordial adoption.

Mr. GRIFFITH (Wrexham) seconded the motion, which was carried unanimously.

ELECTION OF SECRETARY.

Dr. JEAFFRESON said a resolution had been put into his hands, which, he felt confident, would be accepted unanimously by the members of the Association. It was all very well to talk about the duties of President and Council; but there was one person, the Secretary, without whose presence at the President's right hand, they would all look very silly. The Secretary was the life and soul of the Association. [*Applause.*] Upon him devolved by far the most arduous portion of the work done; and in Mr. Watkin Williams they all felt that they possessed the right man. [*Applause.*] He rose to propose his re-election. He could not say too much of the usefulness of Mr. Williams to the Association; but, apart from anything he might say, it would be a satisfaction to them all to know the feelings of their lamented friend, Sir Charles Hastings, on the subject. In his hand he held a letter, dated the 3rd of July, 1866, and addressed to the members of the Committee of Council, then about to meet at Birmingham, in which Sir Charles regretted his inability to attend the meeting, and stated his fear that his work in connexion with the Association was nearly done, and his resignation of the office of Treasurer, with the desire that the office should be filled up; and the letter concluded with these remarks: "It is a great satisfaction to me that you have in Mr. Williams so admirable a Secretary. The way in which he gives himself to his work is above all praise." [*Applause.*] Sir Charles added an observation in which he (Dr. Jeaffreson) fully concurred: "He is poorly remunerated; but I trust that, seeing he devotes so much of his time to the work, you may be able to do more for him in future." That question he would not ask them to go into then; but he felt that the Secretary was poorly remunerated for the very ready and ample services he rendered to the Association; and he proposed that he be re-elected. [*Applause.*] He had thought it right to read the whole of the passage in Sir Charles's letter; but any question of remuneration should be referred to the Committee of Council, and not to a general meeting. [*Hear, hear.*]

Dr. RICHARDSON seconded the resolution with extreme pleasure. He had proposed the resolution last year, and on that occasion had spoken of Mr. Williams's qualities. There were many points of policy upon which he differed from the Secretary, but the latter combined in himself those qualities which enabled men to differ without any break of friendship; and every member of the Committee of Council would join him in saying that, for hard work, industry, and interest in the Association, they could not have a man to surpass him. The question raised as to salary should receive the sanction of the Association, as a subject to be referred specially to the Council. He spoke not of Mr. Williams alone, but of any man who might hold the same position, when he said that the salary was not sufficient to warrant any good man in giving exclusive attention to the interests of a large institution like that. He trusted that, as the financial condition of the Association became yearly brighter, the first step they took, in considering those who were most useful to them officially, would be in regard to the Secretary of the Association. [*Hear, hear.*]

The PRESIDENT then put the resolution, which was as follows.

"That Mr. Watkin Williams be re-elected General Secretary of the British Medical Association; and that it be referred to the Committee of Council to consider how his remuneration can be increased."

The resolution was carried unanimously.

The SECRETARY said he could not allow the motion to pass without thanking them for this third renewal of their confidence in him. He felt that, whatever the remuneration of his services might be, the clause of the letter which Dr. Jeaffreson had read, coming from his ever valued friend Sir Charles Hastings, must be indeed a high reward for any man who filled any such office. He could almost wish for a whole hour in which to speak of Sir Charles. No one could miss the latter as much as he did; for Sir Charles had been to him in everything a wise counsellor, a kind and warm friend. In Bristol, two or three years ago, they had had some trouble; and he had been surprised at the kindness and cordiality Sir Charles had shown him. He hoped their connexion had grown to something more than their being mere colleagues in work. [*Applause.*]

THE RETIRING PRESIDENT.

Mr. HUSBAND thought, before they went further, there was one little omission, of which for many years they had not been guilty, to be remedied. He had looked upon it as a gratifying fact, that the President of the Association was, by another name, further connected with them after his year of office had expired, as he became a Vice-President. But, in the multiplicity of business, their very good Secretary, who only committed a fault now and then, to show how faultless he generally was [*Hear*], had a little forgotten the matter. When they looked upon the honoured names of those who had been Presidents of the Association, and whose services had been retained as Vice-Presidents year after year, and regretted still more that so many had departed, they should add the honoured name of Dr. Jeaffreson to the list. He proposed that what had been done in the case of every President previously should be done now, and that Dr. Jeaffreson should be elected a Vice-President.

The SECRETARY was much obliged by this reminder. It had been an omission on his part.

It was then agreed that the words "and that he be elected a Vice-President of the British Medical Association," should be added to the resolution of thanks already passed.

REPORT OF THE MEDICAL PROVIDENT SOCIETY.

Dr. HENRY, the Secretary of the Society, read the following Report.

"The Board of Directors of the Medical Provident Society have to report that during the past year the Society has continued its labours; that two meetings of the Board have been held, exclusive of the meetings of the Executive Subcommittee, and that the financial position of the Society is most satisfactory, there having been no demands upon the funds on the part of contributing members, the direction having been purely honorary, and the disbursements of the Society having been conducted at the smallest possible expense.

"This position would be most gratifying, were it attended by a response on the part of the profession at large, adequate to the labour required, and to the responsibility accepted by the Board.

"In the course of the year now past the number of applications for papers has been about 150; and of candidates completing the terms of membership, 32. Several suggestions have been made to the Directors to re-

duce the scales of contributions and benefits; and these suggestions have received the most careful consideration by the members of the Executive Sub-committee. The Directors are of opinion that, while such a step might at first sight appear likely to be beneficial to a section of the profession with whom they sincerely sympathise, it could not be safely carried out in a provident society limited to a single profession. The Directors therefore feel that they cannot recommend any modification of the present Rules and Tables of the Society.

"The Directors ask the Association to complete the organisation of the new Board by electing a Chairman and Vice-Chairman, in accordance with the Rules.

"The Directors hope, now that the Society is fairly launched and financially sound, that a considerable number will be induced to enrol contributing members.

"B. W. RICHARDSON."

DR. RICHARDSON said that at the last meeting of the Association it had been ruled technically by the Secretary that the Report presented by the Directors of the Provident Society could simply be received. They had promised that at future meetings that technicality should be avoided; but they now found it impossible to avoid it. He therefore simply asked the Society to accept and to adopt the Report. He believed all the Directors had to say was in the Report, and that nothing he could add in the way of a speech could make more impression upon them. He therefore, *pro formâ*, proposed the resolution—

"That the Report read by the Secretary of the Medical Provident Society be accepted and adopted by the Association."

The motion was seconded.

Mr. A. B. STEELE said that, at the time when the Society was first established, he had expressed a very decided opinion that it was objectionable on certain grounds, that the Association should identify itself with the institution in any way. The first ground of objection had been that the principles on which the Society was founded were at variance with the independence of the members of the Association; and secondly, that the scheme would not be generally acceptable to the profession at large. These opinions had been, to his mind, most fully confirmed by this Report. The Society accepted the opinion of Mr. Tidd Pratt as to its stability, and to its financial soundness, and he would remind them that on one occasion the Committee had written to Mr. Tidd Pratt, and got from him this opinion: "The scheme can only be worked safely provided there be at least two hundred members." If he did not now misunderstand the Secretary in reading the Report, the Society now numbered thirty-two members, therefore they were attempting to carry a Society with thirty-two members which Mr. Tidd Pratt, their own authority, said could only be safely worked with two hundred. The Society had now been before the profession and the Association about two years. It had been extensively advertised, numerous appeals had been made to the profession, and what was the result? The Association numbered upwards of two thousand; and not more than thirty-two of them had come forward to support the Society, to say nothing of the profession outside. What could they say, except that the scheme, whatever its intrinsic merits might be, did not recommend itself to the cordial approval of the Association? In protesting against it, he was influenced by no desire to interfere with the interest of his professional brethren; on the contrary, he was anxious to warn them against contributing, out of their hard-earned gains, to a scheme which would lead only to a sad result. If any number of the profession desired to have such a fund, let them establish it on independent grounds; but he protested against their coming to the great Association and asking it to lend the influence of its name and patronage to a scheme which he had firmly believed from the first, and which, he contended, the last two years had proved, to be utterly inadequate to the end proposed. [*Hear, hear.*] He therefore moved—

"That this Association declines to take any part whatever in the management of the Medical Provident Fund."

Mr. HECKSTALL SMITH said it was impossible that this motion could be entertained. From Mr. Steele's speech, it would be imagined that the Society had been got up by a small number of gentlemen belonging to the profession outside the Association. But what was the fact? That the Association had formed the Society. For a long period the question of a provident institution had been agitated within the Association; a deliberative assembly of the Association had been called at Cambridge, and the scheme propounded there; and it had been set on foot, not by gentlemen outside fixing upon the Association, but by the Association itself founding it and delegating the powers necessary to carry it out to a certain number of its own members. He had happened to be one of those; and he had taken no part whatever in desiring to originate in any way such a scheme. He had constantly heard it stated in all directions that the profession, in considerable numbers, required such an institution. He had waited patiently until the inquiry culminated in an enthusiasm which made him at length believe and hope that it was desired, and that, if desired, it only wanted a little energy and honest purpose to carry out what the profession wished and what the Association adopted. Acting upon that opinion, Dr. Richardson, with such zeal and singleness of purpose as could not be too highly eulogised, had set himself to work to carry out the wishes of the Association; and a few humble members like himself at once joined heartily, at his call, in the undertaking. But the gentleman who had just addressed them would not be long before he tried to make it appear, by his writings and speeches, that they were supporting something outside the Association.

Mr. STEELE: Oh, no.

Mr. SMITH: Yes.

Mr. STEELE: I never said anybody outside supported anything. I am speaking of the merits of the question before us.

Mr. SMITH said the Society was a part of the British Medical Association; and they were called upon to sever the two, upon the ground that it had been endeavoured to carry on the Society in connection with the Association, and that it was not becoming on the part of the Association to foster, cherish, or sanction, or countenance the institution. He freely admitted for himself—but he would not involve the other directors in what he said—that the Society had not been a success. [*Hear, hear.*] Whatever might have been the cause of its failure, he was not clear enough exactly to be able to describe. Whether it was that the speeches that had been directed against it had deterred men from joining it; or whether, on the other hand, the profession, after all, was in such a position as happily not to require this fund, he did not know. But that it had not been a success, that it had not attracted a very large number of contributors, he was free to admit. He would, however, take this view of it—that there had been an entire misconception as to such a thing being required in the profession. If the members of the profession had not been deterred from joining by the opposition which the Society had

met with within the body that supported it, then this was the cause. Let them look for a moment how they stood. A large sum—some hundreds of pounds—had been contributed freely as donations to support the fund and render it stable; that sum was intact and paying interest, and still ready to aid and abet the cause, if necessary. It had been largely made known to the profession, and yet the response had been very small. If they were not to conclude that the opposition had prevented men from joining, they must conclude that the profession did not require the fund—a conclusion upon which he congratulated himself; and he should ever, if it failed, feel highly pleased that he had given not a small portion of his time and attention to the endeavour to bring before the profession that which, if they wanted, they would accept. He believed that the directors would be too happy to retire, and say they were thankful the profession did not need that which the Association had told them it did, and had delegated them to carry out. He felt warmly, and therefore spoke warmly, on account of the tone adopted more than once in the observations made about the Society; as if, in doing that which the Association had delegated to them, they had been working in opposition, and in some way in defiance, to the Association. ["*No, no.*"] His conviction was precisely what he had said; but he withdrew it in deference to the meeting. At the same time, he believed the motion could not be entertained without notice duly made.

Mr. STEELE suggested that a general meeting had power either to accept or reject the report; otherwise, there was no necessity for the motion.

Dr. DAVEY (Northwoods) said this was a matter of deep importance, which interested him exceedingly. It was of interest to all present to know whether the statements of Mr. Steele were *bonâ fide* facts, or mistakes. Was it true that Mr. Tidd Pratt had declared that such an institution could not be carried on unless it had two hundred members? Was it true that there were only thirty-five subscribers to the Medical Provident Society? It was important to know whether these were really facts; because, if Mr. Tidd Pratt made no mistake, and the number was not larger, it must be true that the Society was in a state of collapse, or something very like it. He very much feared that, if the Society was not quite in that state, it was in a state very closely approaching it. He had heard the subject mentioned by friends of his own, and was anxious to know whether they might expect that the institution would be carried on. He was personally interested in the matter, and hoped the energies of the gentlemen present would lead to such an inquiry into the real state of the matter as would make clear to them the state of the case; that the matter would be sifted; and that the meeting would not separate till the real state of affairs was clear to them all.

Dr. RICHARDSON thought it essential that he, as Chairman of the Board of Directors, should, as the discussion had commenced in this way, state the exact position in which the Society stood.

The PRESIDENT said it would be for Dr. Richardson, as the mover of the resolution, to reply; but it would be better that all who wished to speak on the subject should first do so.

Mr. HUSBAND remarked that, as distinct inquiries had been made, the discussion would probably be much influenced by the answers which Dr. Richardson could give. He could confine himself to the answers for the present, and that course would be very convenient.

Dr. HENRY, as Secretary of the Society, said he believed Mr. Tidd Pratt had stated that two hundred members were necessary for the safety of such a society; and the number of members during the past year had been thirty-two.

Mr. HUSBAND said he really thought they had heard from Mr. Smith a speech of somewhat misplaced indignation. This was not the first time some of them had ventured to dispute upon the matter. Last year, at Leamington, some of them had doubted whether the Society was founded upon principles which entitled it to the support of a great Association like that. When it came before them in this shape, every member had a perfect right to make such observations. He did not think the Society was founded upon a proper basis. They were asking men who could ill afford it to subscribe a sum of money which was a hardship and a burden to them at the time, and the probable advantages which they would gain were not such as to induce them to join the Society. He had predicted that it would be a failure; and, though he might be told he was endeavouring to injure the Society, he said it again. Knowing what he had known, he had hoped the directors would have come forward and told them that, having given the matter a fair trial, they had not been backed by the profession as they had expected to be, and they would withdraw; and that the Association would not be again asked to support such a society. There was necessity for some means by which aid could be given to needy members of the profession in the hour of affliction and distress; but that must be afforded in a different way. He did not think they would find the necessary number of members to come forward and support this Society; and he protested against the notion that the Association was to receive the report of the Society year after year, and yet the officers and affairs of the Society were not to be open to fair criticism. [Dr. RICHARDSON and others: *Hear, hear.*]

Dr. TUNSTALL (Bath) asked whether the presumed failure of the Society did not arise from their having taken the ordinary tables of common friendly societies as the basis of operations. He had spoken with a great number of friends, whose opinion was that it might be very useful for young men, but it was of none for those who had got on later; because at a certain time of life, unless something incidental deprived them of their ordinary earnings, they could not come upon the funds. In friendly societies formed on the usual model, the men who usually partook of the great benefits were men under forty years of age. Members beyond that age felt that this Society would never be of use to them. Those who thought that the ordinary casualties of human life might cause them to become recipients of "club-money" might put themselves on the books—[*a laugh*]—but they saw the number of members fixed upon, and the sum of money to be paid by each was so large in proportion to their incomes and savings, as to become a downright bar to their doing so.

Dr. CAMPS reminded the members that at the Cambridge meeting he had been the only dissentient to the resolution forming this society. He had regretted very much that he had taken such a position; but his opinion at that and every subsequent meeting had been the same. He was sorry the Society had proved a failure; though he had been almost certain it would. For an Association like this to attempt to have a friendly society within itself, had appeared to him one of the greatest blunders ever made by the Council or any of the philanthropic members of the Society. He had said to Dr. Richardson that it was well for a number of gentlemen to band themselves together and form such a society, but he would be no party to making it part and parcel of the Association. The question as to when the Society would collapse

and expire was only a question of time. Subsequent experience had confirmed his original opinion on the subject; and every successive meeting put the Association in an awkward and unpleasant position.

Dr. Morris seconded Mr. Steele's motion. He had been one of the original directors, and had attended one of the first meetings in London. Having studied the rules and attended the meetings, he had felt certain the Society would be a failure; and, after conversation with several medical friends in the country, he had found it so unpopular, on the ground that there seemed to be so much facility for paying in money and so great obstacles in the way of drawing it out, that he had despaired of its success. What gentleman would like to have always the certificates of two medical friends, before he could get his money? It was a failure; and surely if the Association continued to patronise it, the Association would pay any loss there might be. [*"There is none."*]

Dr. Richardson said he had been informed by the late Sir Charles Hastings that the question of forming such a society had been discussed by the Association four years before 1836. Mr. Daniell had brought it up again in 1844, and had not rested till the meeting at Bristol, when it was again brought forward, in the belief that such a society ought to be founded, and that the Association ought to show it was doing something for the profession by founding it. A committee had been formed to determine whether it was advisable; and the committee spent a year in its investigation. As he had been present at every one of the eleven meetings held by the committee, he might be allowed to say that no effort was omitted to ascertain whether there was a need for such a society really in existence; and he was bound to say that it was the unanimous opinion of the committee that there was. They reported to the Association at Cambridge; and the meeting had agreed with the committee, there being only one dissentient. They determined to form a society, appointed a body of directors, and left it to the discretion of the latter to proceed either by a voluntary effort, by the Friendly Societies Act, or by a Royal Charter. The Directors had acted simply as the representatives of the meeting; had done only what they were deputed to do; and in London they had determined that—a Royal Charter being too binding and voluntary effort too loose—they ought to proceed under the Friendly Societies Act. Full powers had been given to them, and they had acted as they thought best. They had formed the Society, after taking the best opinions they could and considering them in the most careful manner. Mr. Finlaison, the actuary, had given them an opinion, which would otherwise have cost one hundred guineas, and tables to place before the Government inspector. On that basis they founded the Society. But it unfortunately happened that the Association was a fluctuating body—which was a great misfortune, and would be a great lesson to him never again to take any prominent part in such matters. As a meeting was never the same a second time, it was possible, even probable, almost certain, that a resolution passed one year might be altered the next. It had been so in this case. The Society had stood well last year at Leamington, with almost as many members as now and ninety applications for membership. Mr. Steele had come in and touched the pride of the profession with great power. His lesson had been—"However poor you may be, whatever difficulties you may have, you must not put yourself on the books, even amongst your own brethren and although you may pay for what you get." He told Mr. Steele that he had been successful to the letter. He had touched the men to the heart, and they had said, "It is something like artisan-work, and we will have nothing to do with it." He congratulated Mr. Steele on his success, which was no success. He was sorry a man of such ability should have taken so narrow a view; and that, having so keen a dart at his disposal, he should have used it in such a dexterous manner. He admitted that the Society had not made progress. He had come to Chester with a resolution to propose, that the Society should dissolve. That day the directors had met, and considered the whole question. They felt how much Mr. Steele had done; but they had also felt that they must act properly and legally. By the advice of the Association, they had sought the law; and they must abide by it. In justice to the men who had contributed, they could not say, "We will close." They must ask the Association to elect the officers, so that the next board might call together the gentlemen who had contributed to the Society, and see what should be done. The report was a modest, calm statement. If the Association said they would not carry or adopt it, or elect the officers, the Association would place them in legal difficulties. The directors, who had acted for the Association in this matter, had never had one thought of their own in regard to it. They had laboured day after day, year after year, coming long journeys, and spending large sums of money; and that they should now be cast on one side, and told, "You may do as you like," was so startling and so unfair, that if it were to be done he could no longer be a member of an Association that at one time asked him to do one thing, and, when he had done his best, said, "Now you may go to the wall."

Mr. Husband said they must feel the force of what Dr. Richardson had said. Although he had not been present at the Cambridge meeting, he knew that the Association had proposed the formation of the Society; and he appealed to Mr. Steele not to press his amendment, but to allow the directors to be re-elected, and consider the course to be adopted. [*Hear, hear.*]

After some further remarks,

Mr. Steele withdrew his amendment. He simply wished to express his admiration of the indefatigable industry and disinterested exertions of Dr. Richardson, Mr. Smith, and all the promoters of the Society, without forgetting that there was a difference of opinion amongst them on a matter of business. The energy and the philanthropic motives of these gentlemen he entirely appreciated; but, with the utmost deference to them, he doubted their business capacity in this particular matter.

The amendment having been withdrawn, the resolution was carried unanimously.

Dr. Paget moved—

"That Dr. Richardson be re-elected President, and Mr. Clay Vice-President of the Medical Provident Society."

He was quite sure that, whatever difference of opinion there might be as to the success or failure of the Society, or as to the need of it in the profession, there was none upon the point as to the thanks due to the gentlemen who had taken pains, trouble, and care, and expended a great deal of their valuable time in organising the Society; which had had, at all events, one of the best possible objects in view.

Mr. Heckstall Smith seconded the motion most cordially. No one could speak with more confidence than himself as to the invaluable and indefatigable exertions of the gentlemen in question. [*Applause.*]

The resolution was carried unanimously.

THANKS TO THE COUNCIL OF THE ASSOCIATION.

Dr. Camps moved—

"That the thanks of this meeting be given to the Council of the Association for their valuable services during the past year."

He said the resolution commended itself, and he need not enlarge upon it. The flourishing meeting they had present now was proof of the manner in which these duties had been performed.

Dr. TUNSTALL seconded the motion with much pleasure. When they considered that the gentlemen who formed the Council had travelled over all parts of the kingdom to attend to those duties, they could not do otherwise than return them their most cordial thanks.

The resolution was carried unanimously, and the meeting brought to a close.

WEDNESDAY.

On Wednesday morning there was a public breakfast in the Corn Exchange; and afterwards a meeting of Council, at which the following ten gentlemen were elected members of the Committee of Council for the ensuing year: E. Bartleet, Esq., Campden; J. C. Burrows, Esq., Brighton; E. Charlton, M.D., Newcastle-on-Tyne; M. H. Clayton, Esq., Birmingham; R. W. Falconer, M.D., Bath; W. D. Husband, Esq., York; B. W. Richardson, M.D., London; T. Heckstall Smith, Esq., St. Mary's Cray; G. Southam, Esq., Manchester; and A. T. H. Waters, M.D., Liverpool.

Dr. Sibson was elected President of Council in the room of Sir Charles Hastings.

Letters were read from Dr. Stokes and from the University of Dublin and the Colleges of Physicians and Surgeons in Ireland, cordially inviting the Association to hold its annual meeting in 1867 in Dublin. A numerously signed invitation to meet in Brighton in 1867 or 1868 was also presented; and Mr. Nunneley stated that the Association would at an early date be invited to hold its meeting in Leeds. It was decided to recommend to the general meeting the acceptance of the invitation to meet in Dublin, under the presidency of Professor Stokes.

It was also determined to recommend Dr. Falconer for election as Treasurer of the Association.

At 11 A.M., the members again assembled in general meeting.

ALTERATION OF LAW.

Mr. WATKIN WILLIAMS explained that Law VIII of the Association provided that the Committee of Council should be composed of certain members *ex officio*—the President, President-elect, President of Council, and Secretary; the Treasurer's name was not mentioned, probably because Sir Charles Hastings had held both offices. He, therefore, proposed that the Treasurer's name should be inserted.

Dr. HENRY seconded the motion, and it was agreed to.

REPRESENTATION OF THE PROFESSION IN PARLIAMENT.

Dr. MACKESY brought forward the following motion, of which he had given notice:—

"That a favourable opportunity now presents for soliciting the attention of the Government, the public, and the members of our profession, to the question of granting Parliamentary Representation to the Medical Profession in its collective capacity; that with a view to the accomplishment of this important object, the Council be empowered to take such measures as they may consider judicious to promote its success, by presenting memorials to the Government, petitions to both Houses of Parliament, and by communicating with the Medical Universities, Colleges, and Associations, to urge their zealous cooperation."

He said that, in bringing medical parliamentary representation before the Association, he felt he incurred a greater responsibility than he might be equal to discharge; and he should have been very much pleased if some member of more influence in the Association had taken up the subject; however, the question having occupied the attention of the public for the last few months, and being likely to do so for a longer period yet, he had felt it a duty not to allow the meeting of the Association to pass over without bringing it forward, as a duty which he thought was of great consequence to the profession; in the hope that, though his views might not be generally taken up by the profession, some gentlemen might move amendments which would tend to place the profession in a more favourable position, and enable sanitary legislation to be carried on in a manner very different from the manner at present in existence. He believed it must be admitted that, from the want of good sanitary legislation great injury to the public health arose. He should take for his text a resolution passed in 1860 at the annual meeting of the Association, held at Torquay. It was a resolution moved by Sir Charles Hastings, and passed unanimously. And he could not mention the honoured name without expressing his feelings of deep and poignant regret at the loss they had sustained in the death of that great and good man, who had conferred so many benefits on the profession. He had been the founder of the Association, and its success might be attributed in a great measure to the ability, sound judgment, wise discretion, and good feeling, which he uniformly exerted in the promotion of its interests with an energy and zeal to which no language of his (Dr. Mackesy's) could do justice. [*Applause.*] He was well aware that these views had been put forward by the president and other gentlemen in a much stronger and more feeling manner than he was able to imitate; but he trusted that, as a provincial practitioner of the sister country, his coming forward to express those sentiments would not be considered out of place, especially as he thought he expressed the feelings of the medical profession generally in Ireland. [*Applause.*] He spoke of the late Sir Charles Hastings not merely as a medical man, but as an old and valued friend. He was satisfied his memory would long be cherished in the hearts of those who had had the honour of his acquaintance, and that his name would be handed down in the annals of the profession, with the honour and distinction it deserved. The resolution passed at Torquay was as follows: "That, considering the number and respectability and especial acquirements of members of our profession in these kingdoms, neither are their interests fully attended to, nor are their views on sanitary arrangements adequately represented." This resolution fully represented the feelings of the profession at the present moment. He might be asked why it had remained so long in abeyance. He could only answer that all reform had been in abeyance since 1860 till this year. He believed that if Sir Charles Hastings could be with them now, he would assist in some course of procedure calculated to put them in a better position. It had been suggested that medical members should be returned for some borough or county; but he felt that to be almost impracticable, and that, even if it were practicable, such members would try to enter into party politics, than which nothing would be more injurious to the profession. It had therefore occurred to him, and he wished it to be fairly considered by the meeting, whether or not it would be advisable to have a medical constituency,

to return medical members to the House of Commons, to represent the views of the profession on sanitary subjects, and to support their own interests and privileges. He had had the honour of delivering an address on this subject to the Irish Medical Association, and the address had been reviewed by the *Lancet* very recently. With the permission of the meeting he would take up the review in some degree and answer some of the observations of the reviewer.

The PRESIDENT reminded the speaker of the necessity of brevity, and of the rule that speeches in moving or seconding resolutions should not exceed ten minutes. Dr. Mackesy was advocating a matter of great importance, and five minutes more would be allowed.

Dr. MACKESY thought that it would be necessary that there should be one medical constituency each for England, Ireland and Scotland; and that in each case the constituency should consist of registered members practising the profession. Such a constituency, even without parliamentary representation, would be of advantage; because he should hope that some members of the Medical Council might be elected by the constituency, and thus the election of the Council not confined to Universities and Colleges.

Dr. PAGET said he would willingly second the motion of Dr. Mackesy, if the latter would so alter his resolution as to make it read: "by communicating with the Universities, Medical Colleges," etc.; as all Universities were medical. He was not sanguine as to the probability of such a measure as was proposed becoming law. Even if the government should consider it favourably, the Houses of Parliament would have to deliberate upon it; and they had no reason to believe that the estimation in which Parliament held the profession was so high as that in which the profession held themselves. [*Laughter.*] But no harm could come from putting the matter forward. He thought it a reasonable thing, and the present time on the whole favourable for mooting it, when both political parties had recognised the fact that constituencies of educated men were good. The late government had recognised it in the Reform Bill, by assigning representatives to the Universities of Scotland, Ireland, and London; and the principle of special representation of educated classes had been still more distinctly recognised by the other party now in power. He had the good fortune to belong to an university which returned members; and if any body would take the trouble to examine the matter they would find that the representatives of the universities had been men far above the average of members of Parliament. Amongst them had been such men as Evelyn, Pitt, Gladstone, Hardy, Walpole, Goulburn, Palmerston, and many others. The University of Dublin had also returned men of great ability and high character; and the evidence of experience showed that such constituencies were good. Therefore this proposal was reasonable; as it also was for many other special reasons, as the importance of the sanitary condition of the country, upon which not only the mortality but the stamina of the community, or the deterioration of the race depended. At present, discussions on medical questions in Parliament were nearly all nonsense. [*Laughter.*]

Dr. TUNSTALL said that the legal profession and the Church were strongly represented in the Upper House of Parliament, and it was important that the medical and scientific bodies should also have a representative in the House.

Mr. HOLMES had no wish to prolong the discussion, or to say anything unpleasant; but he thought that to pass resolutions which must, from their own nature, be inoperative, was not very dignified or advisable. To say that the medical profession ought to be represented, appeared to him to be utterly contrary to the genius of our institutions and practice from time immemorial. No profession, as such, had ever been represented in Parliament. The public had been represented, upon the votes of persons possessing the franchise; and all members had the power of legislating upon every possible question. He would suggest that a medical man, of all others, was most unfit for the position of a member of Parliament. It was impossible that he should go into Parliament until he had made such a fortune as should enable him to live. To send a man in practice into the House would be a perfect futility. Sir Benjamin Brodie had treated the question with his usual common sense and precision. Even if such a man could be returned, he would not be the fittest person to represent the interests of the country. If the medical profession were to be represented, there were several other professions with an equal right to representation; and, if the principle were carried out, the House of Commons would soon be filled by persons all representing particular interests. The lawyers in the Upper House did not represent the legal profession. There were many persons in Parliament connected with the Bar, the Church, the railway interest, the great commercial interest; but not one was elected by the Bar, the Church, or the other classes, but by the public. No profession would get representatives; and it seemed to him that they would be putting themselves in an undignified and ridiculous position by asking for what never had been and never could be granted. The medical profession had its votes, and could exercise them in the manner most conducive, in its opinion, to its interests. It could bring its great experience and its great influence far better in that way on sanitary questions; while the vote of one individual representative would always be burked, he would be regarded by the House as a bore, and his rising to speak would always be a signal for counting out. [*Applause.*]

Mr. HECKSTALL SMITH agreed with Mr. Holmes; and said the Council had been unanimous in the opinion that it would be unwise to bring forward any such question. The learned professions were represented through the universities; and the medical profession would be, if medical men sent their sons to the universities. Any attempt to obtain representatives for themselves as doctors must end in covering themselves with ridicule.

Dr. JEAFFRESON endorsed the observations of Mr. Holmes, in which he fully concurred. To suppose that the medical profession should be represented in Parliament was to suppose an entire alteration in the constitution of the country. He doubted very much whether they would not damage the profession by attempting anything of the kind now, though the present was said to be so auspicious an occasion. He thought he could see dawning a little respect for the medical profession, and a desire to put it in its proper place; but any faults of this kind would do mischief, bring odium upon them, and check the tendency. [*Hear, hear.*]

Mr. A. B. STEELE wished to draw attention to the incorrect impressions their highly respected associate had fallen into in reference to sanitary legislation. He seemed to think that the Government was without the direct advice and assistance of medical men in these matters. The Health Department of the Privy Council was presided over by a member of the profession whom he had only to name to remind them that he stood in the highest rank of science—Mr. Simon [*applause*]—who had a number of able and

intelligent medical men to assist him; and through him the Government received the best information on such subjects in the voluminous blue-books published every year. If the Government did not carry out sanitary legislation as it ought, it was not for want of this information. But there were many difficulties of a local and especial nature, peculiar to the constitution of the country, which often stood in the way. The town from which he came (Liverpool) had spent no less than three millions of money during his residence there for sanitary movements alone. [*Hear, hear.*] As to the representation of the profession in Parliament, there was one practical difficulty that had been alluded to. Instead of one representative, they would want at least three members. There were many who, like himself, having the opinion that Conservative principles were essential to the integrity of the constitution, would consider the profession misrepresented, if the member elected chanced to be either a Liberal or a Radical. His intelligent and enlightened, but misguided friends, who believed Liberal principles ought to be maintained, would be hurt at being obliged to be represented by a good old Tory. He thought that question alone would be almost sufficient to upset the whole scheme. [*Hear, hear.*]

Dr. STEWART said it was less for the sake of the profession—which he did not think would be benefitted in such a way—than for the sake of the public, that he would like to see more medical men in Parliament. He agreed very much with what Mr. Holmes and others had said; but he did not agree with them that it would not be desirable to have more medical men in the House of Commons. It was of immense importance that some gentlemen should have the ear of the House of Commons—he did not allude to the Government—who could leaven their minds with sound views on sanitary questions. The mass of legislation on those subjects was most confused and fragmentary. He thought that if medical men who were good men of business were in the House of Commons, they could do much good in this matter. But he did not see that this could be done in the way proposed by Dr. Mackesy. He was delighted to see that some, though few as yet, of the profession were getting into Parliament. Mr. Vanderbyl, his old friend, was there; and he hoped it would not be long before Mr. Mitchell Henry would get in for Woodstock, and others for other places.

Dr. MACKESY thanked the meeting for the attention with which he had been favoured. He had done every justice to the great advantage resulting from the services of Mr. Simon; but he knew that very often clauses most essential to sanitary acts were objected to by members of the House of Commons acting under some delusion; and that, as there was no high professional man in the House whose opinion would carry weight, very often acts which, if passed as introduced, would be very beneficial, were rendered nugatory. He expected this discussion would be beneficial to the profession; and, in deference to the opinion expressed, he withdrew his motion. [*Hear, hear.*]

PLACE OF MEETING FOR 1867: PRESIDENT-ELECT.

The PRESIDENT said the next business was that of deciding on the place of meeting next year.

The SECRETARY stated that the Council had recommended that Dublin should be the place of meeting next year, and that Professor Stokes should be the President-elect. [*Loud cheers.*]

Dr. JEAFFRESON proposed that they should accept the kind and generous invitation brought by Dr. Stokes, that the meeting should be held next year in Dublin; and that Dr. Stokes be now nominated as President-elect of the British Medical Association. He was sure they would all derive the greatest possible gratification from meeting their friends in Dublin; and he hoped the arrangement might add largely to the prosperity of the Association, and that the medical profession in these islands would be stronger and more closely united in consequence. [*Applause.*]

Mr. NUNNELEY had great pleasure in seconding the proposition. The very cordial invitation from Dublin would of itself have been sufficient to induce the Association to accept it; but the world-wide renown of that school of medicine and of the distinguished professors now living there, made them feel that they would all receive not only great enjoyment from the place of meeting, but much benefit from their intercourse with their Irish brethren. It would tend to unite the two branches of the Association. Lord Eldon had said, "If you want to be friends, you should dine with one another." While the intellectual celebrity of their Irish friends was world-wide, their hospitality had an equal reputation. They possessed the means of giving the Association not only a successful meeting, but also the greatest pleasure. [*Applause.*]

Dr. MACKESY, as a provincial member, felt called upon to express his great gratification and thanks for the honour done to the Irish members by the selection of one of their first professional men to be the President of the Association. He trusted they would pass the resolution to hold the meeting for 1867 in Dublin. He could promise them a warm welcome; and he believed it would assist in cementing the good feeling that should at all times subsist between professional men in the two countries. For the same reason, he had been for some years a member of the Association; and he was gratified to have this opportunity of expressing his thanks for the attention, kindness, and uniform heartiness he had experienced at the hands of the Association. He trusted the Irish members would endeavour in some way to testify that they bore in recollection the kindness and attention they had received in England.

The motion was then put, and agreed to.

REPRESENTATIVE OF THE AMERICAN MEDICAL ASSOCIATION.

The PRESIDENT said that, before they proceeded to the scientific business of the day, there was one circumstance to which he must call attention. There was in the United States of America a society analogous to the British Medical Association, organised in the year 1847; and that society had, by a certificate he held in his hand, authorised Lieut.-Col. Cox, a Doctor of Medicine, to represent it at this meeting. [*Loud applause.*] He had, in fact, come here as the accredited representative of the Association. [*Applause.*] He (the President) had no doubt Lieut.-Colonel Cox would take a part in some of the proceedings, though he did not at that moment see him in the room.

DISCUSSIONS ON MEDICINE AND HYGIENE.

Dr. SIBSON, F.R.S., read a paper on the question, What is the Influence of Hospitals on Health and Mortality?

Mr. HOLMES said he had had a paper to submit, which had no value in itself, but was merely intended to form a text for discussion. The time had now advanced so far that he was afraid the discussion must be very short; and he should, therefore, withdraw his paper, and simply express his general assent to what had fallen from Dr. Sibson. The subject was of great importance, chiefly medical. Hospital diseases pre-

vailed chiefly amongst surgical patients; and they were held out as adequately explaining the difference of death-rates between town and country, and the difference in the progress of cases between hospital and private practice. He believed this difference to be purely imaginary; but he did not know that any data had ever been collected on that subject. The paper he had prepared was directed simply to show the real amount of the prevalence of hospital diseases numerically.

The PRESIDENT said the subject was so interesting to the profession, and of such vast importance to the community, that it scarcely admitted of full discussion at a single sitting. He gathered from what Mr. Holmes had stated that there was in his paper matter of immense importance; and he would, therefore, ask Mr. Holmes to favour the Association by considering it as read, and allowing it to be printed in the JOURNAL.

Mr. HOLMES signified his consent, and the members adjourned for luncheon; after which they re-assembled at 2 P.M.; the President in the chair.

ELECTION OF TREASURER.

Dr. WATERS (Liverpool) proposed the election of a gentleman to fill the important office of Treasurer, vacated by the death of the lamented Sir Charles Hastings. It was very important that they should have in that office a gentleman of good business habits, who was thoroughly acquainted with the working of the Association, and who had a high professional reputation. He thought that in securing the services of Dr. Falconer of Bath as their Treasurer, they had secured the services of a gentlemen who would fill the office in the most satisfactory way. As a member of the Executive Committee, he had had the pleasure of Dr. Falconer's acquaintance for several years. He knew the deep interest which Dr. Falconer took in everything that related to the Association, and his business habits. He would not detain the meeting; but he had much pleasure in proposing—

"That Dr. Falconer of Bath be elected the Treasurer of this Association for the term of three years."

Dr. SIBSON said it was with the greatest pleasure that he seconded the nomination of Dr. Falconer to the office of Treasurer to the Association. The office was the most important office they had in connection with the Association; and the very welfare of such an institution depended upon its treasurer being a man of weight, judgment, accuracy, business habits, approachable manners, and self-respect, and accustomed to meet questions in a thoroughly impartial spirit. A man who had not those qualifications was not fit to fill the all-important office of Treasurer to that great Association. Dr. Falconer was a man who did combine all these qualifications in the most admirable manner. If they searched the Association through, they would find it difficult to select one who would do the work so well.

The resolution was put, and carried unanimously.

Dr. FALCONER said he highly appreciated the confidence the Association had been kind enough to place in him. It would be a difficult task to follow in the steps of Sir Charles Hastings; and he felt the force of the scriptural injunction, that he who was putting on the armour should not boast as he who put it off. However, he would do his best to discharge the duties, and when he felt himself unequal to them he would vacate the office.

THE PRESIDENT OF COUNCIL.

The PRESIDENT announced that the new President of Council was Dr. Sibson. [*Loud applause.*] He concluded, from the way in which the announcement was received, that the appointment was in the highest degree satisfactory to the Association. [*Cheers.*]

THE AUDITORS.

Dr. WADE had much pleasure in moving a vote of thanks to the auditors, Mr. Hadley and Dr. Melson, for their services.

Dr. RUSSELL seconded the vote, which was unanimously carried.

Mr. HADLEY briefly returned thanks, and proposed—

"That Dr. Marshall of Clifton and Mr. Church of Bath be elected auditors."

Dr. MORRIS (Spalding) seconded the motion, which was passed unanimously.

THE HASTINGS PRIZE MEDAL.

The PRESIDENT said it was his privilege on this occasion to discharge a duty which had hitherto been reposed in other and abler hands—to present to Mr. Furneaux Jordan of Birmingham the Hastings Medal. [*Applause.*] This was the third occasion on which the medal had been presented; and it was highly satisfactory to the Association to find that the gentlemen who received it were not men trusting to any adventitious aid to success, but men who had each already achieved his position. On the present occasion, the treatise for which the medal was awarded was one on "Shock after Surgical Operations and Injuries." The adjudication had been placed in the hands of Mr. Carden, Mr. Hilton, and Mr. Southam of Manchester; and in abler hands it could not have been placed. From that fact alone, the recipient must feel that he had earned what was now awarded to him. [*Applause.*] As there was a great deal of business before the meeting, he trusted these few observations would not be taken as showing that he lightly regarded the duty of presenting this medal; and he would present it without further words.

[The following is a copy of the award of the adjudicators.

"August 4th, 1866.

"We, the undersigned, having been appointed adjudicators of the Hastings Medal, and having each carefully read the two competing essays on Nervous Shock signed severally 'Ich Dien' and 'Experto Crede', unanimously consider the essay signed 'Ich Dien' most deservedly entitled to the medal, by its highly scientific and literary merits.

(Signed) "H. D. CARDEN.
JOHN HILTON.
GEORGE SOUTHAM."]

The medal was then, amidst great applause, handed by the President to

Mr. JORDAN, who said he thanked the President most gratefully for the kind manner in which he had spoken of his good fortune. He also thanked the Council of the Association for having (without knowledge of the fact) selected a subject in which he had taken much interest, and endeavoured to make some investigation. There was no medal of any learned society, of any year or of any subject, which he would have preferred to this. [*Applause.*] It would be a temptation to him still further to pursue the subject, and he should be extremely obliged to the Association if he could receive assistance from any of its members in the undertaking; and he hoped the Hastings Gold Medalist would be deemed worthy of such assistance, as it was one of the objects of the Association to enable its members to render to each other. [*Applause.*]

THE ADDRESS IN MEDICINE.

Professor HUGHES BENNETT of Edinburgh read the Address in Medicine, which is published at page 179.

Professor STOKES said he had the honour to propose their most cordial thanks to Professor Bennett for the discourse with which he had favoured them—a discourse creditable to himself, and highly honourable to the profession of which he was such an ornament. [*Applause.*] He had given them the advantage of a comprehensive view, if not of the past, at least of the present, necessities and conditions of medicine. He had, as it were, taken stock for them. He had shown them, at all events, what they had, what they had not, and what they should endeavour to obtain; and in that respect, if there were no other cause of laudation, he deserved not only the thanks of the Association, but the thanks of the medical profession all the world over. [*Applause.*] He had shown them, in admirable and authoritative language, the great point they should all consider and admit—the correlation of sciences; and that they were not to look upon medicine as an isolated branch of knowledge, but in one respect the fruit and science of all knowledges, because all knowledges seemed to combine to add their quota to the science of medicine. Therefore, it was of the greatest importance that men should understand that all physical and other knowledges came to have relation to medicine; and in that way he (the speaker) foresaw a future for medicine which some might think romantic, but which he believed would yet come out—when the health and care of the body would be, in the estimation of the world, only secondary to that which belonged to the immortal part of man. [*Applause.*] Professor Bennett had touched on the question of therapeutics. With reference to Dr. Acland's motion in the Medical Council, he (Professor Stokes) might observe that he had had the honour of seconding it on one occasion, when they were defeated by a very large majority. On a second occasion, when Dr. Acland had again brought it forward, somewhat altered in words, but in principle the same, it was seconded by Dr. Paget, and the Council was equally divided—showing a very great progress during the few days during which the question was under consideration. [*Applause.*] He very much agreed with what Dr. Bennett had said on the importance of the study of physics and natural philosophy to the medical student; but he begged them to remember that it was only after seven years of the meeting of the Medical Council that the time had arrived when it became possible to lay down rules as to the minimum of education—that which it was possible for all medical students to attain. They had never meant to say that medical students should be confined to the minimum. They had looked to what it was possible to obtain in all parts of the country—in the remote parts of England, Ireland, and Scotland; they had looked to the condition of schools in those places; and it had seemed that to insist, as part of the minimum in such places, upon natural philosophy and physics, was to make a nugatory regulation. He wished to bring to the recollection of the Association the proposition of his lamented friend and colleague, Professor Graves, that medical observatories should be established in various parts of the world; and that the different governments of civilised Europe and America should unite in establishing them, so as to throw some light on the origin and progress of epidemic diseases; that they should be furnished with all possible apparatus for all physical, chemical, and meteorological observations; and that they should be conducted on a plan very much like that proposed by Professor Bennett, for consentaneous observations by a large number of persons. He thought the proposition should at some time engage the attention of the Association; and, if this Association would follow the advice of Professor Bennett, and come before the public as men working in earnest to elevate their common profession, they would deserve the thanks of all good men, no matter in what walk of life, high or low, or the nature of their profession. [*Loud applause.*]

Dr. EDWARDS had great pleasure in seconding the resolution. During the whole period of his membership, he had found in no previous meeting so great an intellectual feast as he had found in the present. It afforded him great gratification to see Dr. Waters, who had been his successor in Chester, occupying the high position of President of the Association. After fifteen years' absence from active duties in his profession, he had lost none of his interest in it; and he was sure the meeting joined him in the expression of the extreme gratification which had been afforded them by the excellent, scientific, and exhaustive address of Professor Bennett. [*Applause.*]

Dr. CAMPS suggested that practical action should be taken as to the suggestions made in the address, and that it should be referred to the Council to take into consideration the practical suggestions thrown out by Professor Bennett. [*Applause.*]

Professor Stokes and Dr. Edwards concurring, the resolution was carried by acclamation, in the following words.

"That the thanks of this meeting be given to Professor Bennett for his admirable address; and that it be referred to the Council to consider the practical suggestions he has made."

Professor BENNETT, rising to reply, was received with great applause. He assured the meeting he esteemed it a very considerable honour that such a motion should have been so unanimously passed by that body; and, indeed, that he should have been selected to address them was of itself a satisfaction and an honour he should never forget. In the anxiety which had naturally devolved upon him when he had consented to deliver the address, he had thought of many things as subjects; and he could only say now that, if he had succeeded in his effort, his highest ambition was fulfilled. He was full of hope, with Professor Stokes, as to the future of their art; and should be delighted if the Association would take a leading part in pushing it onwards. Such was the inherent vitality of all that related to it, that the young would always endeavour to distinguish themselves by advancing it; but they had come to such a point in science, that they could not hope any one man could do much—that he would unite in himself the knowledge of the anatomist, the physiologist, the physicist, and the analytical chemist. It was not to be supposed that these knowledges could be so perfect in any one man that he could make them all available for the purposes of investigation. If they wanted investigation, it must be carried on by a committee; and they must choose such men as they knew—three or four in one case, five or six in another; and they must remunerate them. He was happy to see Mr. Simon gradually doing this; and, if they could arouse the Government to the necessity, they might hope great things would be accomplished. But they must be true to themselves, and show that they were capable of combining and doing something more. They had 2,400 members. If every man would put his hand into his pocket and take out half-a-crown, they would have £300; and he thought he could name three men in Edinburgh—and he dared say others could name three men in London or elsewhere—who could

so combine the necessary talents and industry and energy, that for that sum of money the Association should have in one year a Report which would be the greatest honour to the Association. To hit upon a subject might be difficult; but, having decided upon a subject, if they were to appoint three men, and give them £100 a-piece to do the work, he would undertake to say the work would be done. [*Applause.*]

The meeting then closed.

[*To be continued.*]

Medical News.

APPOINTMENTS.

*Clark, Andrew, M.D., elected Physician to the London Hospital.

Birkenhead, E. H., D.Sc.Lond., has been appointed Lecturer on Chemistry at the Liverpool Royal Infirmary School of Medicine.

MARRIAGES.

Francis, Alfred O., Esq., Surgeon, Derby, to Emily, youngest daughter of the late Joseph Halliwell, Esq., of Beverley, at Islington, on August 1.

Payne, C. H., M.D., of Wimbledon, to Emma, second daughter of the late H. H. P. Major, Esq., at St. Mark's, Kennington, on July 28.

DEATHS.

Higgins, Charles, M.D., Knight of the Legion of Honour, at Paris, aged 60, on July 27.

Hudson. On August 7, at Stockport, aged 4, Mary; and on August 9, aged 4 months, Frederick, children of *F. Hudson, Esq.

The Greenwich Union. In this workhouse, containing upwards of 900 inmates, there has not been a death from any cause since the 2nd instant, although the average deaths are five weekly.

The Astley Cooper Prize. The ninth triennial prize of three hundred pounds, under the will of the late Sir Astley P. Cooper, Bart., will be awarded to the author of the best essay or treatise on the disease known as pyæmia. Essays, either written in the English language, or, if in a foreign language, accompanied by an English translation, must be sent to Guy's Hospital on or before January 1st, 1868, addressed to the physicians and surgeons of Guy's Hospital.

Nothing like Leather. A Gas Director says in the *Times* that the excessive impurity of London gas has a directly beneficial effect in keeping away the cholera. None of the workmen in the metropolitan gas works have ever died of that disease, although their duties expose them to great alternations of heat and cold, and they are notably intemperate. The "Gas Director" attributes their safety to the volatile exhalation from gas, especially ammonia. He therefore holds that the stench of gas is not noxious to health, and, as it is unavoidable, we ought to be very glad that its effects are so salutary. The conclusion seemed to be that a judicious importation of gas works into the eastern parts of London would have kept off the epidemic, and while gratefully inhaling the fragrance of ammonia and sulphur, the poor would have blessed the companies which, instead of giving light to the rich, breathe upon our crowded streets Sabæan odours. The "Gas Director," however, is directly contradicted by two different writers. Mr. Simcox Lea, the incumbent of one of the churches at Bow, declares that no class of men in his neighbourhood has suffered so heavily from the cholera as the class employed in the gas works, and the engineer of the Commercial Gas Company says that his company lost five workmen in the first seven days of the present attack. (*Pall Mall Gazette.*)

OPERATION DAYS AT THE HOSPITALS.

Monday.....Metropolitan Free, 2 P.M.—St. Mark's for Fistula and other Diseases of the Rectum, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

Tuesday. .... Guy's, 1½ P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.

Wednesday... St. Mary's, 1 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.

Thursday.....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Great Northern, 2 P.M.—London Surgical Home, 2 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.

Friday. ..... Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

Saturday.....St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1·30 P.M.—Charing Cross, 2 P.M.—Lock, Clinical Demonstration and Operations, 1 P.M.—Royal Free, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TO CORRESPONDENTS.

*** *All letters and communications for the* Journal, *to be addressed to the* Editor, 37, *Great Queen St., Lincoln's Inn Fields, W.C.*

Communications.—To prevent a not uncommon misconception, we beg to inform our correspondents that, as a rule, all communications which are not returned to their authors, are retained for publication.

Correspondents, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

Astringents *v.* Diarrhœa.—Mr. FitzMaurice, of Christchurch, writes: "In support of the soundness of Dr. Johnson's views on cholera, I give you particulars of a case which lately came under my notice. Last year, a man about 26, to all appearances in robust health, walked into an adjoining county to drive back some sheep. He was taken very ill, returning with diarrhœa and pain in the bowels. He had to stop on the road at the first village he came to, when he was seen by a medical man, who most effectually stopped his diarrhœa by powerful astringents. No action of the bowels took place for some days; then he had to use enemata before the bowels acted. He was still becoming worse. The doctor then discovered that his patient had inflammation and congestion of his liver, and prescribed calomel for him, which, I believe, he never got. As the nurse told me afterwards she gave it in liquid, of course it went to the bottom, where most likely it remained, and the patient never had it. Ultimately, the poor fellow died of abscess of the liver. I saw him once before his death. He was suffering intense pain in the region of the liver. The discharge from the bowels was very dark and offensive. It appears to me that if this man had not had his diarrhœa stopped, and Nature had been left to take its course, he might in all probability be still alive."

COMMUNICATIONS have been received from:—Dr. J. Hughes Bennett; Dr. Aldis; Dr. MacCormac; Mr. Paget; Mr. Henry Lee; Dr. A. Samelson; Mr. F. Hudson; T. H.; Dr. Thomas Skinner; Dr. J. B. Nevins; Mr. T. Holmes; Mr. I. Baker Brown; Mr. Richard Griffin; Mr. W. Bowman; Mr. Spencer Wells; Mr. G. W. Hastings; Mr. B. Squire; Dr. Thomas Shapter; Dr. Holman; Mr. H. J. Alford; Dr. C. Handfield Jones; Mr. J. H. Hicks; Mr. W. Eddowes; Mr. J. Rhodes; Dr. J. C. Murray; Mr. W. B. Buller; The Director-General of the Army Medical Department; Mr. Stone; Dr. George Bodington; Dr. E. Andrew; Dr. W. Rutherford; Mr. R. C. Moon; and F.R.C.S.

BOOKS RECEIVED.

1. An Essay on Physical Education. By John Harrisson. London and Chester: 1866.
2. Application of Disinfectants, etc. By W. Crookes. London: 1866.
3. On the Treatment of Asiatic Cholera. By Archibald Billing, M.D., A.M., F.R.S. New Edition, revised. London: 1866.
4. Clinical Lectures on Diseases of the Heart. By Thomas Hayden. Dublin: 1866.
5. A Simple Explanation of Cholera; and a Rational Mode of Treating it. By Yod, M.D. London: 1866.
6. Army Hygiene. By C. A. Gordon, M.D., C.B. London and Calcutta: 1866.
7. Contributions to Dermatology. By Dr. McCall Anderson. Glasgow: 1866.
8. Fifth Report of the Dispensary for Skin-Diseases. Glasgow 1866.

Original Communications.

REMARKS ON CHOLERA.

By Gordon K. Hardie, M.D., 73rd Regiment, Limerick.

Whatever the ultimate verdict may be on the value of the eliminative treatment as compared with the stimulant, opiate, and astringent, in the early and curable stages of cholera; and though all are of one mind in condemning opiates as useless or dangerous in the later stages, Dr. G. Johnson has done well in calling attention to the futility of the stimulant treatment in the stage of collapse—unfortunately so named, as the word suggests rather the idea of syncope than of asphyxia.

But it remains for the future to decide the amount of actual harm resulting from this treatment, as contrasted with one of total abstention from stimulants in the later stages; as not only this, but all other modes of treatment have been acknowledged equally failures, nor does Dr. G. Johnson himself seem more sanguine of success in such cases by his own mode of treatment.

Having twelve years ago witnessed a most destructive epidemic in a remote district of the Island of Mauritius, I give the following extract from published answers, shewing my views at that time (1854), on the treatment which I had adopted.

"The treatment universally adopted by me, if the case was in the early stage before symptoms of collapse and asphyxia had set in, was to administer grain doses of opium, in the form of a pill, at intervals of from half to one hour, for three or four times, combined, when possible, with stimulant aromatics and cordials. In addition, half-drachm doses of dilute sulphuric acid were given in draughts of water three or four times in the hour. In all cases seen at an early period, and in those of slight intensity, I found this treatment very effective.

"The class of cases, however, varied so much at different places, and at the same place at different periods, that this treatment was often ineffectual, and at other times inapplicable *from the circumstance of commencing asphyxia having set in before I arrived.* In these cases, when the state of collapse had set in, and this was the state in which I first saw by far the greater number, the sulphuric acid drinks were given without opium, and stimulant frictions with external warmth were tried.

"The result of this treatment, in the far greater number, was utterly unavailing and worthless. Wonderful recoveries, from a state bordering on death, were seen occasionally, but in such a small proportion as to make them dependent with very little probability on treatment. In short, I confess the utter powerlessness of favourably influencing the disease by treatment when in its full intensity.

"A very marked change in the type of the disease occurred at the Port of Flacq, after the most virulent form had prevailed for about ten days. The disease became much more tractable, and remedies had then a marked influence over the disease. Many who had been discouraged by the palpable failure of medicine, in the hands of the physician, vaunted, and with truth, that they had cured themselves with such simple remedies as ginger or ayaphanha tea.

"To show how impossible it is to appreciate, by apparent results only, the value of treatment, I may say, that at the Port of Flacq, of the first thirty cases treated, I did not succeed in saving more than six, while at the estate of Queen Victoria" (where the disease appeared ten days later) "there were thirty favourable cases before one died. The measure of success depended on the early application of remedies, and the degree of the intensity of the disease.

"My experience convinces me that the time for treatment is over practically before collapse and congestion have set in; when these are once declared, I am disposed to doubt if nature, left to herself, would not produce as favourable results, as those which my experience can lay claim to.

"The douche was not tried by me, as it required more time and aid than I had at my command."

I quote from another portion of the published report of this epidemic the following.

"Another fact worthy of notice is the immunity enjoyed by the Chinese during the cholera. There were in Port Louis, in June 1854, about 1800 Chinese. The entire ascertained mortality among these 1800 men from cholera was two." (The mortality in the general population was one in twenty-four.) "This proportion, which would appear very remarkable under any circumstances, must appear wonderfully strange, when it is recollected that nine-tenths of the Chinese lived and remained in Port Louis in the very centre and hotbed of disease, and that their habits, their food, their dwellings, were of a nature to invite disease instead of repelling it. This mysterious privilege of remaining unscathed in the midst of deadly malady, amid hygienic conditions of the most unfavourable character, has been abundantly proved; but the reasons assigned are hardly satisfactory, and it is difficult to believe that the use of *tea and opium** are of such miraculous preservative power."

Subsequent epidemics have hitherto not given me reason to distrust the stimulant-opiate treatment in the early stages of cholera. Nor can I hold that Dr. Johnson is justified in stigmatising it as "condemned alike by therapeutical experience and by pathological science."

The report of the Treatment Committee of the Medical Council in 1855, attributed the highest rate of success to the opiate and astringent, and the lowest to the eliminative. I see, too, that the Committee of the College of Physicians are now adhering to this plan, though the doses seem to me far too small for the purpose.

One of the latest witnesses, Mr. Davies (*Medical Times and Gazette*, May 5th), declares that, in 1849, every case of choleraic diarrhœa in which he administered castor-oil, or any purgative, died. On the other hand, Dr. Johnson, in 1854, found that "many cases of choleraic diarrhœa came under his observation, cases in which there were vomiting, *bilious purging*, and cramps. They were all treated by castor-oil without opiates; they all recovered, and not one case so treated passed into collapse." In this passage, as in others, Dr. Johnson speaks of choleraic diarrhœa as bilious, up to the period of collapse, thus: "This secretion" (from the bowels) "is tinged with bile before collapse comes on, and again after collapse has passed off; while during the stage of collapse it has the characteristic rice-water appearance and bile can be detected only by chemical tests." (British Medical Journal, vol. ii, 1865, p. 465.) Against this view of the facts I submit:

1. That collapse, so far as asphyxial, is not coextensive in time with the occurrence of clear watery, or rice-watery, stools, but is a phenomenon later in date than their appearance.

* Tea = boiled water + astringents.

2. That watery or rice-watery purging in cholera epidemics is not always followed by the state of asphyxial collapse, recovery taking place in some cases without its occurrence.

3. That collapse, so far as the asphyxial symptoms are concerned, depends largely and primarily on blood changes consequent on the loss of water and salts mainly. Before going further I shall attempt an epitome of Dr. George Johnson's theory, in order that my objections to it may be more clear.

1. There is no ratio, or an inverse one, between vomiting and purging and collapse. In the worst and most malignant cases, the patient may die of collapse without either purging or vomiting having taken place. The symptoms of collapse are not such as an excessive drain of fluid is likely to produce.

2. The cholera-poison in the blood eliminates itself by purging and vomiting, and produces asphyxia directly from its irritating properties upon the smaller branches of the pulmonary arteries.

3. Consequently, astringents, by retaining the poison in the system, aggravate the disease instead of curing it.

The corner-stone of Dr. Johnson's theory is the assumed existence of a class of cases, "*the worst and most malignant*," in which the asphyxial symptoms of collapse are primary and unpreceded by vomiting and diarrhœa. Though there are numerous authorities in support of this view, I have seen two epidemics of the gravest character in Mauritius, and frequently had cases of cholera, during several years in Indian hospital practice, without ever having the fortune to find or verify one of these cases of dry cholera, and have hence grown to be very sceptical of their existence.

The physician, at a time of intense pressure, is apt to admit, without much investigation, the first statement made; and many patients, such as soldiers or sailors, are anxious to hide the self-neglect, against which they have been forewarned.

This point merits close attention in future epidemics; every alleged case should be sifted retrospectively, and *post mortem* appearances should be carefully described.

Terms suggestive of arithmetical precision are misleading in a discussion involving the intricate complexity of pathological reactions. The varied states of the recipient body are conditions of the cause, equally with the morbid poison introduced. We know too little of either sets of factors to establish ratios; but if there were an inverse ratio between watery purging and collapse, the latter should occur rather soon than late, before than after elimination; yet it will be conceded that the first evident effect of the cholera-poison is most generally diarrhœa, fæcal (which, I presume, is the equivalent of bilious in Dr. Johnson's terminology) at first, later, clear or rice-watery.

The term serous, often applied to the latter, is as misleading as collapse; the one suggesting loss of the albuminous parts of the blood, just as collapse leads the mind rather to syncope than to asphyxia. Yet in cholera the loss of albuminous parts of the blood is hardly appreciable, the loss being mainly of water and salts; to this doubtless is due the frequent rapid recoveries, so different from those after hæmorrhages and other exhausting profluvia, in which the blood loses its more highly organised parts.

I believe it to be matter of fact, that asphyxial symptoms are not known to coexist with or to succeed purely fæcal diarrhœa; though, when this is excessive, syncopal symptoms may ensue, producing one kind of collapse. Asphyxial symptoms, however, only follow in cases of watery or rice-watery stools, where the watery and saline parts of the blood are diminished to such a degree as to affect the normal reactions between the blood and the air in the lungs, from which time there is diminished attraction of blood to the pulmonary capillaries, and what blood does pass through the lungs is imperfectly arterialised, the systemic arterial vessels are imperfectly filled, while the venous system and right side of the heart are filled to repletion, and the full symptoms of cholera collapse are established.

Though we cannot by any artificial experiments deprive the blood of its watery parts and salts, and hence have been driven to estimate the consequences by the analogies of blood-letting, etc., we have occasional proofs of asphyxial symptoms following copious watery purging, which has originated merely in errors of diet, or abuse of purgatives, where there has been no suspicion possible of cholera-poison. As an instance of this, I give a case in the *ipsissima verba* of a weekly report of April 30th, 1864.

"Corporal M. has had several attacks of what appears very like cholera in all its symptoms, purging of watery fluid, severe cramps of legs and arms, and a leaden look, with the cold sweats of collapse. He generally makes a rapid recovery; on this occasion, I tested the clear straw-coloured fluid passed, expecting to find it rich in albumen, but neither boiling nor the addition of nitric acid caused any precipitate.

"This may account for the slight ulterior effects of attacks apparently so severe as his have been."

Though this is a mere sketch of the case, I may say that he resembled in all essentials the asphyxial type of collapse, with death-like look, and sodden, shrivelled fingers.

This was the eighth attack, more or less severe, on record. In three of the previous attacks a red herring, a Christmas dinner, and a seidlitz powder, were the causes assigned; on this occasion, as on several others, he was unable to or unwilling to assign any cause for the attack.

I have little doubt that similar cases will be remembered by others. Their occurrence is wholly opposed to the view of the asphyxial condition being due to a spasm of the smaller branches of the pulmonary arteries, arising from the direct irritant effect of a specific poison, and lends support to the view that the central fact in cholera is a material change in the constitution of the blood, mainly a loss of water and salts, rendering it unfit to undergo the usual chemical change in the lungs (with its train of consequences on the circulation), and that this loss is mainly produced by profuse watery discharges into the gastro-intestinal canal, as evidenced by the order in time of the successive phenomena.

If the account I have given be accurate, there is good ground shown for preferring a stimulant opiate, and astringent treatment, to an eliminative one, during the short interval, when, and when only, treatment has any well proved value.

ON PROGNOSIS IN HEART-DISEASE.

By W. H. Broadbent, M.D., Assistant-Physician to St. Mary's and the Fever Hospitals; Lecturer on Physiology at St. Mary's Hospital Medical School.

[*Continued from* p. 661 *of* vol. i *for* 1866.]

In affections of the mitral valve, the effects of the derangement no longer fall upon the left ventricle, but on the auricle, lungs, and eventually on the right ventricle. When there is regurgitation through the orifice, it would seem, at first sight, that a certain increase of capacity would be needed to make up for this loss, and part of the force of the left ventricle will be wasted or misdirected in driving blood back-

wards as well as forwards. Primarily, however, there exists no mechanical cause of dilatation, and the provocation to hypertrophy is but slight. Even this will be wanting in obstructive disease. Accordingly, in mitral regurgitation, we do not find any considerable degree of dilatation or hypertrophy in the left ventricle, and in mitral constriction there may be contraction. A moment's consideration will show that increased capacity and strength of this cavity would by no means have the same effect in mitral as in aortic regurgitation. In the latter condition, so long as the mitral valve is competent, the result is that a larger volume of blood is thrown into the aorta at each systole; in the former, the increased amount of blood contained by the dilated ventricle would be divided between the aorta and the auricle, and a part of the increased force would be expended on the lungs. The auricle, however, becomes dilated and hypertrophied, as a result of the backward pressure, and this extends backwards through the lungs, and is felt by the right side of the heart, which becomes hypertrophied, often to a remarkable degree. It is difficult to understand how the pulmonary vessels and capillaries can resist the tension to which they are exposed; but it cannot be doubted that the right ventricle, by the additional force it exercises, aids in supplying the left ventricle with blood. This I look upon as a compensatory action of considerable importance. The increased pressure will send the blood more rapidly through a constricted orifice, and will tend to diminish the amount of regurgitation when the valve is incompetent. The thin walls of the right ventricle, however, readily yield to a distending force; and a frequent consequence of this is regurgitation through the tricuspid orifice, a provision which postpones the occurrence of pulmonary apoplexy.

I think it will be evident from the considerations adduced, that the relations between valvular and associated structural alterations is one of cause and effect; and I am convinced that both will be better understood, and their bearing on prognosis better appreciated, if, instead of looking upon their combinations as valvular disease of altogether uncertain amount, complicated by hypertrophy and dilatation of independent and accidental origin, or the converse, the hypertrophy and dilatation are regarded as the direct results of the valvular affection, and as measuring the degree of mechanical difficulty occasioned by the obstruction or incompetence.

It further seems to me clear that, on the whole, these changes, dilatation as well as hypertrophy, tend to neutralise the mechanical obstruction resulting from the imperfect action of the altered valves, and are thus distinctly conservative.

A valvular murmur, then, accompanied by hypertrophy, or dilatation, or both, is still attended with greater danger than a similar murmur not so accompanied; not, however, because the hypertrophy and dilatation add new elements of danger, but because the valvular change causing the murmur gives rise also to mechanical difficulty of serious character in the one case, and not in the other.

If, in addition to the disease in the valves, there be degeneration of the muscular substance of the heart, the dilatation may be taken as expressing the relation between the mechanical difficulty and the power of the heart to cope with it.

At the point which we have now reached, we may consider the prognosis of those cases in which valvular murmur exists, but without any apparent effects, the health and strength remaining good; and it must be remembered that, in heart-disease especially, prognosis includes not only the signs of approaching evil, but the probabilities of continued immunity.

When with the valvular murmur there is no change in the form or volume of the heart, or derangement of its action, it may be concluded that the valvular mischief is slight and unimportant. If, further, it be known to be of old standing, and to have been caused by acute endocarditis, the probabilities are, that it will not shorten life, will give rise to no symptoms, and have no ill effect whatever on the health. If, on the other hand, the murmur be recent, and have come on late in life, the same hope cannot be held out; it may indicate incipient degenerative change, and the progress of this change will determine the future of the case. Careful observation of the murmur from time to time, and of the state of the heart's walls and cavities, will be required in order to arrive at a safe prognosis.

When the murmur is accompanied by evidence of structural alteration, a cause for this exists in mechanical difficulty occasioned by the change in the valve. The seat and character of this difficulty are to be taken into account, and the order of relative gravity of the different valvular affections must be borne in mind; but we look chiefly to the condition of the walls and cavities. If the amount of change be only moderate, and especially if hypertrophy predominate over dilatation, the patient, subject to the conditions mentioned above respecting the stationary or progressive character of the disease of the valve, may have an indefinite term of life before him, untroubled by cardiac symptoms. But the existence of the hypertrophy shows the valvular lesion to be such as to interfere with the circulation; and it must be remembered that the compensatory arrangement may be easily disturbed. Precautions, therefore, must be taken against occurrences which would throw increased labour on the heart, such as overwork, exposure to cold, etc.; and, if complications arise, the extent of the hypertrophy or dilatation will form an important element in the estimation of the degree of danger, indicating, as it does, a pre-existing injurious tendency.

In addition to the structural condition of the walls and valves of the heart spoken of, there may be indications of its functional condition (the subject being still in the enjoyment of good health), which may be reassuring, or the reverse. It will confirm other favourable signs, if the heart's action be equal, regular, tranquil, and of moderate strength, and not readily excited to palpitation. If, on the other hand, slight causes be sufficient to give rise to hurried and violent action, or if habitually there be any considerable departure from the normal force or regularity, these are further symptoms of the serious character of the affection.

The prognosis becomes more grave with increased amount of structural change, and more especially as dilatation is associated with, or predominates over, hypertrophy; but these conditions, even in an extreme degree, by no means threaten a speedy dissolution, and are not inconsistent with a prolonged and comfortable existence. There is, however, an increased liability to complications from comparatively slight causes; and sooner or later a time arrives when the heart is no longer equal to the work imposed on it, and symptoms of embarrassed circulation arise. These then form the next element of prognosis, and, when well marked, give more definite, though more unfavourable, indications. The period of time at which they follow the occurrence of the valvular lesion is a most important point to be ascertained. The more quickly they supervene, the more serious their significance. When they appear early, they show that the mechanical difficulty caused by the valvular incompetence has been too great for the compensating tendency of the struc-

tural changes, which thus cease to indicate its amount. They are dwelt upon with great force by Dr. Stokes, more particularly as he considers "that the number of cases in which we are warranted in making a special diagnosis of valvular disease is small." We judge of the functional as well as structural condition of the heart by its action as seen, felt, or heard, through the walls of the chest, both habitually and as influenced by various circumstances. We learn the state of the systemic circulation by the pulse, and by examining the veins and capillary circulation; and of the pulmonary circulation, by the degree of dyspnœa, and the readiness with which this is induced. But there may also be present some of the train of cardiac symptoms, uneasy sensation, oppression, or actual pain referred to the heart itself, low spirits and irritability of temper, pulmonary embarrassment in various degrees, from mere shortness of breath up to the terrible paroxysmal dyspnœa termed cardiac asthma, or there may be incipient dropsy. The complications which immediately threaten life are reserved for later consideration.

The heart and pulse are to be observed mainly with a view to the indications of sustained or failing power in the heart, and of sufficient or insufficient supply of blood in the arteries. Speaking generally, if the heart evince vigour without excitement, and a strong heart-beat be not contradicted by a weak pulse-wave, the effect on the circulation has not reached a point attended with immediate danger. But each of the different valvular diseases gives rise to a characteristic modification of the pulse, which must always be taken into consideration. Aortic constriction tends to render the pulse small, with a prolonged wave. Aortic regurgitation is associated with the well known visible and audible collapsing pulse. Mitral regurgitation gives rise to irregularity in force and rhythm both in the action of the heart and in the pulse at the wrist. The degree in which these peculiarities are manifested, especially when traced by the sphygmograph, may assist in estimating the amount of change in the valve; if they be not borne in mind, none but fallacious inferences would be drawn from the pulse in prognosis. When, in aortic obstruction, it becomes fluttering and irregular, and when the characteristic collapsing pulse of regurgitation ceases to be evident and is replaced by a pulse weak and frequent, the heart is failing, and unfavourable symptoms, if not present, may be expected. In mitral regurgitation, there may be extreme irregularity of the pulse; and there may be occasional contractions of the heart, which, from momentary weakness or from want of a sufficient amount of blood in the ventricles, do not reach the wrist, thus causing one kind of intermission. But so long as the arteries are, on the whole, well filled by the systole, the heart retains a degree of vigour, and, in the absence of other unfavourable indications, may be expected to carry on the circulation indefinitely. It is, indeed, astonishing how little trouble may accompany mitral regurgitation, with enlargement of the right ventricle, and an irregular and intermitting pulse; and how long life may last. When it becomes weak, frequent, and fluttering, even though more regular, or when it is altogether uncertain, the imminence of dangerous consequences is great.

The occasional abortive systole referred to is commonly, if not always, the result of varying pressure on a dilated heart in the movements of respiration. In emphysema and bronchitis, the pulse is always weaker during the laboured inspiration, and stronger during the forcible expiration, as pressure is applied to, or withdrawn from, the heart; and a sustained powerful inspiration will in any person cause the pulse to be for the moment slow and feeble; but, when the heart is dilated and weak, it feels the effects even of ordinary respiratory movements, and frequently to such an extent that a systole corresponding with commencing inspiration, or with the respiratory pause, is so far neutralised by the removal of pressure as to fail in propelling the blood into the remote arteries; or, as it has seemed to me, the expansion of the chest has acted rather on the thin-walled left auricle, preventing the blood from entering the ventricle.

To return to our subject: whatever the structural condition of the heart and its habitual action may be, if it be liable to excitement from slight and varied causes, such as a little exertion, change of posture, moderate emotion, the taking of food or stimulants, this is an unfavourable sign.

Fulness of the veins indicates obstruction to the entry of blood into the right side of the heart; and this again usually implies obstruction to the pulmonary circulation. Pulsation in the large veins of the neck is the most reliable sign of tricuspid regurgitation—the last in the chain of consequences tending to dropsy.

In the state of the capillaries, we find most unmistakable evidence of an obstructed or stagnating circulation. The face congested in different degrees, the cheeks of a deep or dark red, or approaching to purple in hue, with blueness of the lips and lividity of the nose; or the face may have a dusky pallor, the nose being cold and livid. The extremities, again, may be cold and purple; the colour returning slowly after pressure. It is not necessary to go fully into the signs of sluggish capillary circulation, or to point out their significance. They belong in their marked form to a late stage of the disease, and their prognostic import is not to be mistaken.

The symptoms of secondary respiratory embarrassment are of every degree of intensity, and belong to every stage of valvular affections. Shortness of breath on exertion, and especially in walking up-hill or against the wind, is common to all heart-disease; and, except when experienced in an extreme degree, is not a very serious indication. It is simply an exaggeration of what occurs to every one taking violent exercise. The simultaneous pressure on the veins by all the muscles of the body at first brings the blood to the right side of the heart faster than it can be sent through the lungs and aërated—whence the panting. If the exertion be begun gradually, or be persevered with in spite of the dyspnœa, the circulation is equalised, and we "regain our wind". In valvular disease, this takes place with greater difficulty; but commonly, except in some cases, by starting gently and not giving in to the early dyspnœa, a sufferer from this may be equal to considerable exertion or sometimes even to severe manual labour. Shortness of breath to this degree is one of the symptoms often complained of for years without marked increase; and sufferers from it may have become so habituated to it, as to be unconscious of a condition of dyspnœa which at once attracts the attention of the physician. Frequently, however, "shortness of breath" and "want of breath", as it is often expressed by patients, becomes a most distressing symptom. The sufferer may have to stop and pant a score of times in walking one hundred yards; he may be unable to lie down; and may have paroxysms of breathlessness without assignable cause. In this case, the derangement of the pulmonary circulation is greater and danger imminent. Habitual cough, persistent bronchitis with watery expectoration, occasional œdema of the lungs, are signs that the obstruction is having its effect on the pulmonary

structures, and premonition of what may be expected on the slightest occasion.

Commencing dropsy, which will most commonly be associated with, or preceded by, evidences of pulmonary obstruction, is a serious symptom, but of very different import in different cases. This, however, will be more fully entered into later.

It is not necessary to dwell on other symptoms, such as sleeplessness, or sleep broken by dreams, low spirits, anxiety, irritability, apprehension, which, while adding to the patient's sufferings and helping to wear out his strength, teach nothing in regard to prognosis not already known by surer signs. A careful study of the countenance cannot, however, be too strongly recommended. By certain indefinable tokens, with which we soon become familiar, we may often go in advance of more positive indications.

As to complications other than those in the lungs, whether secondary to the impeded circulation or originating in the organ affected, in the liver, gastro-intestinal tract, or kidneys, each must be set down as an unfavourable note. Most serious is renal disease, which at the same time deteriorates the blood, and imposes on the heart additional mechanical labour by obstruction in the systemic capillaries. The conjunction of cardiac and renal affections is most ominous.

If the existence of adhesion of the pericardium can be satisfactorily made out, it must be looked upon as adding to the danger of the case; but this will probably be indicated by symptoms of cardiac difficulty.

[*To be continued.*]

Reports of Societies.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, JUNE 6TH, 1866.

ROBERT BARNES, M.D., President, in the Chair.

SEVEN gentlemen were elected Fellows of the above Society.

Specimen. Dr. GREENHALGH exhibited severa specimens of medicated cotton wool, which had been recently made at his suggestion by Messrs. Bell and Co., of Oxford Street. He used them chiefly for application to the neck of the uterus and vagina. Being prepared with glycerine, they could be used much stronger, and applied for a longer period, and are much cleaner than the greasy pessaries and suppositories in ordinary use. The specimens exhibited consisted of cotton wool with iodine and iodide of potassium; with atropine; with morphia; with iron and morphia; with tannin; and with matico. He had pursued the following mode of application: a portion, about the size of a half-crown piece, secured by a piece of thread, is applied through the speculum to the affected part, over which a larger piece of cotton wool, similarly secured, and freely saturated in glycerine, is to be placed, and retained *in situ* from twelve to twenty-four hours, when it can be withdrawn by the threads either by the patient or practitioner.

Dr. WYNN WILLIAMS exhibited a specimen of a large abdominal cyst, which he had removed from an unmarried female, 40 years of age. The case had been supposed to be one of ovarian disease, and a month previous to the operation seventeen quarts of fluid had been withdrawn by tapping. Death unfortunately took place twenty-four hours after the removal of the mass; and a *post mortem* examination showed that the tumour had no pedicle, and was unconnected with the uterus or its appendages. The specimen being of an exceedingly interesting nature, it was referred to a committee for further investigation, and a report thereon.

Dr. SANSOM exhibited an Uterine and Vaginal Douche.

Dr. GRAILY HEWITT exhibited a specimen of Uterus during Menstruation; also a coloured drawing of the specimen while in a recent state. The specimen exhibited very perfectly the condition of the uterus during menstruation. One ovary contained a Graafian follicle quite recently ruptured. The subject of the case was a girl, aged 15, who died forty-eight hours after being severely burnt.

Dr. J. BRAXTON HICKS exhibited some Sticks of Anhydrous Sulphate of Zinc, which he recommended to the notice of the Society, having himself found them very useful and safe in the treatment of those conditions of the canal of the cervix uteri requiring styptics: such as produced cervical leucorrhœa, menorrhagia, etc. He considered that they were much more efficacious than fluid injections, because the stick could be allowed to remain in the canal, whereby a much more prolonged contact was obtained. They were made for him by Johnson and Sons, Basinghall Street, City.

MENSTRUATION IN PREGNANCY. BY GRAILY HEWITT, M.D.

The following case was related illustrative of the occurrence of menstruation in pregnancy, and as a contribution to the knowledge of this subject. A. B., aged upwards of 30, had several pregnancies. The last child was born June 23rd, 1865; suckled one month. The catamenia appeared from Sept. 15th to 25th; in October they were absent; on Nov. 7th she had a discharge of blood, with slight watery discharge, alternating for a week. Dec. 7th, she was "poorly," as usual, for six days. January 8th, 1866, she felt quickening. March 1st, pregnancy was distinctly diagnosticated. Delivery of a female child, apparently about a fortnight short of full time, took place on May 17th. The author considered it pro bable in this case that there was a twin conception, one ovum perishing and giving rise to the flooding observed in November. It might be that some other cases of apparent menstruation in pregnancy have a similar source; but in regard to the majority of the cases of menstruation in pregnancy, and excluding cases of irregular hæmorrhage, he believed the source of the blood to be the decidua vera, as in ordinary menstruations, the unusual condition in such cases being the absence of adhesion of the two membranes, the decidua vera and decidua reflexa. The decidual chamber may, in other words, persist to a later period than usual, in which case there is no difficulty in accounting for the exudation of blood from within it, and its appearance externally.

ON ANÆSTHESIA BY MIXED VAPOURS. BY ROBERT ELLIS, ESQ.

In opening this subject Mr. ELLIS said it would be taken for granted that the administration of mixed anæsthetic vapours possessed certain advantages over that of pure chloroform, counteracting the depression produced by the latter agent, and giving great security to the anæsthetic art. But the difficulty consisted in the due application of these vapours, and up to this time the anæsthetic fluids had been simply mixed together, and their resulting vapours administered. It was then shown that the whole theory of anæsthetic mixtures, and especially of those recommended by the Chloroform Committee, was based on an error; this being the idea that the vapours of each fluid would rise from the mixture in

the same proportions as those of its constituents. A large number of experiments were detailed, the object of which was to prove in the clearest possible manner that this notion was wrong from the commencement. Anæsthetic mixtures were shown to give off their respective constituents in vapour as nearly as possible in the order indicated by their boiling points, Thus ether came off in largest quantity, and alcohol in the least; and it was found that it was not possible to construct any formula for an anæsthetic mixture which would give off a definite and unvarying constitution of vapour from first to last. The patient consequently would be inhaling a mixture of vapours of different character at each moment of evaporation, and no reliance could thus be placed upon these compounds. The author, therefore, denounced the whole practice and theory of anæsthetic mixtures in the fluid form as uncertain in their effects, and not to be depended upon for practical employment. Mr. Ellis, however, believing in the great value of a true system of anæsthesia by mixed vapours, was led to the discovery of a simple means by which this anæsthetic method might be carried out in practice. In the instruments exhibited to the Society the following principles were carried out:—

1. The anæsthetic fluids were evaporated in distinct and separate chambers, and their vapours were combined in an air-chamber on their way into the lungs,
2. The proportions of each vapour were regulated by a most simple mechanical contrivance.
3. It was impossible to give an over-dose of either ether or chloroform in consequence of the peculiar adjustment of the receptacles for those fluids.

Without entering into the details of construction of these inhalers, the author drew attention to two very important features in his invention, which he believed likely to influence for good all future forms of chloroform instruments. The first of these was the method of only liberating a certain number of minims per minute of chloroform or ether. This was effected by an adaptation of the self-acting law of capillary attraction. And the other was the powerful evaporating surface of a frilled description, by which he could saturate the inspired air with the powerfully stimulant vapour of alcohol. He estimated at a high rate the value and importance of these adjustments, and invited the close attention of the meeting to their excellent performance. The fluids employed by the author were pure chloroform, ether, and alcohol; and so great was their economy of use that, in anæsthesia for such an operation as ovariotomy, extending over half an hour, scarcely two drachms of chloroform were used—an allowance of less than four minims per minute, or only three quarters per cent. of chloroform in the inspired air. In midwifery practice, in which the author claimed for his system many special advantages, he seldom used more than from sixty to ninety minims of chloroform per hour.

Dr. Sansom thought the observations of the author most valuable, as urging upon the attention of the profession the necessity of a proper dilution of chloroform. From his own experience he was assured that by the ordinary rough means adopted to administer chloroform it was common to allow an atmosphere of from ten to thirteen per cent. to be inspired. Dr. Sansom explained his theory of narcotism, especially the action of narcotics upon the calibre of the arteries. A typical anæsthetic would be one which would not, on the one hand, like chloroform, rapidly abrogate the functions of the sympathetic and paralyse the heart, nor, on the other hand, "over stimulate"—*i. e.*, by contracting the arteries, throw a large volume of blood upon the venous system. Chloroform acted best when freely diluted, but, unlike the author, Dr. Sansom considered that this dilution could be effected without special apparatus. Ether was ineffectual for dilution, because, from its volatility, it nearly all evaporated away from its mixture with chloroform; and its excitant as well as nauseating properties were objectionable. But from great numbers of experiments (many of which Dr. Sansom detailed), he was convinced that in chloroform diluted with an equal bulk of absolute alcohol we have an excellent anæsthetic, which gives off a proportion of chloroform vapour in a given time, almost exactly half of that which is given off by chloroform pure and simple. As to Mr. Ellis's instrument, though most ingenious, he thought, as anæsthetics were for the many and not for the few, we should recommend such a process as will render anæsthesia safe, and be encumbered as little as possible with mechanical complications.

Mr. Ellis, in reply, stated that he could scarcely sufficiently forcibly dwell on the fact that the fluid anæsthetic mixtures gave off uncertain and varying compositions of vapour—a fact clearly demonstrated by many of the experiments he had detailed, and that, therefore, they were not to be relied upon. Especially in midwifery practice this grave error, in consequence of the duration of inhalation, was most manifested. He could by no means agree in the remarks of Dr. Sansom as to administering as high a per centage of chloroform as four per cent. He was, by his system, perfectly well able to obtain speedy, and to sustain prolonged, anæsthesia with an allowance of barely one per cent., the security and well-doing of the patient being, in his opinion, in exact proportion to the diminution of the dose of chloroform. The vapours of ether and alcohol mixed with it seemed in an extraordinary manner to enhance the activity of the chloroform, and safely to sustain its force. He begged in conclusion, to exhibit to the Society a perfectly new form of his inhaler. This instrument he had especially designed for his use in midwifery. It was simple in construction, and of equal safety in use with the more powerful inhaler. Its principal feature was a beautiful little reservoir for chloroform, which, acting on the principle already alluded to, dropped that fluid over an evaporating surface, at any rate per cent. desired by the operator. The instrument was thus effectually protected against an overdose.

AN EXAMINATION OF CERTAIN UTERINE AFFECTIONS IN THEIR RELATION TO PHTHISIS PULMONALIS; WITH CASES. BY R. BATTYE, M.D.

The author's attention to this subject had extended over fourteen years, during which time he had collected numerous examples of various forms of uterine leucorrhœa coexisting with affections of the lungs. He brought eleven cases before the Society, minutely describing the symptoms and termination of each. As soon as the leucorrhœa was cured or relieved, the chest-symptoms also either entirely disappear or lessened in extent and force. He strongly urged early special attention during the treatment of phthisis to uterine discharges when present, as such caused a constant drain on the constitution. As to treatment, he seldom used local remedies, but trusted to acids, vegetable bitters, and cod-liver oil. The salts of iron were found by him to be very valuable in the chronic forms, having a special effect on the lung condition as well as on the uterine discharge.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, JUNE 12TH, 1866.

P. BLACK, M.D., Vice-President, in the Chair.

ON ATROPHY OR DEGENERATION OF THE MUSCLES OF THE UPPER AND LOWER EXTREMITIES FROM DISEASE OF THE SPINAL CORD.

BY GEORGE LEWIS COOPER, F.R.C.S.

J. J., aged 41, married, (no family) was much exposed to the weather in his daily occupation; at the same time he had been a man of intemperate habits, and the subject of a long chronic cough. He was admitted under the care of the author at the Bloomsbury Dispensary on Feb. 14th, and died on the 26th. He suffered from complete paralysis of the upper and lower extremities, with atrophy of the muscles of these parts. The symptoms were slow, but progressive. They commenced in the hands and feet, and extended to the arms and legs, and ended in total paralysis. His cough was severe, with purulent expectoration, to the time of his death, which took place on Feb. 26th. The *post mortem* examination showed much distension of the coverings of the cord from fluid, with congestion of the pia mater in the cervical region, and considerable softening in the substance of the white columns. At the commencement of the lower third in the dorsal region the central grey substance contained a large dilated vessel on each side, surrounded by extravasated blood corpuscles; and the extremities of the posterior cornua were highly vascular, as also in certain parts of the grey substance there were patches of extravasated blood.

VITILIGOIDEA PLANA ET TUBEROSA.

BY F. W. PAVY, M.D.

Dr. PAVY exhibited a patient from Guy's Hospital, the subject of Vitiligoidea Plana et Tuberosa. He remarked that this disease had been first described by Drs. Addison and Gull in the *Guy's Hospital Reports* for 1851. In their communication they stated that the affection they were describing occurred either as tubercles, varying from the size of a pin's head to that of a large pea, isolated or confluent, (vitiligoidea tuberosa); or, secondly, as yellowish patches of irregular outline, slightly elevated and with but little hardness (vitiligoidea plana.) Either of these forms, they further stated, might occur separately, or the two might be combined in the same individual. The case before the fellows of the Society was an exceedingly well marked one, and one in which the combination of the two forms occurred. The patient, a female, aged thirty-nine, three years ago became the subject of jaundice, which lasted for ten months. She was then free from it for about two months. It afterwards reappeared, and had continued up to the present time. About a year and a half ago she experienced a sensation of great itching and stinging in her skin, and after this the eruption that now existed began to appear, and gradually reached its present state. It was not so perceptible by night, but she was pretty deeply jaundiced of an olive colour by day; and in association with the jaundice it was to be remarked that a large and tender swelling, evidently connected with the liver, was to be felt in the right hypochondriac region. Completely encircling each eye, and extending for a space of from half to three-quarters of an inch in breadth, was a patch of an opaque yellowish colour, and slightly elevated above the surrounding skin. Upon the ears there were a number of tubercles, looking certainly to the eye like sebaceous tumours. Similar tubercles also existed upon the backs of the hands and arms, and also on the back and nates. Upon the palms of the hands and palmar aspect of the fingers there was a patchy and diffused cream-coloured deposit in the skin. This disease, Dr. Pavy observed, had been recently considered by some as a disease of a sebaceous character. It was so regarded in Hebra's work on skin diseases, which is being translated by Dr. Fagge for the Sydenham Society. In Neligan's work, published in 1866, it had been spoken of as a form of acne, and called "stearrhœa flavescens." It was a point of interest, Dr. Pavy considered, to determine the precise nature of the affection, and he had had a tubercle removed from the back of the little finger for microscopic examination. The deposit pervaded the true skin and occurred in little nodular masses beneath. These were exceedingly tough, and consisted of fibrous tissue. On being squeezed between the forceps an opalescent juice exuded, which was found to contain a large number of fat granules. The cuticle was not involved in the affection. Independently of the result of minute examination, against its being a sebaceous disease, was the fact that it occurred, and in a marked manner, on the palmar aspect of the hands where no sebaceous glands existed.

Dr. Pavy also exhibited another patient from Guy's Hospital suffering likewise from a peculiar form of skin disease. The subject of it was a feeble, sickly-looking woman, twenty-five years of age. She belonged to a family in which there was a history of both scrofula and carcinoma. Upon the fingers and hands were some scar-like looking spots of a blueish white colour, which had been gradually appearing since March last. There were also spots of a somewhat similar character on the outer side of the anus. They came without any previous sore or ulceration. They might be said also to look as though the skin had been seared by the application of a hot iron. Dr. Pavy was open to the suggestions of the fellows present, but he had regarded the case himself as an early stage of the disease which had been described by Dr. Addison in the thirty-seventh volume of the *Medico-Chirurgical Transactions* under the name of "true keloid." This now went by the name of "keloid of Addison" in contradistinction to the keloid which had been described by Alibert, and which was altogether a different disease, consisting as it did of raised tumours with claw-like prolongations instead of cicatrix-looking spots.

THE UNIVERSITY OF EDINBURGH. "I apprehend," says Professor Christison, "that there can be no doubt of the success of this University having been most extraordinary. From the time when it was established by the first Monro, in 1720, no material change has taken place in its organisation, except that the Chairs of Botany and Materia Medica were separated in 1768; and that twenty-one years earlier, in 1747, the important addition was made of clinical instruction, which, by the way, was nowhere else introduced in Britain till nearly a century afterwards. From 1768 to 1825 there were only six professorships in the Medical Faculty, which now consists of twice that number. During a period of fully one hundred years the concourse of students increased steadily, till it reached, in 1823, the number of 900. The medical graduates, of whom there was only one in 1726, and not another till 1730, rose to 12 in 1750, 22 in 1775, 50 in 1800, and 120 in 1820. They came from all parts of the British dominions, as well as from some foreign countries. In 1792 the list was made up of almost equal numbers from Scotland, England, Ireland, and the United States, with a less proportion from the West Indies."

We are requested to remind members of the Association that the Annual Subscriptions became due on the 1st of January. They can be paid either to the Secretaries of the Branches; or to the General Secretary, T. Watkin Williams, Esq., 13, Newhall Street, Birmingham.

British Medical Journal.

SATURDAY, AUGUST 25TH, 1866.

THE CHESTER MEETING.

THE last and the present numbers of the JOURNAL have given a complete account of the proceedings of the Thirty-fourth Annual Meeting of the British Medical Association. Following our ordinary custom, we shall in this place briefly summarise and comment on some of the more salient points.

The meeting will long be memorable in the annals of the Association. As far as success went, there was every reason for congratulation. The meeting was well attended; there was enough and to spare of intellectual food of the highest nutritive quality; the welcome of the members resident in Chester to their brethren who came from a distance was most cordial; the Report of the Council shewed the Association to be in a flourishing condition in its pecuniary matters, and to have achieved an important share of the work which it had undertaken for the professional and public good. The past of the Association during the year, in fact, gave every reason for hope in the future. But the meeting was held under circumstances, peculiar and painful—which, in part, can never again occur, but which must through many years leave their traces at our annual gatherings. For the first time in its history, the Association was not cheered by the presence and animated by the voice of its Founder. That excellent man, to whom the prosperity of the Association was as his own life, and who, almost with his latest articulate words, sent his greetings to those whom he never hoped to meet again, had been but the day before the meeting committed to the grave. Most natural and fitting it was, then, that the Council should with one mind determine to suspend the ordinary course of business in opening the meeting, in order that the Retiring President, and Mr. Carden, as the faithful friend and medical attendant of Sir Charles Hastings, might submit for adoption by the members a form of words expressive of their feelings on the occasion; which motion, having been supported by Dr. Richardson in a few earnest words, was by the unanimous vote of the members placed on the records of the Association.

Nor was this vote of regret at the death of Sir Charles Hastings the only means taken of shewing respect to his memory. Later in the proceedings, a resolution was brought forward and unanimously adopted, that a sum of money should be raised by voluntary subscription among the members of the Association, the interest whereof should be applied to the augmentation in value of the Hastings medal. This medal, it is proposed, is now to be open to the profession in all countries, and is to be accompanied with a sum of money—which, we hope, will be worthy of the Association and of his memory whose name and effigy the medal bears. The Association, too, also adopted the unprecedented—but on this occasion justifiable—course of suspending its laws for the purpose of electing as an Honorary Member Mr. George W. Hastings, the son of Sir Charles. The laws of the Association limit the honorary membership to members of the medical profession; and therefore, under the circumstances, Mr. Hastings, as a barrister, would be excluded. But his important services as Secretary of the Social Science Association, the valuable aid which for several years he gave the Association in the matter of Medical Reform, and, perhaps, above all these, his near relationship to the revered Founder of the Association, formed ample grounds for the course which the meeting followed.

The death of Sir Charles Hastings rendered two offices vacant, which many years since were conferred on him for life—those of President of the Council and Treasurer. As President, the Council elected Dr. Sibson of London; and as Treasurer, the Association unanimously chose Dr. Falconer of Bath. Of the high qualifications of both these gentlemen for the offices to which they have been appointed, the votes of their brethren are a better proof than anything that we can say. Of Dr. Sibson, combining, as was well observed at the meeting, the *suaviter in modo* with the *fortiter in re*, we are sure that he will do his best to follow worthily in the course of his predecessor—and more we can expect from no one. The choice of Dr. Falconer as Treasurer was in the highest degree judicious. As an honourable and courteous gentleman, and, above all, a thoroughly clear-headed and well-trained man of business, it would be very difficult to find in the Association Dr. Falconer's superior, if indeed we might find an equal.

For next year, there is a great treat in store for the Association—a visit to Dublin. From this great city, cordial invitations were sent to the Association by the leading medical bodies—the two Colleges and the University. The invitation was as cordially accepted as given; and Dr. Stokes, whose name is a guarantee of success, was chosen as President-elect.

We rejoice at the prospect of a meeting in Dublin under such auspices; and believe firmly that it will lead to an increase and strengthening of the Association.

The proposed Charter of the Association was brought forward and adopted; but, a discussion having been raised on the subject, the motion was ultimately rescinded, and the Charter still remains for consideration at another meeting of the Association.

The meeting was honoured by the presence of the accredited representative of a great institution having objects similar to our own—the American Medical Association. Dr. C. Cox, Lieutenant-Governor of Maryland, having presented a credential duly signed by the President of the American Association, was introduced to the meeting, and heartily welcomed. An opportunity having been afforded him, he addressed the members in a speech full of good feeling, which is given at another page. What he said—especially his remarks on the public medical services in the two countries—will go very far to shew the workers in our Association that there are those at a distance who have the same evils to remove, and the same benefits to promote. We feel assured, that the visit of Lieutenant-Governor Cox to the meeting at Chester, the sincere welcome which he met with, and his hearty expressions of good will on the part of himself and his American brethren, will help to unite the profession in the two countries.

Of the Addresses in Medicine and Surgery, delivered by Dr. Hughes Bennett and Mr. Bowman, we cannot say enough in praise; and therefore, knowing that we shall fail in any attempt at laudation, we say nothing but this: that any one of our members who does not read them misses an intellectual treat, and an opportunity of moral as well as scientific improvement, which does not fall to his lot every day of his life.

As we have already observed, the supply of papers was more than sufficient; and in several instances the reading of the papers was followed by interesting discussions—a practice which we are glad to see on the increase. Dr. Rutherford of Edinburgh exhibited a very ingenious instrument called the Myographion, for measuring the rapidity of the nerve-current; and Mr. C. Heath gave demonstrations of the Endoscope. Mr. Spencer Wells, also, gave the members an opportunity of witnessing the performance of that operation with which his name, as that of a judicious and successful surgeon, is inseparably connected.

For any further details, our readers must consult the reports which appear in other pages. They will agree with us that, from beginning to end, the Chester meeting was thoroughly successful.

THE TREATMENT OF CHOLERA AND CHOLERAIC DIARRHŒA.

In the last number of the *Lancet* there are some interesting Notes on the Treatment of 123 Cases of Cholera in the Liverpool Parish Infirmary, by Dr. M'Cloy. Various plans of treatment were tried. The earlier cases were treated by stimulants, opiates, and astringents; and, although the treatment was commenced during the diarrhœa stage, the symptoms of collapse rapidly set in, and the disease was quickly fatal. Then the camphor treatment was tried. Some were treated by the application of ice to the spine; and others had what is called a "mixed treatment", including the use of astringents, sedatives, stimulants, ice, ice-water, the hypodermic use of morphia, hydrocyanic acid, strychnine, and camphor. Up to July 26th, there were fifty-six entries. Of these, five were moribund on admission, leaving fifty-one, who were treated with the following results.

Cases.	Mode of Treatment.	Deaths.
5	Moribund on admission	5
19	Camphor (Rubini plan)	13
7	Ice to spine, ice-water	7
25	Mixed treatment	13
56		38

"On the evening of the 26th, the castor-oil treatment was first ventured on, as a sort of forlorn hope." The history of the first case thus treated is given. It was a case of extreme collapse, "undoubtedly one of the worst cases admitted into the hospital. The recovery was looked upon as miraculous." Dr. M'Cloy says:

"I could give ten or twelve other cases quite as bad as this, which ultimately recovered under the eliminative treatment. Since the 26th July, there have been sixty-seven cases admitted, with the following results.

Cases.	Mode of Treatment.	Deaths.
11	Moribund on admission	11
2	Internal use of strychnine	2
4	Astringent and stimulant	4
50	Eliminative	17
67		34

"The method of administration of the castor-oil was, in the majority of cases, that advised by Dr. Johnson in his work on *Epidemic Diarrhœa and Cholera.*"

Dr. M'Cloy goes on to say:

"I observe in the *Pall Mall Gazette* of August 4th a statement to the following effect: 'The cholera at Liverpool is evidently subsiding; and, as usually happens at such a time, the larger proportion of recoveries is attributed to the mode of treatment, castor-oil having been substituted for camphor and ice.' Now, exactly the opposite of this is the case. *The disease is not subsiding; choleraic diarrhœa is increasing rapidly, and the cholera type is more severe.* It cannot be said that the cases treated on the eliminative plan were milder in character than those treated by camphor, astringents, or ice; for, so far from this being the case, I can most unhesitatingly affirm that they were not only *more severe in cha-*

racter, but were not, as a rule, prescribed for until collapse had for some time set in. Of the seventeen deaths, two occurred from pneumonia during convalescence; two were cases which had been discharged cured, and were suddenly seized with a relapse; and nine were cases in which there was no radial pulsation, *and in which neither emesis nor purgation could be produced.*"

In conclusion, Dr. M'Cloy says:

"*The eliminative treatment has been most successful.* It has been a success which those only who have seen and compared the relative severity of the cases can appreciate—a success which statistics cannot show."

In the same number of the *Lancet*, there is the following report of cases of diarrhœa treated at the Bloomsbury Dispensary.

"The astringent mode of treating recent cases of diarrhœa, as sanctioned by high medical authority, is still very much in vogue; but a plan of treatment of a directly opposite kind has been carried out by Mr. Spencer Ferris at the Bloomsbury Dispensary, which Dr. Pidduck, the physician to the charity, has found successful in several former epidemics. The method is as follows. If the diarrhœa be urgent, the patient is directed to go to bed and take a basin of warm broth; then take a pill of half a grain of calomel and three grains of rhubarb, followed in two hours by half an ounce of castor-oil. If next day the purging continues, a slightly astringent mixture is given; but it will be seen that this was necessary in only a small number of cases.

"The following is the result of the treatment of 201 cases of diarrhœa treated by the above eliminant plan during the present epidemic, between July 29th and August 13th. One hundred and fifty-nine cases were treated with the broth, pill, and oil, of whom five only returned and had astringent mixture, and then all were cured. Nine of these cases had been treated by astringents at other institutions, in several cases two or three times, without the diarrhœa stopping. One man had been ill a week, and unable to work, and took astringents the whole time; after the above eliminant treatment, he went to work next day quite well. A woman had had diarrhœa for seven weeks, several times stopped by astringents, but returning again and again. Another woman had been purged badly for a week, and had taken two bottles of sulphuric acid and opium mixture with no effect; she was in bed, in great pain, and worn out with purging; the next day, she was up, and only complained of weakness. A child had had astringent medicine at two different hospitals; and five came with symptoms of bilious fever after diarrhœa stopped with astringents, and one with jaundice. Fifteen cases, mostly children, were treated with magnesia and rhubarb mixture, of whom two returned (both teething) and had astringent mixture. Five cases were thus treated from the first, having had diarrhœa for some time; two required it twice, and another three times. The astringent used in all cases was simply ten minims of tincture of opium and one ounce of decoction of logwood every three hours for adults, and a proportionate dose for children. Twenty-two cases were treated with coloured mint-water, of whom two only returned; one then had broth, pill, and oil, and the other astringent mixture, and were cured. One of these also had astringents at a hospital before coming here.

"No deaths resulted in the above 201 cases. Only one case returned a third time, and twelve a second time."

CHOLERA AND IMPURE WATER

"Unclean water cannot be consumed with impunity; its consumption is the sin of which cholera is the punishment." So says the Registrar-General; and he illustrates his position by demonstrating that the great mortality which has lately fallen upon the eastern districts of London has been associated with the supply of water by one particular company. "By the doctrine of chances," says this authority, "it is impossible that the coincidence between this particular water and the high mortality should be fortuitous in one hundred and thirty-five subdistricts during six weeks in succession." This statement seems to show indisputably that the drinking of contaminated water is an influential provocative of cholera. There are some pathologists who love to speculate about "telluric influences", and "blue mists", and other mysterious agencies; while they obstinately deny the existence of a material poison as an essential cause of choleraic disease. Perhaps they will now admit that we have very probably in the consumption of foul water, and especially of water contaminated by sewage, a sufficient provocative cause of the disease. It cannot surely be doubted that diluted sewage is a veritable poison, or that the ferment, if so it be, when taken into the alimentary canal, will rapidly enter and contaminate the blood.

This fact has also a bearing upon the question of treatment. Dr. Johnson will say that the days of the opiate and the stimulant treatment are now numbered. This treatment, originally suggested, as he asserts, by an erroneous pathology, and continued in spite of its frequent failure, will no longer be able to hold its ground. It is upset, in his view, by our more accurate knowledge of the essential causes of choleraic disease, by a better pathology, and by the rapidly cumulative evidence as to the comparative success of the opposite or evacuant mode of treatment. Certainly it seems probable that, if a patient should learn that his nausea and vomiting and purging are provoked by imbibition of a poisonous dose of sewage, it will be difficult to persuade him that he who would directly repress these conservative efforts is a friendly helper.

In this matter of the treatment of cholera, we as a profession are on our trial before the world; and the sooner we abandon defenceless positions, the less will be the discredit which we shall unjustly incur by our past unavoidable mistakes.

If what we have heard be correct, the late election of Councillors of the College of Surgeons has already begun to bear good fruit. The first note which proclaims the downfall of the system has been sounded. The Council last week, it is said, were called upon to express their opinion as to putting an end to the system of making the Examinerships of

the College life appointments. And the Council replied by passing a resolution to the effect that in their opinion no Fellow ought to hold the office for more than ten years; that is, ought not to be elected more than twice. We need hardly add that, after such a vote, no Examiner can ever hope to renew his term of office for a third quinquennial period. Our own opinion, as so often expressed in these pages, is, that no one ought to hold the Examinership for more than five years; and we have no doubt that the Council, who have at length commenced a new era in the management of the College, will, on further consideration, advance another step in the direction of liberality and fair-play, and then another, until at last they have done that justice to the College, and to themselves, which we have been so many years calling upon them to do. Were we wrong in inviting Fellows to support candidates for office whose entrance into the Council is inaugurated by such action as this? The stone has been moved; and we will defy the retrogradists of the Council to arrest its roll. The force which has been let loose with it will assuredly overwhelm those who stand in the way and endeavour to arrest its progress.

We quite agree with a contemporary, that it is very much to be regretted that so many members of our profession should discuss the treatment of cholera in the *Times*. The subject is there addressed to an audience who are incapable of appreciating the merits of the case. Professional opinion assuredly should be led and guided only by professional criticism. Public opinion cannot fail to be misguided by professional discussions of the kind here alluded to. And no one who has read the correspondence alluded to can imagine that our profession has been thereby elevated in the opinion of men whose opinion is worth caring about. Everyway the proceeding is most objectionable.

The death of M. Gibert, as well as of Dr. Chaussier, from cholera is announced.

The Medical Congress, which was to have met at Strasbourg on the 27th instant, is adjourned on account of the war and the cholera.

Professor Bennett of Edinburgh, M. Lebert of Breslau, and M. Huss of Copenhagen, were proposed by the Commission for the honour of foreign correspondent of the French Academy of Medicine. The choice fell upon M. Lebert.

In the Report on recent Epidemics made to the Paris Medical Society, it was remarked that the cholera was frequently unattended by any premonitory signs. At the Maison de Santé, M. Bourdon observed many sudden cases, and in persons who had had no premonitory diarrhœa. At Hôtel Dieu, says M. Horteloup, premonitory diarrhœa was absent in more in half the cases. In a large number of his patients, M. Moutard-Moulin observed that the cholera arose without any premonitory signs.

THE CHOLERA.

The weekly return of deaths in London up to Saturday last shows a decrease in the whole number of deaths, as compared with the previous week, of 500. The deaths from cholera for the last six weeks have been—32, 346, 904, 1053, 781, and 453; and from diarrhœa, 150, 221, 349, 354, 264, and 194. The fatalities in the west have been highest in Kensington and lowest in St. James's, Westminster, the scene formerly of the Broad Street pump mortality. In the southern districts, the mortality has not exceeded three per 1000, and even at Greenwich, where Mr. Glaisher observed the famous blue mist, it is not higher. Those southern districts most affected lie low, are generally poor, and were decimated by cholera in the epidemics of 1849 and 1854, whereon the impure water of the tidal Thames was distributed; but as they have almost entirely escaped this attack, it is remarked that they are now supplied with water drawn above Teddington Lock from the Thames. The water, in a more remarkable degree, appears connected with the awful fatality in the eastern districts. The returns for Sunday and Monday together showed that in the two days there were 70 deaths from cholera, or 35 for each day, and 25 from diarrhœa, or 14½; but the deaths on Tuesday were, from cholera 51, and from diarrhœa 27, or an increase from both forms of the disease of 34 over each of the two previous days. The deaths for seven days have been as follows. Cholera—Wednesday 61, Thursday 64, Friday 60, Saturday 51, Sunday and Monday 70, Tuesday last 51. Diarrhœa—32, 40, 25, 23, 29, and 27. Divided into districts, they are—Cholera: west 0, north 2, central 0, east 44, and south 5. Diarrhœa: west 2, north 3, central 2, east 11, and south 9. The Registrar-General "regrets to learn that some of the local authorities are proposing to discontinue house to house visitation and other wise precautions, which cannot be done without peril."

On the question of the comparative immunity of the Jews from cholera some important facts are gathered from the official returns of the Jewish Board for the relief of the poor of that religion. Twenty undoubted cases of cholera had come under their supervision, and had been treated by their medical officer. Of these twenty cases, ten had terminated fatally.

If the cholera does nothing else for us, it will probably quicken the action of law-makers in the matter of river-poisoning. After a certain number of years, the British public will open its eyes to the astonishing fact that water has a tendency to flow downwards, and that it carries with it whatever solid or liquid abominations are committed to its embrace. Putting together these two surprising peculiarities in the nature of water, and combining with them the fact that the contents of a common sewer are not wholesome, the national intelligence will some day pass Acts of Parliament forbidding the defilement of all running streams; and these Acts will be occasionally enforced. A decision has just been given in Scotland by which the river North Esk is to be for the future freed from pollution. But then the protectors of its purity were nothing less than a duke, a viscount, and a baronet; and even they have been about five-and-twenty years in compelling certain paper-makers to abstain from emptying torrents of deleterious matter into their pleasant river. Here in England we cannot expect to have the cause of life and health taken up by Buccleuchs and Melvilles and Drummonds for their own special interest; and therefore our chief hope lies in the excitement to action

produced by the pestilence now spreading around us. (*Pall Mall Gazette.*)

In Berlin, up to noon of July 30th last, the seizures had been 4616. From that date to August 6th, the daily numbers of cases and deaths respectively were—111, 32; 128, (?); 102, 34; 79, 31; 53, 17; 98, 40. The total of cases to Aug. 6th were 5313; of which 739 recovered, 2895 died, and 1679 remained under treatment. Thus, within the last week, the disease has considerably abated. It is worthy of note that neither the celebration of the return of the King, by which so many thousands were induced to move about the streets up to a late hour of night, nor the great popular festival which took place on Sunday at Treptow, close to the River Spree, the weather being throughout cold and rainy, have led to an increase of the epidemic; rather, from Aug. 4th to Aug. 5th, the number of seizures was the smallest that had occurred for a good while past. And this favourable condition has since maintained itself; for, from midday of the 6th to the 11th of August at noon, the respective numbers of cases and deaths were 88, 30; 73, 26; 61, 20; 79, 30. Yet the President of the Police has, on the 6th of this month, seen fit to direct, in accordance with a standard order of the year 1835, the formation in each of the forty-three police divisions of the city of a district sanitary commission, clothed with all the functions ordinarily devolving upon such a body in similar emergencies. (*Deutsche Klinik*, Aug. 18th, 1866.)

In Belgium, after a notable decrease, coincident with the fall of the thermometer, the plague has, since the beginning of August, been lighted into fresh activity. From May 26th to August 1st, there have been at the Hôpital St. Jean at Brussels 1084 deaths and 194 recoveries, while 112 patients remained under treatment. At Antwerp, the total of seizures, from the first invasion of the disease to July 25th, was 3407, and of deaths 1966.

In Holland, according to the statistics published by the official journal, there were, from 1st to 7th July, 3686 cases, 2137 deaths; 8th to 14th, 2068 cases, 1367 deaths; 15th to 21st, 3675 cases, 2066 deaths; 22nd to 28th, 2681 cases, 1647 deaths; 29th July to 4th Aug. 4th, 1992 cases, 1269 deaths. From the commencement of the epidemic, there had been attacked 22,969 individuals, of whom 13,831 have died. (*Gazette Médicale de Paris*, Aug. 18, 1866.)

On July 21st, reports showed the number of sick beds provided in the several Prussian field-hospitals to have been 5590; in the stationary military hospitals, 3301; in the 132 reserve hospitals, 35,157; in the Union reserve hospitals, 6213; and those furnished by private charity, 3619; total, 54,110. Of these, 13,500 were occupied by Prussians, 56 by allies, 13,053 by enemies, in all 26,609 patients; of whom, 18,585 were wounded—viz., 5795 Prussians, 17 allies, and 12,773 enemies. Thus, 27,501 beds remained unoccupied. Among the private establishments there are about 29 belonging to the Knights of St. John. (*Deutsche Klinik, Monatsblatt*, No. 8, Aug. 18th.)

The cholera continues abating in New York.

An analysis of the water from the four pumps in the Inner and Middle Temple, by Dr. Noad, is the condemnation of the water of one of them, long favoured in the Temple; viz., that in Hare Court. The water is pronounced to contain organic matter. The pump remains closed till further orders. It is satisfactory to find that the water of the other three pumps, which are now open, is pronounced free from animal matter, and quite fit for drinking. The condemned water is described by Dr. Noad as nevertheless "bright, free from smell and taste, and faintly alkaline."

The ship-to-ship visitation instituted by the Committee of the Seamen's Hospital Society is working well. Each medical visitor carries in his boat a white flag, with the letters "S. H." inscribed thereon, and calls at from sixty to one hundred vessels every day. Four boats are detailed for this duty, starting every morning from the *Dreadnought* with a supply of medicines and disinfectants. Mr. Harry Leech, the Society's medical officer, reports that, although the number of entries for cholera on board the *Belleisle* has maintained during the past week an average of two per day, the cases are more amenable to treatment. The *Belleisle* has, up to this time, received forty-six patients, of which twenty have recovered, sixteen have died, and eleven are still under treatment.

During the five weeks ending August 11th, 4,454 men, women, and children died of cholera and diarrhœa in London.

The monthly report of Dr. Mapother on the health of Dublin is of interest, because of the appearance of cholera in the city. The mortality during the past four weeks has been very low. Dr. Mapother, however, warns citizens against drawing the inference from these facts that Dublin is superior in salubrity; the truth being that in London, for instance, the annual death-rate is lower than in this city. Of diarrhœa, fifteen fatal cases have occurred during the past month, against twenty-eight last year. Cholera was imported from Liverpool on the 26th of July, in the person of Jane Magee. Up to August 17th, forty cases of the disease had been certified. Of the decided cases, seven were persons from Liverpool; three contracted the disease evidently from them; and the remainder may have suffered from the same importation, but the connexion cannot be traced with certainty. The outbreak indicates that cholera is communicable. The deaths have been twenty-five out of forty cases, or 61 per cent.

Graduation in Medicine. The ceremony of graduation in medicine took place in Edinburgh on the 8th inst. Sir D. Brewster presided, and Dr. Christison addressed the graduates on "The Constitution and well being of the Medical School of the University." The degree of M.D. was conferred on twenty-one candidates; the degrees of Bachelor in Medicine and Master of Surgery on thirty-nine; and the degree of Bachelor of Medicine alone on three gentlemen.

Narrow Escape. On Tuesday week, Dr. S. Wilks, who is staying at Scarborough, started alone along the sands to Filey. After walking about five miles, he found the projecting rocks hindered his further progress. He attempted to retrace his steps, but the tide having risen considerably he was soon hemmed in. He sought refuge in the cliffs, when the tide receded it had become dark, so that he durst not come down, but was obliged to remain the whole night, and unfortunately when daylight appeared the tide had again returned, and he was compelled to wait for hours. On Wednesday morning Mrs. Wilks and her son proceeded to Filey, and having no tidings of him engaged the services of some fishermen, who, with the assistance of ropes, went over the cliffs and explored the rocks. After searching in vain for some time, they found that Dr. Wilks, exhausted, had crawled over the rocks to the door of a cottage on the beach. The poor woman at once admitted him, and administered a little brandy to him. His clothes, which were saturated to the neck, were immediately taken off, and he was put to bed, and messengers were afterwards dispatched to Scarborough for a carriage, by which he was taken home to his hotel.

THIRTY-FOURTH ANNUAL MEETING
OF THE
British Medical Association.

Held in Chester, August 7th, 8th, 9th, and 10th.

[Concluded from page 212.]

THURSDAY.

THE Fourth General Meeting was held in the Music Hall on Thursday morning; Dr. JEAFFRESON presiding, in the absence of the President.

THE AMERICAN MEDICAL ASSOCIATION.

Lieut.-Governor C. C. Cox, M.D., the representative of the American Medical Association, addressed the meeting as follows. I feel highly flattered at the cordial manner of this reception, although conscious that it is tendered more in compliment to the Association I represent, than prompted by any special personal claims I may have upon such courtesy. It is very grateful to me to attend the deliberations of so dignified a body, combining, as it does, the best medical talent of Great Britain; and be assured, Mr. President and gentlemen, I shall bear this agreeable episode of my journeyings to my distant home, and to the remotest hour of my life, embalmed in green and pleasant memories. [*Applause.*] From my earliest professional pupilage, the proud names in the firmament of British medicine, which you delight to honour, have been familiar to me as household words. Abernethy, Cooper, Bell, Liston, Syme, Fergusson, and many others, in surgery; Watson, Conolly, Copland, Graves, Stokes, Bennett, and others, in medicine; Denman, Gooch, Tyler Smith, Simpson, and others, in obstetricy; are as well known to us, in America, through their printed thoughts, as they can be by any people. [*Applause.*] We have had, too, but recently lingering in our midst, in the winter of life, those who owed their education to your universities. In their day, no man could be said to be properly trained in physic who could not present a diploma from some one of your leading institutions; and I feel bound to say, without the least intention to reflect upon any other school, that he was regarded as *par excellence* qualified to practise medicine who had completed his lecture-term at Edinburgh, and could exhibit upon his parchment scroll the illustrious names of Hope, Black, Gregory, and Cullen. It is pleasant to know that the reputation of this noble old College (however, as would appear from Dr. Christison's late address, it may have declined in the number of its graduates) has suffered no depreciation in the quality of its professors. The names of Christison, Simpson, and Bennett, are, I submit without fear of contradiction, a sufficient guarantee for sound medical instruction in these modern days. [*Applause.*] The Association, Mr. President, I have the honour to represent, was organised to meet the growing demands of the profession in the United States, nineteen years ago, and has held regular meetings every year since that period in different parts of the country, with exception of two years during the late war, when its sessions were unavoidably suspended. The *Transactions* of the Society, embracing reports of standing and special committees, prize essays, monographs upon subjects of peculiar interest, etc., are annually published in book form, of fine letter-press, suitably illustrated, and contain no inconsiderable amount of valuable and suggestive material. Its meetings have been largely attended from all sections of the Union; the average number of delegates and members present being from three to six hundred annually. The subject of medical education has, from the beginning, received no small share of attention from the National Faculty; and recommendations, looking to decided improvements in the existing systems, have, from time to time, been made to the profession at large. Some of the Colleges have already adopted, and put in practical operation, the suggestion of extending the lecture term; while others have the proposed change under serious consideration. The Association has also passed resolutions expressing their views of the importance of suitable preliminary education in English, the classics, mathematics, and philosophy, as an essential prerequisite for office instruction, or matriculation in a respectable university. I was gratified to hear my distinguished friend, Professor Hughes Bennett, in his able address before you yesterday, insist earnestly upon this fundamental condition of progress in medicine. The proposed reform in America also looks to a severance of the lecturing and examining departments, or the adoption uniformly of a system (now in use in a number of the states) by which the professors are relieved of any participation in the final examination for degrees; that function being vested in a state board of respectable physicians, appointed by executive authority, properly salaried, and having no personal interest whatever in the college or the candidate. It is evident that these wholesome reforms must be of gradual development; but be assured they will be steadily pushed, and ultimately accomplished. [*Hear, hear.*] The late war in America (however sad in many of its results) has, it cannot be denied, added largely to our stock of experience in military medicine and surgery. The best medical talent of the nation became enlisted in the corps of active surgeons. Devoted zeal and energy, shrewd, persevering investigation, and great practical ability, distinguished this department of the service, both in the cabinet and in the field. *The Surgical History of the War*, now in process of publication under the direction of the eminent chief of the Medical Bureau, Surgeon-General Joseph K. Barnes, will prove a work of great extent, variety, and practical importance. No cost or labour will be spared in the press and illustrations, Congress having already made liberal appropriations for the purpose of placing the volume before the world in the most attractive and useful form. I am sure, when the work is complete, you will agree that, while it must ever remain an enduring monument to the zeal and ability of the surgical corps of the army of the United States, it cannot fail to be an important contribution to the medical literature of the world. [*Loud applause.*] While upon this subject, you will allow me to express my gratification at learning, from your Council's report, last evening, of the improvement, recently secured through Her Majesty's Government, in the status and rank of the medical officers of the British army and navy. There has been too little appreciation of this important class of professional men on both sides of the water. It was my good fortune, during the late civil war in the United States, to be brought into official and private contact with army surgeons; and, without hesitation, I affirm that a more gallant, high toned and accomplished body of men do not exist, and I doubt not the like traits characterise your own distinguished medical staff in an eminent degree. From the foundation of the government in America the claims of surgeons to relative rank in the army have been ignored, and the absurdity has continued of giving to other departments of the service, comparatively unimportant, the highest

military distinctions, while that of medicine, combining eminent ability, and the most important, responsible functions conceivable, has been refused any advanced position. It is notorious that, prior to the war, no surgeon ever rose above the rank of major, except the chief of the Bureau, who became colonel for the period of his official term. The war has taught the government and the country the value of the profession. The prejudiced opinion, long entertained, that the doctor was *homo unius libri*, and therefore unfit for anything else than the routine of medical practice, has been fortunately dissipated. It was found that in whatever sphere the surgeon acted he was equal to the emergency, and no quality essential to the demands of the occasion was wanting. While the utmost zeal and skill were displayed in the wards of hospitals, the highest executive ability distinguished the medical directors of departments and army divisions. Nor was the daring bravery of the soldier without its examples in the medical staff. More than once, when the head of a regiment has been shot down in battle, has the medical officer taken his place, and fallen pierced with bullets, in front of the advancing columns. [*Applause.*] There has been, Mr. President, too little correct appreciation on the part of communities and governments of the value of our profession and its claims upon public regard and honour. The soldier, who, in the contagious atmosphere of the fight, under strict military drill, and dreading the disgrace of a faltering course, sinks at the cannon's mouth, is rewarded by a monument to record his heroism, while he who, with infinitely higher moral courage, walks the crowded wards of infection, day after day, and lies down at last a victim to self-sacrificing devotion to the cause of humanity, misses a rude stake to mark his resting place. It is perhaps better so. Our rewards after all are not those of civil honour, but the grateful memories of the recipients of our skill, and the blessings which linger around our graves, when the great mission of science and benevolence is at an end. I said, sir, that the war has asserted the claims of the medical profession of our army, and I am proud to add they have since been partially, at least, recognised by Congress, in the passage of a law bestowing increased rank where it had not been previously enjoyed; and I do not doubt that ultimately the medical corps will be placed in all respects on an equal footing with other branches of the military service. [*Hear, hear.*] I am sure you will pardon me, Mr. President and gentlemen, for occupying so much of your time on a subject in regard to which I feel so deeply. [*Applause.*] I am greatly obliged for your attention, and repeat my gratification at being present on this occasion. In the able address of Dr. Bennett, to which I have already alluded, I was forcibly impressed with his eloquent reference to the importance of a concerted effort in advancing the cause of our science. Association is indeed power. Authority, resources, talent, energy, are thus combined, which cannot belong to any merely individual effort. The contact of mind, and attrition of debate, develope truths which the operation of no single, unaided intellect would be likely to reach. Besides, the social and moral effect of medical societies, municipal, county, state, and national, cannot be overrated. The barriers of personal prejudice become broken down, and in the light of social intercourse we learn to value each other's worth. [*Hear, hear.*] We have not always, sir, enjoyed, on our side of the water at least, I regret to say, the reputation of being the most amiable and good tempered craft in our intercourse with each other. That this is not so much so as formerly, that a far more liberal sentiment and courteous bearing prevails is due very much, I have no doubt, to the more general establishment of well regulated medical societies. [*Hear, hear.*] But I will not trespass further upon your indulgence. I again thank you in behalf of the American Medical Association, and on my own account, for this cordial reception. In my report it will give me pleasure to express my deep sense of the honour you have shown me, and my high appreciation of your dignified, scientific, and useful body. In repeating my acknowledgments allow me to express the wish that the British Medical Association may long continue in its prosperous career, diffusing through the community at large the benefits of wise counsels and useful deliberations. [*Cheers.*]

MEDICAL BENEVOLENT FUND.

The Report of the Medical Benevolent Fund was presented and read by the Secretary.

Mr. CARDEN moved, Dr. RUSSELL seconded, and it was resolved—

"That the Report of the Medical Benevolent Fund be received and adopted."

DEPUTATIONS TO THE HOME SECRETARY.

It was proposed by Mr. NUNNELEY, and seconded by Mr. GAUNT—

"That it be referred to the Committee of Council to appoint the deputations recommended in the Report, to wait upon the Home Secretary."

The resolution was carried.

THE SYDENHAM CLUB.

Dr. HENRY BENNET (in the absence of Dr. Lory Marsh) said he wished to draw the attention of the Association to the intended establishment of a Medical Club in London, to be called "The Sydenham". He thought the thanks of the profession were due to Dr. Lory Marsh for the energy and time he had devoted to this subject; and that a medical club would prove a social bond of union to the members of the profession, uniting in one social communion metropolitan and country practitioners, and the members of different medical corporations. [*Hear, hear.*] Among the educated classes of society in all times, there had been shown a desire to meet for the purposes of social intercourse. In the days of the Romans, the baths which they established wherever they went were, for all social purposes, clubs similar to those now extended over this country. It had been remarked to him by friends, that, if medical men wanted to enter a club, they could join one of those already existing, where they would meet men of the world, and get out of the medical element. But he did not think a general club would be as congenial to medical men as one in which they would meet principally men of their own calling. [*Hear, hear.*] The general desire to meet, for social relaxation, men whose minds and pursuits were identical, was shown by the history of clubs in general. The Army and Navy Club was composed of military and naval men; the University Club, of graduates of Oxford and Cambridge; the Conservative, of conservative politicians; the Reform Club, of liberal politicians; and the same with others. He thought medical men thoroughly shared this feeling; and, for his own part, he was never so happy as when associating with fellow-practitioners. [*Hear, hear.*] He was convinced that a medical club, open on moderate terms to provincial medical men, would be a great advantage, and would render their occasional visits to the capital more agreeable, by giving them a centre—a home—and bringing them into contact with their country and London brethren. [*Hear, hear.*]

Mr. MARTIN corroborated the views expressed by

Dr. Bennet; and, in reply to the objection that had been urged, that medical men, at periods of relaxation, should seek general rather than professional or special society, remarked that, as in the case of other clubs, all members of the Sydenham would be permitted to have the society of their private non-medical friends, as often as they pleased, in the Strangers' Room. [*Hear, hear.*]

DISCUSSION ON SCIENTIFIC MEDICINE.

Mr. ALFRED BAKER then read a paper on the question, "Are there any trustworthy Facts as to the Origin of Pyæmia?"

Dr. STEWART next read a paper on the question, "Is the Expectant Treatment to be relied upon in any Form of Acute Disease?"

Dr. RICHARDSON remarked, that this subject was one of the most profoundly interesting in the literary history of medicine. The idea of treating by expectation was one of the oldest subjects known to the profession. The man who had first actually spoken of doing it, and first used the word "expectation", was the same man who first introduced the treatment, or assumed treatment, by similars. He alluded to Michael Albertus, the formalist of the three great points of medicine. He published in succession three great works: first, a book entitled *De Curatione per Expectationem;* second, a book entitled *De Curatione per Similia;* and third, a book entitled *De Curatione per Contraria.* He was no quack, but a profound man; and these were mere speculations. The credit given by homœopathists to Hahnemann in reality fell to this man Albertus. He (the speaker) had thought the Society would like to know these historical facts. [*Applause.*] As to expectant treatment, his (Dr. Richardson's) view was very simple. There were two hundred and seventy-eight diseases, or distinct sets of symptoms, each of which might be classified into a disease. The first question was, How many of these have a tendency spontaneously to get well? Certain of them would get well of themselves, under almost any circumstances. But, if medical men came to real examination, they would find there were only thirty-two that could be possibly so placed. Therefore he thought the expectant treatment should first be brought down to that point. It was a question for the meeting, whether a committee or a member could at a future period report on such diseases as might be embraced by expectant treatment. If so, and they were isolated, it would be the province of every medical man to watch them, and see how far the treatment would be successful. That would bring them to the practical point. They might be quite sure there was no such thing as a scientific expectation of disease; and that what they wanted was a certainty that they should be able to cure disease.

Professor BENNETT remarked that, when a hospital physician of Dr. Stewart's experience told them he had had the courage to treat so many cases of rheumatism on the expectant plan, they were bound to say that he had carried out an experiment which did him the greatest honour, for the sake of advancing their knowledge of disease. [*Applause.*] From the figures and details it contained, it was impossible to criticise the paper itself. All they could do was to say they regarded it as most important contribution to medicine; and that they believed, if such contributions were more frequent, medicine would be a far more exact science than it was. In the spirit of the observations he (Professor Bennett) had made on the previous day, he hailed with the greatest applause such a production as this. [*Applause.*]

Upon the motion of the Chair, a vote of thanks was accorded by acclamation to Dr. Stewart.

The meeting then closed.

The Fifth General Meeting was held at two o'clock, the President in the Chair.

MEDICAL WITNESSES COMMITTEE.

Upon the representation of Dr. RICHARDSON, the Medical Witnesses Committee, having been unable to form a quorum, was allowed to defer its Report.

In reply to Dr. Stewart,

The PRESIDENT explained, that the understanding as to the consideration of Professor Bennett's suggestions was, distinctly, that they were referred to the Committee of Council; and that the Committee was empowered to meet when and where it pleased. It was urged by Drs. Stewart and Jeaffreson, that no time should be lost in considering the subject.

ADDRESS IN SURGERY.

Mr. BOWMAN, F.R.S., then read an admirable Address in Surgery, which was received with loud and frequently renewed applause. It was published at p. 186 of last number.

Mr. SAMUEL HEY said he need not express regret that the resolution had not been placed in better hands; for at that moment the time of the Association was too valuable to be wasted in complimentary speeches, which in this instance would be works of supererogation. Mr. Bowman's address had fully satisfied the desires of the Association, and reached the high expectations which his reputation had raised. [*Applause.*] He moved—

"That the cordial thanks of the Association be given to William Bowman, Esq., Fellow of the Royal Society, for the very able address with which he has favoured this meeting."

Mr. BRITTAIN seconded the resolution, which was carried by acclamation.

MEMORIAL OF SIR CHARLES HASTINGS.

Professor STOKES rose to propose a resolution, which he said he felt it a great honour to have been asked to move. It had reference to the perpetuation of the memory of Sir Charles Hastings, and was as follows:

"That this meeting cannot separate without taking some steps towards a lasting testimony to the memory of their much loved Founder, President, President of Council, and Treasurer, Sir Charles Hastings; and, in order to extend and perpetuate his memory, it is desirable that in future the Hastings Medal be awarded for distinguished labours in medical science to any member of the profession, of any country; and that this prize, now provided by the funds of the Association, be provided and supplemented by a sum of money, the produce of a special fund, to be established by subscription, and called the Hastings Memorial Fund: this resolution to be referred to the Committee of Council, to be carried out in detail."

He could only say that the proposition to extend the application of the medal outside the Association was a proposition carrying out the noble principles they had just heard enunciated by Mr. Bowman. They would by its means convert the Association into an imperial instead of a local institution. He therefore had very great pleasure in moving the resolution. He believed the Association, by adopting it, would be following the example of only two learned bodies in the kingdom—the Royal Society of London, and the Royal Irish Academy—which gave their rewards, quite irrespectively of membership or of country, to the best and most worthy men. [*Applause.*]

Dr. JEAFFRESON had the greatest pleasure in seconding the resolution. He felt very much the truth of Dr. Stokes's observations. This was a very great thing—a thing Sir Charles Hastings himself would have desired beyond any member of the Association—that his name and that of the Association should be connected with a great public universal fact. [*Applause.*]

The motion was agreed to; and a subscription in support of the proposed fund was at once opened, subscriptions as low as 5*s.* being taken.

[Before the end of the meeting, on Friday, Dr. Falconer, who acted as Treasurer, announced that upwards of £80 had been subscribed.]

Several papers were then read, and the meeting adjourned.

FRIDAY.

The Sixth General Meeting was held in the Music Hall on Friday morning, at half-past nine; the President in the chair.

THE CHARTER OF THE ASSOCIATION.

Dr. SIBSON said the motion he had to propose, though he should say little about it, was of the greatest importance to the Association. It was—

"That the Association approve of the Draft Charter submitted to the members; and that the Committee be directed and empowered to obtain it."

Dr. FALCONER had much pleasure in seconding the motion, as he believed the whole Charter had been submitted to very competent judges, and brought into as perfect a state as a document of the kind could be.

The resolution was put, and carried unanimously.

Subsequently, when a greater number of members were present,

Mr. A. B. STEELE said he considered it very unfortunate that they had had no notice as to the time when the question of the Charter would come on.

The PRESIDENT explained that the question had come on in regular course, and the Charter had been unanimously adopted.

Still later in the proceedings,

Mr. STEELE said this was a question of privilege; and he desired, on behalf of a large number of members, who would support him if present, to enter his protest against the resolution in reference to the Charter being adopted till the members who wished to express their views had an opportunity of doing so. There was no question or act in which the Association had been concerned since its incorporation of greater importance than this.

The PRESIDENT explained that, though he valued Mr. Steele's opinions, yet he was not there to act for himself. The resolution had been adopted, and the question closed; and it would materially affect their position if a resolution adopted one hour were to be rescinded the next.

Dr. RICHARDSON said Mr. Steele was perfectly at liberty to put in a protest; and, having been the most active member on the Charter Committee, he (Dr. Richardson) added his protest to Mr. Steele's. Having had no notice of the discussion, he had had no opportunity of telling the Association one of the most important issues of the case—a clause which went entirely to upset the opinion of their legal adviser, and which, in his (the speaker's) opinion, would completely and thoroughly ruin the Association. As the originator of the movement, and the member of the Committee who had taken the most active part of all the members in promoting it, he did, in the interest of the Association, solemnly protest against the Charter being passed into law as it stood. Dr. Burrows and some others, who looked upon the Association as their own life's blood, felt as he did in the matter; and he was perfectly in order in the course he was taking.

Mr. STEELE: If this be carried out without discussion, you will commit an error which is irremediable. Good or bad, do not let it be said that the Charter was passed without receiving the unmistakeable sanction of the Association after discussion. [*Hear, hear.*]

Dr. PAGET said that a Charter to fix the main laws of the Association, which could not be altered by the will of the Association, was of such importance that he could not but concur in the remarks of Dr. Richardson. Laws of that kind should not be fixed without a discussion, of which proper notice should be given. [*Hear, hear.*]

The PRESIDENT was deeply impressed with the importance of having a Charter in accordance with the views, not of every member of the Association, but of a majority, which must bind any minority. Assuming that the members present represented the Association, he put it to them whether the question should be re-opened.

The question was put; and the PRESIDENT said the meeting had decided to re-open the question.

Dr. MEAD said that, although he had voted for the Charter, he saw the wisdom of the course now suggested, and would move the postponement of the consideration of the question till the next annual meeting.

Mr. STEELE seconded the motion; which was put and carried.

The PRESIDENT presumed this did away with anything like protest. ["*Yes, yes.*"]

Mr. BARTRUM raised the questions whether the Charter could be revived next year, and whether it was wise to fix its discussion for the meeting in Dublin, which was not the most convenient place of meeting.

The PRESIDENT pointed out that the meeting had decided the question.

Mr. BARTRUM thought it would be better to refer the Charter back to the Committee of Council.

Mr. STEELE wanted the Association, in its collective capacity, to consider the subject.

Dr. RICHARDSON said it could be referred back to the Committee of Council, with instructions to bring it forward at the next annual meeting.

Dr. SIBSON suggested that the motion should be altered to this effect. He had understood that the Charter had been fully discussed on two previous occasions; and, therefore, acting as the organ of the Association, when requested by the President to move its adoption, he had been glad to do so. But he felt that the plan now proposed was a wise one; and that nothing could be more ruinous to the institution than to rush hurriedly into the performance of its most important act.

The resolution, already adopted on the motion of Dr. Mead, was then altered as follows, by consent of all parties—

"That the motion already passed be suspended; and that the Charter be referred back to the Committee of Council, with the understanding that the subject shall be specially discussed at the next general meeting of the Association."

REPORT OF THE COMMITTEE ON THE OBSERVATION AND REGISTRATION OF DISEASE.

Dr. PHILIPSON presented the following Report of the Committee for the Registration of Disease:—

"At a meeting of the Association held at Leamington, August 3, 1865, this Committee was appointed 'to encourage the Registration of Disease, and to

devise the best means of obtaining the evidence of members upon medical questions having a practical bearing.'

"1. With reference to the first part of the inquiry, the Committee considers that many valuable results would follow the establishment of a systematic Registration of Disease, which should record weekly the relative amount and kind of disease prevalent at any one time in all the chief towns of a district. It would show the influence upon sickness of the varying conditions of climate and season, of prosperity or distress, of the trades and manufactures, or of any other circumstances peculiar to the district. It would afford a means of speedily detecting the advance of an epidemic, and of studying its course, and thus it would be most valuable to the inhabitants of the several towns comprised within the district in which it was made, giving them exact and timely intelligence of the presence of disease, and enabling them promptly to deal with it. After careful consideration, therefore, the Committee begs to propose the following scheme, by which a weekly or monthly registration of the deaths, and of the relative amount of certain kinds of disease, might be carried on regularly without much trouble or expense in all the chief towns of the kingdom. For this purpose, the Committee recommends for the present the adoption of the system of Registration of Public Practice as carried on at Birmingham, Manchester and Salford, St. Marylebone, London, and Preston, and suggests that in each town a small Committee should be formed of gentlemen interested in the subject, who should invite the assistance of all those medical gentlemen in the town or neighbourhood, who hold public appointments, whether to hospitals, gaols, workhouses, or poor-law unions—that exertions should be made to enlist all such public medical officers, so that the returns might represent as accurately as possible the relative amount of disease prevailing in the community.

"The Registration might then be carried on as follows. Each gentleman consenting to contribute to the returns should be furnished with a set of forms, to be by him filled up, each week or month, with the number of new cases which had come under his care during the week or month preceding. The *deaths* also which had occurred in the same public practice during the same period should be entered in the column provided for them, both as a measure of the *fatality* of the diseases and as a basis for comparison with the Registrar's returns of deaths, and with the disease and death returns of other towns. These returns thus filled up, could then be posted to the address of any one member of the Local Committee who would undertake to receive them, compile them into a single return, and then forward them to the central offices of the Association in London. It may be stated that the expense of carrying out this scheme would be almost confined to the printing of the forms and their postage from the various contributors (about six shillings a year for each separate return). Many inhabitants in each town would probably be willing to subscribe a small sum for the sake of possessing such valuable records as these would be likely to prove. The Committee does not recommend that this Association should itself initiate this scheme, nor does it advise medical men in the various districts to attempt to carry on the scheme of registration without assistance. In every case a small association of gentlemen residing in the neighbourhood should be formed, who should, by subscription, pay a suitable person to collect the returns, and defray the moderate expenses incidental to the undertaking.

"In Manchester and Salford an Association thus constituted collects the weekly returns of disease, and also interests itself in all sanitary matters, and by means of lectures, tracts, and other publications it endeavours to spread amongst all classes a knowledge of the laws of health. It seems to the Committee undesirable at the present time to make any attempt to obtain returns from private practice; but the following diseases were selected as suitable for registration in public practice.

Small-pox	Relapsing Fever
Measles	Febricula
Scarlet Fever	Ague
Diphtheria	Rheumatic Fever
Hooping-cough	Puerperal Fever
Croup	Bronchitis and Catarrh
Diarrhœa	Influenza
Dysentery	Pleurisy and Pneumonia
Asiatic Cholera	Phthisis
Erysipelas	Constitutional Syphilis
Continued Fever*	Total
Typhus	All other Diseases
Enteric or Typhoid Fever	Accidents

"It was considered desirable that these two last items should be noted separately, and that at some future time other diseases might with advantage be added to the list.

"It was resolved that in order to secure uniformity of registration, the Council of the Association should be requested to furnish the necessary forms.

"2. With reference to the second branch of the inquiry, the collection of the evidence of members upon medical questions, the Committee is of opinion that the questions upon practical medicine and therapeutics should be of a simple and definite character, and that the success of this undertaking would be rendered more probable by the appointment in each town of Honorary Registrars officially connected with the Association."

Mr. TURNER moved the adoption, printing, and circulation of the report.

Mr. MELLOR seconded it, expressing the warmest thanks of the Association to Drs. Ransome and Philipson for the zeal and energy with which they had prepared the report.

Dr. SIBSON said that by a misunderstanding the Committee had not been able to meet in London, and he had had no notice of its meeting in Chester until that morning, consequently he had had no opportunity but this of saying what he wished to say on the subject. He agreed entirely with the report. He thought the only chance of registration was from public hospitals and the parochial system, and paying gentlemen to get private returns; but he doubted whether the latter would ever be obtained. Statistics of all the diseases named in the report, and of phthisis in addition, should, he thought, be obtained; and he asked the mover and seconder, with the consent of Dr. Philipson, to insert that disease in the list, and also, instead of saying "other forms," to specify the forms of fever, which were all known. It was important to have uniformity of registration in all hospitals; and it would be well if the Association would address the governing bodies of hospitals, asking them to adopt the system now in use at Bartholomew's and Guy's, and in Edinburgh and Glasgow, which was similar to Miss Nightingale's, but simpler. They would thus get pathological and hygienic facts by an easily worked machinery. He thought also that the Committee should be empowered to make any modifications in the report consistent with its spirit which they might think good. [*Hear, hear.*]

The mover and seconder acquiescing, the report and motion were modified accordingly and carried.

DR. CHRISTISON'S PAPER.

The PRESIDENT said the next business in order was

* Cases ought only to be returned under this heading when the distinctive kind of fever cannot be ascertained.

Dr. Christison's "Observations on the Register of Deaths in Scotland;" but he read a letter from Professor Christison, explaining his inability to be present, and enclosing some facts with regard to a case of alleged spontaneous cholera.

TIME ALLOWED FOR READING PAPERS.

Upon the suggestion of Dr. MEAD, of Newmarket, the question was considered whether it was advisable to have so many subjects for discussion included in the programme, to the exclusion of many valuable papers prepared; and it was decided that, whatever might be the real length of a communication, and at whatever length it might be afterwards published in the JOURNAL, the author should occupy not more than fifteen minutes in laying it before the Association.

Several papers were then read and discussed, and the meeting adjourned.

The Seventh General Meeting was held at 2 P.M.; Dr. Sibson in the chair.

Several papers were read, of which an account is given in another page.

ELECTION OF MR. G. W. HASTINGS AS AN HONORARY MEMBER.

Dr. JEAFFRESON said he was called upon to recommend a resolution which he was quite sure would meet with their approbation. He was delighted to propose it on account of the individual to whom it referred, and also for the sake of the principle it involved—a principle he hoped to see more generally adopted. It was that Mr. George W. Hastings, the son of the late Sir Chas. Hastings, be elected an honorary member of the Association. [*Applause.*] He believed no man was more deservedly respected than Mr. Hastings, and he was connected with science, as the Secretary of the Social Science Association. He had said to him (the speaker) in a recent conversation,—"I hope the Association will not feel annoyed if I express my desire that on all future occasions when I wish I may be allowed to attend some of its meetings." This resolution would give him the right to attend, and would be more complimentary than a mere permission. He hoped that ere long they would enumerate a number of scientific persons as honorary members, whether they belonged to the medical profession or not. They now admitted the laity to their discussions, and there were several societies well deserving of their courtesy. The resolution was:—

"That G. W. Hastings, Esq., Secretary of the Social Science Association, be elected an honorary member of the British Medical Association in consideration of his own distinguished merits, and of his father's long and invaluable services to the Association; and that for this purpose the existing law of the Society as to the election of members be suspended."

Dr. MARKHAM had great pleasure in seconding the motion. He knew Mr. Hastings had always taken a warm interest in the Association; and was well acquainted with its proceedings. He (Dr. Markham) knew nobody who could more properly be made an honorary member of this Association. [*Hear, hear.*] He believed Dr. Richardson had once proposed a resolution giving them power to make honorary fellows, and, whether that were so or not, he hoped so good an idea would not be lost sight of.

After some conversation as to the power of the meeting to suspend the law in question, the resolution was carried *nem. con.*

The CHAIRMAN reminded the meeting that Mr. Hastings had acted constantly as the adviser of the Association for years in relation to the New Medical Act; and that the Association owes much of its position in that regard to his efforts. [*Applause.*]

Several papers were then read.

VOTES OF THANKS.

Mr. WILLIAM HEY moved—

"That the cordial thanks of this meeting be given to the readers of papers."

Many of the papers had been of unusual interest and importance, and the means of eliciting very interesting and important discussions. [*Applause.*]

Mr. WATKIN WILLIAMS seconded the resolution, which was carried unanimously.

Mr. SAMUEL HEY moved—

"That the thanks of the President and members of the British Medical Association be and are hereby given to the Hon. and Very Rev. Frederick Anson, D.D., Dean of Chester, for allowing a special service to be performed in the Cathedral for the members of the Association meeting in Chester."

He thought the congregation which had attended on that occasion had been a satisfactory proof of the propriety of the proceeding. [*Applause.*]

Dr. PHILIPSON seconded the motion, observing that the arrangement had been very highly appreciated by the members. [*Hear, hear.*]

The resolution was carried unanimously.

Dr. STEWART moved—

"That the cordial thanks of the President and members of the Association be given to the Rev. Canon McNeile, D.D., for kindly complying with the wish of the Association in preaching a sermon at Chester Cathedral on the 8th inst."

Mr. GRIFFITH seconded the resolution, and it was unanimously adopted.

Dr. FALCONER moved—

"That the cordial thanks of this meeting be given to John Harrison, Esq., for his valuable services as Honorary Secretary for the annual meeting."

He said they knew how much depended upon the exertions of the Local Secretary for the individual comfort as well as the dietetic enjoyments of members, and how well Mr. Harrison had discharged his duties in those respects. [*Applause.*]

Dr. HENRY seconded the resolution. He had had a little experience in the duties of Local Secretary, and knew that any gentleman who undertook them, and discharged them as Mr. Harrison had done, was worthy of the most grateful recognition. [*Applause.*]

The Chairman (Dr. SIBSON) said more genuine hospitality he had never known than had been shown to them in Chester. [*Applause.*]

The resolution was carried with applause.

Professor BENNETT moved a vote of thanks to the President, Dr. Waters. It was, he said, unnecessary to say more than that in this case hospitality had been carried to its utmost verge, with an amount of success that was almost unbounded.

Dr. RICHARDSON seconded the motion, confirming what had been said by the last speaker; and the resolution was carried unanimously.

The SECRETARY having proposed a vote of thanks to Dr. Sibson for his valuable services as chairman of the meeting, the motion was seconded and carried by acclamation; and the business proceedings of the annual meeting came to a close.

PAPERS.

The following papers were read at the meeting.

1. Removal of the Entire Tongue: with some Practical Illustrations of the Method. By Thomas NUNNELEY, Esq.

2. Reduction of Local Dislocations by Manipulations. By Thomas NUNNELEY, Esq. Mr. Nunneley said that he had published, twenty years ago, in the

Transactions of the Provincial Medical and Surgical Association, an account of a number of experiments made by himself. These had been made use of in France and Germany, without acknowledgment. They pointed out the value of bromide of ethyle and chloride of olefiant gas as anæsthetics, which did not cause convulsive movements, such as were observed under chloroform; nor did they either oppress the patients or cause nausea.

3. On the Present State of Public Vaccination in England. By A. B. Steele, Esq. [This paper has been received for publication.]

4. On Removal of the Lacrymal Gland—a Radical Cure of Inveterate Cases of Lacrymal Abscess. By J. Zachariah Laurence, Esq. Mr. Laurence commenced his paper by a reference to the not unfrequent difficulty of curing inveterate cases of lacrymal disease by any of the methods generally employed at the present time; namely, the system of dilating the nasal duct by probes, destruction of the lacrymal sac by caustics, and the style. He then proceeded to the immediate subject of his paper—removal of the lacrymal gland for the cure of lacrymal disease. Mr. Laurence did not claim the priority of the practice, for he stated that Dr. P. Bernard performed the operation twenty years ago. Although since his time it had been occasionally performed, it did not appear that it had been systematically pursued. The first case in which Mr. Laurence extirpated the lacrymal gland was that of a young man whose eye constantly watered, from the lacrymal puncta and canaliculi having been obliterated by caustic soda. After fruitless efforts had been made to restore the perviability of the canaliculi, Mr. Laurence removed the lacrymal gland. The result was highly satisfactory. Within four days, the watering of the eye had entirely ceased, and it was not unduly dry. Six months after the operation, the patient was again seen, and the relief was found to be permanent. The facility and success of the operation stimulated Mr. Laurence to inquire how far it was applicable to cases of inveterate lacrymation generally. In the prosecution of this inquiry, Mr. Laurence had removed nine lacrymal glands in eight cases, which he reported in detail. It would be sufficient, however, to notice here the results which had followed the operation. The principal symptoms in each case had been constant watering of the eye, repeated lacrymation, abscess and fistula of the sac. The duration of the disease varied from one to twenty-five years. In most instances, the ordinary treatment by probes had been ineffectually tried. After removal of the lacrymal gland in these cases, the disappearance of the watering of the eyes was immediate and permanent, as far as Mr. Laurence's observations extended, some of which had lasted for a period of six months. It did not appear that the operation had caused any undue dryness of the eye; but in every case it had remained normally moist after the operation. Mr. Laurence remarked, that another consequence of removal of the lacrymal gland for abscess of the sac was, that the abscess healed, and the discharge of pus from the puncta ceased. Mr. Laurence considered removal of the lacrymal gland applicable to those cases of inveterate lacrymal fistula which other methods, after a fair trial, have failed to cure; the operation offering the best prospect of a radical and permanent cure. Mr. Laurence concluded by a description of his method of performing the operation. He makes a transverse incision of three-fourths of an inch in length into the orbit over the upper and outer third of the orbital edge; he then divides the external commissure of the lids with scissors; and, by connecting the outer ends of the two incisions, forms a triangular flap, which is thrown up. The lacrymal gland is thus easily exposed, secured by a sharp hook, drawn forwards, and removed. The edges of the wound are then united by sutures. The linear scar of the incision is inappreciable, it being lost in the folds of the upper eyelid.

5. Dr. Skinner of Liverpool, who had prepared a paper on the Philosophy of the Algide Condition in Cholera, said that, not having had any previous notice of the rule which bound him to confine his observations to fifteen minutes, he could not now condense his paper into that space of time; and, after some discussion, he withdrew the paper.

6. On the Use of the Actual Cautery in Ovariotomy. By I. B. Brown, Esq. Mr. Brown gave details of 13 cases of ovariotomy, in continuation of a series of 36 in which he had used the actual cautery in the treatment of the pedicle, and of which number 23 had already been given to the profession in two papers read before the Obstetrical Society of London. Of the cases already published, 2 only had died; while of the remaining 13 now treated of, 3 have died, giving a mortality of 5 in 36, or 1 in $7\frac{1}{5}$. An analysis of these cases showed that death had not resulted in a single case in which the cautery alone had been used successfully, whether in the treatment of the pedicle or adhesions. In the first case, death was due to hæmorrhage from the site of an adhesion of the tumour to the mesorectum, to which the cautery could not be applied. In the second, the clamp and cautery failed in arresting bleeding from a portion of mesentery to which a ligature was subsequently applied; and the patient died of peritonitis. The third died on the fourth day, with all the symptoms of poisoning of the blood; the fourth, of shock; and the fifth, of peritonitis of a very low form. In all these cases, with the exception of the first, a ligature either of the pedicle or of some other part had been used; and it is at least worthy of note, that death resulted only in such cases. True, there were other cases amongst the recoveries in which ligature was used in addition to the cautery; but this, in Mr. Brown's opinion, did not invalidate the proposition, that the treatment by actual cautery is superior to that by the old clamp or ligature, and promises a larger amount of success, or is attended with less risk. To secure the benefits of this instrument, great care should be observed in having it properly constructed, and in having its roughened surfaces occasionally renewed; for, in a recent case, the failure was in great measure, if not wholly, due to the fact that, through repeated use, the rough surfaces had become worn, and the necessary compression could not be attained. It was also essential that the searing be done slowly, or rather that the tumour first be cut away about an inch from the clamp; and the projecting stump of the pedicle be cut through by the cautery close to the clamp. In this way alone should it be done. There was also this advantage, that, should the cautery fail, the ligature might yet be applied without any more risk than by this latter mode alone.

Mr. Meade (Bradford) thought the originator of this plan must have taken his idea from the common operation of spaying pigs.

Mr. Folken had had a case of operation on the womb some time ago; and, on his way to this meeting, he had seen the woman, and learned from her that regularly since the operation, on the day before menstruation, she had considerable weeping from the pedicle, continuing till menstruation commenced. This would be got rid of by Mr. Brown's method.

Mr. Brown said Mr. Meade was quite right as to the plan having been taken from the spaying of sows,

and he readily admitted his obligation to veterinary surgeons for the hint.

7. On Loose Cartilages in the Articulations, and a New Instrument to extract them. By H. Dick, M.D. Dr. Dick exhibited the instrument.

Mr. Christopher Heath thought that, although the instrument was very ingenious, he was afraid it would not answer for large cartilages, because it would be difficult to catch them; and the joint might be torn, and air admitted, in consequence of the size of the instrument and the incision it made.

8. An Abstract of some Original Researches on the Heat of Fluidity or Latent Heat of Animal Bodies. By B. W. Richardson, M.D.

9. On Feeding by the Veins. By B. W. Richardson, M.D. Dr. Richardson exhibited an instrument which he had invented.

Mr. Brown had watched these experiments with great interest. A case had been recorded, in which a boy would have bled to death from the teeth, but he had been saved by this method, and was alive to this day. They owed Dr. Richardson a great debt of gratitude; for this method would certainly save many lives. In midwifery, it would be of the greatest importance, especially in such cases as where a woman would die from uterine hæmorrhage; and it was so simple, that they would have no difficulty in applying it themselves.

Mr. Meade fully recognised the importance of the method, but hoped gentlemen would not take it up too rashly and begin transfusing fluids of all kinds into their patients. [*Laughter.*]

Dr. Sibson said the first case in which a cholera patient had a saline solution injected into her had been under his care at New Haven, near Edinburgh, in 1832. She had recovered, and then relapsed, and died in four hours. The second case was a man at Leith. He injected an enormous quantity, and it ran from the man as it was poured in; and no mischief resulted. The man recovered perfectly. The third case also recovered; and they thought then they had discovered the "philosopher's stone". Afterwards, three out of four cases proved failures; and, after going on for nine months under Dr. Mackintosh in the great Cholera Hospital in Edinburgh, he gave it up. But the saline solution itself did no harm. He should never forget the case of a charming young lady who underwent the operation, and afterwards kept her health perfectly for some time; but the action of the kidneys was not renewed, the blood continued to be poisoned by impurities, and fever and death ensued. If fluid could be found of the right sort, he had no doubt it would be better. He joined the Association in an admiration which he could not quite express for the beauty, simplicity, and exceeding delicacy of the apparatus invented by Dr. Richardson. It was evident they could regulate the pressure to the ten-thousandth of an inch by the mere movement of the hand. He was delighted to see that Dr. Richardson had given them an apparatus as ingenious as that which the world was at present admiring. [*Applause.*]

Dr. Markham said their great difficulty had been the want of such an instrument as this. He agreed with Dr. Sibson that it was a wonderful invention. Now that it was found, if they could also find a fluid to answer the purpose, transfusion would be proved to be of great use in very many cases. He hoped Dr. Richardson was not too sanguine as to the merits of his feeding fluid. It was almost impossible to obtain blood from human subjects; and he thought it had been shown that undigested albuminous fluids were foreign substances when injected into the veins. He hoped it would be proved that the digestive process proposed by Dr. Richardson was similar to that which took place in the stomach; but, until it was proved, he doubted whether any artificial process could be sufficient.

Dr. Richardson thanked the meeting and the Association for their kindness in receiving his communications with such consideration. It was most satisfactory to hear from Dr. Sibson that recovery had in one case taken place after injection. [Dr. Sibson: Many cases—a hundred.] In six cases in which he had tried it, they had all been fatal. A patient had been kept alive three days by injection; but she died from the continued discharge. They wanted a fluid that would sustain the patient. As to albumen, it was either poisonous or nutritious. When raw, it did not mingle with the blood; and it had the same effect as scarlatina on the kidneys. A donkey, upon which he had tried it, died with the same symptoms as in albuminuria. But since then he had found that, by subjecting it for a long time to heat beneath the point of coagulation, none of those symptoms were produced. He believed that the digestion in the stomach was, to albumen, simply exposure to a certain degree of heat. The subject was so profoundly grand in its relation to both physiology and pathology, that he would not venture to say more; but during the year, he hoped, a very great advance would be made in this direction. [*Applause.*]

10. Cancer—a New Method of Treatment, by which Malignant Tumours may be removed with little Pain or Constitutional Disturbance. By W. H. Broadbent, M.D. The attention of the author was directed to the treatment of cancer under the following circumstances. In 1864, he was consulted by a lady suffering from cancer of the breast. By his advice, the breast was removed by Mr. Walter Coulson. The disease returned, and was again removed in August 1865. In May of the present year, a tumour was growing more rapidly than ever near the cicatrices of the former operations. It was decided that no further removal was advisable; and, unless something could be done, a miserable fate was before the patient. The hypodermic syringe is now in the hands of every physician; and it seemed to the author that by it some fluid might be injected into the tumour which might so far alter its structure and modify its nutrition that its growth might be retarded or arrested. After considering the various substances which presented themselves to his notice, he selected acetic acid, for the following reasons. 1. This acid does not coagulate albumen, and might, therefore, be expected to diffuse itself through the tumour; and the effects would not be localised at the point injected. 2. If it entered the circulation, it could do no harm in any way. 3. Acetic acid rapidly dissolves the walls and modifies the nuclei of cells on the microscopic slide, and might be expected to do this when the cells were *in situ*. 4. It had been applied with advantage to common ulcerations. On May 18th, the first injection was practised. The tumour was of about the size of a small egg, and a patch of skin of about the size of a shilling had become adherent to it. The needle was introduced through sound skin an inch or more from the part involved in the disease, and passed to the centre of the mass. About thirty minims of dilute acid (one part of acid to one and a half or two of water) were injected. It gave little or no pain. Next morning, a bulla containing dark bloody fluid was found to occupy the patch of adherent skin. On May 23rd, this portion of skin was dry, hard, and horny; the adjacent part of the tumour not so hard. The injection was repeated. The patient was not again seen till June 7th, when the piece of skin mentioned was found detached from the surrounding sound skin; and a probe could be passed in all directions to a distance of

three-quarters of an inch or more between the tumour and the healthy structures. A little discharge issued from the fissure mentioned. The injection was repeated on this date, and again on the 9th, the acid used being rather stronger. It gave a little pain, and swelling and tension of the parts around followed. On June 13th, and a few days afterwards, there was a free discharge of fluid and solid portions, with relief of the swelling, etc. No fœtor whatever attended this discharge, which afterwards diminished greatly. On June 26th, on external examination, the tumour was found to be much smaller; and, on passing a probe into the opening, it entered a large cavity extending on all sides. Part of the walls seemed free from malignant structure, but at several points a crust of cancerous deposit remained. On attempting to inject, it was found too thin to retain the fluid, which either entered the tissues and gave great pain, or made its way into the cavity. The cavity was stuffed with lint saturated with dilute acid; and the case left in the care of the family medical attendant, who was to inject as he saw opportunity. July 13th. No impression was made on the remaining disease, which had, in the opinion of the medical man, extended somewhat. Carbolic acid was tried for a few days as an application, but discontinued; and the cavity dressed daily with strong acetic acid by the medical attendant, and injections practised daily. This energetic treatment gave much pain, and excited inflammation all round. When again seen by the author on August 4th, there had been considerable hæmorrhage, which had been arrested by free application of tincture of sesquichloride of iron. The result, however, was apparently the entire removal of the remains of malignant disease; and, when last seen, a healthy granulating surface was left at every point. Three other cases were related by the author. The author further formulated certain conclusions from the experiments detailed, and stated the cases to which, in his opinion, the treatment was not applicable. Guided by his experience, he considered large quantities of dilute acid preferable to stronger acid; and he would not, without great hesitation, attempt the destruction of any tumour which had not involved the skin. His aim had originally been, as stated in the early part of the paper, not necrosis of malignant tumours, but a modification in their nutrition. The theoretical grounds for this hope were, that cancer owed its malignancy to its cellular (to use a nomenclature now almost antiquated) or fœtal structure; and that in acetic acid we had an agent which might be expected to diffuse itself through the tumour and reach the cells, and, having reached them, to effect changes in their structure, and affect them vitally; while it could scarcely do harm. The results he had brought before the profession at the earliest possible moment. The ultimate value of the treatment he left to be decided by a more extended experience.

Mr. Heath asked the strength of the acid used.

Dr. Broadbent said he had not been able to measure it in the first case, and had only tasted it. Where it produced sloughing, it was about one part of the acetic acid of the *Pharmacopœia* to one and a half of water; and in the other case, one part of acid and one of water.

Mr. Meade asked if the instrument was introduced into the substance of the tumour.

Dr. Broadbent: Yes.

Mr. Meade had long thought that, where it was possible to extirpate cancerous tumours by caustics, this method would be better than the use of the knife. The difficulty was, that strong sulphuric acid or chloride of zinc caused much pain.

Dr. Richardson suggested the use of butyric acid instead of acetic; and that the freezing process should be combined with the injection, as it would quicken the action and remove the pain.

Mr. Baker Brown said he would certainly try the method with great confidence, and keep a record of the results for Dr. Broadbent. He had always felt that he should yet learn that cancer was curable in many ways.

Dr. Philipson asked if there had been any microscopic examination of the discharge after the first injection.

Dr. Broadbent said he had not been at hand when the discharge took place, and there had been no such examination. It was important to use large quantities of dilute acid, and not to have the acid too strong.

Mr. Samuel Hey, as a hospital surgeon seeing these cases often, felt any suggestion for the removal or palliation of cancer to be very important. He should be glad to put these suggestions in force. Some such method seemed most likely to succeed—as the constant application of tincture of iron (iodine blistered the surface, and probably increased the tumour), so as to penetrate the surface. The latter method had been known to keep patients alive three or four years. But all this would not prevent his using the knife, if he could do it freely and properly. In one case, some years ago, he had removed a cancer from the breast; and after eleven years the patient had died of a cancer in the other breast, the cicatrix in the first case being perfectly sound.

Mr. T. Heckstall Smith said it was true that cancer was constitutional, and must have its course constitutionally before it was developed in tumour. It was important to ask whether they had exhausted the means of detecting the cancerous constitutional tendency, and trying to attack it by remedial agencies. He believed it might be detected before the local development took place; and for some years he had been trying the effect of arsenic in such cases. It was the best tonic he knew. Upwards of forty-three years ago, he had found old practitioners had said nothing short of an arsenic course would prevent the relapse, which was so dangerous; and he had never seen any injurious effect from its use. He gave five minims of Fowler's solution three times a day with meals—when food was being taken. Then, when the effect was produced, he reduced the dose to one minim.

Dr. Andrew said he had had a case of lupus affecting the eye, in which he had been giving half a drachm of Fowler's solution for the last three months; and now it was almost cured. He had gone as far as thirty-five minims, and the patient had not been quite well under it; but there had been no irritation.

Dr. Broadbent thanked the Association for the way in which his paper had been received. As to Dr. Richardson's suggestion, for which he thanked that gentleman, he said he had found acetic acid quite satisfactory, and he supposed butyric acid would be so too. It had occurred to him to use Dr. Richardson's method of local anæsthesia, and it was mentioned in the paper which he had had to condense; but he was afraid the attempt to produce cold might precipitate the process, and cause sloughing.

11. The Treatment of Tedious Labour in the Second Stage. By J. Thorburn, M.D. The author first referred to the strong denunciations of "meddlesome midwifery" contained in all modern British text-books. These, the natural reaction from an opposite state of things, had in many points been carried too far, and had led to a discrepancy between the practice and preaching of eminent accoucheurs.

For the sake of testing this, he discussed the appropriate treatment of a case where the presentation was natural, the os well dilated, the head had begun its descent, there was no manifest obstacle and the parts seemed apt for delivery, the uterine pains were of average strength and frequency, and there was no constitutional disturbance, but matters had been *in statu quo* for a couple of hours or thereabouts, and there was a strong probability of a lingering labour, though it might ultimately terminate naturally. Such cases occurring frequently, there were three courses open—to trust entirely to Nature, to give ergot, or to use the forceps. The first course was authoritatively laid down by all recent British writers as the most natural, and therefore the safest. To set against this view, there was the certainty of much longer suffering, the possibility of exhaustion, which might be suddenly developed, increased risk of metritis from over-exertion, of sloughing of the soft parts, of hæmorrhage from inertia, of rupture of the uterus, and the possibility of having to fall back on one of the other plans under less favourable conditions. None of these events might be very likely, but they were all possible; and any procedure which would diminish one or all of these dangers, without substituting equal risks, should be adopted. Ergot did not, in the author's opinion, fulfil this condition; for, although it might succeed in speedily terminating the labour, it might also fail, and involved a greater risk to the child from spasmodic or unintermitting pressure, or from its poisonous action (?), and it greatly increased the danger of rupture of the uterus and retained placenta. By forceps, speedy delivery was certain, undue uterine fatigue was obviated, and all chance of rupture from straining was abolished. The author endeavoured to show that, in proper hands, there was no corresponding disadvantage; that sloughing of the soft parts and torn perinæum, so far from being more were less probable; that there was no risk in thus carefully and slowly emptying the uterus; that the pain of labour was diminished; and that the risks to the child were lessened in such a case. He protested against the invariable rule of arguing the question on the ground that the operator might be unskilful; such an argument never being used in discussing the general advisability of any other surgical proceeding. He concluded that, contrary to the opinion of Murphy and others, there were cases in which it was advisable to interfere merely for the purpose of abbreviating labour, and that the practitioner was not liable, in such a case, for any consequences that ensued, except such as were clearly traceable to his own neglect or maladroitness; and agreed with the American accoucheur Hodge, in emphatically condemning the "practice which permits the agonies of labour to be unnecessarily prolonged, or the safety of the mother or child to be jeopardised, from the timidity or ignorance of the accoucheur respecting an agent whose employment necessarily involves no danger."

Mr. E. Jones had had considerable practice in the use of the forceps, and had not experienced the difficulties mentioned by Dr. Thorburn. In cases of tedious labour he had tried large doses of opium—forty minims of liquor opii; and found that it either rested the system or terminated the labour.

Mr. Baker Brown understood Dr. Thorburn recommended doing something, and that quickly, instead of the old law of doing nothing. He had, as a professor of medicine, taught the principle so many years, and, as an operative surgeon, had seen so much of the ill effects of doing nothing, that he could but be glad to find the former advocated. In this day, no man had a right to let a patient die for the want of such an effort. If they did not let women remain in labour, they would not have those frightful lesions which it was his privilege to cure. Out of about one hundred cases he had treated, ninety per cent. were attributable to protracted labour. The idea that they were produced by the use of instruments, was a farce and a bugbear.

12. On Secondary Cancer affecting the Lungs. By Henry Day, M.D.

Dr. Richardson said it seemed from this short abstract that Dr. Day took a very decided view as to the local origin of cancer; and it seemed he would combine the local and constitutional aspects of the question. His remarks would probably bring more thoroughly together the two opposing views than anything he (Dr. Richardson) had previously heard. He looked upon the general degeneracy of the body as a base on which the local affection rested; and he tried to establish a connection between cancer of the bone and affection of the lungs. The idea that cancer in the lungs had always been preceded by cancer in the bone was a new thought to him; but certainly every case he had seen had been so preceded. If true, it would establish a connection of very great moment.

Mr. Samuel Hey corroborated this by a large number of cases. In one case, he had removed three parts of the scapula, with a large tumour; the patient being removed in four days, and afterwards dying of cancer in the lungs. He had never known but one case recover and remain well; and that was a child of 12 months, with a tumour under the ear, which had been mistaken by previous surgeons. This was three years ago, and the child was now alive and well.

Professor Stokes had seen a good many cases of cancer of the lungs; and he was not prepared to deny what had been said. But they should be cautious in assuming that cancer in the bone, more than other forms of cancer, invariably preceded cancer in the lungs. Certainly, there were other forms of local external cancer with a peculiar tendency to be followed after operation by cancer of the lung. The most common illustration was cancer of the testicle. There must be something in every case to cause the cancer; the same as in the pustule of variola. In the present state of knowledge, it was extremely difficult, perhaps impossible, to draw the line; but there were several curious facts connected with the localisation of cancer. The ordinary case of encephaloid disease of the liver, where the liver was full of cancerous symptoms, with no signs of cancer in any other part of the system, was a very interesting instance. Another was what appeared to be an example of pathological transformation—where a pathological product had been produced (say a secretion in the pleura, as the result of simple pleurisy), and then, even after absorption had gone on for some time, what fluid remained unabsorbed was transformed into cancer. Contraction of the chest went on to a certain point, and no further; and the patient was then very ill and had varicose veins in the side, and died with an extensive cancer of the chest, as it were. He rather thought there were other examples of cancer in the lung, independent of cancer in the bone. No doubt, if a patient, after having cancer of a limb, got almost any pulmonary symptoms, they might conclude that he had cancer of the lung. There had been a remarkable case in the Sligo Infirmary, under Dr. Little. A young man was brought in, simply dying from a miserable leg which had been neglected. Dr. Little conceived that the only possible way to save life was to amputate above the knee; which he did, with the happiest result. Hectic fever went away, and in four or five weeks the patient had increased a stone and a half in flesh; but he came back shortly complaining of pul-

monary irritation, and died in a fortnight after readmission, when it was found that both lungs were converted completely into cancerous masses. The rapidity of growth in isolated cancerous masses was very singular. He had seen a case in which, three days before death, two large tumours formed on the front of the abdomen; and during those three days they grew almost "under the eye."

Mr. Moore thought secondary cancer of the lung was on the whole very rare; and when it did occur, it was almost solely in the case of medullary cancer, which might start from the testicle, or the bone, or any part where the original tumour might have been. The lung was exempt from primary cancer, as a rule, but he had seen it there. It was explicable, as it seemed to him, in the same way as they understood cartilage came into the lung from a cartilaginous tumour. He had recently had a case of cancer in the glands of the pelvis, which discharged into the blood quantities of its living contents, that were passed on by the circulation through the vena cava, and produced disseminated carcinoma over many parts of the lungs. As they went on, they came nearer and nearer to understanding how the disease advanced; and the more they understood that, the nearer they should come to understanding how it arose. Such cases confirmed his view that cancer was inoculable from part to part of the same person. He had had a case of an old lady with a pendulous tumour of the breast, which ulcerated and hung down, the ulcerated surface coming into contact with a healthy part of the skin; and the healthy skin at that point gradually gave way and became a distinct cancerous ulcer, while the intermediate skin remained healthy. Thus the cancer was inoculated. He had seen a *post mortem* examination, where there had been a cancer on one side of the vagina, and the ulcerous surface had come into contact with the healthy surface of the opposite side, and caused an ulcer there which exactly fitted the development on the diseased side of the vagina. He had seen the same thing in the tongue, where there had been inoculation from the upper part of the tongue to the palate, from the constant pressure of the cancerous mass upon the healthy surface. The only difficulty was in passing it from one animal to another; but it seemed to him that it would pass when the cancerous surface was pressed against the healthy surface.

Dr. Day said his idea was that the whole was not the result of what seemed to be considered cancerous diathesis, but simply an error of nutrition. Professor Stokes had misunderstood him, if he thought he meant to infer that cancer of the lungs was always preceded by a cancerous condition of the bone.

Professor Stokes said he had not thought so; but that Dr. Day thought cancer of the bone more likely to precede cancer of the lungs than any other form.

Dr. Day did not feel himself in a position to answer Mr. Moore's suggestion about inoculation, as he had never made any experiments on that point. But there were some experiments recorded in the *Gazette Médicale de Paris*, in which the experimenter had succeeded in inoculating some tumours, but had failed after cancer. He was not surprised that there should be such outbreaks as Mr. Moore had described in the neighbourhood of the first outbreak; and he did not think it proved that cancer could be inoculated.

13. On the Treatment of Acute Rheumatism. By J. Birkbeck Nevins, M.D. The author advocated the employment, from the very first, of steam baths and subsequent cold affusion, even when the patient could not be moved from bed; and of quinine and iodide of potassium in combination, even though there might be all the febrile symptoms usually present. The employment of opium was scarcely necessary, and only in the most moderate quantities. The benefits stated to result from this treatment were—1, the speedy abatement of pain and of sweating; 2, the early recovery of strength and convalescence; and 3, the unusual absence of heart complications or of relapses.

Dr. Falconer said he had brought several cases of acute rheumatism which had occupied his attention during the last six months. Of eighteen cases, there had been one death. There had been one male and three females of the number with heart-disease. Four had had relapses; three he had treated with injection of morphia. There was one thing with regard to what he might call the auxiliary treatment—that, in all these cases, the patient had been put into blankets. He found the use of blankets in such cases mentioned in the *Medical Miscellany* of 1810; so that it was not so new as was often supposed. They wore a sack of flannel, with an opening on the left side to allow of the examination of the heart. Cotton wool was used where there was heart-disease, and belladonna administered. He had never used the blister; and he had made a point of combining iron with the alkaline treatment, employing the bath from the first, and using an injection of quinine and iron. He hoped to have an opportunity of tabulating these cases, and going more completely into the matter. He believed it would be found that the temperature of rheumatism was 103·6°; and if it reached anything like 104°, they might be certain there was a complication approaching.

Dr. Stewart thought the blanket one of the greatest of all means of treatment in rheumatism. He used it as a sack, to prevent chill. His orders were always that the patient should not be allowed to rise, but was to be kept in bed, and the bowels kept open. He felt convinced that chill was very much the cause of complications. As to temperature, he thought he had found it 101° and 102°, and rarely more than that; but he had not yet got his results on that point. As to the alkaline treatment, he had much the same views as Dr. Falconer. During the last twelve years, he had used it largely, and had not found it prevent heart-complications, or that they went off after it more generally than after expectant treatment. In one case, where he had been obliged to suspend the alkalies, the heart-complication had come on at the precise moment.

Dr. Markham thought a great deal of mischief had been done by Dr. Dickinson's excellent paper, with the cases proving the excellent effect of alkaline treatment. It had been forgotten that those were selected cases, which had had no heart-affection when brought in; and they had been taken as though they were average cases. Everybody knew that the very fact of cardiac disease being absent was a proof that cases were not serious.

Professor Bennett understood the paper now read to advocate the good effects of quinine; and he should like to hear that brought out. It was some years since he had made any very careful trial of the alkaline treatment. It had occurred to him to ask, How long does rheumatism take to get well of itself? Until that point was settled, how could they determine what to do? He regretted that they had not had out that discussion on Dr. Stewart's paper on the previous day. Who could venture to say this or that treatment was or was not successful, if he did not know how long the disease was likely to last of itself. He had tried everything—there was no drug he had not tried—in rheumatism; and he found them all pretty much alike. He had tried nothing, and the result had been the same. He had tried the blanket, with the same result. They had given the alkaline

treatment a most careful trial in Edinburgh, and it had seemed to him to shorten the duration of the disease a little. In Edinburgh, they saw a great deal of rheumatism in servant-girls, on account of the system of washing adopted there. Girls got up very early in the morning to wash, and in all weathers, without care as to clothing, they alternated carelessly between the hot steaming kitchen in which the washing was done and the open air, often bitterly cold, where they hung the clothes to dry. He thought he had observed that, where a strong young girl of this sort was seized with rheumatism, the acute symptoms had a tendency to disappear in about six or seven days; and if there were much complication, it would disappear in about fourteen or fifteen days. If the girl were weak, they found that murmur at the heart for which formerly violent remedies—mercury and so on—were given. Then, as, under the influence of rest and good diet and warm, comfortable treatment, the patient became stronger, the murmur went away. In the old time, when mercury was given in these cases, it generally so happened that the murmur went away about the same time as the mercury touched the gums; and so it was concluded that the murmur went away in consequence of the mercury touching the gums. Now mercury was not given, and yet the murmur went away as soon. They had come to the conclusion in Edinburgh that, in one of the healthy cases he had named, if alkalies were used—they gave nitrate of potash—instead of being seven days, the average duration of the acute symptoms was six days and a half. He had given nitrate of potash regularly ever since coming to that conclusion. His view was that acute rheumatism cured itself. It had once been said that six weeks in bed was the best cure for everything; and he had noticed that, of Dr. Stewart's cases mentioned on the previous day, the average duration was forty-two days, which was just six weeks.

Dr. Stewart was understood to say that the average was less than forty-two days.

Dr. Markham suggested that the great point was, whether or not the heart was affected. It was said that the alkaline treatment prevented this.

Dr. Day had tried the alkaline method in numerous instances, and was of opinion that no remedy produced such curability. In his hands, blister treatment had been very satisfactory; and he was able to publish an extended account of cases in which he had proved it. The average duration of those cases was not more than nineteen days. Some years ago, Dr. Mitchell had published a book in America, in which these cases were traced to spinal origin. In Philadelphia, a hospital had been established since the late war, and it was there found that where there was a nervous affection there had been rheumatism in the same limb; and treatment of the spine was adopted with success. He had almost always found spinal irritation, and found this treatment satisfactory.

Mr. Samuel Hey had found that a blister, wherever applied, diminished the acute symptoms. It seems to eliminate the poisonous condition to a greater and better extent than anything he had seen.

Dr. Richardson confirmed this view.

Dr. Nevins said the discussion had not turned upon the point he had wished to ventilate—the early employment of steam-baths in bed, and the combination of iodine with quinine. He had seen very little of cardiac complications whilst he had been using this method. He had avoided blisters, not wishing to add to the patient's sufferings. He believed in the efficacy of cantharidine introduced into the system; and he had used tincture of cantharides as an internal remedy, and in chronic rheumatism had found it exceedingly valuable.

14. On Three Cases of Compound Dislocation of the Astragalus, with Removal of the Bones. By T T. Griffith, Esq.

Mr. Samuel Hey said he could corroborate Mr. Griffith's views. Since Mr. Turner's paper, this had been the ordinary method. It had been frequently followed; and, in every instance, with great success. But he would suggest whether, in a case that was not compound, they should cut down for it and remove the bones, or wait till sloughing was caused before they interfered. In a case of dislocated astragalus, with a wound communicating with the section, he should remove the bone entirely without any attempt at reduction. The advocates of this method alleged that it shortened the process greatly; and it was a question whether they should make a simple dislocation into a compound one when it was sure to become so in time if left to itself.

Mr. Griffith said it had been settled by a greater authority than himself that the rule of practice was not to disturb a simple case; but, where inflammation came on, the practice would be to enlarge the wound and remove the astragalus. But that would not justify the making a simple into a compound case.

Mr. Williams said that, if Nature made the effort unsuccessfully, and the bone were entirely dislocated, he thought they were justified in waiting and making a secondary operation. If the foot remained twisted, they were justified, and the operation was attended very little risk.

THE MYOGRAPHION.

Dr. William Rutherford of Edinburgh gave a description of a most ingenious instrument—Du Bois Reymond's Myographion; and performed with it the remarkable experiment devised by Helmholtz to measure the rapidity of nerve-force. He described the instrument as consisting of three principal parts: 1. A glass cylinder turned by clockwork, having a dial by which the rate of the cylinder's revolution may be ascertained with the greatest precision. Before each experiment, the cylinder is smoked, and so permits the point of a stilette to make a tracing upon it. 2. Arrangements for fixing the gastrocnemius and sciatic nerve of a frog, and for connecting the muscle with the stilette. The femoral extremity of the muscle is secured by a pair of forceps; and the tendo Achillis is connected by hooks with a moveable beam, having at its one extremity a stilette. When the muscle contracts, the beam is raised; and the stilette, being in contact with the cylinder, produces a tracing corresponding to the contraction of the muscle. The muscle and nerve are surrounded by a glass case containing wet blotting-paper, to prevent the tissues from becoming dry. 3. Arrangements by which the nerve is irritated, and the muscle thereby thrown into action at a given point of time. The nerve is irritated by breaking a constant electrical current sent through it. Two pairs of wires are placed in contact with the nerve; one pair as near the entrance of the nerve into the muscle as possible, and the other at a point of nerve about two inches from the muscle. The wires are connected with a simple contrivance called an inverter, by means of which the current from a battery and galvanic machine can be sent through one pair of wires in contact with the nerve or the other; the object of the experiment being to ascertain how long the nerve-force takes to pass from the point of nerve over the one pair of wires to that over the other. The part of the instrument by which the electrical cur-

rent is broken, and irritation of the nerve thereby produced at a given moment, consists of a round brass box, fixed to the axle of the cylinder, and rotating with it. The box contains a moveable weight; and as it revolves, the weight, from centrifugal force, moves outwards; and, when it has reached a certain point, it suddenly breaks the electric circuit, and so throws the muscle into action. By means of the dial upon the clockwork, the rate of the cylinder's revolution, just when the current is broken, can be accurately ascertained; and, by means of a spiral spring attached to the weight in the brass box, the rapidity with which the weight moves outwards may be regulated, and so we can have the current broken when the cylinder revolves ten times or fifteen times in a second, and so on.

The experiment was begun by counting the velocity of the cylinder when the current was broken. It was found to be exactly fifteen revolutions in a second; the circumference of the cylinder being six inches—$6 \times 15 = 90$ inches linear of surface of cylinder—equal to a second of time. The cylinder was then blackened by means of turpentine smoke. The gastrocnemius and sciatic nerve of a frog were dissected out and attached in the manner above indicated; the electrical current was sent through the nerve close to the muscle, and the clockwork set in motion. When contraction had taken place, the instrument was stopped and re-arranged; the current was then sent through the portion of nerve two inches from the muscle, and the clockwork again set in motion, and stopped when the muscle had contracted. The cylinder was then rolled along a moistened sheet of gelatine, and an impression taken from it. It was then found that the commencement of the tracing produced after irritating the nerve two inches from the muscle was one-fifth of an inch distant horizontally from the commencement of that which had followed irritation of the nerve near the muscle. The nerve-force had taken an interval of time equivalent to the one-fifth of an inch of the cylinder's surface to pass from the point of nerve over the one pair of wires to that over the other; that distance was two inches. The next point was to find the value in time of the one-fifth of an inch. Ninety inches of the cylinder's surface corresponding to one second, one-fifth of an inch would, of course, be equivalent to 1-450th of a second. If it took 1-450th of a second to travel two inches, how long would it take to travel a foot? By simple proportion, it was found to be 1-75th of a second, which is, of course, equal to seventy-five feet per second. This is the usual rate in the frog.

The myographion of Du Bois Reymond is similar to that constructed by Helmholtz; the essential difference consisting in the arrangements for breaking the current at a given moment of time. In Du Bois Reymond's, this is effected with greater simplicity and precision.

THE ENDOSCOPE.

At the Chester Infirmary, by the kind permission, and with the assistance of the medical staff, Mr. Christopher Heath had an opportunity of demonstrating to the members of the Association the use of the Endoscope on three patients under treatment in the infirmary. The instrument used was Dr. Cruise's modification of Desormormeaux's Endoscope, and Mr. Heath was able to demonstrate satisfactorily the interior of the urethra and bladder in a patient the subject of chronic cystitis. In a female the subject of epithelioma of the rectum, a stricture some inches from the anus was readily brought into view, and in another woman, also suffering from stricture, the demonstration was equally satisfactory.

THE DINNER.

An excellent dinner was provided at the Grosvenor Hotel, on Friday evening, when about a hundred members and guests of the Association assembled. The President, Dr. Waters, presided, and amongst the guests were the Right Rev. the Lord Bishop of the diocese, the Rev. Canon McNeile, the High Sheriff of the County, the Mayor of Chester, Lieutenant-Governor Cox, etc.

After dinner,

The PRESIDENT said the first toast of loyal England, and in England there was no more loyal class than the medical profession, was, "Our Gracious Queen." [*Applause.*] From the time when, as a young, lovely, and graceful girl, she had opened the bridge which spanned the river Dee, and in honour of the noble family whose guest she was, christened it the "Grosvenor Bridge," till now, whether as a devoted wife or as a judicious mother, the Queen had been an example to all her subjects.

The toast was honoured with loud cheers.

The next toast from the chair, "The Prince and Princess of Wales and the rest of the Royal Family," was received with similar tokens of loyalty.

The PRESIDENT was happy and proud to say that he had a representative to respond to the next toast, "The Bishop and Clergy of the Diocese." [*Cheers.*] The manner in which they had received the mere mention of the toast was a sufficient indication of the fact that it required little recommendation from him. Chester had been remarkable for the men who had ruled the diocese, of whom the last and present Bishops had not been the least distinguished. He associated with the toast the name of the present bishop. [*Cheers.*]

The BISHOP OF CHESTER: I thank you heartily for the cordial response you have given to the toast. It is a great pleasure to me to find the clerical body of which I am a member so favourably recognised by an assembly like this. There is, I am happy to think, great congeniality between the two professions. [*Hear, hear.*] None of us live long in this world without feeling ourselves more or less under obligation to the medical profession. I have had my share, although, thank God, it has not lasted long; but I have had occasion to feel under vast obligation to the medical profession in my family. As a curate, as a perpetual curate, as a rector of a parish, I have been encouraged to lean upon my medical friends; and I have found them ready to meet any emergency, and often to anticipate my warmest wishes. [*Applause.*] As a college tutor, and in other offices in the University, I have received obligations which I can never forget from medical men, and I am happy to say that I remember some of my oldest friends who are members of the medical profession. I am heartily obliged to you. [*Cheers.*]

The PRESIDENT gave "The Lord Lieutenant of the County," whom he eulogised on account of his public spirit, which had induced him to build the hotel at a loss to himself, and to give a park to the city. By his many good qualities, he had endeared himself to the citizens, and therefore his health should be honoured. [*Applause.*]

The PRESIDENT proposed "The Army, Navy, and Volunteers," and made reference to the militia and yeomanry. Responses were made by Surgeon Brittain for the Army, Dr. FitzPatrick for the Navy, Dr. Mc Ewen for the Yeomanry, and Surgeon Weaver for the Volunteers.

Mr. TURNER (Manchester) proposed "The Dean and Chapter of Chester," coupled with the name of the Rev. Canon McNeile. [*Cheers.*] He had no hesitation in proposing the toast, because he was

quite sure they would agree with him in the opinion that no association could be warmer or more heartfelt than that which existed between the clerical and the medical professions. [*Applause.*] If they wanted evidence of it, they had it in the fact that in the migrations of the Association, at no place had they received so warm a reception as in the University of Cambridge. [*Hear, hear.*] There had seemed to be there an exhibition of the most kindred and happy feeling; showing that, so far from believing, as some might do, or supposing for one moment, that the medical profession was a body of sceptics, they regarded them as the opposite. He repelled that supposition with perfect indignation; and as the President had said no men were more loyal, so he ventured to say there were no men more moral or more religious than the medical profession. [*Cheers.*] The toast he proposed spoke for itself, and required no vocal recommendation. He wished the clergy in that assembly had had the good fortune to listen to the address of Mr. Bowman before the Association on Thursday, in which had been embodied not only the highest principles of their profession, but also those of morality and religion in the loftiest sense. It had set forth a standard which they hoped the profession might attain to, but of which they must say in all humility they fell far short. He was quite sure the members of the British Medical Association could not feel themselves happier than in associating with their clerical friends. [*Applause.*] The meetings of the Association would be *nil* without them. If it were the duty of the medical profession, as it was, to relieve suffering humanity, to avert death, and, where this could not be done, to smooth the pillow of the dying, the right-minded medical man would always seek, for the higher and more important purpose, the assistance of the clergy. They had no hesitation in this. Their studies were such as led them direct to the study of Nature, and of Nature's God. And if the clergy were to visit the place of which the medical profession boasted so much, and were so proud, the Museum of the Royal College of Surgeons, as instituted, and for many years carried on, by the immortal Hunter and the men who had succeeded him, and to see there the exposition of nature, from the most simple object in which life was found up to the most complicated and beautiful organisation of man, they would see it to be impossible that the medical profession should not study Nature, that they were incapable otherwise of carrying on their practical duties; and the transition was a very easy one "From Nature up to Nature's God." There could be no difficulty in determining the fact that where there was a design there must be a Designer; and that, since the Designer was not man, it must be One higher than man, and that was God. He had, therefore, no hesitation in proposing this toast to the assembled medical men in the place; and he was sure they would agree with him that they should drink it with enthusiasm, exhibiting by the manner in which they drank it the high estimation in which they held the clerical body, and their hope that the clergy would receive them as their friends, as they received the clergy as theirs. From what the Bishop had been pleased to say already, he was quite sure he would receive his lordship's response in favour of the medical profession. [*Cheers.*]

The Rev. Canon McNeile, said that on behalf of the Dean and of his brother canons and the Chapter, and for himself, he cordially acknowledged the very kind manner in which the toast had been given, and the warm and cordial response with which it had been received. He should perhaps consult the convenience and certainly the inclination of the present company in adding no more but his thanks. He could not, however, refrain from saying a few words connected with both professions. He thought it a very gratifying feature of their advance in civilisation that the learned men of both professions should assemble together in amicable rivalry, to contend as to who should most be instrumental in good to their fellow creatures. [*Hear, hear.*] They all seemed to act upon the principle that "in the multitude of counsellers there is wisdom," in Church Congresses, British Associations, Medical Associations, and so on. In this course it was certainly very gratifying and encouraging when members of our profession appreciated the labours of another. [*Hear, hear.*] There was some difficulty on the part of the clergy in appreciating the labours of the medical profession, because the latter was a technical description of work, which did not enter into the studies of the clergy. There was, however, one distinction between the two professions. The last speaker had said that many of the medical profession were willing, even anxious, to avail themselves personally of the benefit to be derived from the clergy; but they must excuse him when he said that if the clergy had their preference personally they would rather spend a whole life without being indebted at all to the medical profession. With regard to his own portion of the toast, he must say, and they would excuse his doing so, "Carum esse civibus, bene de republicâ mereri, coli, diligi, laudatis laudari, hoc jucundissimum." [*Applause.*] He would only add an epigram he had once heard with reference to a very celebrated man in whom both professions seemed to have joined—

"Lucas evangelii et medicinæ munera pandit;
Artibus hinc, illinc religione potens."

"St. Luke, by medicine and religion joined,
Relieved the body and consoled the mind.
Blest in both labours, dark disease to part,
And darker ignorance forsakes the heart.
Thrice happy youth! commissioned from on high,
Preserves in life and teaches how to die."

Mr. John Harrison (Chester) proposed the "Members for the City." The toast was duly honoured.

Dr. Burrows (London) proposed "The Health of the High Sheriff of the County of Chester," and, the toast having been received with demonstrations of marked respect, the High Sheriff responded.

Dr. Davies-Colley proposed "The Mayor and Magistrates of the City," which was warmly received.

The Mayor, in reply, expressed his sense of the high honour done him by the talented assembly around him, and congratulated Dr. Waters on the success of the meeting of the Association, a success that was highly gratifying to the President's fellow citizens. [*Applause.*]

The President said it was with a feeling of extreme diffidence, though in no unduly modest spirit, that he rose to propose the next toast; for the toast was one of such great importance that he really felt altogether unequal to the task. It was a toast which, however imperfectly he might discharge the duty, would meet with a perfect response—"The British Medical Association"—[*cheers*]—of which he truly felt himself an unworthy President. It had long been the desire of the founder of the Association, the late Sir Charles Hastings, that they should meet in Chester. That wish had been fulfilled; but sad it was to feel that he who had for so many years looked forward to their meeting there was not now, by his presence, his genial manner, and his glowing language, adding to the attractiveness of the meeting. [*Hear, hear.*] But a few days back, he who had been so long the guiding spirit and chief counsellor of the Association had vanished from the

world for that portion in the future which it was the object of all men to earn. [*Applause.*] The late Sir Charles had been so frequently alluded to during the week, that he would not now say more upon that subject. He would, however, allude to the history of the Association. Through the instrumentality of Sir Charles Hastings, combined with that of other great and good men, practical philanthropists, who, with him, had now also vanished from the scene, it had been founded thirty-five years ago, in the city of Worcester, with two objects; first, the advancement of science; and second, the promotion of social intercourse amongst the scattered members of the profession throughout the provinces. [*Applause.*] There was no question that the paltry quarrels between doctors, which used formerly so to amuse the public and discredit the profession, were rapidly dying out under the influence which this society exerted. [*Applause.*] The Association, growing so rapidly and exercising so vast an influence upon the legislature, had gradually drawn to itself the attention of the medical men of the metropolis [*hear, hear*]; and then that great battle had been fought, which, though resulting in opposition to the wishes of the founder at the time, had afterwards led to the union of all members of the profession—not only uniting London and the English provinces, but combining Ireland and Scotland in one great brotherhood with them. [*Cheers.*] Those who had before that time belonged to the Association had now every reason for pride in the fact that the best men in the metropolis were proud to belong to it with them [*hear, hear*]; and that they had gracing that board on that occasion the President of the Medical Council [*applause*], and also a member of the Medical Council, in the person of Dr. Stokes of Dublin [*applause*]; and also a gentleman whom he was proud to call his friend, from whom he had derived greater advantage than from any other teacher, and whose name he had found on the continent a sufficient introduction to every eminent man in the profession with whom he wished to hold converse, Professor Hughes Bennett of Edinburgh [*loud applause*]; whose great work on *Clinical Medicine* had been characterised by the *Lancet* (no friendly reviewer of Scotch works, or of the productions of the Edinburgh school) as "not only a credit to the author, but a credit to the kingdom." [*Applause.*] They had reason to be proud of the presence of men of such high distinction from the three great cities of learning. [*Applause.*] London was not, perhaps, as an university, the most celebrated. Still, as a school of medicine, London was the most celebrated in England; Dublin was unquestionably the greatest school in Ireland; and Edinburgh, without disparagement to other admirable schools, was the best in Scotland; and they had at that board three of the most distinguished representatives of those separate schools, doing fealty and homage by their presence to the British Medical Association. [*Cheers.*] While the present of the Association was a thing to be proud of, he believed it had before it a still greater future. [*Hear, hear.*] As their Scotch and Irish brethren joined their ranks, the voice of the Association, which hitherto had not been raised in vain to attain objects from the legislature, would become all powerful for good, in obtaining all that was right and just for the medical profession. He would not refer to those objects which had been already so secured; but he might say that medical reform, and the Medical Council, and the improved education of those entering the profession, were owing to its existence. Another great feature he could best illustrate by a reference to the state of the profession in Wales a few years ago. There was now no better Branch of the Association—though its numbers were small—than the North Wales Branch. A few years ago, the members of the profession in Wales, even when only short distances from each other, were a jealous and illiberal, though very acute, set of men. They did not live in harmony; but each seemed to regard his neighbour as a poacher upon his domain, against whom, if it had been possible, he would have put the law in force. Last year he (the President) had attended a meeting of the North Wales Branch, at the house of Dr. Turnour, of Denbigh, and there he had learnt that now they all worked together with mutual assistance and good will. [*Applause.*] Now, if so small a branch could do so much good, what must be the influence of the meetings of the parent Association in the localities where they were held? [*Applause.*] For those men who had left the schools and were general practitioners in the country, they were the most powerful means of extending their acquirements that could be possibly conceived. [*Hear, hear.*] At the present meeting they had had two of the most distinguished men in the profession—the one in Medicine and the other in Surgery—reading addresses. The Address in Medicine had shown them what the past had been and what the present was; but, above all, the true method by which alone they had any chance of extending the knowledge of their profession. [*Applause.*] They had had discussions on sanitary and state measures; and he was desirous, in Cheshire especially, to call attention to the fact that these discussions, to which the public were invited, involved most important points connected with the public weal. At the Leamington meeting last year their talented associate, Dr. W. Budd of Bristol, had brought before the Association the history of the Cattle-Plague, told them how it was contagious—how it entered a country, and pointed out the means by which its entrance into a district could be prevented. Had those means been adopted, Cheshire would never have been invaded and its farms desolated, by the plague which had carried ruin and misery in its track to an extent which time alone could show. [*Applause.*] It was true that the Government had lent thousands of pounds to the sufferers; but they could only repay it by taking the means one from another, to be paid back when they had nothing with which to pay. [*Hear, hear.*] He begged to commend to their attention "The British Medical Association." [*Loud applause.*]

The toast was received with great cheering and honoured standing.

Professor Bennett, whose rising was the signal for renewed cheering, rose to propose "The health of the President." [*Applause.*] The President had told them he was an old student of his (the speaker's); and he had only to say he was proud of him. [*Applause.*] Wherever he went he had the honour of meeting his students; and in Chester, where he found one of them the principal medical man in the place, enjoying universal respect, triumphing over calumny [*loud cheers*], exhibiting hospitality of which everyone might be proud, and displaying all the talents, whether scientific or social, which distinguished the physician, he need say little more. [*Applause.*] But in one thing he was very much disappointed in Dr. Waters. He was the author of one of the most excellent works on typhoid fever with which he (Dr. Bennett) was acquainted—a history of the great epidemic of typhus and typhoid fever in Edinburgh in 1846, in which they had seen about 3,000 cases of these diseases in the Infirmary, of which there was no published record. Dr. Waters had written its history, and it was one of the best works in the library. It had constituted the thesis which he presented to the University on his examination, and was crowned by the highest honours of their gold medal, which

was unanimously awarded to him at the time. [*Applause.*] It was truly a magnificent work, illustrated by a beautiful series of plates, showing the morbid anatomy of the disease, which he (Dr. Bennett) believed to be unequalled, and which he showed from year to year to his students as the best examples of the disease. But his disappointment was that he could never get Dr. Waters to publish that treatise. He believed that if Dr. Waters would even now put it into the press, his name would not only be known throughout the city and county of Chester, but in the history of British medicine it would descend with honour to posterity. [*Loud applause.*]

The PRESIDENT briefly replied, thanking Dr. Bennett for the flattering observations in which friendship had carried him beyond discretion, and thanking the assembly for the reception accorded to the toast. He regarded his Presidency as the brightest gem in his diadem, if Mr. Steele would allow him to appropriate the expression, and he not having a diadem. [*Laughter.*]

Dr. WATERS (Liverpool) proposed the health of Lieutenant-Governor Cox, of Maryland, who had come across the Atlantic to represent the American Medical Association at this meeting. [*Applause.*] He believed this was the first occasion on which such a toast had ever been proposed, or had been called for by the presence of a member of the profession from the other side of the Atlantic. They all rejoiced in the event, and trusted that no future meeting of the Association would take place without the presence of a representative of the same great country. [*Hear, hear.*] At this time, when Great Britain and the Continent of America had been united by the successful laying of the Atlantic cable, it was to be hoped that the bonds which had united them would be increased in strength, and that the political relations of the two countries would be firmly cemented. [*Applause.*]

Lieutenant-Governor Cox replied. He said he had no language in which to express his profound thanks for the honour thus conferred upon him. He felt deeply everything that had been said, and reciprocated it; and he could only say that the most delightful memory of his life would be the recollection of his visit to the Association. This visit had been the dream of his life; and the dream had been more than realised, his anticipations more than fulfilled. Wherever he had gone, in England, Scotland, Ireland, France, he had met with the greatest kindness; but he had felt more at home in Old England than in any other part of Europe. [*Applause.*] When, on a most delicious evening in the early part of June, he had first beheld the headlands of Ireland, in approaching this old country, he had felt that he was coming to the land of his nativity; and it was his pleasure and pride to trace out upon this soil the homesteads of his old English ancestors. [*Applause.*] There was a peculiar pleasure in this visit to Chester—it had been his pride and gratification to be present at the deliberations of that great body. He had been impressed with its importance, with the value of the services of its members; and he should go back and report to his countrymen, not only the importance and the value of that Association as a medical body, but the great social interest which attached to it. [*Applause.*] He had formed associations and made acquaintances in Chester which he valued amongst the dearest of his life, and of which he should carry the memory to the remotest period of his existence. [*Applause.*] He concluded by quoting Moore's poem—"Farewell! but whenever you welcome the hour"—in the recitation of which, he was again and again loudly applauded, and by proposing as a sentiment: "The Atlantic Cable: the re-union of the umbilical cord which binds the child to its parent." [*Loud and enthusiastic cheers.*]

Dr. JEAFFRESON, in rising to propose "The Medical Council, the College of Physicians, and the College of Surgeons," reminded the meeting that at the Leamington meeting last year, Dr. Sims, a distinguished American accoucheur, had done them the honour of reading a very admirable paper on "Obstetric Surgery." With regard to the toast, he counselled them all not to be despondent about the Medical Council. He asked them to remember that the Council had to deal with things as they had found them, and the only matters it could regulate were in regard to the future. It was, therefore, not surprising that there should be some disappointment on account of what they had done. He could only say that the work was in the hands of men who were earnest, zealous, and desirous of doing all the good they could. He knew less of the proceedings of the Council than of the characters of its individual members. It was some proof of the zeal of the Council that its President had come from London to be present at the meeting, and no man knew better than he the relative wants of the profession and the public. [*Applause.*] What could he say of the College, of which he was himself a Fellow, the College of Physicians? He could not extol his own College; but he could say that within the last few years it had shown an enlarged and liberal spirit, which would be productive of good. [*Applause.*] He knew little of the College of Surgeons beyond what he read and heard; but he wished the College would bear in mind that there were in the provinces fellows as honourable, and good fellows as any in the metropolis. He wished they would listen to the desire of the whole profession, and open their gates more widely, and allow the fellows in the provinces to vote by proxy. [*Applause.*] He proposed to associate the toast with the health of Dr. Burrows, whom to know was to esteem and respect. [*Applause.*]

Dr. BURROWS responded for the members of the Medical Council of Education, of whom he was one. The proposer of the toast had thought it right to make some sort of apologetic observations on behalf of the Council. Having had a large experience of that body, and the honour of a seat in it for the last six or seven years, and having presided over its meetings for three years, he assured them that if they had been present at those meetings they would have seen that the distinguished men who came there from all parts of the United Kingdom were really animated by a desire to do their duty towards their profession. He did not think those who had not been there could be aware of the difficulties that stood in its way. From 1858, when it came into existence, great expectations had been entertained as to what the Council would do for the profession; but it would be known to all who took the trouble to read the Act of Parliament that the powers there given to it were much less than were generally supposed to belong to it, and that however desirous the Council might be to do great things, their powers were inadequate. The Act had been couched in terms so obscure and ambiguous that it was difficult for the most astute of the members of the Council to make out the exact meaning of any particular clause; that even the judges and magistrates of the land, when they were called upon to carry the act into effect so far as they related to the protection of the profession, gave the most adverse and contrary decisions; and that when questions upon those clauses were submitted to the most profound lawyers in the profession, they gave answers the most conflicting. He wished the meeting and the medical public to be aware that the shortcomings of the Council were not due to its members,

who devoted their time and energies to the interests of the profession, but to the fact that they had a most cumbersome and ill-fashioned instrument to work with. Mr. Walpole, who originally introduced the measure, had now gone back to the same position, as Home Secretary, which he had at that time held. He was aware of its many defects and had acknowledged that he was so; he had most courteously and kindly received deputations from the Medical Council, who had sought to impress upon him the faults of the Act; and he had consented to take the question in hand during the autumnal recess, and to receive him (the speaker) as President, and see what could be done in order to amend it, promising his support and cooperation in its amendment. [*Applause.*] Therefore, they hoped that something better would be enacted; but from all he knew of the feelings of the legislature and the run of public opinion, there was little chance of their obtaining what was desired by a large portion of the profession, that was, a more perfect protection against the practice of irregular practitioners. He was afraid that, although it must be much to the benefit of the community that their health should be under the care of those who had undergone proper education and examination, there was little chance of penal clauses against irregular practitioners being introduced. It was very much against the genius of English institutions. Englishmen felt themselves at liberty to consult whom they would for spiritual advice and consolation, to take the advice of anybody they choose in pecuniary and other secular affairs; and they preferred to have the same liberty in relation to their medical advisers. [*Hear, hear.*] He thanked them for the reception the toast had received. [*Applause.*]

Dr. PAGET, of Cambridge, proposed "The Health of the President-Elect, Dr. Stokes." He said he knew no better step for the advance of the scientific character of the Association than the intended meeting in Dublin, except that Dr. Stokes would be President. [*Applause.*] The first time he saw Dr. Stokes had been when the British Association met in Dublin, in the year 1835. He well remembered that the week of the meeting was one of the most delightful of his life; and he should never forget the truly Irish reception given to the Association. The advantage of such a visit could not be overrated. Of Dr. Stokes, he might be tempted to say much, but that he was present, and he would only say of him that in this country he was *nulli secundus*, and that he believed, as Lieutenant-Governor Cox could probably tell them, his scientific reputation was known wherever medicine was studied. Two of his (Dr. Paget's) best friends belonged to the same family; and they united in themselves all the best qualities of Englishmen and Irishmen. [*Loud applause.*]

Lieutenant-Governor Cox hoped he might not be considered obtrusive if, as allusions had been made to him, he ventured upon a single remark. He simply wished to say that throughout America no name was held in more endearment and admiration amongst the medical profession than that of Dr. Stokes, of Dublin. [*Applause.*] It was, it was true, always connected with that of his lamented colleague, Dr. Graves [*Hear, hear*]; but the universal feeling was that no work on practical medicine had ever been issued more valuable to the profession than that which bore the names of Graves and Stokes. An old Irish physician had come to him before he left America and said "Well, doctor, only one thing I have to say to you: you have been subject to intercourse with rheumatism for a good number of years, now have you Stokes's liniment?" [*Laughter.*] No man was more read, more esteemed, more highly regarded than Dr. Stokes; and no greater pleasure had he (Dr. Cox) had in his visit to Europe than in meeting face to face that distinguished member of his profession. [*Loud applause.*]

The toast having been honoured,

Professor STOKES said he knew not how to thank them, for it would be impossible to say anything that would not be very much inferior to what he felt. He was thankful for the extraordinary honour the Association, of which he was a very junior member, had done him in making him its President-elect for next year. [*Applause.*] He thought it about the greatest compliment that could be paid to an Irishman. It was one of those acts for which all men who wished for the union, and the peace, and the accordance of the British Empire, should be thankful. He thought it would be a very important commencement of what was much wanted, the knowledge of Ireland by England. [*Applause.*] England did not yet know Ireland, her danger, her power, her talent, her feeling, or her loyalty. He believed that in Ireland, which had been so much traduced by the English periodical press, there was more true loyalty to the crown than in any other portion of the British dominions. He hailed with joy the visit to Ireland of a section of the British public which would comprise the most liberal, best educated, and best citizens of the State. [*Applause.*] He did not know how to express his gratitude that he was elected to be their President and their host in Ireland; but he could speak to them in the voice of the profession in Ireland, and tell them that they would be received with great welcome and open hand, and that their visit would be one not soon to be forgotten. [*Applause.*] He enumerated the matters of interest the Association would find in Dublin; and then said he wished he were not there alone to bid them welcome to a country which had been vanquished but not yet conquered; but which this visit would greatly help to conquer—that was to say, to bring into full relations with England, and make Englishmen and Irishmen brethren in every possible way. [*Applause.*] In conclusion, he trusted that he, as President, would see them all, and many more, in Dublin next year, that they might give them, in the old Irish way, a hundred thousand welcomes. [*Loud cheers.*]

Dr. MARKHAM proposed "The Health of the new President of Council, Dr. Sibson." [*Applause.*] He knew none he could propose with more pleasure, because he thought they had been very happy in the selection of the new President of Council. Dr. Sibson combined all the qualifications needed for the highest office the Association had to give. He possessed the *suaviter in modo* and also the *fortiter in re*; he was one of the oldest members of the Association; he had inscribed his name as a man of science amongst those who had done work in the medical profession which would hand down their names to the latest ages; he had done something for his profession, and he was distinguished in it. [*Applause.*] It was no small honour to have in such an office a man who had done no act as a member of the profession for which he had the smallest need to blush—and he believed Dr. Sibson would blush if he had done a dishonourable act. He had, therefore, great pleasure in proposing his health.

Dr. SIBSON, in responding, was loudly cheered. He recalled the time when, in 1843, as the resident surgeon of the Nottingham Hospital, he had first attended the meetings of the Association—then met in Leeds under the venerable presidency of Mr. Hey; and the kindness with which, then and ever since, he had been treated by the members. He felt that, in his election to the office of President of the Council, he had received the greatest honour that could be conferred on him. It had filled him with gratitude,

as much as at first it had filled him with surprise. It was an office that might be filled to the advantage of the Association, and also to its disadvantage; and he should have the greatest fear, were he not sustained by the knowledge that he was surrounded by men who made failure impossible. [*Applause.*] There was a combination of men in the Association, who must raise it by raising the profession, by elevating it in science, giving it its true position before the public, claiming for it the right to do its own work, and making the world feel they were a body of gentlemen—their aim, science; their end, the relief of suffering. [*Applause.*] In this work, going on from day to day and from year to year, very often but little cheered by the approbation of those for whom they worked, they had the consciousness that by raising themselves they raised their fellow men, which alone could give them that self-respect which would sustain them in such a work. He could not fail to remark that these meetings brought together a body of men of most remarkable minds, capable, from the most opposite points, of throwing the most varied and penetrating lights upon the integrate and complicated subjects which formed the centre of their social life; and that they had within the Association means of probing points of practical knowledge possessed by no other body whatever. [*Hear, hear.*] The College of Physicians, to which he owed his first loyalty, had the duty of forming and admitting to the profession the right men. The College of Surgeons had its work in another department; but this Association had its work in advancing science, and to elevate the medical profession to its proper status in the estimation of the world. [*Applause.*] He could only say that, as long as he had the honour to hold the office of President of the Council, he should endeavour to raise himself to the intellectual and moral position which would fit him for the office; and he hoped that would be all his life.

Dr. Stewart gave "The Editor of the British Medical Journal." Notwithstanding his old friend Dr. Markham's presence, he must say what he felt as to that gentleman's merits. Last year, they had been compelled, to the great pain, he believed, of all, to listen to an indictment; but now they were prepared to judge Dr. Markham as such a man who had done such service deserved. After an experience of twenty-six years, he thought he might say of Dr. Markham that he was, in the words of Horace,

"Justus et tenax propositi vir."

He was every inch a man of fair and right principle, who would, when he had such principle to promote, accomplish the task. During the last five years, they had had experience of these qualities in him. He was not a man who always spoke quite so bluntly as some men; but a man who, if he thought a thing right, would uphold it strenuously. He had fought some battles, which had done him credit. In 1861, he had revived and fought out successfully the battle against professional intercourse with homœopaths. [*Hear, hear.*] After he had done it, people had applauded him; and then, in the midst of petty cavillings and objections, they had forgotten the service he had rendered. [*Hear, hear.*] His distinguished and admirable efforts for the medical service of the army and navy was another service to the profession. [*Loud applause.*] But for his energy and pertinacity, though that battle might have been fought in a certain way, it would not have been successful. [*Hear, hear.*] His name had been synonymous with great capacity and many public services; and he (Dr. Stewart) had great pleasure in proposing his health and prosperity. [*Loud applause.*]

Dr. Markham thanked Dr. Stewart and the meeting for the honour done him. As he might soon have to part from the Association, so far as the editorship of the Journal was concerned, he might be allowed, perhaps, to say something as to their future editor. No man required more of their aid in backing him in his labours than the man who held that office. By an accident of fortune, the mere pay or fee of the Association had been a matter of little consequence to him. He had taken the Journal, because it gave him a place in which he could work for the benefit of the Association. If he had chosen to use his pen for his own private interest, he could have done it to great advantage; but it had seemed to him that he was doing something for the Association, and that was his reward. Dr. Stewart had spoken of the battles that had been fought. He (Dr. Markham) had heard the opinion of an eminent man only the night before, that homœopathy was almost dead—nothing was now heard of it. [*Hear, hear.*] He scarcely knew whether they appreciated the benefits that had resulted from that battle; but they might do so without associating individuals with the fact. Five or six years ago, the question—on which several years previously the Association had expressed a strong opinion—whether medical men should meet homœopaths in consultation, was revived. Some of the great men of the profession had decided it was right to do so; and, when rising but younger men had been appealed to on the subject, they had asked, "What can we do? If we don't meet them, our bigger men will; and we are forced to it?" [*Hear, hear.*] When he (Dr. Markham, first took it in hand, a friend had said to him, "You are doing the maddest thing you ever did in your life. It is a personal affair, which will cost you misery for years." And when he asked, "What is your opinion?—is it what ought to be done?" the reply had been, "There can be no doubt about that." Then he had said, "Here goes!" and for about six months, with at least one of the heads of the profession, and with the press at large, the Journal had fought the battle; and, during that time, every public and private malignity had been heaped unsparingly upon him. [*Hear, hear.*] And was it not a fact, that from that day there had been no question in the profession as to the matter? [*Hear, hear.*] Such consultations were now unknown. He wished to speak in no terms of bigotry of the homœopaths, whom he was pleased to meet in social life, and whom he hoped the profession would meet in that way; but, as medical men, it was a duty they owed to the profession to refuse to shake hands with them. [*Applause.*] If the question had not been checked at that moment, it would have resulted in something very serious to the profession; and he thought he might take some credit on that account. [*Applause.*] It was a proud thing, in which he rejoiced, that they could come there and admit, as they had done during the week, their deficiencies before the world. Nothing was more certain than the knowledge of their imperfections to accelerate the progress of the profession. [*Applause.*] He asked them, if in the future they had an editor who met their approbation, to treat him as a liberal profession should. [*Applause.*] It might be that to such a man the question of salary might be important; and, if they got a man to carry on the Journal as it should be, they ought to remunerate him; and the present rate was utterly absurd for such a man. The qualities they required in such a man they would find it difficult to meet with in the market; and he could only say, if they found a man who did not do the work, they ought to get rid of him; but, if they got one who did, they ought to pay him according to his worth. To himself, his connexion with the Journal had been a great sacrifice;

but he did not say this as a reflection upon the Association, because it had been a pleasure to him to occupy the post. [*Applause.*] He hoped they would not take these as personal remarks. He thanked them for the assistance they had given him—though there might be one cantankerous person who had given him a great deal of trouble; and he spoke very highly upon the advice and aid he had derived on many occasions of difficulty from Dr. Stewart. [*Applause.*]

Dr. SIBSON said he echoed all that Dr. Markham had said about the JOURNAL, and said the latter would never have uttered such sentiments, if they could have led to increased benefit to himself. He proposed "The Readers of Addresses and Papers in Medicine and Surgery". They had listened to two noble addresses, the products of the lifetime of two of the most distinguished men in the profession in the three kingdoms [*applause*]; and the effect of those addresses had not been lost upon any one of them. He coupled with the toast the name of a gentleman who, by his acuteness and powers of observation, was able to throw light upon any subject he touched—Mr. Steele. [*Applause.*]

Mr. STEELE responded, observing that, of all the various elements and functions of the Association, none seemed to him more important and useful than the cultivation of the sciences applicable to the profession. [*Hear, hear.*]

The Rev. Dr. BELL proposed "The Health of the Secretary"; and Mr. WILLIAMS briefly replied.

Mr. STEELE then, in complimentary terms of acknowledgment of the reception given to the Association in Chester, proposed "The Local Secretary"; and, Mr. JOHN HARRISON having made a suitable reply, the proceedings of the annual meeting were brought to a close.

Correspondence.

POOR-LAW MEDICAL REFORM.

LETTER FROM RICHARD GRIFFIN, ESQ.

SIR,—I shall feel obliged by your giving insertion to the annexed correspondence. I rejoice to see that another Medical Inspector, Dr. Markham, has been appointed by the Poor-law Board—a sign that the medical element is in the ascendant; and I trust the time is not far distant when the sick poor of England and Wales, and their medical officers, will be treated with due consideration. I am, etc.,

RICHARD GRIFFIN.

12, Royal Terrace, Weymouth, August 11th, 1866.

Subscriptions forwarded to the Association—Geo. Elkington, Southam, 5s.; Grimbley and Francis, Banbury, 10s. From the Bethnal Green Union, the following—C. Welsh, 10s.; G. Haycock, 10s.; W. R. Brotherton, 10s.; B. Lyell, 10s.; F. J. Burgess, 10s.; J. E. Massingham, 10s.; J. E. Defries, 10s.

"12, Royal Terrace, Weymouth, July 24th, 1866.

"SIR,—I perceive a Bill is now before the House, brought in by yourself and Mr. Earle, entitled a Bill to amend the Act providing Superannuation Allowances to Officers of Unions and Parishes, etc.

"In the first clause of that Bill it is stated, 'The Superintendent-Registrar and Registrar of Births and Deaths appointed to any union or parish shall be deemed an officer within the operation of the statute, etc.' I respectfully beg of you to add the words 'Medical Officer'; and my reason for asking this boon is that, for the sake of the poor, you should be able to superannuate your medical officers when unfit for the service, which a retiring pension will enable you to do; otherwise they must continue in the service, if poor, for the sake of a mere living. In addition to this, it is but just to the medical man himself that, after passing not less than twenty years in the service of the Poor-law—a service which at all times is most fatiguing, and most assuredly tends to shorten life—that he should have a retiring pension.

"I respectfully beg to call your attention to my letter of the 9th inst.

"I have the honour to be,

"Your most obedient servant,

"RICHARD GRIFFIN.

"The Right Hon. Gathorne Hardy, M.P."

"Poor-law Board, July 25th, 1866.

"SIR,—I am directed by Mr. Gathorne Hardy to acknowledge the receipt of your letter of the 24th inst.; and to say that no alteration of the kind can be made during the present year.

"Your obedient servant,

"S. STEWART HARDY."

NURSING BY SISTERHOODS.

LETTER FROM WILLIAM EDDOWES, ESQ.

SIR,—It is with much pleasure that I observe your advocacy of an extension of the system of nursing by sisterhoods, or under their direction.

From having during several years witnessed the admirable method of nursing at King's College Hospital, from having been house-surgeon for four years at one, and also having visited many provincial hospitals, I may claim to have had a fair opportunity of estimating the merits or demerits of the old and new systems.

The quality of the nurses employed, and the way in which nursing is conducted in most of our hospitals, especially provincial, are a disgrace to a country boasting, as England does, of its education and advancement in moral and religious life.

In this country, we find it impossible to obtain good hospital nurses, and very difficult to get any suitable for the work required of them. A movement is now going on, likely to lead to improvement; but progress is very slow, and requires means and energy for its furtherance. Why do not our philanthropists, instead of conjuring up Utopian ideas about female morality, and whining over the supposed want of employment for women, make an effort to direct their labours into new channels, and teach them,

> "'Tis thine to soothe, when hope itself has fled,
> And cheer with angel smile the sufferer's head."

And one word as to the religious fanaticism and intolerant bigotry that obtrude themselves to frustrate one of the most useful and holy purposes to which the mind of woman has devoted itself. Surely no pursuit can be more righteous or more commendable than that of dispensing charity and nursing the sick. At the deathbed, is it not more desirable to have a right-minded and educated woman to minister to the dying patient, than an irreligious and ignorant one? I would ask objectors one question: If you oppose the present system from religious scruples, what better will you suggest or originate, and what qualifications will you require?

I am, etc., WM. EDDOWES.

Salop Infirmary, August 14th, 1866.

GLASGOW LYING-IN HOSPITAL. The Summer session was brought to a close, a few days ago, by an admirable address to the students on practical midwifery, by Dr. Tannahill.

Medical News.

THE ARMY MEDICAL SERVICE. The following gentlemen have passed the examination for admission to the Army Medical Service.

Notter, J. L., University of Dublin, T.C.D.	4571
Comerford, H., Queen's College, Galway	4440
Brown, H. T., Queen's University, Ireland	4345
Wright, J. H., King's College, London	4060
Jennings, W. A., Queen's College, Galway	3923
M'Cutchan, J. N., University of Dublin, T.C.D.	3845
James, H. N. L., University of Edinburgh	3830
M'Crystal, E., Queen's College, Belfast	3735
Buchanan, R. F., University of Dublin, T.C.D., and College of Surgeons, Ireland	3575
Rooney, J. P., Peter Street School, Dublin	3554
Hanagan, J. H., Cecilia Street School, Dublin	3480
Patterson, J. W., Peter Street School, Dublin	3420
Martelli, W. G., Ledwich School, Dublin	3405
Forbes, W. A., Stevens Hospital, Dublin	3355
Hodder, F. W., Toronto University	3304
Stevenson, W. F., University of Dublin, T.C.D.	3126
Thompson, W. A., University of Dublin, T.C.D.	3045
Hobbs, H. A., St. Thomas's Hospital, London	3022
Macpherson, R. M., University of Edinburgh	3000
Eaton, R. C., Richmond Hospital, Dublin	2940
Burnett, W. F., College of Surgeons, Ireland	2930
Lambert, R. R., Peter's Street School, Dublin	2595
Ryan, M. J., Richmond Hospital, Dublin	2575
Boult, E. F., United Hospital, Bath, and King's College, London	2525

MARRIAGES.

DUNN, Christopher R. N., Esq., Surgeon, Crich, Derbyshire, to Ellen, fourth daughter of Edward TROTTER, Esq., Surgeon, Holmfirth, at St. John's Church, Holmfirth, by the Rev. W. Flower, Incumbent, on August 22.

LANGMORE, Arthur G., Esq., to Jane Balbirnie, youngest daughter of the late Robert A. B. VANS, Esq., of Melbourne, Australia, at South Yarra, on May 10.

THE SOCIAL SCIENCE MEETING. Lord Shaftesbury has accepted the office of President.

THE NEW FRENCH PHARMACOPŒIA is to appear very soon. M. Dumas has written a preface for it.

DEATH FROM BURNING. The papers state that Mrs. Hoare, the wife of a medical man at Maidstone, an old member of the Association, has died from a burn. Her dress caught fire whilst she was visiting a poor sick man.

THE HOMŒOPATHIC REVIEW recommends its proselytes not to stir out without Rubini's tincture of camphor in their pockets, and to administer it to themselves or others, "whenever a qualm seizes them in the epigastrium."

SANITARY ADVICE. A very useful broad sheet of good advice has been prepared for the Working Men's Club and Institute Union, in furtherance of a suggestion from Dr. Aldis, Medical Officer of the District of St. George, and by Mr. Hall, Architect, assisted by Dr. Aldis; and it has been printed at the expense of the Ladies' Sanitary Association.

LONGEVITY IN ENGLAND. The mortality returns of England for 1864 show that in that year twenty-eight men and seventy women died who had reached 100 years of age or upwards, one woman dying at 108, and one man at 109. Of these ninety-eight, twelve died in London. In Yorkshire, with nearly three-fourths of the population of the metropolis, there were only three. There were three also in the north midland division, which had not two-thirds of the population of Yorkshire; and Wales, with less than half the population of London, had twenty-one centenarians in its obituary. The man and woman who had attained the great ages of 108 and 109 years respectively, resided the former at Hereford, and the latter at Bolton, in Lancashire.

UNIVERSITY COLLEGE HOSPITAL. A donation of £100, for investment, has been presented by Mr. John Hibbert, of Braywick Lodge, Maidenhead.

POISONING WITH CROTON OIL. At Liverpool lately the mate of the ship *Manchester* was charged with poisoning a seaman. He poured half a bottle of croton oil into a glass with some castor oil, and gave it to the man to drink. He became very weak from the effects of the oil, and died the next day.

THE MEDICAL SCHOOLS. The Right Hon. Sir Laurence Peel will deliver the inaugural address at the opening of the forthcoming session of the Medical School, Guy's Hospital. At King's College Medical School, the address will be delivered by Sir William Fergusson, Bart.; at Westminster, by Dr. Fincham; at St. Thomas's, by Dr. Barker; at Middlesex, by Mr. Hulke; at St. Mary's, Paddington, by Mr. Haynes Walton; at St. Bartholomew's, by Mr. Savory, F.R.S.; at St. George's, by Dr. J. W. Ogle; and at University College, by Professor Ringer, M.D.

THE CATTLE-PLAGUE. The last return of cases of cattle-plague shows a considerable decrease of attacks for the week, the number reported being 150 in England, 6 in Wales, and 5 in Scotland. The following twenty-two counties have from the commencement remained free from the disease: viz., Westmoreland, Monmouth, the six counties of South Wales, Montgomery, Merioneth, Carnarvon, Anglesey, Wigtown, Bute, Argyll, Banff, Elgin, Nairn, Ross, and Cromarty, Sutherland, Caithness, and Orkney and Shetland. In sixty-six counties, the metropolis, and two ridings of Yorkshire no cases have been reported as occurring during the week. One animal in every 19 of the ordinary stock of cattle in Great Britain has been attacked, and to every 1,000 attacks, the results of which have been reported, 862 animals perished. The total of sheep attacked to the date of this return is 6,393.

ST. THOMAS'S HOSPITAL. The introductory address will be delivered by Dr. Barker. A scholarship has been founded by W. Tite, Esq., the proceeds of £1,000 Consols, to be awarded every third year, on proof of continued residence and good conduct. Preference, in case of equality between students, to be given to the son of a medical man, and more particularly to one who has been educated at St. Thomas's Hospital; or to the son of a medical man of Bath. This scholarship will be awarded at the end of the approaching session. There are a great number of medals and prizes in money. The committee of the "Nightingale Fund" have arrangements with the authorities of St. Thomas's for educating women as hospital nurses. On the satisfactory completion of one year's training they will be required to enter into service as nurses in the metropolitan or provincial hospitals or infirmaries. A limited number of ladies are admitted to this course of training with a view to qualify themselves to act as matrons or superintendents.

HOSPITALS. S. G. O., in a letter to the *Times* on the subject of orphanages, makes the following remarks:—"A hospital is a very practical affair; the human being has been well studied in every branch of its organisation, its lesions are for the most part well known, how to cure or alleviate physical decay or injury is here studied, each year's experience adding to the soundness of each day's practice. Your patient is cured, or has his ills alleviated, or dies. All has been done for him that science could do. The building to do it in, its furniture, its commissariat, all its necessary appliances, its staff of medical officers, nurses, etc., are all under command and supervision. In no one charity does money given get more worth in good, in none is less money

wasted; it is scarcely possible that the accounts should be cooked, or any deception practised. Proselytism is here on forbidden ground; you cannot pervert a hospital to the perversion of the patients. There is no field for the war ever waging, now more than ever, which would compass palace, if possible, mansion, cottage, every alley, every locality where theological zeal can tread, to bring over to the favoured creed and practice any one soul. It is my belief that the man who would count the value of the good on which he invests in charity as he would reckon up the value of a consignment he is about to purchase, may safely give his money to a hospital; if he shares my horror at the idea of making the field of distress that for the scrambling of religious bodies for the direction of souls, he may, I think, feel his money safe when given to a hospital.

University College, London. Prizes and certificates of honour for the summer term in the faculty of medicine have been adjudged as follows:—*Medical Jurisprudence, Gold Medal,* E. C. Shoppee; *Silver Medal,* L. M. Le Grand; *Certificates,* R. Pollock; 4th, D. Havard; 5th, E. T. Williams; 6th, S. Pidwell. *Materia Medica, Gold Medal,* R. L. Roberts; 1st *Silver Medal,* W. H. Allchin; 2nd *Silver Medal,* J. R. Darby; *Certificates,* 4th, W. Hardman; 5th, S. Peacock; 6th, W. R. Davies; 7th, equal, W. Bishop, C. Wood, T. G. E. Bolton, A. H. Hackney; 11th, equal, W. R. Cheyne, L. K. Times; 13th, equal, E. Snell, A. Sewell; 15th, J. L. Bullock. *Pathological Anatomy, Gold Medal,* H. C. Wigg. *Practical Chemistry, Gold Medal,* A. Shewen; *Certificates,* 2nd, W. Milligan; 3rd, F. Salter; 4th, S. Peacock; 5th, equal, J. R. Darby, T. C. Fox; 7th, J. H. Mummery. *Midwifery, Gold Medal,* G. O. Spencer; 1st *Silver Medals,* equal, W. Hardman, Dr. E. Jones; 2nd *Silver Medal,* S. B. Brooks; *Certificates,* 5th, equal, R. M. Pryce, L. M. Le Grand; 7th, R. Pollock; 8th, C. F. Groone; 9th, D. Havard; 10th, C. P. Kempe; 11th, A. J. Pearce; 12th, E. T. Williams; 13th, T. C. Lloyd. *Botany, Gold Medal,* H. N. Martin, D. Watson; *Certificates,* 3rd, equal, W. W. Westcott and J. L. Browne; 4th, A. Shewen; 5th, R. T. Smith. *Liston Clinical Medal (Gold),* C. B. Laxon.

The Carlow Lunatic Asylum. On the 25th ult., Mr. Pack-Beresford asked the Chief Secretary for Ireland if he was aware that the gentleman recently appointed resident medical superintendent of the Carlow Lunatic Asylum had taken no medical degree, and was not entitled to be designated M.D., and if Mr. Michael Howlett was improperly described as such in the warrant of appointment, signed by Lord Kimberley, bearing date 7th July, 1866; and if so, did it not appear that some misapprehension as to his qualification must have existed. Also, if the diploma of licentiate, granted by the Royal College of Physicians of Edinburgh, constituted Mr. Howlett a physician in the sense required by the act, as one of the essential qualifications necessary to the holding of the important and responsible situation of resident medical superintendent of a county lunatic asylum in Ireland. Lord Naas said, with regard to the second question of the hon. gentleman he made inquiries, but had not as yet received any answer. With regard to the other questions he would best answer them by reading a letter he had received from Dr. Hatchell, one of the inspectors of lunatic asylums in Ireland. Dr. Hatchell stated that Dr. Howlett's diploma, as a licentiate of Edinburgh College, was sufficient legally to qualify him for the position he held.

COMMUNICATIONS have been received from:—Mr. William Eddowes; Dr. J. C. Murray; Dr. Aldis; Dr. Samelson; Mr. B. Blower; Mr. A. B. Steele; Dr. Philipson; Dr. J. Clay; Dr. Rendle; and Mr. C. Johnson, jun.

OPERATION DAYS AT THE HOSPITALS.

Monday.....	Metropolitan Free, 2 P.M.—St. Mark's for Fistula and other Diseases of the Rectum, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.
Tuesday.	Guy's, 1½ P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.
Wednesday...	St. Mary's, 1 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.
Thursday.....	St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Great Northern, 2 P.M.—London Surgical Home, 2 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.
Friday.....	Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.
Saturday.....	St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1·30 P.M.—Charing Cross, 2 P.M.—Lock, Clinical Demonstration and Operations, 1 P.M.—Royal Free, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TO CORRESPONDENTS.

*** *All letters and communications for the* Journal, *to be addressed to the* Editor, 37, *Great Queen St., Lincoln's Inn Fields, W.C.*

Communications.—To prevent a not uncommon misconception, we beg to inform our correspondents that, as a rule, all communications which are not returned to their authors, are retained for publication.

Correspondents, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

We much regret that the crowded state of our pages has compelled us to defer many very interesting communications.

Dr. Skinner in a letter complains of the mismanagement of the business proceedings of our Association at Chester, whereby time was wasted or misapplied, and papers not read. Dr. Skinner should address his letter to the Committee of Council, in whose hands reside the conduct of the proceedings. We have no doubt that his suggestions will there receive due attention.

Nurses.—On the subject of nursing by religious orders, Mr. B. Blower calls attention to the success of the Nightingale Institution in Liverpool, to show "that we (the profession) need only train women, and give them a remuneration for their services, and we get all we can desire, both for nurses and matrons, without putting ourselves into the hands of powers foreign to the subject." "Let us put our own shoulders," he adds, "to the wheel, and if it won't go round, then it will be time enough for us to call upon the church for help."

The Proposed New Medical Association.—Dr. Murray in a letter says: that "I would much regret did I do what might in the slightest degree militate against the British Medical Association. On the contrary, I have endeavoured to induce those gentlemen who have favoured me with their names for membership in the proposed association, who are not members of the British Medical Association, to become such, and believe that, in many instances, the advice will be followed. Indeed, I was anxious to read my paper at the meeting of the Northern Branch of the Association at Durham in June last. Had I read it there, and received encouragement, I probably would have gone to Chester to propose that the new features in the intended Universal be adopted in the British Medical Association, and there the 'fact' might, as you suggest, have been taken as a starting-point on which to base the development of the 'new' proposal, which might then have been confined to students, who could have been entered as a Students' Section of the Association, to become members so soon as they qualified.

"A month ago, on a tour through the east of Scotland, I distributed many of the British Medical Association circulars, and took every opportunity of recommending gentlemen to enter it. The proposed Universal Medical Association would not necessarily interfere with any kindred society.

"Having a number of medical relatives and friends in the army and navy, I am not much behind in information upon the service, and the good offices which the Association has rendered it. The united service medical officers, and indeed the whole profession, cannot be too thankful to the British Medical Association for the interest it has always taken in their advancement.

"The title 'Universal Medical Association', is only applied to the project until, from the authority of numbers, it may receive a distinctive name."

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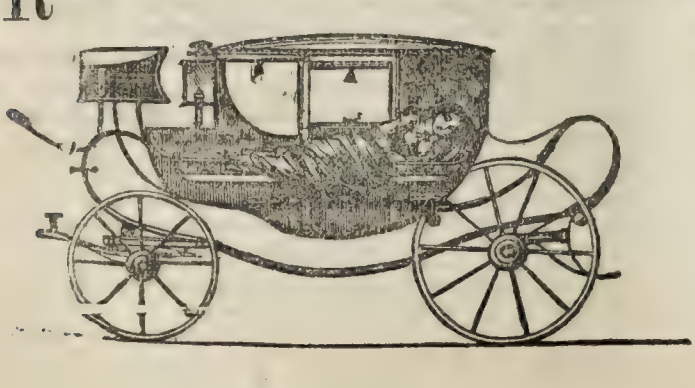
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Addresses and Papers

READ AT

THE THIRTY-FOURTH ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION.

[*Held in CHESTER, AUGUST 7th, 8th, 9th, and 10th, 1866.*]

THE PRESENT STATE OF PUBLIC VACCINATION IN ENGLAND.

By A. B. STEELE, Esq., Lecturer on Midwifery at the Royal Infirmary School of Medicine, Liverpool; Examiner in and Teacher of Vaccination at the National Vaccine Establishment.

WHEN Jenner promulgated his great discovery at the commencement of the present century, he expressed his conviction that vaccination was an absolute and complete protection against small-pox—as much so, at least, as small-pox itself. He held that a person who had been efficiently vaccinated was in precisely the same position, in reference to liability to a subsequent attack of small-pox, as if he had undergone that disease itself, either naturally or by inoculation. He founded his opinion upon the belief that cow-pock was not the preventive of small-pox, but small-pox itself. As to the absolute correctness of this theory of the complete identity of variola and vaccinia, it is not my intention on this occasion to inquire; for, interesting as the question may be in a scientific point of view, the practical bearing of our subject does not require its solution. I would, however, observe, in passing, that subsequent inquiry and observation have convinced many high authorities of the truthfulness of Jenner's prophetic genius in this particular point. After the lapse of half a century, and at the conclusion of an elaborate and almost exhaustive treatise on the whole subject of vaccination, we find Mr. Simon declaring "that, if vaccination were universally performed in the best known manner, deaths by small-pox would be among the rarest entries in the register" (Papers on *Vaccination*: Blue-book, 1851). Further than this we are not justified in going; nor does the most ample justification of vaccination require more than this, because we cannot claim or expect more from vaccination as a preventive than from small-pox itself. We know that secondary small-pox, though rarely, does occasionally prove fatal; and the occurrence of secondary small-pox is by no means so unfrequent as was formerly, and perhaps by many is still, supposed. Dr. Copland, in his article on Vaccination in the *Cyclopædia*, estimated the frequency of a second attack of small-pox as something less than one in ten thousand; but the incorrectness of this statement has been fully demonstrated by the records of various epidemics. In an epidemic in Edinburgh from 1818 to 1823, Dr. Thomson observed about 85 cases of recurrent small-pox. In Marseilles, in 1828, of 2,000 persons who had small-pox, 20, or 1 per cent., had it a second time; and of those, 4 died. The Vaccination Committee of the British (then the Provincial) Medical Association, whose labours are recorded in the eighth volume of their *Transactions*, give an account of 239 cases of recurrent small-pox, of which 12 or 13 proved fatal. Mr. Goolden, in a professional experience of forty years, had seen "between 80 and 90 cases of small-pox after small-pox, 4 of which proved fatal; many were confluent and very severe." The same report contains the following statement, which, perhaps, we should scarcely have anticipated. "If we except the fatal cases of small-pox after vaccination which are reported to have occurred in the Small-pox Hospital in London, the deaths from small-pox after small-pox in the country correspond very nearly with the deaths from small-pox after reputed vaccination." (*Transactions of Provincial Medical and Surgical Association*, vol. viii, p. 66.)

From the foregoing, as well as from other authentic records, we feel justified in asserting that, where vaccination is known to have been genuine, the protective influence is almost absolute, certainly as great as that of small-pox itself.

Although I should have deemed it an unprofitable expenditure of time, and almost an insult to the good sense of those I am addressing, to have brought forward arguments in favour of the universally acknowledged protective influence of vaccination in the abstract, yet the introductory observations with which I have prefaced my subject will not, I trust, be considered irrelevant, as they enable us to commence our inquiry with a more definite idea and a juster appreciation of what really is to be expected from vaccination as a preventive against small-pox.

We now proceed to ascertain what vaccination has actually accomplished in the diminution of the prevalence and fatality of small-pox; and, although our inquiry is primarily intended to extend only so far as our own country is concerned, it will be necessary to refer, by way of comparison, to other nations as well. Not to trouble you with dry statistical details, I content myself with reminding you that, on the authority of Dr. Seaton, in his article on Vaccination in the first volume of the *System of Medicine* by Dr. Reynolds, the remarkable power of vaccination in protecting against small-pox is shown by the fact that "the present average death-rate from small-pox is scarcely in any European country one tenth part, and in those countries in which vaccination has been most carefully carried out it is much less than one tenth part, of what it was at the end of the last century. Thus in Sweden, where, before vaccination was discovered, the average annual death-rate from small-pox was 2,050 out of every million of population, during the forty years 1810-50 it was but 158. In Westphalia, it has been reduced from 2,643 to 114; in Bohemia, Moravia, and Austrian Silesia, from 4,000 to 200; in Copenhagen, from 3,128 to 286; and in Berlin, from 3,422 to 176. (Reynolds's *System of Medicine*, vol. i, p. 501.)

These figures so clearly demonstrate the powerful and almost unvarying influence which efficient systematic vaccination exerts upon the small-pox death-rate, that we may educe from them as a corollary, that wherever the mortality from small-pox exceeds a very moderate percentage, the system of vaccination is in some respect or other defective.

Let us now apply this test to our own country, the land in which Jenner lived and died, and where we should naturally expect to find the most complete and striking illustration of the beneficial influence of the priceless legacy he bequeathed primarily to his fellow-countrymen, but in effect to the whole human race. An impartial inquiry into this question will shew that, although the benefits conferred upon the population of this country have been such as fully to justify the faith which Jenner had in the efficacy of this great discovery, yet at the same time it will but too clearly disclose the somewhat humiliating fact,

that his own countrymen have fallen far behind other nations in securing for themselves all the advantages which vaccination is capable of affording.

First, then, let us inquire what vaccination has done for this country; and of this we may obtain a tolerably correct idea from the following table.

Periods compared.	Annual deaths by small-pox in England & Wales.	Annual rate per million of population.
1. Average of 30 years previous to introduction of vaccination	——	3,000
2. Average of 3 years (1838-40), when vaccination become established, but before it was gratuitous	11,944	770
3. Average of 9 years (1841-53), when vaccination was gratuitous, but not obligatory	5,221	304
4. Average of 10 years (1854-63), when vaccination has been to a certain extent obligatory	3,351	171

To select an illustration on a smaller scale, I may refer to a report of the deaths in Christ's Hospital, London, published in the Report by Mr. Simon, which shows that, from 1751 to 1800, there were 31.11 per cent. deaths from small-pox in that establishment; while from 1801 to 1850, representing the period since the introduction of vaccination, but one death from that disease occurred, at the rate .0025.

What, then, we next proceed to inquire, is the average mortality from small-pox in England? The returns of the Registrar-General inform us that no less than an average of 3,350 deaths from this disease are recorded every year in England; and what renders this high small-pox mortality still more significant is the fact that, of these, 56 per cent. are in children under five years of age, and 70 per cent. under ten years of age. We can, as Dr. Seaton observes, have no hesitation in saying that, in all the fatal cases at this early age, there must, with very rare exceptions, have been neglect of vaccination; for where that operation has been performed even with the effect of raising a single vesicle only, death from small-pox in childhood very seldom occurs. We know also that, of the mortality above two years of age, a large proportion takes place in persons in whom vaccination had never been performed; so that an estimate which should ascribe four-fifths of the present mortality from small-pox to the omission of vaccination would certainly be much below the mark.

Of the deaths from small-pox which take place after puberty (the annual average of which is about 900), a large portion occur in persons who had been vaccinated, and who believed themselves protected against small-pox. Now, the observations of Mr. Marson, published in the thirty-sixth volume of the *Medico-Chirurgical Transactions*, leave little room for doubt that these deaths must have chiefly occurred in persons who had been insufficiently and imperfectly vaccinated; for, of 268 reputedly vaccinated persons who died in the Small-pox Hospital, of whom 191 had the vaccine cicatrix or cicatrices on their arms, he found that only three had been vaccinated in the way which he has shewn to be the most protective, and of which I shall speak presently.

I have alluded to the existence of a high rate of small-pox mortality as affording inferential proof of the neglect or inefficiency of vaccination; but on this point we are not left to inference alone. There exist authentic records which exhibit but too clearly the inefficiency and imperfection of the vaccination throughout the land. Within the last few years, inquiries have been made, under the direction of Government, by Drs. Seaton, Stevens, Buchanan, and Sanderson, extending to every part of England, which have shewn that, so far is that universal performance of vaccination in early infancy, which is indispensable for the effectual protection of the community from small-pox, from being attained, that more than 13 per cent. of children old enough to be in attendance at public infant schools are unvaccinated. In the course of these inquiries, the arms of nearly half a million vaccinated children were examined; and the result of this examination was that, taking the country throughout, not more than one child in eight was found to be so vaccinated as to have the highest degree of protection which vaccination is capable of affording; not more than one child in three could, on the most indulgent estimate, be considered as well protected; while in more than one in four the vaccination had been of a very inferior kind indeed, resulting in marks of imperfect character, or in only one or two marks of merely passable character. (*Op. cit.*, p. 503.) It is worthy of note, that on this point Dr. Seaton states that the observations just referred to were made upon children most of whom had been vaccinated by public vaccinators, but a large number had been operated upon by private practitioners; and, without affording statistical evidence of the fact, they left a strong impression that, as a rule, the latter were less well vaccinated than the former. He further states that his own experience has satisfied him, in other ways, that many in the upper and middle classes in England have been very imperfectly vaccinated. The chief reason why small-pox is so much less met with among them than among the lower class is, that they are so very much less exposed to it.

Before proceeding further, it may be well to direct more particular attention to what really constitutes efficient vaccination.

Mr. Marson has, during thirty years' labour at the Small-Pox Hospital, collected the following observations, which, from their extreme value, I hope I shall be excused from repeating here, although they may be familiar to many whom I address. He has shown that the degree of protection is in the exact ratio of the excellence and completeness of the vaccination, as shown by the cicatrices; in other words, that it is directly as the amount of vaccine marking and as the character of the marks; as shown by the following table, corroborated by the subsequent inquiries of Dr. Seaton.

Dr. Seaton's Observations.

Classification of children examined.	Marked with small-pox per 1000.
1. Having no vaccine marks	360
2. Vaccinated and having—	
a. One vaccine cicatrix	6.80
b. Two vaccine cicatrices	2.49
c. Three vaccine cicatrices	1.42
d. Four or more	.67
A. Cicatrices of bad quality	7.60
B. Cicatrices of tolerable quality	2.35
C. Cicatrices of excellent quality	1.22

Dr. Marson's Observations—6000 *Cases of Post-vaccinal during* 25 *Years.*

Patients admitted with Small-pox.	Deaths per cent.
Stated to have been vaccinated, but having no cicatrix	21¾
Having one vaccine cicatrix*	7½
Having two vaccine cicatrices	4⅛
Having three vaccine cicatrices	1¾
Having four or more	⅜
Unvaccinated patients	35½

It is evident, from the foregoing statements, that

* Cases with one well marked cicatrix, the death-rate was 4¼; with one badly marked, it was 12; with two well marked, 2⅜; badly marked, 7½.

vaccination in this country is not carried out in such a manner as to afford anything approaching to complete protection of the community. The defects of the system are two-fold; first as to the amount, and secondly as to the quality, of vaccination. The deficiency in the amount of vaccination is shown by the inquiries of the Government Medical Inspector, who found that "more than thirteen per cent. of children old enough to be in attendance at public infant schools are unvaccinated." (*Op. cit.*, p. 502.) The deficiency as to quality appears from the same inquiries, which prove that, out of nearly half a million vaccinated children, not more than one in three are well protected, or, in other words, properly vaccinated. (*Op. cit.*, p. 503.)

Having clearly ascertained the existence of the evil, it remains to consider the causes and their remedy.

The two main objects to be attained are: first, to establish the universal adoption of infantile vaccination; and secondly, to adopt such measures as shall secure the efficiency and completeness of the operation in every individual case.

For the accomplishment of the first of these conditions, the co-operation of two parties is essential—the government on the one hand and the public on the other; and this brings us to the much disputed point, whether vaccination should be compulsory or not. In some countries, this difficulty has been solved; for compulsory vaccination has been carried out to the manifest advantage of the community; but, in our own land, where the liberty of the subject is so jealously guarded, and where, as it has been said, no person thinks it necessary to obey an Act of Parliament unless he pleases, the question is surrounded with difficulties.

To show further what compulsory vaccination can effect, we may point to the greater degree of protection afforded to those countries in which it is enforced; and further evidence is obtained by the result of the partial adoption of compulsory measures in this country, as already noted.

The objections to compulsory legislation are more apparent than real. The liberty of the subject would be no more endangered by enforcing vaccination, than by enforcing many other sanitary provisions which involve the sacrifice of individual prejudice to the requirements of public safety.

The instances in which it would be necessary to set the law in motion, would be much fewer than may be supposed. The educated and intelligent portion of the community are almost universally willing and anxious to avail themselves of vaccination; and the poorer classes also, as a rule, fully appreciate its advantages. After many years' experience as a public vaccinator, I am convinced that the obstacle to the full extension of vaccination, arises much more frequently from the indifference, carelessness, and procrastination of parents, than from any want of faith in its efficacy.

Nothing less than authoritative interference can overcome these difficulties; and it is to meet these exceptional instances of selfish, wilful opposition, that recourse to law would most frequently be required. I need scarcely observe that the present almost inoperative Compulsory Vaccination Act cannot be expected to fulfil satisfactorily the objects aimed at by a judicious and efficient system of compulsory vaccination. It is perhaps better than nothing.

Time will not permit me to dwell upon the defects of this Act; I may, however, allude to one defect which is in itself fatal to the utility of the whole measure. It has been decided in the Court of Queen's Bench, that when a parent has once been fined for neglecting to have a child vaccinated, no further proceedings can be taken, and he can suffer his child to grow up unprotected; so that the Act, instead of being compulsory, permits the option of submitting to vaccination, or escaping it on payment of twenty shillings. In dismissing the subject, I must express my conviction that, without certain compulsory powers, a proper national system of vaccination is unattainable. I would, however, have recourse to compulsion only as a *dernier ressort*, and would exercise the powers conferred by law with extreme discretion and forbearance.

The second condition—which is certainly of as great importance as the first—viz., to establish such a system as would secure to all vaccination of the most efficient character—involves questions upon which there exists much difference of opinion.

It is thought by some that the best way to render vaccination universal would be to make every practitioner a vaccinator. There is some plausibility in this argument; and I regret to observe that it has recently received the sanction of a member of this Association, whose opinions must always exert considerable influence on the mind, not only of the profession, but of the public at large. I allude to my friend Dr. Richardson. Highly as I estimate his talent and respect his judgment, as evinced in various scientific researches in which he has distinguished himself, I must enter my strong protest against his enunciation of a scheme which has been demonstrated to be unsound, and which is at variance, I may venture to assert, with the combined experience and opinion of all those who have a practical acquaintance with the details of public vaccination. To adopt Dr. Richardson's proposal, and to make every practitioner a recognised public vaccinator, would be to legislate backwards, and would more or less completely undo all that has been effected during the last few years towards establishing a system of national vaccination, which only requires due extension and consolidation to place this country in the same enviable position as regards protection from small-pox which is enjoyed by other countries of Europe.

The experience of the National Vaccine Establishment amply verifies the conclusion, that the efficiency of public vaccination, in all its details, has always been greatest where it is conducted under what may be termed, for the sake of brevity, a system of centralisation, and has invariably retrograded when it has been subdivided. The truth of this has been, as it were, forced upon the authorities by the course of events.

Some years ago, the whole system of public vaccination of the metropolis was in the hands of the National Vaccine Establishment; conducted, I believe, at one, or at most at two or three stations. At this time, the Establishment had at all times a sufficient supply of lymph to meet the demands of the whole country and the Colonies. When the system was so changed that each district medical officer became a vaccinator, and the vaccination of London was thus subdivided, the Central Establishment gradually lost more and more of their original sources of supply, and soon found themselves unable to meet the demands upon them. Now came the test of the system of subdivision. Unless it were inherently faulty, the supply of lymph, although diverted, ought to have been as great, if not greater than before; but what was the fact? Why it was found that these public vaccinators not only were unable to keep up a sufficient source of lymph to make up for the falling off at the Central Establishment, but they themselves were actually amongst the most frequent applicants for a renewal of lymph,

not being able even to sustain a permanent source of supply for their own stations. There was actually threatening the community an almost entire suspension of general vaccination from the impossibility of obtaining an unfailing source of vaccine lymph. In this emergency, and to meet this most urgent need, the Health Department of the Privy Council, in conjunction with the National Vaccine Establishment, originated, some seven or eight years ago, the present system of national vaccination, which, although it is still far from being as complete and sufficient as could be desired, has nevertheless done and is doing much towards placing the vaccination of this country on a satisfactory footing. They established in every large town where there was a medical school a vaccine station, under charge of a competent vaccinator, who, under the supervision of the Central Establishment, carries out a thoroughly efficient system of vaccination, and transmits to London weekly supplies of vaccine lymph for distribution to practitioners in all parts of the British Isles and its dependencies.

In 1859, the first year after the establishment of these stations, the number of charges of vaccine-lymph supplied to the Central Establishment was 16,712. In the year 1864, it amounted to 108,405. From these facts we draw two conclusions: first, that what I may be allowed to call the centralisation system is essential to the very existence of general vaccination, as the only means of sustaining the source of lymph; and secondly, that a very considerable number of the practitioners throughout the country who represent the system of indiscriminate vaccination would be unable to carry on their operations for want of lymph unless they had the permanent unfailing supply of the Central Establishment to fall back upon. If nothing more could be urged in favour of centralisation, this incalculable advantage would perhaps be a conclusive argument; but this is only one of the important benefits resulting from these stations.

Each station is a school of vaccination, where students and practitioners who require the instruction (and of such there are not a few, owing to the almost entire absence of any systematic teaching of vaccination in our medical schools) are taught every important practical point connected with the subject. Mr. Simon has observed, and my experience as a teacher of vaccination enables me to confirm the statement, that it is quite possible for a practitioner to pass through his course of professional education, and to receive his diploma, without so much as having seen a single case of vaccination. This need no longer be the case; and under the present system it can never again happen that any person can become a public vaccinator, unless he can produce evidence of having undergone a regular course of instruction in vaccination at some recognised station.

Now Dr. Buchanan tells us, as the result of his inquiries, that unsatisfactory quality of vaccination depends mainly upon two circumstances—a failure of the arrangements to give a proper supply of lymph, and a failure of the operator to produce an adequate amount of local affection.

Dr. Seaton says the causes of neglect of vaccination are mainly: the absence of systematic supervision and the very imperfect arrangements made for the performance of public vaccination. I can, he adds, affirm, with the utmost certainty, that with thorough supervision and proper arrangements, the neglect of vaccination would be very inconsiderable; for though objection to vaccination exists in isolated instances in several places, and although in one or two places there was a strong local prejudice, yet, taken on the whole, it was not in one case out of a hundred that the omission of vaccination was due to any other cause than to the indifference and idleness of the parents or to real want of opportunity; and he further says, that the local supervision which is required is quite as much a supervision of vaccination arrangements and of the performers of vaccination as of the fulfilment of duty by parents. Now it is perfectly manifest that these conditions, which have been ascertained to be essential to the maintenance of a proper system of vaccination, can only be ensured by centralisation, and would be absolutely unattainable if the system were left indiscriminately to the profession at large.

One very serious disadvantage which must attach to too great a subdivision of vaccination, is the impossibility of sustaining a constant system of arm-to-arm vaccination. The superior advantages of direct vaccination are so great and so well known, that all authorities on the subject insist upon the necessity of its being considered imperative in every practicable instance; all processes for preserving and conveying lymph, invaluable as they are for their own proper purposes, render, in the long run, the taking of the vaccination a matter of inferior certainty, and are therefore to be adopted only in case of necessity. And further, arm-to-arm vaccination itself cannot be kept up efficiently unless the operator has on all occasions a sufficiently large number of arms to select from; for if the vaccinations be few in number, the opportunities of lymph selection are limited, and lymph must be taken from second-rate vesicles. And this, in fact, is a source of much inferior vaccination. The National Establishment considers no station to be up to the mark where the number of children vaccinated is below 500 a-year, or the average number of arms to select from on every vaccinating day less than ten.

It may, perhaps, be asked, Why could not a direct supply of lymph from the cow be organised as a substitute for the human supply? To this, I reply, first, that we have no means of ascertaining the practicability of this method, and indeed the difficulties would in all probability be found to be insuperable; and secondly, that, if attainable, it is not nearly so well adapted for the purpose as humanised lymph. The very early vaccinations from the cow have a peculiar intensity of local irritative effect, which is so far from being an advantage, that it frequently needs to be controlled; it not unfrequently produces, as Mr. Ceely has pointed out, a special vesicular vaccine eruption, called by the Germans *Nachpocken*, causing a good deal of temporary disfigurement and annoyance, and sometimes, when copious, severe and even dangerous eruptions. The opinion entertained by some that vaccine lymph necessarily degenerates by repeated transmissions through the human body was denied by Jenner, and subsequent experience has fully established the accuracy of his view on this point. The deterioration of human lymph in transmission can generally be traced, and may always be attributed, as Jenner himself pointed out, to a want of due care in the selection of the lymph employed, or a failure of some other precaution in the details of the mode of using it. Jenner found lymph, sixteen years from the cow, as efficient as it was the first year.

The reports of the National Vaccine Establishment, the observations of Ceely and others, and the experience at the Liverpool Station, have amply verified the undiminished activity of carefully transmitted lymph for an indefinite period—fifty years at least—as I have shown in former papers on the subject.

It is in truth, as Dr. Seaton observes, not to the cow, but to adequate care and skill on the part of the vaccinators in the selection of the children and

vesicles from which lymph is taken, that we must look for maintaining stocks of active lymph.

The public vaccination in this country, as it exists at present, is chiefly in the hands of the guardians of the poor, who contract with their medical officers for its performance; and although undoubtedly, in many districts, it is carried out very efficiently, still the system is far from satisfactory, and, being subject to no supervision whatever, has been found to vary very much as to efficiency, as reference to the Government reports amply testifies.

There is the greatest want of uniformity of opinion amongst public vaccinators themselves as to what constitutes efficient vaccination, as well as on various other important practical details. Another serious objection to the system is the fact of vaccination being identified more or less with the administration of parochial relief, and the necessary arrangements being in the hands of the guardians, who are not unfrequently found to sacrifice efficiency to false notions of economy. In many cases, all the evils of subdivision exist to the fullest extent. The records of what is done are for the most part too incomplete and irregular to render them of the slightest value.

A certain but a much smaller portion of the public vaccination is more or less under the control and supervision of the National Vaccine Establishment, their stations being in some instances under the management of vaccinators salaried out of the parliamentary grant; in others, they are connected with medical charities; and in a few instances they have adopted a parochial medical district. Now, I have already shewn that it is the stations of the National Vaccine Establishment which furnish almost the entire supply of lymph for the public service; and I may add, that it is at these stations alone that vaccination in all its details is invariably and uniformly carried out in the best known manner. A careful record is kept, showing the source of the lymph, and the result, in every individual operation. The system, in fact, so far as it goes, is probably as satisfactory as could be desired; and all that in my belief is required to place vaccination on a proper basis in this country is to enlarge the but too limited powers of the National Vaccine Establishment by increasing the parliamentary grant, and giving to that body the complete control and responsibility of the whole public vaccination of the country. This would involve its disconnection with parochial relief, an uniform and suitable division of districts, the appointment and adequate remuneration of thoroughly competent vaccinators, and the necessary amendments in the various Acts of Parliament relating to the subject.

It has sometimes been urged, that a plan of this kind might be found to interfere with the rights and privileges of a certain number of the medical profession; but I can conceive no foundation for this apprehension. Almost the whole of the vaccination which would be included in such a plan would be that of the poorest classes of the community, the class which almost exclusively furnishes the bulk of the unprotected, and to whom the ravages of small-pox are almost entirely confined. The more intelligent and well-to-do class are able to take care of themselves; and their medical attendants, having a thoroughly efficient system of public vaccination to fall back upon for an unfailing source of lymph, would be much aided in their efforts to maintain vaccination of the highest character amongst the children of the wealthier section of the community, who, at present, are to a certain extent deprived of the full benefits of vaccination, as a natural result of the imperfections in the national system of public vaccination.

Original Communications.

CONSIDERATIONS RESPECTING CHOLERAIC COLLAPSE.

By C. Handfield Jones, M.B., F.R.S., Physician to St. Mary's Hospital.

The condition of choleraic collapse must be admitted, I think, to be essentially independent of any evacuations from the blood. Setting aside cholera "sicca" (so-called), it certainly seems to occur when there is no possibility of any material loss of fluid; and, on the other hand, is not observed in certain instances of profuse intestinal discharge. In the cold stage of malarious fever, and more rarely in typhus, we meet occasionally with very perfect examples of choleraic collapse, understanding thereby blueness of the surface and icy coldness, shrinking of the body, failure of the heart's action and pulse.

Different views may be taken as to the essential cause of the above-mentioned symptoms. We may hold with Dr. Johnson that they all depend on spasm of the small pulmonary arteries causing arrest of the blood-flow through the lungs; or with Dr. Parkes, that the obstruction giving rise to them is the result of deposition of fibrine in the capillaries and precapillary vessels; or with Briquet and Mignot, that they are the result of the hyposthenising toxic influence acting principally on the heart and cerebro-spinal nervous system. Lastly, it may be held, that the algide phenomena are produced in the same way, I do not say by the same agent, as they probably are in pernicious ague; viz., by a morbid stimulation of the vaso-motor nerves, especially of the limbs and surface; or, according to a modification of this view, that they depend on severe irritation of the intestinal nerves or ganglia.

In Dr. Johnson's theory, there is much that is very truthlike, and perhaps it expresses truth, but not the whole. The chief objections to it seem to me those which arise from a consideration of the events of fibrinous deposition in the heart, which have been so ably investigated by Dr. Richardson. Here, supposing the obstruction to be on the right side, we have great and peculiar dyspnœa, often tumultuous action of the heart, wandering of the mind from failure of supply of blood to the brain, livid pallor and coolness of the surface, and more or less tendency to rupture of the air-cells and emphysema. Dyspnœa there may be in cholera; but it is not so constant, nor so severe, as in fibrinous deposition. The inspirations taken are shallow and frequent; whereas in the latter affection they are rapid and deep. The respiratory distress, when present, is further augmented, as Briquet and Mignot state, by a tearing pain, or oppressive weight at the epigastrium, or by a sensation of pressure or constriction at the base of the thorax. This is not present in the state with which I am contrasting the choleraic phenomena. According to Dr. Parkes, the respiratory murmur is altered in every case where the distinctive features of cholera are present. The inspiratory sound is lessened, becomes rougher and more bronchial, and the expiration lengthened and exaggerated. In fibrinous deposition, the breathing is full and free, as long as there is no obstruction on the left side. The muscles in the one condition are affected with cramps; in the other with restless prostration. The brain in the former, though evi-

dently scantily supplied with blood, is able to function effectively; in the latter it fails, and the mind wanders. If the blood were prevented from reaching the lungs by spasmodic closure of the pulmonary arterioles, there would almost surely be for some time violent struggling action of the right heart. I well remember a case of malarioid fever, in which the first paroxysm set in with pulselessness and a sensation of imminent death. On auscultation, I found the heart acting violently, and was greatly puzzled to understand how, with such forcible cardiac action, there could be an absence of radial pulse. In a few hours, the pulse returned, and the hot stage set in. No doubt can exist that, in this instance, the arteries of the limbs were closed by spasm, and that the heart was struggling to carry on the circulation in spite of this obstacle. In a case recently under my care, where fibrinous deposition in the heart was diagnosed during life and proved to exist after death, the action of the organ was greatly excited. In cholera, on the contrary, though the action of the heart may be sometimes rapid and tumultuous, yet for the most part enfeeblement and failure are the prominent phenomena. The surface of the body is notably bluer and more icy cold in cholera than in fibrinous deposition in the right cavities. Pulmonary collapse is not a feature of the latter condition any more than interlobular emphysema is of cholera.

The foregoing seem to me to constitute substantial differences between the two pathological states, which should not exist if the theory in question were correct. It is, however, to be remarked, as a notable point of resemblance, that in fatal cases of both the lungs are found anæmic, and that inflammatory affections of the lungs previously existing have been considerably diminished after the supervention of both. This, however, might ensue whatever was the cause of the arrest of the blood-flow.

A weighty objection to Dr. Parkes's theory seems to me the rapid though temporary improvement obtained by injections into the veins. These could not remove capillary emboli.

Against Briquet and Mignot's theory, it must be considered that hyposthenisation of the heart and cerebro-spinal nervous system is what the miasms of typhus and typhoid fever effect; but their symptoms are very unlike those of the algide stage of cholera.

Whatever opinions may be held as to the degree of real affinity existing between cholera and the pernicious malarious fevers, it cannot be questioned that the causes, supposing them different, produce almost identical results in the algide period, the more peripheral parts being icy cold and devoid of circulation in each, while the internal are the seat of active hyperæmia and congestion, and have their temperature increased.* In both disorders there may be profuse evacuations or none. Now, it not unfrequently happens, that a morbid state may be produced by several distinct causes, yet be to all appearance identical from the operation of each. Thus, erysipelas certainly may arise from contagion; but there can be no question it often is set up quite independently. In our treatment of it, however, we have regard solely to the existing condition and not at all to the cause. So I hold it to be with respect to cholera. Its cause may be more or less different from that of pernicious fever; but the morbid processes may be almost or quite identical; and where the results are so similar, we can hardly fail to derive instruction with respect to one from a careful examination of the other.

In endeavouring to frame to ourselves a *rationale* of the algide condition in malarious fever, we may observe: 1. That there is almost a certainty that the poison acts especially on the nervous system, both on its cerebro-spinal and sympathetic departments. 2. This action seems to be at first more exciting and subsequently paralysing; the former mode being more apparent in the peripheral parts, the latter in the abdominal viscera. The rigors may be viewed as indications of excitement of the spinal cord, and it is worth remarking that they do not occur in palsied limbs. The vaso-motor nerves may be so excited that the radial pulse is obliterated during the entire cold stage. 3. The enfeeblement of the heart's action may be well accounted for by a similar state of the plexuses supplying its nutrient arteries. 4. The peculiar coldness of the surface is to be accounted for by the contracted arteries ceasing to transmit a supply of aërated blood, and probably also by a special influence of the excited nerves on the nutritive vital actions of the part. I am the more inclined to adopt this latter view, as the rise of temperature, which has often been noticed after death, seems necessarily to imply the cessation of some force which depressed the calorification during life. As the phenomenon occurs some time after death, it is of course independent of any movement of the blood. 5. The blueness depends on the same cause; viz., the want of an efficient *vis a tergo*, in consequence of which the capillaries and small veins become filled with stagnant corpuscles of a dull red colour. This condition may be seen, not unfrequently, perfectly developed in the frog's web, as is well described in the following quotation from Mr. Wharton Jones's paper, p. 21: "In a third case, the two larger webs of a frog's foot were very much congested, the blood stagnant in a great many capillaries, and flowing slowly or oscillating in others. The flow in the veins sluggish. The arteries all more or less constricted. Sometimes one artery would be seen to dilate a little; and, in proportion as the flow of blood in it thus became free, the circulation in the capillaries to which it led was re-established. The application to the web of solution of salt was followed by uniform dilatation of the arteries, a brisk flow of blood, and dissipation of the congestion." Section of an artery has nearly the same effect, as constriction, congestion, and stagnation, take place in the venous radicles and capillaries connected with the lower end. The effect of cold in producing the above described condition is notorious, and was well exemplified in the following observation. An ice-bag had been applied for some length of time over a pulsating abdominal tumour, and had produced dusky venous redness of all the area of integument where it lay, while the surrounding surface was quite pale. A warm finger was laid on the discoloured part, and immediately the dusky tint gave place to the natural pallor. No one can doubt that, in this instance, the arteries were constricted by cold and relaxed by warmth, just as one may see them to be under the microscope in transparent parts. Other more obscure causes act occasionally in the same way as cold. Thus, it is stated in the *Echo Med. Suisse*, that a girl, aged 17, without known cause, felt violent pain in the hands; the four fingers of the right and two of the left became slate-coloured, cold, insensible—in short, exhibiting all the symptoms of incipient gangrene. Movement was almost entirely abolished in these fingers. The induced current was applied, giving rise at first to increased pain, but soon arresting the sufferings of the patients. After ten or twelve sittings, at about the end of a week, the sen-

* Dr. Macpherson states, that late experiments in Paris show that the temperature rises to 103° in the rectum. (P. 53.) Similar observations have recently been made in London. (Vide *Lancet*, August 18th, 1866.) The temperature of the vagina in one instance was 102°.4.

sibility, the normal temperature, and colour as well as motion were restored. The epidermis came off to the extent of the first appearance of the gangrene. It seems impossible that the Faradisation could have availed anything in this case, if the vessels had been obstructed by emboli; whereas it is intelligible that it might have been very efficient in removing a state of spasm. In my work on *Functional Nervous Disorders*, I have referred to some other instances of the same kind, which are, I think, sufficient to show that algidity may occur as a local phenomenon, and may, therefore, be independent of any intra-thoracic derangement.

It appears to me to be a question of great interest why the loss of *vis a tergo* so often conditionates stagnation of blood in the capillaries and venules. That it does not do so constantly is certain. I have repeatedly seen in the frog's web whole tracts of capillaries, empty apparently, and devoid of corpuscles when the arteries communicating with them were constricted. The capillaries themselves remained perfectly patent. It is said that frost-bitten parts become of a waxy white; while less intense cold produces, we know, a dull red. This might suggest that in the former case the arteries were more completely constricted than in the latter. I doubt, however, very much whether this is a sufficient explanation; and I am rather inclined to believe that the attractive force of the tissue through which the vessels pass has much to do with the result. In inflammatory stasis it certainly has.

Considering the intimate relation of malarious fevers to the neuroses, of which no practical man can doubt, the unquestionable control also of the nervous system, especially its vaso-motor department, over calorification, the evidence afforded by the microscope of the effect of constriction of the small arteries, and the nature of the remedies which prove beneficial, it seems to me that there is strong ground for believing that the *rationale* above offered of the causation of the algide condition in malarious fever is in the main correct.

The lesions revealed by *post mortem* examination are great engorgement of the large veins and of the right cavities of the heart, œdema of the lungs, or extravasation of blood into their tissue, formation of pigment in the blood, and deposition of it in various parts, a pale and flabby state of the cardiac muscle, which is stated to be much softened in the algide choleric forms.

We may next consider whether there exists any sufficient reason for refusing to class the algide condition of cholera with that above noticed. The phenomena during life scarcely differ, except in the character of the evacuations, and in their resisting, in the case of cholera, the administration of quinine. Neither of these seem to me absolutely distinctive. The evacuations in both cases are copious outpourings of serous fluid; and the rice-water appearance is only the result of the admixture of fibrinous flocculi or epithelium, and is perfectly imitated in some instances of hypercatharsis from drugs taken in a poisonous dose, as croton-oil and colchicum. If the contagious quality of the fresh evacuations was demonstrated, it would be a strong point of difference. The inutility of quinine in established cholera does not appear to me surprising. Bark has often failed in pernicious fever; and Livingstone found that quinine did not avail in the endemic fevers of the Zambesi. The chief peculiarities, which dissection discloses in fatal cases of cholera, are said to be the bloodlessness of the lungs, their collapse, and the quantity of blood which is retained in the pulmonary arteries, and pours out when they are divided. Now, these features do not appear to be constant by any means. Annesley says, p. 111: "The lungs were always completely engorged with blood of a pitchy or black appearance." This evidently has reference to cases dying in the algide stage, as well as subsequently; and cannot, I think, possibly be meant to describe only the condition of the larger vessels. Leudet, in the majority of the cases fatal in the algide stage, found that no other morbid change existed than engorgement of the lower and posterior parts of the lungs with dark blood. In some instances, this was so complete as to cause portions of the pulmonary tissue to sink in water. In certain cases, the pulmonary tissue throughout was full of dark blood. Reinhardt and Leubuscher state that the lower lobes (that is, I should say, fully one-half of the lungs) were in general full of dark blood. Virchow states similarly, "The lower lobes were for the most part much congested." These quotations are taken from the Report of the College of Physicians. Parkes writes: "The quantity of blood in the substance of the lungs was considerable in three cases, in one there was extravasation of blood in the lower lobe of one lung; in six cases, there was a considerable quantity in the vessels of the lower lobes, but none in the upper; in ten cases, the quantity was small; in eleven cases, there was no blood in the minute texture of the lungs." According to this statement, the amount of pulmonary congestion was notable in ten out of thirty-one cases. Again he says, p. 20: "In other cases, there is more blood in the minute structure, a corresponding dark colour of the lung, and a variable amount of frothy serum." In some recent reports of autopsies of cholera patients dying in the algide stage, it is mentioned that a woman under Dr. Moxon's care died after eighteen hours' illness; the lungs were considerably engorged with dark blood, and all the heart-cavities contained white gelatinous clots (*Lancet*, July 28, 1866): also, that a case died in collapse at the Middlesex Hospital, where, at the autopsy, both lungs* were found much congested (*Lancet*, Aug. 4).

These statements seem to me to prove that absence of blood from the lungs cannot be considered an essential condition in fatal cholera. It is surely not so constant an occurrence as blueness and coldness of the cutaneous and adjacent surfaces. Collapse of the lungs cannot be essential to fatal cholera, as it has been found altogether or nearly absent in autopsies. Out of thirty-nine cases examined by Parkes, this condition seems to have been marked in seventeen; in eight it was slight; and in fourteen it was more or less prevented by old adhesions. In a recent fatal case at St. Mary's, I am informed, the lungs were not collapsed more than in death from other diseases. Moreover, the same authority tells us that, "almost till the last moment, the patient can breathe deeply, if told to do so." It is probable, therefore, that collapse of the lungs is rather a *post mortem* phenomenon than an *ante mortem* condition; and that it is simply the result of the unopposed action of the elastic fibres of the tissue. Perhaps the anæmia of the lungs may be due in some measure to the contraction thus taking place, which squeezes the blood out of the capillaries and smaller vessels into the larger.

Retention of blood in the pulmonary arteries and right side of the heart is a striking feature in many instances of cholera, perhaps in the great majority; and, taken together with the more or less bloodlessness of the lungs, it appears to afford a good deal of

* It ought, I think, in fairness to be stated that, in some instances of complete obstruction of the pulmonary artery, the lungs are found much congested. (*Vide* Meissner's Report—Schmidt's *Ber.*, vol. cxvii, p. 235.) This goes to assimilate the choleraic condition with that of right side fibrinous obstruction.

appui to the view that the blood is prevented from passing onward by spasm of the smaller pulmonary vessels. The theory referred to represents this spasm as the essential condition of the arrest of the circulation; it must, therefore, be of constant occurrence; and the tokens of its existence ought to be constant also. But Dr. Parkes states that "in other cases, however, the lungs are also excessively shrunk, and contain no blood or serum; yet, on cutting through their roots, no blood escapes, and all the cavities of the heart are nearly empty. There is, therefore, no evidence of obstruction." In Briquet and Mignot's experience, the signs of pulmonary artery obstruction (viz., accumulation of blood on the nearer side of the barrier, and its absence on the distal) do not seem to have been at all constant. They write: "Sometimes the cavities of the heart were engorged, especially the right. The left cavities, however, had no tendency to emptiness." Dr. Andrew states, in his account of a case which died at St. Bartholomew's, that both pulmonary arteries and pulmonary veins contained a considerable quantity of blood, and so did the right and left cavities of the heart. Of another case, he states that both sides of the heart contained clots of dark blood and decolorised clots; while the lungs, which were emphysematous, contained a fair amount of blood. (*Med. Times and Gaz.*, July 21, 1866.) In the record of a case like the two preceding, dying in collapse at the German Hospital, it is stated that the pulmonary vein was quite filled with thick dark blood; the lungs were dark red. (*Med. Times and Gaz.*, Aug. 4, 1866.) If spasm of the pulmonary artery existed sufficient to obstruct seriously the current of the blood, there would surely be visible distension of the jugular veins during life, at least in cases where no considerable evacuations had taken place. No such appearance, however, is mentioned in the descriptions extant.

From the above evidence, I feel much inclined to admit the probability of choleraic collapse being produced very much in the same way as that of algide fever is. I think it not unlikely that the pulmonary arteries may participate in the constriction which affects the systemic, the vaso-motor nerves of each being affected alike; but I believe the chief seat of obstruction and arrest is in the aortic, and not in the pulmonary ramifications; and that the affection of the latter is non-essential. As to the argument, that, if the arrest were in the systemic vessels, the left side of the heart and the arteries would be gorged, it does not seem to me of weight. We see and know that, as a consequence of arterial constriction, the capillaries and veins become engorged; and if the blood accumulates, as we know it does, in the larger and smaller veins, it is no wonder that it is absent from the left cavities and their afferent channels.

Although we are not able to consider the physical changes produced in cholera-blood as the chief cause of the arrest of the circulation, yet we cannot but regard them and those taking place in the tissues as exponents of the action of an injurious influence, which, by gravely interfering with the several nutritive processes, aids greatly in deranging those conditions on which the free transit of the blood through the capillaries depends. The small intestines are the chief focus of these lesions, where we find not only vast effusions of serosity taking place into the cavity of the canal from a vascular surface denuded of its epithelium, but also infiltrations of its coats with exuded fluid, and not unfrequently more or less extensive hæmorrhagic extravasations. Recent catarrhal irritation, with increased epithelial exfoliation, was found constantly in the urinary passages by Virchow. The uterus was commonly hyperæmic, and often presented small extravasations of blood on its inner surface or in its tissue. Similar extravasations were found in various parts—the pericardium, the endocardium, the lungs, the pleuræ, the spleen. Their occurrence can only be referred, I think, to an altered condition of the walls of the capillaries, as there certainly must be a considerable decrease, and not increase, in the amount of intravascular pressure, except, perhaps, in the case of the vessels of the small intestines. The kidneys presented indications of the commencement of morbid changes, which were more developed after reaction took place. The pneumonia, and engorgement or œdema, which was so frequently observed during this stage, must be considered to have had its origin in the loss of capillary tone or retentive power, of which there were sufficient traces during the algide stage. The softening or alteration of the muscular tissue of the heart, which was observed by Briquet and Mignot in four-fifths of the cases fatal in the algide period, is a strong evidence of the injurious influence of the poison on the tissues, and must be taken into account in estimating the immediate causes of the fatal event. It is also to be noted, as showing the tendency to cardiac paralysis, that Parkes found, in some instances, the ventricles flaccid and inexcitable soon (about one hour) after death, though they subsequently contracted firmly. The paralysis in these instances was probably of the inhibitory kind. Owing to its natural weaker conformation, it is conceivable that the right ventricle might be paralysed before the left, as the above mentioned writer suggests. The dark, tar-like, wasted condition of the blood, is not referable, I believe, to the abstraction of water and salts only; for it is noted as having these qualities in Dr. Stokes's case of algide typhus fever, where there were no unusual evacuations. Its tendency to deposit fibrine, as well as its other peculiarities, seem to me more probably the result of the direct action of the poison, than of its imperfect aëration. In a case mentioned in the *Medical Times and Gazette*, July 28th, it is stated that a fibrinous mass, of the size of a cherry, was found in the right lung.

The general tenor of the above facts is to show that the operation of the poison is by no means limited; that it affects the blood, the arteries, the capillaries both pulmonic and systemic, the mucous and serous membranes, and glands. From this I should conclude that the morbid process is not confined to any one region, but affects many, probably with varying degrees of intensity in different instances.

Although the above exposition seems to me to be the nearest the truth, it ought, I think, to be considered also whether in many cases, perhaps more especially in some epidemics, the symptoms may not be dependent, in a greater or less degree, on irritation reflected from the morbidly affected intestine. In a case of poisoning by croton-oil, the patient having at the same time typhoid fever, the symptoms, as Dr. Macpherson remarks, approach wonderfully close to those of cholera;* and it is especially observable that the algide phenomena were apparent three-quarters of an hour before purging commenced. The depression of the circulation which occurs in acute peritonitis, like that resulting from severe irritation of the mucous surface, is no doubt dependent on morbid impressions conveyed by the intestinal nerves to the ganglia and cord, and thence reflected on the heart and arteries. In a fatal case,

* Dr. Greenhow has recently recorded a case in which they were absolutely identical even to the rice-water evacuations. (Vide *Medical Times and Gazette*, August 11th, 1866.)

I found the left ventricle quite empty and firmly contracted, just as it has been found in cases of cholera. The right was occupied by a largish fibrinous clot extending up into the pulmonary artery. It did not appear of *ante mortem* origin. The lungs were congested. The absence of abdominal pain is not an argument against this view; as we know, from observation of epilepsy, that an unfelt irritation may give rise to very severe symptoms. Cases of this nature would be more amenable to treatment than others; inasmuch as the intestinal irritation might be removed by appropriate remedies, as calomel and opium, castor-oil, etc. It is to be feared, however, that, in many cases, the heart, kidneys, and other organs, are too severely stricken in their vital powers to carry on their necessary functions, even when the irritation of the intestinal nervous structures is removed.

In conclusion, I may say that I regard cholera as by no means a single and uniform morbid process, but one which consists of several varying elements. These may be enumerated as cardiac paralysis, constriction of arteries, alterations in the blood and capillaries, intestinal irritation. They may be variously developed in different instances, some may be more marked in one case, others in another, and remedial means should be varied accordingly.

REMARKS ON SYPHILISATION.

By George Gaskoin, Esq., Surgeon, Chevalier of the Order of Christ, Portugal; Surgeon to the Artists' Benevolent Fund; formerly House-Surgeon and House-Pupil, St. George's Hospital.

[*Continued from page* 41.]

In the continuation of his second lecture, Mr. Lee says that the immunity obtained in animals through repeated inoculations was attributed by M. Auzias to saturation of the system with the syphilitic virus; and then he goes on to say that "the early theory formed of the process was embraced by the word given to it; but that theory has perished, though the term has been maintained. Syphilisation is a misnomer. For, let us allow that we can make an indefinite number of ulcers on the person of a syphilitic by repeated inoculations of the pus of an indurated chancre, there is here no analogy to the process by which animal poisons are carried into the constitution—to vaccination, for example." Here we have it implied that Auzias Turenne has fled from the principles with which the public were first deluded and amused; he has experienced a defeat, we must suppose (for has he not shifted his ground?); a loathsome mode of treatment is maintained, though the plea for its introduction is found to be groundless and untenable; "the theory embraced by the word given to it" is utterly destroyed; while, in obedience to necessity, the venue now is changed, and a source of professional notoriety is supported on some other ground of conclusion equally false and subvertible.

But why, oh! Henry Lee, do you persist in laying your readers on a wrong scent by suggesting in others the existence of untenable and varying opinions, for which there is only the very faintest foundation in truth? Why range yourself with the oppressors of a great discoverer, as if it were not plain to every eye that his tardily and meanly acknowledged merits are a reproach to the age in which we exist, even more than the false glitter of reputations which flourish by his side. Was it not truly said by the wicked lawyers of James's reign, Give us a line of writing from a man's hand; it shall be enough for us to hang him straightway? and you have got now this unfaithful record of a dream, you rake up this word "saturation", which, in conjunction with syphilis, expresses so revolting an idea. The intention and legitimate aim of the discoverer to regulate and destroy the action of the virus by means of the same virus, and thus to rescue the patient's health from destruction, is kept out of sight altogether; and we have this "saturation" presented to our notice, which is asserted to have been M. Auzias-Turenne's original conception in proposing a new treatment of syphilis; and, "therefore", say you, "this process was *naturally* termed syphilisation—*this theory has perished*, while the term has been retained". But did this theory ever exist?"

See we not rather here revived the prejudices of the previous century, when to give a man the small-pox, or matter from out of the body of a cow, was called flying in the face of Providence, and marring God's likeness in his creatures, just as now we are accused of piling syphilis on syphilis? What is your ground of warranty for this assertion? No greater than what we shall see to follow. In the earliest physiological communication made by M. Auzias-Turenne to any learned society, November 1850, in the brief summary of his crude ideas on syphilitic vaccination, or syphilisation, as he then commenced to call it, one phrase, or short section of an introductory character, runs simply thus. No. 3. "The noun-substantive syphilisation (the corresponding verb being syphilise) may be used to denote a *sort* of saturation of the living organs, or *better* a condition of immunity obtained by successive chancres"; and by and bye he says, in so many words, that the virus offers itself to us as the best means of contending with the difficulties of the disease.

Could anything be more modestly expressed by a youthful aspirant? But, just as any stick may serve to beat a dog, we see here how unfashionable talent may cry out in vain for protection against the imputation of absurdity; nay, even when one of the cleverest men and one of the best physiologists of the time is in question. If he be not buoyed up by a clique, he must go to the wall; and abroad, out of his own country, where his personal qualities and antecedents are unknown, he must be content to rank with a Hahnemann and a Paracelsus, or with smaller fry. You threaten the public with an accumulated syphilis; and ask, by implication at least, if Auzias-Turenne and the rest are to be allowed to fill up human creatures like beer-barrels, or swell them out like sponges, with syphilitic poison.

What can give a more sad idea of the times in which we live than to see favoured and diligent men like Ricord and Henry Lee, representative men of the day, putting themselves so entirely in the wrong with regard to the degree of merit to be found in their contemporaries? What a picture is thus afforded of the condition of science amongst us, when all sorts of forced interpretations, imperfect apprehensions, and explanations ill understood, weary out the thread of life and exhaust all philosophic patience! Such experience might seem to make a return to the middle ages desirable when ghostly charity attempered a material persecution, altogether not more terribly felt perhaps than this crushing prejudice from the regions of fashion, while the very organs of public liberty are made to swell the chorus of dispraise.

In what way, we ask, is syphilisation a misnomer? With a thorough-paced dualist, it is liable to such an interpretation, because he looks on the whole thing as a sham. Yet with no reason on his part. For these wise men of Lyons have lately decided

that vaccinia is a wholly different disease from the small-pox. To use their hackneyed expression, it is "antagonistic" to it. Still none of them, that we have heard, affirm that the poison of vaccinia does not control small-pox. But Mr. Lee is not openly a dualist—as to difference of species, at least; he does not deny expressly to the matter of soft chancre the name of syphilitic matter; but if the cure is done with syphilitic matter, surely the patient is syphilised. The idea of making an indefinite number of ulcers is altogether assumed by Mr. Lee; it is on the definite limitation of the inoculations that the whole *rationale* is supported. The number of inoculations in a series and in the aggregate, though it may vary much, is necessarily limited; till, at last, when the final limit is reached, the most erosive virus no more affects the frame than a drop of water laid upon the skin. What does the writer know about the process by which animal poisons are carried into the human system? Does he know more than the rest of the medical world? Has he any particular theory to support? Is there one path, one process for them all? We know little enough about these things as yet.

As regards vaccinia, then, the poison does enter the constitution; we should scarce have expected such a confession from Mr. Lee; we should have thought he would have declared the operation of the vaccine vesicle to be "localised", "its history terminating with its cicatrisation." What proof to the contrary, if we omit its protective power? In the soft chancre, beside other proofs, there is a curative power as regards syphilitic disease. This is one of the reasons why we believe it affects the constitution, and is not a purely local or "localised" sore, the sphere of whose operation, according to the Lyons school, is confined, "like a spine in the tissues," to the neighbourhood of its site; and we also believe its secretion to be of a syphilitic nature and origin, so that, whether matter from soft chancre or hard chancre be used, syphilisation is not a misnomer.

But, forasmuch as no imputation can be more serious than that of thrusting back science and impeding the freedom of its career, we may say that we agree with that admirable writer, Bassereau, as to the existence of a simple ulcer of the genitals before the advent or cataclasm of syphilis in Europe; but it is not this Venerola which we have to deal with in the present day, but a soft chancre, which is a product of syphilis, and which is syphilis in a modified or fluctuating form, just as it falls under observation when we inoculate, and such as is signified, apparently, in the pages of Guicciardini, where this writer says that in the course of his not very lengthy experience, which dated from the very beginning of the French disease in Italy, it had become mitigated, "*having divided spontaneously into more than one sort differing from what it was at first*"; and too much weight cannot be given to his words. Although the history of the soft sore is the most obscure problem in the study of syphilis, this is what we are inclined to believe concerning it: we think ourselves justified in considering it to be part and parcel of the disease; and we believe that Bassereau's view of the subject is a partial one, for he has not taken all the facts into consideration.

As to the thrust of the indefinite number of hard chancres, we may say that the sophism is of Paris importation. It is repeated, as regards the soft sore, in all new French treatises, as well as in the books which are copied from them. It is a truth which cannot be denied, that of all mankind the Parisians are the most gullible; for, if the Londoner enjoy a standing testimonial of his credulity, having acquired the name of cockney, yet the Parisian, as far more sanguine, unballasted, fed on silly vanities, goes very far beyond him in this respect, so as indeed to have merited a more significant epithet which it will not be necessary to mention.

Now, Lindman, the young German physician, who was one of the first to try multiple inoculations on himself for syphilis, when his fellows at the Académie de Chirurgie, fresh from their masters' teaching, came round him pitying his condition, and beseeching him to desist, told them people would never believe that syphilisation was so bad as in truth it was, until some worthy and excellent man had died of it, and therefore he had determined to go on. His subsequently improving health and flourishing appearance being the subject of general remark, defeated their anticipations of his decease. He still went on inoculating; and he appears to have told some one who questioned him or bothered him (for he would have nought to do with the Academy after their first behaviour to him), that he had inoculated himself with 2200 chancres, and after that *he had ceased to count*. He seems to have taken a pretty exact measure of their credulity, and to have reproved with a just sarcasm their pretentious scepticism. It is necessary to say that the fact of so many inoculations is perfectly absurd. The greatest number got by Boeck out of a large collection of cases treated by him was not a third of the number mentioned. How few of them are ulcers, it is not necessary to describe. The exaggeration of the French shows how far their wishes extend beyond their proofs in propping up their artificial systems.

This story is on a par with that still current in the Quartier Latin, of a student, J——, killed by syphilisation, a piece of tragedy retailed to a friend of ours, some time since, by a medical bookseller of the Quartier, with the true *accent de la vérité*. The tale occurs in the celebrated *Lettres sur la Syphilis*. The more correct version is as follows. About fifteen years gone by, a young student, in very distressed and unfortunate circumstances, adding toil to dissipation, died of contagious erysipelas, then raging in the house and quarter, at a time when the few inoculations that had been made on him were (as we have it on the evidence of M. Auzias-Turenne) wholly cicatrised.

M. Ricord, in a book characterised rather by "humorous anecdotes" and "situations" than by anything like fair argument, applies to this event his favourite word "deplorable" less in pity than in censure; and the case is still quoted as a warning to all who dare, even in thought, oppose themselves to those who hold the reins of power in the schools of science; and, since the action of animal poisons is in question, this would seem the best opportunity of referring to that argument which Mr. Henry Lee has put forward in his last lecture, as to the immunity which is attained after bites of fleas and mosquitoes, either constantly reiterated or multiplied at short intervals of time. Whether an effort of candour prompted our objector to a confession which he makes so entirely for us, or whether, as we rather believe, he brings it in to support a theory of derivation which we entirely reject, it would still appear to range itself under the head of those stories to which we have referred above. Such a tale seems to want confirmation from popular experience. We have inquired of great travellers and others who have been much among those things, and they have answered us with smiles, or with laughter not unaccompanied with tears. But if he have persuaded himself of this matter, we may surely be permitted to give attention to what we have heard concerning

immunity obtained by repeated inoculation of the poison of serpents, a far more important fact, but which, as far as we are concerned, needs further elucidation, though the sources from which we heard of it are more than respectable.

M. Ricord may proffer and publish the belief that syphilis is a degraded glanders, M. Diday expect to find in vaccine matter the materials for a cure; English syphilographers may depend on chlorate of potash, and give sulphite of soda a fair and lengthy trial; but when a method of treatment offers itself, which is in accordance with pathology, and an order of ideas are produced which rest on instruction, observation, and experiment, it is decried as baseless and absurd, and its advocates, too, are treated with slight respect, if not with scorn and inattention.

So far from there being no analogy between syphilisation and the operation of animal poisons, it is by analogy that we are guided throughout. Without this guide to the practitioner, we think it scarcely right and hardly possible to expect much success. The attention of modern physicians has been far less directed to the class of virulent diseases than formerly. Of late, pneumonia, carditis, diabetes, pyæmia, rheumatism, and other complaints, have excluded fevers and virulent diseases from much notice. Only fitfully and exceptionally have they engaged attention. It was far otherwise in the middle of the eighteenth century. When inoculation for small-pox arrived in England in the year 1721, although its inventor was lost to view, it came soon to be considered one of the noblest efforts of the human mind. We know the difficulties opposed to it; and that thirty or forty years had passed away before its merit was well recognised. From that time onward, every one's head was working in one direction. Inoculation was the order of the day; for the cure of syphilis, it was first tried in the year 1778. This idea with regard to syphilis obtruded itself on many minds. The circumstance of the disease running itself out, and of its being an eruptive disorder, made the analogy too obvious not to occur to many. The chief objection to the treatment lay in the chronic character of the disease, so different from small-pox and other exanthems, which pervade the tissues rapidly.

Before the discovery made by Auzias-Turenne, in the middle of our century, the medical mind of Paris had been deeply stirred by discussions on the occurrence of glanders in man. It required the stubborn perseverance and earnest soul of Rayer to prevent this pathological fact being consigned to the grave of the Capulets. The evidence of cases went for nothing against an opposition of the most bitter kind. All the questions which relate to the contagion and course of virulent diseases came under review and consideration at that hour; and it was under the impulsion of ideas which had become familiar through discussion, that Auzias-Turenne availed himself of opportunities he then possessed to attempt the inoculation of animals with syphilis. Being fresh from anatomical study, a delicate and dexterous manipulator, and withal earnest in the work, he succeeded, where Hunter, Ricord, Cullerier, with a less degree of earnestness, had failed. When M. Auzias-Turenne had discovered a natural limit to the number and extent of the inoculations, the path was traced out to that point of success which was uppermost in his mind, but which had equally suggested itself to others. Immunity was found at length to be attainable. Mankind were now sufficiently well informed to put the plan in execution; and, as it appears to us, it has been followed by a certain measure of success.

That Dr. Boeck inoculated, or caused to be inoculated, the hard chancre on the bearer during his stay in England, admits not of a doubt; that the same has been done since his departure cannot be denied. Mr. Lee believes he can inoculate and get a soft sore with an unwashed lancet wiped with dry lint, such as is commonly done by Dr. Boeck in his clinical practice. This, however on the first blush it may appear plausible, has not been put to the test by the objector.

In writing of the inoculable pus obtained from stimulated chancres, Mr. Lee expresses himself thus: "Whether," he says, "such matter be a product of true syphilis, or whether it depends on some dynamical change in the action of the part, it is essentially different from that which pertains to an infecting sore." This secretion, whether *theoretically we suppose it to have its origin in syphilis or not*, is practically not that which produces syphilis. In the change of action which has taken place during its production, it has lost its sting so far as its power of producing an indurated chancre is concerned, and it has also lost, so far as present evidence goes, its power of affecting the patient's constitution." Our foregoing argument will give us the key to such errors as these. He holds to the false belief, that an inoculation on a syphilitic soil carries no principle of infection; and he is then driven into a corner to find what can have happened in the sore. "It is changed," "it is essentially different," it is "practically different," "it has lost its sting—the sting which it has in the parent sore." An unicist would look on this with calmness; but to a dualist of the advanced school it is very perplexing.

Of the disappearance of the virus Mr. Lee is fully convinced. The theories of Langlebert are so flattering in their application; the girls from the *clinique* of Bidenkap shut out all else from view. But what if there be no change after all? What if such sores do infect?* This, truly, is what Mr. Lee will be the last man to allow, because it gives a shock to his system; for he has spent many years in constructing an "edifice", and never was there a more ingenious artificer than our friend. His edifice, however fairly built, will have to share the fate of many modern constructions. The keystone of this fair building is "adhesive inflammation", as distinguished from "suppurative action"—a secretion of sero-epithelial *débris*, in antithesis to pus. But is not the distinction between lymph-globule and pyoid globule too subtle whereon to establish a difference in kind, or, let us say, in species? In fact, the difference between them is roundly denied by the French, with whom the chancrous secretion, in all its forms, is pus. Fibroplastic globules and fibres have been somewhere called, we believe, heteromorphous; and the pyoid globule, homoiomorphous; but the line was never cut so sharp between them as we find it in this artificial theory before us. Nor, indeed, is a pus-globule, according to our ideas, exactly a pathological entity. To Henry Lee, who identifies the infecting sore with adhesive inflammation, the passage, whether by artificial or other means, to a suppurating sore, is all-important; it is an "artificially induced" action, manifested in the pus, and conveyed by the pus. The sore has lost its sting; it has "*lost its infecting principle; and it has gained a contagious principle*, as a result of this action. What does all this mean? It conveys the idea that there has been produced a soft sore, a contagious non-infecting sore and mark, not *in situ* where the "action" has been "induced" by irrita-

* See case of Melchior Robert's pupil, quoted in previous paper. Ricord has stated that, if chancrous pus be inoculated on a syphilitic person, the sore produced is never an indurated ulcer; but, notwithstanding, if the pus from it be transplanted to a non-syphilitic, a hard chancre is the result, and also consecutive syphilis. See also Bumstead *On Venereal Diseases*, 1864, Introduction, p. 46.

tion of some sort, but manifested in the spot of inoculation, where the infecting power is lost, "as far as present evidence goes," and the contagious power is retained; so that from this sore you can inoculate right on in a series, although it be no longer pox.

Wrong in fact, wrong in theory. The case of the pupil of Robert, who, as we have seen, was infected through one of these inoculations, shows that it has not necessarily "lost its sting"—*i. e.*, its infecting power. But let us follow Lee in his argument, in which he so nicely distinguishes contagious from infecting power. It needs explanation truly, and one requires to be behind the scenes. Let us consult his French prototypes. According to their purely artificial distinction, contagion is local, infection general in its effects. A small quantity of blennorrhagic pus deposited on a mucous surface, followed, as often is the case, by the disease, marks blennorrhagia as having a contagious principle. The same term, then, applies to the simple or soft venereal sore, which is with the French a local, contagious, non-infecting disorder. We now understand what he means by its losing its infecting, and gaining a contagious power. He means, *totidem verbis*, it has ceased to be an infecting, and has become a soft or simple chancre. There has taken place a change of species; that is what he insinuates. This is the theory of the dualists and of Langlebert, undisguised. But how does this change occur, and when? At what point? During its flight to the inoculated part; at the moment of departure or of arrival. One disease goes out, and the other comes in, like two sentinels relieving one another, or night-nurses taking their turn about. But this contagious sore, whence comes it? Not out of the savine powder or the dry lint of the manufactory? Does it come *e nubibus*, for *ex nihilo nihil fit?* It is the result, the author says, of "action"; it is "action" which is at the bottom of the change, and which produces a sore which is not a common ulcer, but which can be inoculated right on in a series. The passage from adhesive inflammation to suppurative inflammation, is it so extraordinary that it makes quite a change of disease? The action does not only break down the syphilitic principle completely, but it manufactures out of it an entirely new article, a most definite non-syphilitic malady, which, if we may believe the dualists, had a pre-existence to syphilis among European populations. But perhaps Mr. Lee may say it is not a disease at all which is begotten; it is an "action" which is "induced". Does not common sense revolt at that? Suppose now you were to say to a man, "Sir, excuse me, you have not a disease hanging about you; you have an action." Might he not answer, "Sir, I never had an action in all my life? I have really something that ails me." Would it not be a *scene de Molière*? No, that argument will not do. Would it hold good in pneumonia, phlegmon, or any disease? Does leprosy begin only in a tubercle, and not also in an ulcer or a scale? Are we then so precise? We have heard something of polymorphism lately, and the term has been applied with a somewhat lavish hand to affections which are tolerably regular in their course; but syphilis, has it not always been esteemed polymorphic *par excellence—the* polymorphic disease? Be, therefore, less exacting as to its elementary forms and primary deviations, we beseech you.

It remains for us to add, that a strong corroborative proof is given of the infecting character of the inoculations in the occurrence of the multiple glandular swellings which occur "like a chaplet" on the edge of the pectoral muscle, as described by Boeck and Bidenkap; and the same may be said of those skin-manifestations so convincing to the mind of the operator that the inoculated virus really has what M. Rollet and others have been pleased to deny to the simple sore—an "echo" in the economy.

[*To be continued.*]

We are requested to remind members of the Association that the Annual Subscriptions became due on the 1st *of January. They can be paid either to the Secretaries of the Branches; or to the General Secretary, T. Watkin Williams, Esq.*, 13, *Newhall Street, Birmingham.*

British Medical Journal.

SATURDAY, SEPTEMBER 1ST, 1866.

APHASIA.

A GREAT deal of very good work has recently been done, chiefly in France, in the attempt to fix the seat of the faculty of language or of articulate language. We believe, for our part, that it is not well to speak of language as being a distinct faculty—at all events, in the sense of its being so distinct from the rest of mind and its outward doings as to have a separate seat in a small part of the brain. There has been much discussion on the subject; but, to our thinking, the work which will last will be that which M. Broca and others have done in collecting facts to shew where the Nervous System is most often damaged in cases where power of speech is lost or disordered. It may seem at first glance to be a tiresome refining of words to speak as if it were settled—although we do not say that we admit even this—that damage within a limited region of the nervous system disorders or destroys speech, whilst we will not admit that language has a seat. Within the limits of this short article, we have no intention whatever to discuss the subject of language; nor, in speaking briefly, must we be understood to wish to dogmatise on points which are very much disputed. Our object is rather to contribute what we can to greater width and precision of investigation, and especially to point out that the distinction we have just indicated is an intelligible one.

In many published cases of loss of speech, the damage to the nervous system has been of convolutions in the region of the corpus striatum; and, according to M. Broca, it has generally involved part of the third *left* frontal convolution. It nearly always involves the corpus striatum too, and hence loss or defect of speech is almost invariably attended by hemiplegia. Speaking of those cases in which the damage is the result of embolism, a writer in a contemporary (*Lancet*, Nov. 26th, 1864) says:

"In some, the supply of blood is cut off from so large a quantity of brain round about the highest

part of the motor tract, the corpus striatum—the point of emission of the orders of the 'will' to the muscles—that the patient seems to have lost the power of *intellectual expression* altogether. In others, so small a part is damaged, that he has little more than a difficulty in the executive of articulation, that is, in getting out his words."

The patient, this writer seems to think, cannot talk, or talks badly, because the injury is at the critical point where a great part of the brain is connected by fibres with motor centres and motor organs, and not because the peculiar seat of one distinct faculty is more or less broken up. This is essentially the view long ago put forward by Mr. Dunn.

It must be kept well in mind, that "language is, in its actual condition, an art like baking or brewing, handed down from generation to generation;"* and that thus the cultivated movements which constitute speech differ widely from movements like those of swallowing and respiration, which are perfect at birth. The former have to be learned like the tunes we play on a piano; the latter require as little education to set them a-going as a barrel-organ does. In certain cases of disease of the nervous system, it will be found that there is, in extreme cases, nearly a total loss of the power of intellectual expression by these acquired movements; whilst involuntary and emotional actions are well performed. It is, in other words, the language of the individual that is lost; the language of the race being unaffected. Practically, there is a distinction; but, in noticing differences, we must not overlook resemblances. Laycock long ago applied the doctrines of reflex action to the explanation of mental operations; and in some of these "speechless" patients there are occasional utterances which illustrate his doctrines. These utterances do not convey propositions, and are not voluntary. One writer says, with some truth and yet with considerable vagueness, "Just as a paralysed foot will jump up when the sole is tickled, so these words start out when the mind is excited." The reader will find in Mr. Herbert Spencer's *Principles of Psychology* much matter of extreme importance in reference to these points. The phenomena of cases of loss or defect of speech seem to us to confirm many of the views this distinguished thinker has put forward. Now, strictly speaking, speech is rarely quite lost, in the sense of there being inability to utter any articulate sounds at all, except soon after the attack. "Yes" and "no", the movements for which, although acquired, are movements almost as automatic as smiling, are the words which are generally left. "Yes" is often little more than the expression of a general state of pleasure, and therefore has close affinities with emotional actions, and may be developed by a similar general prompting. It is only when used to convey formal assent to a particular statement that it seems to embody a proposition. Many of our words and phrases are of this kind, although perhaps swearing is the most striking instance of all. Such exclamations and phrases have become, as it were, naturalised, and assert themselves with native actions due to general states of feeling without the call of the will, and some interjections are uttered almost in spite of it. The words "yes" and "no" are, it will be found, rather more useful to some of our speechless patients as interjections, or as a framework for cadence, than as a means by which to give replies to particular questions.

Bain says: "The linking together of movements, so perfectly as to make them succeed one another without consciousness, brings them into comparison with the instincts. Such actions are sometimes called secondary—automatic." The occasional interjectional utterances of "speechless" patients may be called secondary—automatic, and may be placed betwixt such actions as smiling and those which are voluntary and performed with a definite object. We might speak similarly of other cultivated movements which have become almost as much part of the organism as smiling or winking. Bain, speaking of the association of movements, after giving several examples, writes: "A more familiar example of the same fact is the signing of one's name, an operation which, by repetition, has been brought up to the highest pitch of automatic or mechanical sequence." The facts gathered in our study of diseases of the nervous system shew how true many of the remarks of this able writer are. It will sometimes be found that a speechless patient can write his name easily and yet nothing more, although he can copy well.

M. Broca considers aphemia to be a disorder of motion, and explains the loss of "memory for words" by the supposition that aphemic patients have lost the memory of the process for coordinating the movements of the muscles required for articulating the words they cannot utter. In short, the place of damage is believed to be at a point where the combination of cells and fibres (coordinating centres, or whatever they may be called) for coordinating muscles in particular actions joins the highest part of the motor tract. Bain says: "The mental recollection of language is a suppressed articulation ready to burst into speech." Bain, from whose writings we have already quoted, has considered in a masterly manner the whole question of acquired movements, of which the movements of speech are some of the most important. For it is to be remarked, that the question of the relation of artificial signs to thought must not be narrowed to mere talking. A human being can, many believe, think in other movements (or impulses to move) than those of speech. The educated deaf and dumb "must use, instead of the remembered words which we employ,

* *On the Origin of Language*, by Hensleigh Wedgwood, 1866.

the remembered images of hands, in the various combinations of finger-speech, *as the symbols of their thoughts*". (Thomson). Whately, in his *Elements of Logic*, speaking of the case of Laura Bridgman, says:

"The remarkable circumstance in reference to the present subject is, that, when she is alone, her *fingers are generally observed to be moving*, though the signs are so slight and imperfect that others cannot make out what she is thinking of. But, if they inquire of her, she will tell them.

"It has been observed also that this girl, when asleep, and doubtless dreaming, has her fingers frequently in motion: being, in fact, talking in her sleep."

Now, M. Broca and M. Trousseau are at issue on some important questions of fact. We may say, in passing, that, in our experience, loss of articulate language, *i. e.*, the aphemia of Broca—we do not speak of sudden *temporary* loss of power to talk—does not often occur as a pure defect, but is generally accompanied by defects in other artificial contrivances for intercommunication. From the differences of opinion between two such distinguished men, much may eventually be settled; but they are at issue on a matter of comparatively little importance in itself, but of much importance on account of the eminence of those who differ about it. They think it of consequence to fix on some name for certain defects which go with hemiplegia—nearly always of the right side. M. Broca calls them "aphemia", and M. Trousseau "aphasia". We say nothing of other names which have been invented, and we hope the whole series will be quickly forgotten. Much good work has been done under these technical terms—we are anxious to impress this—by many distinguished men in France and England. The work of such men will not lose its value, however much opinions and inferences may change. Yet, whilst it is true enough that a term does not hamper men like Broca, Trousseau, Gairdner, Sanders, and others, in investigating such cases, nor hold down their thoughts when they speculate on the relations of the defects they state to mind and brain, it may be very hurtful to men of smaller calibre and to beginners. If, however, these terms are to be used, we, at least, must study carefully how able men, such as we have named, have employed them.

Now, we should be gravely misunderstood if we were supposed to be the advocates of loose phraseology, and to be deprecating the convenient use of short and descriptive technical terms. We cannot think far without names or signs of some kind, and we must use some technical terms. Yet there is enough confusion about such words as "memory", "thought", "language", "speech", etc., to discourage attempts to introduce more. We are seriously anxious to state our opinion that in this matter, as in many others, such terms as Aphasia, Aphemia, Alalia, Aphthenxis, etc., are likely to be very mischievous. There is an appearance of precision in giving a name to such a clinical group of symptoms; but we submit, that the defects of language and of sensibility and movement which occasionally occur with hemiplegia (generally of the right side) will not "endure the chains of a definition." It gives a superficial and (we believe) an unreal appearance of order to symptoms which have not yet been placed in any order worth the name. That kind of "order" which "settles" things, and thus checks thought and investigation, is almost worse than confusion. A subject which necessitates a consideration of speech, language, thought, voluntary and involuntary movements, is too large to be thus confidently handled. We should be satisfied to be going on with our work, and not be too anxious to get to the end of our task. An arrangement is often a refuge of weakness. In spite of the amount of labour that has recently been bestowed on this subject, we are far from being able to make a harmonious whole of our work. There are so many differences of age, of circumstance, of education, in our patients; so very many differences of degree in the defects which occur; so many in the pathological changes on which they depend; and, more than all, so many asserting exceptions that the results of our studies seem like a mass of complexity. And where one man sees "struggling order", and is content to go on working according to some reasonable method, another sees nothing but distracting confusion, and tries to make a speedy end of it by using arbitrary definitions to parcels of facts, and by arranging his cases under divisions and subdivisions. A man who thinks for himself should be willing to endure some doubts as to the relations and meanings of the singular phenomena in a striking case rather than to make short work of it by saying, "It is a case of aphasia." We should not barter our freedom of thought for a lazy repose on so-called definitions and conclusions, any more than we should sell our social freedom for a certainty of food and raiment. Any theory or theorising term may be suspected which does not open out more work. We are anxious that students—students in the widest sense—should not use terms to deceive themselves into the appearance of knowledge, when they are really putting important symptoms out of the path of proper inquiry; labeling them so glibly and so easily, that they can *talk* of aphasia almost without *thinking* of thought and language. The questions that should engage us in our study of the defects which often occur with hemiplegia (generally of the right side) are as wide as those which cluster about the study of mind and brain. We wish, then, to say to the student that it is not wise simply to ask himself, "Is it a case of aphasia?" "Is it a case of aphemia?" but rather, "How has language been damaged?" "How is mind affected?" "What motions have been lost?" and other general inquiries; the results

of which will give particular symptoms wide and yet precise relations *in his own mind*. He will find, if he talk to many people who have thought on similar subjects, plenty of differences of opinion as to what "mind", "memory", "will", "reason", etc., mean; but he had better bear this discord as well as he can, remembering that all that we call truth is mixed with human error, rather than shirk real difficulties by easily settling down into such conclusions as, "It is a case of aphasia."

There is fear, too, that the idle man will just investigate a case enough, to be able to utter with complacency the formula, "It is a case of aphasia."

To give point to our remarks, we will venture on some advice to students. Let them begin their studies at a little distance from pure doctor's work, by reading the works of Herbert Spencer, J. S. Mill, Bain, and Lockhart Clarke,* as well as the standard works on Physiology. The account given of Language and Thought by Mill in his *System of Logic*, by Whately in his *Elements of Logic*, by Dr. Wm. Thomson in *Outlines of the Necessary Laws of Thought*, are of the highest value. Max Müller's work on the *Science of Language*, is one of extreme interest in our inquiries. A recent article by Mr. Bain in the *Fortnightly Review*, The Intellect Physiologically Considered, is one of the very greatest importance. Mr. Tylor, in his work on the *Early History of Mankind*, gives an interesting account of language in the widest sense of the word, and of its relations to thought. But the work of the most direct value, and one of which we can scarcely speak in too high terms of praise, is one by Dr. Fournié. Then, besides these works, which consider the subject generally, we wish to draw particular attention to one of the most valuable articles that have appeared on these questions in this country, On the Functions of Articulate Speech, etc., by Dr. Gairdner of Glasgow, in the *Philosophical Transactions of Glasgow*. To no one are we more indebted than to Dr. Sanders of Edinburgh. This careful observer has recorded several cases with *post mortem* examinations, which have helped the inquiry greatly. Dr. Moxon has written in the April number of the *Medico-Chirurgical Review* a most valuable article on the subject; and endeavours, with great ingenuity, to explain how it is that defects of speech nearly always go with hemiplegia of the right side. Dr. Broadbent and Dr. Long Fox have each recently published an important communication in a contemporary.

The student who has read such writings, will be well fitted for investigating individual cases of defects of speech. But if he have little time for it amidst lectures and pressing calls—still we do not speak only to those students who are not yet registered practitioners—he can, at all events, look at an individual case with his own eyes, and use his own fingers, and not try to gather facts so as to bring the case in harmony with the ideas of the great men of his time. There are some who will doubt the evidence of their own senses, if it do not agree with the views of the day. There is such a thing as intellectual as well as moral insincerity. We too often use words, such as "aphasia", "congestion", "reflex", with a credulous clinging to formulæ; but without any real faith in the propositions the words of the formulæ purport to convey. We need constantly to be going back to things, or the names we use will become our masters rather than our servants. A student's eyes may be bad eyes, and his fingers imperfectly trained fingers, but they are the only eyes and fingers in the world which belong to his own brain. He may learn where to look and what to touch from books, but he must, in the end, see and feel for himself. If he do not, he may live in the midst of scientific work; but science will never live in him. He should, whilst in the act of investigating, abandon largely-including terms—often comprehensive only in *Punch's* sense of the word, *i.e.*, as taking everybody in—and see for himself, as far as possible, what the patient can do and how he does it, what he can say and how he says it, what he knows and how he shews his knowledge. Can he put his thoughts outside himself by any sort of movement and by help of any sort of conventional contrivance? It is well to record, when practicable, what the patient has actually managed to do, rather than our opinion as to his power of doing. There is much hope of any one who will come face to face with the real facts of a case, and state, methodically, things which really do happen; but there is small hope for the mental life of one who tries to live on the innutritious sawdust of technicalities. There may be more life in the mind of the student who observes for himself the real deviations from normal talk in a stuttering patient, than in the mind of one who is never at a loss in naming diseases from their most *striking* symptoms. Indeed, even those who talk boldly of *genuine* cases of epilepsy, chorea, etc., should ask themselves if they are not really hiding their ignorance from their own consciousness. We must use some technical words; but whilst willing to sacrifice part of our freedom for the sake of order, we surely ought not to give up altogether the government of our thoughts, on thought itself, to a tyrant of yesterday.

* *Medical Critic and Psychological Journal*, Nos. 8, 9, and 10: "On the Nature of Volition, Psychologically and Physiologically considered," by J. Lockhart Clarke, F.R.S.

THE CHOLERA IN INDIA.

THERE is a fact in the history of cholera which, in reference to the question of treatment, is well worthy consideration. We refer to the increase of the percentage mortality of our troops from cholera in India.

Modern medical writers in India are struck with the painful fact; but, on perusing the Blue-books which give their reports, we find, to our surprise, no explanation given, or attempted, of it.

Dr. Macpherson (*Cholera and its Home*) gives the following table of the percentages of mortality of our soldiers from cholera in India, furnished to him from the Army Medical Department.

	Bengal.	Madras.	Bombay.
1826-30	27	37	36
1830-40	42	48	25
1840-50	50	55	45
1850-60	53	46	51
1861-63	63	51	71

Some objections have been taken to these tables; but Dr. Macpherson admits as true "the anomalous result that our well-fed Europeans die in the largest, our Sepoys in the next largest, and our jail prisoners in the smallest proportion. The natural order of things would seem to be reversed. Should those who are best cared for suffer most?" Defective returns, he says, have been blamed; but they give no explanation of the fact. The assertion of a "special malignancy" of the diseases is also unsatisfactory. Lastly, he says, "Treatment has been blamed." "But has it been very different from what it used to be?"

It is very much to be regretted, that Dr. Macpherson has not attempted an answer to "the question which himself had asked." We beg to say that we offer no opinion on the subject; but desire merely to state what seem to us to be positive historical facts touching this point. The writings of Indian medical officers on cholera are open to us all. Therein we read, in what seems to be unmistakeable language, that the treatment of cholera a generation ago was very different from what it is now. Formerly, medical men bled and purged cholera patients. Moreover, of late years, as every one knows, it has been generally assumed that a change in the type of diseases—an adynamic phase of them—has taken place. And with that supposition also, a change—a reversal—in treatment has been generally adopted; which change saw its climax in the brandy-cure of the late Dr. Todd. That this theory and this treatment took root in India equally as here is certain. We have questioned Indian medical officers on the subject, and they all state that the stimulant treatment has been, in the main, for many years past the treatment of cholera in India.*

As we have said, we merely state the facts as they lie before us, and should gladly have had an interpretation of them from Dr. Macpherson. As the matter at present stands, it appears that the mortality from cholera has greatly increased since 1830. We have also records which show that simultaneously with this increase has occurred a revolution or reversion in treatment; that the mortality from cholera was less in the days when men were purged and bled, than they are in the days when they are astringed and stimulated. There may, of course, be some satisfactory explanation of this coincidence; but assuredly it has, as yet, not been given.

It is a very striking fact that the mortality of prisoners (who are, we suppose, chiefly natives) in the Indian jails has not increased in any such proportion. Dr. Macpherson tells us, from 1839 to 1843, their percentage of deaths from cholera was 42; from 1844 to 1851 it was 37; from 1852 to 1856, 49. In 1862-63-64 it was about 36. The percentage of mortality of European troops being in those years about 69 per cent.

* One gentleman tells us of a regiment suffering from cholera, which, in one month, consumed ninety-six dozen of champagne alone!

THE CHOLERA-POISON.

The remarkable fact, stated by the Registrar-General, of the close connection of the cholera spread in the East of London with one particular supply of water, opens to us some very interesting matter for consideration in connection with the natural history of cholera. Thus, for example, it seems to upset the theory of Dr. Snow, in so far as that theory supposes the spread of the cholera to be due to actual poisonous cholera-elements contained in the water. It is, indeed, impossible to suppose that, in the present instance, cholera-germs can have found their way into the water and have there multiplied, so as to have infected and spread the disease through one entire district. The reasonable explanation of such a case would seem to this: that the drinking of the water produces an unhealthy condition of the body; and so renders it an easy prey to the epidemic poison. But is there not something marvellous in such an explanation? A whole district has, we must suppose, long drunk of this identical water before the cholera appeared; and will, at least for a time, continue to drink of it after the cholera has disappeared; and the drinking produces no appreciable ill effects. What, then, is that change effected in the body which, if cholera-influence be absent, manifests itself by no outward sign; and yet which, if such influence be impending, is a fatal invitation to its ravages? We do not think that sufficient attention has been called to this fact; and therefore recommend it to the consideration of those who are dealing philosophically with the question of cholera. It seems to show, at all events, that there was no necessity for any actual choleraic alvine excreta to have found their way into the famous Broad Street pump in order to account for the outbreak of cholera connected with its name. Moreover, it indicates very strongly that there is a prepared state of the body which renders it easily accessible to cholera. It suggests to us, that there may be two poisonous ele

ments at work in every case of cholera: first, the poison which brings the body into a fitting or favourable state for receiving the disease; and secondly, the cholera-poison, which enters and takes possession of the body thus duly prepared for its entrance. Now, inasmuch as this diseased state (produced, as supposed, by the drinking of poisoned water) is not one which can be noted by any outward signs of altered health, may we not with reason hypothetically suggest, that there is here perhaps a clue to the at present very incomprehensible character of cholera as a contagious disease? If the body be prepared, as by the drinking of the Broad Street pump or East London water, or in some other way, to receive the poison, the poison will enter whether epidemically or by direct contagion; but if the body be not prepared, then will neither the epidemic influence nor the directly contagious influence prevail to produce the disease.

ANOTHER THEORY OF CHOLERA.

Dr. Dudley Kingsford has put forth a theory of cholera.* He states that, so far as he knows, *phosphorus* is the only poison which kills in about the same time that cholera does, causing similar symptoms, and leaving "in some respects identical *post mortem* appearances." Dr. Kingsford goes on to say:

"It is not difficult to imagine that phosphorus, probably in the form of phosphuretted hydrogen, may readily be introduced into the body. It seems likewise a reasonable deduction that such waters as the Ganges and the Hooghly in India should be peculiarly liable to this poisonous emanation, from the practice, there common, of allowing the dead to float and decompose in these rivers."

He conceives that,

"Under certain peculiar (electrical?) states of the atmosphere, this poisonous gas may be set free, and conveyed over large tracts of country either by vapour or directly by admixture with water."

Then, to explain why, phosphuretted hydrogen being the cause of cholera, the disease does not always prevail, it is suggested that the electrical state of the atmosphere, when normal, causes the formation of oxygen, which neutralises, or perhaps more correctly balances, the phosphuretted gases.

"In cholera seasons this balance is interfered with" by an excess of phosphorus or a deficiency of ozone. It is suggested "as negative evidence in favour of the above views that, as for cholera, so for poisoning by phosphorus, no antidote is yet known."

Dr. Kingsford then proceeds to state that he has treated cholera successfully with repeated large doses of calomel. Some of the medical officers of the London Hospital also express their belief, "that the calomel treatment will come out well when the statistics are taken."

"How, then, it may be asked, does the calomel act? First, by exciting the action of the liver; secondly, (assuming the presence of phosphuretted hydrogen), by itself undergoing decomposition, the chlorine of the calomel uniting with the hydrogen of the poisonous gas, while the metal hydrargyrum is reduced and rendered inert by the phosphorus."

Dr. Kingsford never found that his patients were salivated by the large doses of calomel; but he has recently seen, in the wards of the London Hospital, several patients suffering more or less from ptyalism; and he explains this untoward result by the action of the excess of calomel that remains after the decomposition of the phosphuretted hydrogen. Dr. Kingsford says:

"If the solution be correct, then not only is a rational principle of treatment established for cholera, but likewise an antidote is discovered for poisoning by phosphorus."

In conclusion, our author gives an explanation of the recent outbreak of cholera at the East End of London. He learnt from a highly respectable inhabitant of Whitechapel that, on the Saturday before the outbreak, there was a large importation of stale mackerel and putrid meat.

"Now, in Miller's *Elements of Chemistry*, vol. i, is found: 'Sea-fish in general, whiting, herring, and mackerel in particular, soon after death exhibit a luminous appearance.'"

Dr. Kingsford then asks triumphantly:

"If phosphorus be the *fons et origo mali*, how can the increase of the disease in this instance be better explained?"

We have here given Dr. Kingsford's "new theory" as much as possible in his own words; and we have done so in order to show upon how cloudy a basis a theory of cholera may be constructed. We scarcely need say that there is not a particle of evidence to support the fanciful notion that phosphorus, or any compound of phosphorus, is the cause of cholera; and that the suggested decomposition of this imaginary phosphorus compound by calomel is equally unsupported by evidence.

With respect to the recent outbreak of cholera at the East of London, there is not much reason to fear that Dr. Kingsford's phosphorescent mackerel will divert attention from the water as the real promoter of the cholera, and the cause of the limited outburst of disease.

When will writers on cholera learn that, in order to discuss this subject with advantage to their readers, they must make themselves acquainted with the ascertained facts and the natural history of the disease? It is melancholy to see the amount of labour and of ingenuity expended in the discussion of specific cures for diarrhœa and cholera. Some practitioners believe that the mineral acids have a special curative influence, while others place their faith in alkalies. Many believe that calomel has a specific efficacy, while others put their trust in arsenic, and others, again, in quinine. All who thus believe in specifics for cholera share with each other

* Cholera: a New Theory. By C. Dudley Kingsford, M.D.

and with the homœopaths a too prevalent error; namely, that of disregarding the natural course of the disease, and of attributing to the special influence of remedies results which occur under every variety of treatment, and without any treatment at all. While, however, we express our entire disbelief in specific cures for cholera, we do not doubt that a rational treatment, based upon a knowledge of the natural history of the disease, may do much to assist the *vis medicatrix naturæ*.

We have heard in this country of a druggist keeping a doctor, and we find that the thing is not unknown in Paris. There a physician has had dealings with a *pharmacien*—giving gratuitous medical advice at his shop. A quarrel arose, however, as to the division of the spoil; the doctor, as he thought, not getting his share. The case was brought before a Cour Imperial, and decided against the doctor; his contract with the druggist being held to be illegal.

A Mr. Clayton, Vice-Chairman of the Huddersfield Board of Guardians, on the occasion of a letter being read from the Poor-law Board, asking why they did not supply cod-liver oil, quinine, etc., instead of the medical officer, put forth his oracle. He considered that they might as well give cold water as cod-liver oil or quinine; it was wrong to put these things into a healthy, let alone a sick man. Besides, the question was (and here he evidently spoke as a logician), if they found these expensive things, would their wine and spirits bill decrease? He had no faith in doctors. However, he had the good sense to agree to try the experiment of finding the oil and quinine, etc., for six months.

Mr. Walter Coulson publishes four cases of autoinoculation of hard chancre, in two of which the operation succeeded. (*Lancet.*)

Dr. Hammond—*On Wakefulness*—gives the result of many experiments made by him to determine the cerebral circulation during sleep. He confirms the observations of Mr. Durham, which show that during sleep the supply of blood to the brain is diminished, not increased.

Dr. Schnepp, recently appointed French Vice-Consul at Djeddah, has succumbed to fever there.

A very lively and learned discussion on the Cicatrisation of Wounds has been lately going on in the French Academy of Medicine. M. Guérin claims as his own the subcutaneous method. He says: Subcutaneous wounds—that is to say, wounds not exposed to the air—do not suppurate. They cicatrise immediately; meaning by this that there is a reproduction of the divided tissues.

French authorities still keep unpublished the death-returns of cholera in Paris; but it is understood that the number of cases have diminished in the different hospitals. M. Moutard-Martin remarked that, contrary to what was observed last autumn, the disease broke out almost at the same moment in different quarters of the city, and with equal intensity. He added that premonitory diarrhœa had been absent in most cases. M. Féréol made a similar remark. M. Chauffard agreed that, on the present occasion, it could not be said that the cholera had been preceded by a diarrhœa. M. Raynaud, of the Incurables, said that of four cases one only had premonitory diarrhœa. M. Hérard was of the same opinion. M. Guérard's experience was similar. He had seen many cases in which there was constipation; and was of opinion that the retention of fæcal matters might, as a source of irritation, predispose to cholera.

L'Union Médicale says of Professor Bennett's and Mr. Bowman's Addresses, that they contain only generalities to the glorification of Albion, about which there is no need to say anything now.

THE NEW ACT ON PUBLIC HEALTH.

The Act to amend the law relating to the public health, which has received the royal assent, contains sixty-nine sections (with two schedules). The Act is to be cited as "The Sanitary Act, 1866." There are four parts in the statute. The first part relates to the amendment of the Sewage Utilisation Act of 1865. Any sewer authority is empowered to form committees, and where the sewer authority of a district is a vestry or other body, may, after notice, form part of the district into a special drainage district, for the purpose of the Sewage Utilisation Act, and a number of inhabitants, not being less than twenty, may by petition to the Home Secretary bring the matter under his consideration. Any owner or occupier of premises within the district of a sewer authority is to be entitled to cause his drains to empty into the sewers, and the sewers may be used beyond the district. Provision is made as to the drainage of houses, and the supply of water and wells, etc., belonging to any place are to vest in the sewer authority. The second part relates to the amendment of the Nuisances Removal Acts. In any place within the jurisdiction of a nuisance authority, the police may enter a house for the removal of a nuisance by the warrant of a justice of the peace. A requisition of ten inhabitants is to be equivalent to a medical certificate as to a nuisance. The word "nuisances" is to include any house or part of a house so overcrowded as to be dangerous or prejudicial to the health of the inmates, or any factory, workshop, bakehouse, etc. A nuisance authority is to make an inspection of the district, to ascertain what nuisances exist calling for abatement, under the powers vested in it, and to enforce the provisions. A nuisance authority, on the certificate of any legally qualified medical practitioner, may order premises to be cleansed or otherwise disinfected, and to provide means of disinfection. Carriages may be provided for the conveyance of infected persons. "If any person, suffering from any dangerous infectious disorder, shall enter any public conveyance, without previously notifying to the owner or driver thereof that he is so suffering, he shall, on conviction thereof before any justice, be liable to a penalty not exceeding £5; and shall also be ordered by such justice to pay such owner and driver all the losses and expenses they may suffer in carrying into

effect the provisions of this Act; and no owner or driver of any public conveyance shall be required to convey any person so suffering until they shall have been first paid a sum sufficient to cover all such losses and expenses." Sick persons suffering from any dangerous contagious infection or disorder being without proper lodging or accommodation, or lodged in a room occupied by more than one family, or being on board any ship or vessel, may be removed on a certificate of a medical practitioner to a proper place. Places for the reception of dead bodies may be provided at the public expense, and places for the reception of dead bodies during a *post mortem* examination are to be provided. Power is now given to remove to hospitals persons brought by ships. A nuisance authority may require payment of costs and expenses from owner or occupier, and the occupier paying is to deduct the same from the rent. In the second part of the Act, entitled "miscellaneous," in cities and boroughs or towns, the Secretary of State, on the application of a nuisance authority, is empowered to make regulations as to lodging houses, in fixing the number of persons who may occupy a house, or part of a house, which is let in lodgings, or occupied by members of more than one family, etc. Cellars used as dwelling-places may be closed by the nuisance authority. Hospitals may be founded for the sick. There are two provisions in the Act which require immediate publicity. By the 38th section it is enacted that any person with an infectious disorder wilfully exposing himself, or any person in charge of sick persons causing such exposure, is to be liable to a penalty of £5, and by the next section, for letting houses in which infectious persons have been lodged without properly disinfecting such place the offender is liable to a penalty of £20. There are other provisions to enforce sanitary regulations as to local boards, burial boards, and other matters, to be adopted for the preservation of the public health. The fourth part of the statute is to be applied to Ireland, and certain modifications are made for its adoption in that part of the United Kingdom. The first schedule has reference to Ireland, and the second schedule shows the statutes repealed by the present Act. It came into force from Tuesday, the 7th of August inst., when it received the royal assent, and may be generally adopted as "the Sanitary Act" of the Session of 1866.

THE CHOLERA.

The return of the Registrar-General for the week ending August 25 shows a decline of mortality from cholera and diarrhœa. The deaths registered in the week from cholera were 265, and from diarrhœa 129. In the five preceding weeks the deaths were—cholera: 346, 904, 1053, 781, and 455; diarrhœa: 221, 349, 354, 264, and 194. At Liverpool the deaths from cholera during the last eight weeks have been—4, 19, 45, 87, 101, 126, 157, and 146, showing therefore a decrease last week of 11 as compared with that which preceded it. On Tuesday last the returns show a slight increase of the disease.

The first cases of decided cholera at Plymouth occurred on Tuesday last, and resulted in the deaths of Miss Haddy, the matron of the Female Home for Fallen Women in Hill Street, and of the laundress connected with that establishment. Some of the other inmates have been attacked, but hopes are entertained that they will recover. The disease is supposed to have been introduced, or its fatal effects accelerated, by an alteration on Saturday of the drainage of the locality, which is in an imperfect state.

Cholera has been very fatal in the United States. The *New York Times* states that in the week ending August 4 there were 239 deaths in New York, without counting deaths from diarrhœa; 31 deaths from cholera at Cincinnati on the 7th of August; and 24 at New Orleans on the 9th.

From various parts of the continent we hear of the ravages of cholera. The disease has assumed an epidemic character in Bohemia and Moravia. At Prerau it has carried off 800 Prussian soldiers in the hospitals there, and about 180 civilians, among whom the burgomaster of the place, who being an apothecary was in constant communication with the sick Prussians. Though several persons have died of cholera in different suburbs of Vienna, the medical authorities maintain that the malady is still simply sporadic. Some cases have occurred in the military hospital of Milan. The disease has also appeared in Naples. The journals of Amiens state that the cholera has entirely ceased in that place.

The *Lancet* publishes in its "Second Report of the Sanitary Commission on the Epidemic of Cholera in the East-end of London," some interesting particulars as to the sewage received by the river Lea above Enfield, where the East London Water Company take their supply. One of these is Cobbin's Brook, which runs into the Lea at Waltham Abbey. It receives the drainage of Epping. The Cobbin, according to the *Lancet*, is not dry, as Dr. Farre says, but pours into the Lea the sewage of Epping and Waltham Abbey. The Lea further receives the sewage of Waltham Cross, Cheshunt, Wormley, Broxbourne, and Hoddesdon. The sewage of Hertford is nominally deodorised by the New River Company before entering the Lea, but it does in fact pass into the river in a highly offensive state, and causes much complaint. To sum up the total result of these inquiries, it would seem that nearly the whole of Hertfordshire, besides the western borders of Essex, drains into the Lea. The correspondence of the cholera field to the East London water field is traced in detail.

In Dublin, the cholera has broken out with great virulence.

The Bishop of Chester has visited the Liverpool cholera hospitals, and also preached twice in St. Martin's Church, the proceeds of the offertory being devoted to the relief of the sufferers by cholera.

The cholera has entirely ceased at Amiens; and is decreasing in the Nord. On the 19th only three deaths from cholera took place in Marseilles; and there is no outbreak in any other part of France. At Brussels, Liege, and Antwerp the disease is declining. In Belgium it is at this moment most severe at Charleroi.

Dr. Fritz, a young medical man who had highly distinguished himself, died of cholera in Paris on the 20th ult.

For the first time since the outbreak of the epidemic no death from cholera took place in the London Hospital during the space of twenty-four hours terminating last Tuesday forenoon. Two cases of cholera and seven of choleraic diarrhœa were, however, admitted during that period.

From the 11th to the 18th of August the number of seizures in Berlin each day were respectively 32, 46, 89, 65, 58, 46, 47. The deaths, from the 13th to the 18th, were 38, 15, 25, 15, 16. Up to the 18th the total of cases was 6082; out of this number 1085 had recovered, 3456 died, and 1541 remained under treatment. Of these latter the whole of the cholera hospitals contained, on the 18th of August, no more than 128. (*Deutsche Klinik*, Aug. 25th, 1866.)

The cholera has broken out in Pest and in Ofen. In Genoa and Naples its presence is also announced.

THE LATE HENRY PETER FULLER, Esq.

We regret to have to announce the death of this well known and justly highly esteemed medical practitioner, which took place on Tuesday last, in his 81st year, after a brief illness of forty-eight hours. Mr. Fuller commenced practice in the year 1813, when he became a member of the College of Surgeons, in Piccadilly; first, in conjunction with his father, and afterwards with Mr. Thomas Hammerton—perhaps one of the largest practices ever carried on in London. For about fifty years, Mr. Fuller was a governor of St. George's Hospital, and for many years one of the most active in all the business of the hospital. In one of Sir Benjamin Brodie's published addresses delivered at the hospital, he says, "that had it not been for Mr. Fuller's most active exertions and great perseverance, in his opinion, the building of the new hospital would never have been accomplished." He continued to hold and to fulfil all the duties of a visiting apothecary to St. George's until his death. A few years ago, he retired from practice, and has latterly resided in the country. He had the satisfaction to live sufficiently long to see all his children prospering. His eldest son is one of the physicians to St. George's Hospital; another continues the practice in Piccadilly, in conjunction with Mr. Hammerton. Two others are clergymen, who distinguished themselves in their University career. Few men have been more highly respected and esteemed and trusted, and most justly so, both by the medical profession and the public than Mr. Fuller.

Special Correspondence.

LIVERPOOL.

[FROM OUR OWN CORRESPONDENT.]

Since my last report, cholera has slowly but steadily progressed in this town, but, up to the present time, has scarcely extended beyond the limits of those defined localities which always furnish the nidus for epidemic disease. An estimate of the progress and fatality of the outbreak may be gathered from the following statistics. At the Cholera Hospital in the Workhouse, the total number of patients admitted has been 172, of which 88 have proved fatal; at the West Derby Cholera Hospital, 22 admissions, 14 deaths. At one parish dispensary at the north end of the town, embracing the whole of the main cholera districts, there is an average of from 180 to 250 daily of cases of diarrhœa, and from 20 to 25 of Asiatic cholera.

In the cholera sheds which were opened on the 4th of August, there have been, up to the 20th, 166 admissions, of which 79 died, 57 discharged cured, and 30 remaining convalescent. The arrangements at these sheds are in every respect complete and satisfactory, with accommodation for about 100 patients. They are under the charge of Dr. Evans, who has had considerable experience in cholera in India and elsewhere. His treatment, he informs me, has for the last ten years been based on the eliminative principle, and in the present instance has been followed by very satisfactory results—about 60 per cent. of recoveries from collapse. The patients sent to the sheds are almost without exception in the stage of collapse. The plan adopted is as follows. The patient is at once put into a hot bath before the fire; the surface rubbed with the flesh-brush; and the bath, which is on rollers, is wheeled to the bedside, the patient put to bed, and the bowels well cleared out by warm enemata. Castor-oil is given, if the stomach can retain it; and warmth kept up. Ice is not used. Opium is not given, except in some cases, in very small doses, to guard the castor-oil. Chloroform by inhalation is used to relieve cramps. Alcoholic stimulants are used sparingly, or not at all; preference being given to diffusible stimuli, such as chloric ether or ammonia. As soon as reaction sets in, diuretics are administered; and in one case, where the kidneys could not be roused to action, Dr. Evans injected the bladder with warm water, which established the secretion, and, he believes, saved the patient from the danger of the consecutive congestive fever, which so often proves fatal. He observes that there has been much less tendency to secondary congestion in patients treated on the eliminative principle. He avoids astringents entirely, except to check diarrhœa after all danger is over. In short, the treatment here may be said to be in accordance with Dr. George Johnson's theory, and attended with a result as favourable, perhaps, as any plan yet tried.

At a dispensary in one of the out-townships, an uniform plan was adopted in cases of diarrhœa, as follows. A pill of calomel three grains and opium one grain was given at once, followed in half an hour by a dose of castor-oil. Then, if purging continued, the chalk mixture, with astringents and opium, was given. Under this system, of 200 cases of diarrhœa, 150 were cured by the pill and the oil, and the rest required a continuance of the mixture for a short time. It was found that, unless the bowels were first cleared by an aperient, the astringent mixture gave temporary relief only, which was sure to be followed by a relapse with much griping pain.

The treatment pursued at the Cholera Hospital at the Workhouse is, I believe, pretty nearly identical with that at the sheds by Dr. Evans; and, although it is perhaps premature to arrive at a decided conclusion, the results so far appear strongly to favour a course of treatment based upon the principle of elimination.

A letter has appeared in the local papers from Dr. Trench, the medical officer of health, in reply to inquiries made by the rector of a neighbouring parish in reference to precautions necessary in the interment of the dead, from which I am induced to quote the following directions, which at the present moment are both interesting and instructive. Dr.

Trench says: "It is the general opinion of physicians that, in cases of death from cholera, the *materies morbi* clings to the corpse, and may from it be communicated to the living. Hence the propriety of immediate burial of the dead from this disease. But it is also right that the coffin should contain some disinfectant to arrest the emanations of contagion. The best for this purpose are either McDougall's or Calvert's powders, both of which contain carbolic acid, the antiseptic principle of which checks fermentation, kills the germs or sporules of animal and vegetable life, and neutralises the deleterious qualities of all miasmatic emanations. The inside of the hearse should also be freely sprinkled with these powders. Another mode of packing a cholera corpse in the shell is to place over the body and around it a layer of charcoal, which has the property of consuming all emanations by that quality which chemists term '*eremacausis*' or silent combustion."

With these precautions, which, in Dr. Trench's opinion, ought to have been imperatively enjoined by the Orders in Council, there need be no risk to the attendants at a funeral.

In reply to the question, How soon after the burial of a person who has died of cholera might the grave be again opened for the interment of another body?—Dr. Trench replies: "Although science has no certain facts by which to estimate the probabilities of the seeds of contagion being retained for any length of time in the grave; and although many persons believe, probably with some degree of truth, that a layer of soil will act in the same manner as a layer of charcoal, and only allow the escape of the carbonic acid and other gases which are the result of the oxidation of animal matter—yet, in the absence of certainty, you do well to close the grave altogether for a time after the burial of a cholera patient. The question is, For how long? You remember how the sexton in *Hamlet* answered the Prince: 'Faith, if he be not rotten before he die, he will last you some eight or nine year; a tanner will last you nine year.' The clown was strictly right; for, on an average, it takes eight or nine years to return the body to the dust. The exceptions do not, as he thought, depend on the thickness of the hide, but on the nature of the alluvial strata. A clay soil, through which the oxygen-bearing water cannot percolate, will keep a body undecomposed for very many years. The grave-digger of a locality is the best judge of the time required in a locality; but it would be well never to open a grave while decomposition is progressing. But, suppose necessity requires it, or the friends, backed by the rights of private property, demand it, then the sexton should be directed to sprinkle the soil as he excavated with a solution of carbolic acid, in the proportion of one part of acid to thirty of water." Dr. Trench does not consider it necessary to allot a separate part of the churchyard to cholera dead; and, as to the depth of graves, four feet from the surface to the coffin-lid is a guarantee of perfect safety.

Correspondence.

ON THE IMPORTANCE OF REST IN BED, AS A PART OF THE TREATMENT OF THE PREMONITORY DIARRHŒA OF CHOLERA.

LETTER FROM J. D. RENDLE, M.D.

SIR,—So much has lately been written on cholera, that I am really unwilling to occupy any space in the JOURNAL, by expressing an opinion on any mode of treatment, or on what I have seen of this disease during former epidemics. I am, however, anxious to call attention to a simple, but an important addition, in the management of the very early diarrhœa which generally precedes an attack of cholera. That neglected diarrhœa will run into cholera, is too well known to need proof; and that lives may be saved by attention to this early indication of danger, is equally true.

In the large Government prison for female convicts, of which I have long had medical charge, there have been many cases of diarrhœa during the last month. There were also several cases during the months of October and November of the last year. No case has gone on to cholera; but I have very often found that medicine and simply *keeping quiet* fail to arrest the looseness. I have also noticed that in cases where there were three, four, or five watery-evacuations in an hour, the purging has immediately and permanently ceased by simply confining the patient to a warm and comfortable bed. Cases that have gone on in spite of medical treatment, have also yielded at once to rest in the recumbent posture in bed.

The following short records of two cases, from among many that have lately been under treatment, illustrate the point I wish to enforce.

"J. B., aged 27, admitted at 10 A.M. on the 17th instant, suffering from diarrhœa, unattended with vomiting or cramps. The looseness began at noon yesterday, and continued all day; there was one evacuation during the night, and there have been four or five this morning; looks and feels exhausted. Pulse feeble."

"C. B., aged 31, admitted to the Infirmary at 9 A.M. on the 16th instant, complaining of diarrhœa and pain in the abdomen: there have been six watery-evacuations since 6 A.M. to-day; the bowels acted four or five times in the night, and several times yesterday. Has suffered more or less from diarrhœa since the 12th instant, for which she had medicine which gave temporary relief. Has not suffered from cramps or vomited."

Diarrhœa ceased in both these cases after confinement to bed. No medicine was given; and there was no action of the bowels after admission to the Infirmary.

The importance of rest in bed, and the often failure of treatment without this rest, in that early stage of watery diarrhœa which often precedes vomiting and other indications of commencing cholera, are the only facts to which I wish to refer.

That these cases very often end in fully developed cholera, is certain; but experience abundantly proves that a large majority of them may be easily cured, if properly looked after in the early stage. The addition of vomiting to the diarrhœa necessitates rest on the part of the patient, for he is then too ill to be employed; but with a troublesome diarrhœa only, he can continue his ordinary employment; and

he often does so, in spite of advice to the contrary, and even in opposition to his own better judgment.

The late Officer of Health for Southampton, who died of cholera in October last, so far neglected a premonitory diarrhœa for forty-eight hours, as to continue his attendance on the sick, though warned of his danger. A well known member of the profession who recently died whilst actively engaged in the terrible outbreak in the east of London, had also previous diarrhœa. We cannot suppose that these gentlemen neglected to take remedies to check the diarrhœa—diarrhœa not bad enough to oblige them to vacate for a time their respective posts. M. Gibert, who has just died in Paris, suffered similarly for several days before the severe symptoms of cholera began; and of whom, strange as it may seem, it is recorded that he had, at a recent meeting of the Academy of Medicine, "spoken strongly against the significance of premonitory diarrhœa, and, consistently with his belief, he would not use any means to combat the looseness."

I am well aware that the importance of early diarrhœa is generally known and acted on. It is not to this to which I allude; but to the seemingly trifling, but really important facts, that in order to prevent a watery-diarrhœa — diarrhœa unattended with vomiting and other symptoms—from ending in a severe case of cholera, rest in bed is very often absolutely necessary, and should in all cases be enforced; that remedies often fail in their effect because of the want of this rest; and that during a cholera epidemic, there is serious risk of life by continuing any employment when suffering from the simple kind of diarrhœa to which I have referred.

I am, etc., J. D. Rendle, M.D.

Brixton Hill, August 21st, 1866.

SOUNDS OF THE HEART.

Letter from Thomas Shapter, M.D.

Sir,—In a recent number of this Journal (No. 292, Aug. 4th), Dr. Leared directed my attention to the fact that, in a thesis read in the University of Dublin in 1860, on the occasion of his taking his doctor's degree, and subsequently published in 1861, he had propounded the view that the sounds of the heart were due, not to heart or valvular vibrations, but to the motion of the blood upon itself; and he then quoted at length his statement as regards the second sound. The nature and *rationale*, as thus stated, of the formation of the second sound, appeared to me, as it did to him, to be both identical in principle and in application to that which had been advanced by myself in a paper recently published in this Journal, and I at once wrote to Dr. Leared to say so. At the same time, I begged to assure him I had not seen a copy of his thesis, nor was I cognisant of his views set forth therein; that the views advocated in my paper were certainly advanced as a theory of my own, but that, under these circumstances, I at once disclaimed any appropriation to myself of a credit that may properly belong to him; and that I hoped to examine into his views more particularly by direct reference to his thesis.

Dr. Leared has kindly forwarded to me a copy, and this I have now read attentively. Dr. Leared states generally that "all sounds formed in connexion with the circulation are produced by and in the blood itself, and their mechanism is virtually the same." (P. 3.) Having detailed certain experiments performed with fluids of different densities, he goes on to say that "Two important principles were established by these experiments. First, the sounds may be formed by the motions of fluids only; secondly, that the quality of a sound thus formed is materially influenced by the nature of the fluid. The sounds formed by the circulation of the blood are produced on principles similar to those detailed in these experiments. I shall, therefore, for convenience, and as conveying their true nature, designate them as blood-sounds. Blood-sounds are divisable into two classes—sounds which give the impression of a shock; sounds which give the impression of a current. Shock sounds comprise the normal sounds of the heart, and certain abnormal sounds formed in aneurismal sacs. Current sounds are formed in the heart, in aneurismal sacs, and in the large arteries and veins." (P. 6.)

The above views are in principle so nearly the same as those advocated by myself, that I at once willingly and cordially yield the merit of their original statement to Dr. Leared. In applying these principles, I entirely agree with Dr. Leared as to the second sound. As regards the first sound, there is considerable difference between us. After reading his statement, I am bound to say I still prefer the explanation given by myself. I also think that Dr. Leared, in setting forth his views, not only inadequately appreciates, but ignores too positively, the vibrating qualities, and perhaps also the conducting power, of the various tissues connected with the circulation of the blood, and the relative amount of sound generated and transmitted thereby. Nor do I think he sufficiently defines the differences of the source of the sound produced by the blow of a fluid when its momentum is suddenly arrested—so well set forth by Dr. Arnott—and the sounds emanating from obstruction of current. The sound produced by a drop of water falling from a height is an illustration of the former, and not of the latter. In illustration, Dr. Leared fully recognises the difference. These are, however, minor points. Dr. Leared, in his thesis, clearly sets forth the theory that the sounds and murmurs of the heart are due, essentially, to the blood in motion, and my purpose was to do the same.

To turn to another point. Granted that a shock is communicated to the blood contained within the arteries by the suddenly arresting its backward flow, it has appeared to me that the sudden vibrations thus produced throughout the arterial system offers a satisfactory explanation of the phenomena observable in the pulse-proper. A paper on this subject is prepared for the Journal, which I hope may be permitted shortly to appear there. The theory I shall there attempt to support and illustrate is, that the pulse is divisable into three phenomena: 1, the filling of the artery by successive waves, through the agency of the ventricular systole; 2, the vibration in the column of blood throughout the whole arterial system, caused by the sudden closure of the semilunar valves (the pulse); and 3, the contraction and collapse of the arteries during, but not caused by, the ventricular diastole. I am prepared to show that this view of the pulse explains many of the phenomena observable in the pulse during disease.

I am, etc., T. Shapter, M.D.

British Association. In the Section of Physiology a letter was read, communicating the result of an application to the General Medical Council as to a grant for investigating the physiological action of remedies. The Medical Council, by a majority, voted that they had no power to conduct such an investigation, and had no legal authority to expend their funds for such a purpose. Dr. Sibson read a paper "On the Movements, Structure, and Sounds of the Heart", illustrating the address by reference to diagrams and preserved specimens.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND. The following members of the College, having undergone the necessary examinations, were admitted Licentiates in Midwifery at a meeting of the Board, on August 1st.

Butler, William Harris, Old Charlton, Kent; diploma of membership dated July 25th, 1865
Cresswell, Richard, Lewisham, Kent; May 10, 1866
Edmonds, Charles George, Southampton Street, Camberwell; May 9, 1866
Folkes, William, Dukinfield; May 9, 1860
Hay, Thomas Bell, L.S.A., Caledonian Road; July 25, 1866
John, William, Haverfordwest; April 26, 1866
Loane, Joseph, Dock Street, Whitechapel; May 8, 1866
Moore, George, Birmingham; July 24, 1866
Monckton, Wm., Brenchley, near Tunbridge; April 26, 1866
Pryce, Richard M., L.S.A., Caersws, South Wales; July 26, 1866
Quick, John, Penzance; May 8, 1866
Robinson, Richard Holt, Manchester; May 10, 1866
Spencer, Geo. Owthwaite, Upper Gordon Street; April 26, 1865
Wey, William John, Plymouth; May 7, 1863
Macdonald, John, Kidderminster; L.R.C.S.E. August 6, 1858, and L.R.C.P.E. October 4, 1864 (not a member)

The following members of the College, having been elected Fellows at previous meetings of the Council, were admitted as such on August 9th.

Blades, William Dawson, L.S.A., Kirkby Stephen, Westmoreland; diploma of membership dated August 4, 1840
Carter, Charles Henry, L.R.C.P.E. and L.S.A., Pewsey, Wilts; December 13, 1839
Hall, John Charles, M.D.Edin., Sheffield; January 11, 1839
Smith, Henry, Her Majesty's Indian Army; July 7, 1837

APOTHECARIES' HALL. On August 16th and 23rd, 1866, the following Licentiates were admitted:—

Clothier, Henry, Haslemere, Surrey
Longbotham, George, Seaton Carew, Durham

At the same Court, the following passed the first examination:—

Cortis, William R., Guy's Hospital
Cuff, John Stanton, University College Hospital
Wills, Douglas, Guy's Hospital

APPOINTMENT.

STEWART, Hugh Grainger, M.D.Edin., Assistant Medical Officer of the Crichton Royal Institution, Dumfries, appointed Medical Superintendent of the Newcastle-upon-Tyne Borough Lunatic Asylum.

BIRTHS.

ARNISON. On August 23rd, at Alston, Cumberland, the wife of *Charles Arnison, Esq., L.R.C.P.Edin., of a daughter.

BERRY. On August 19th, at Mallow, co. Cork, the wife of *Parsons Berry, M.D., of a son.

MARRIAGE.

CLARKE, Myrry, Esq., Surgeon, Jamaica, to Margaret Ann, only daughter of F. HAWKINS, M.D., King's Lynn, on August 9.

DEATH.

DIAMOND, Francis Henry, M.D., Medical Attendant on Lady Elizabeth Lowther, at Faubourg de Bourgogne, Orléans, France, aged 49, on August 25.

ROYAL COLLEGE OF SURGEONS. The museum and library are closed, and will re-open on Monday, October 1st.

THE WILL OF DR. BABINGTON who died in April last, has been proved, and the property sworn under £6000.

OUT OF SEASON. In a catalogue of medical works recently received from a prominent publishing firm in this city, we notice that commendatory quotations are made from medical journals which ceased to exist more than fifteeen years ago. (*Philadelphia Med. Rep.*)

OVARIOTOMY. Both of the patients operated upon by Mr. Spencer Wells at Chester have, we understand, recovered.

NEW ASYLUM. The foundation stone of a new Pauper Lunatic Asylum for Newcastle-on-Tyne was laid by the mayor last week.

THE MOA. The Sydney papers state that a fine specimen of that rare bird, the moa, has been recently discovered at some gold diggings.

DR. CORMACK has accepted the appointment at Orleans vacant by the death of Dr. Diamond, as mentioned in our obituary, and has gone thither to settle as a physician.

DEATH OF DR. JAMES DUNCAN. The profession will grieve to hear the untimely death of Dr. James Duncan of Edinburgh. He died from cholera at Tours, whilst taking his summer holiday.

MILITARY HOSPITAL AT SUEZ. It is intended to erect a hospital at Suez for the reception of any invalid soldiers requiring medical treatment after the passage from India and before undertaking the run across the desert.

THE TOWN COUNCIL OF LIVERPOOL has just resolved to increase the salary of its medical officer from £750 to £1000 per annum, and has voted £5000 towards the establishment of a hospital for infectious and contagious diseases.

ST. GEORGE'S HOSPITAL. The offices of Lecturer on Midwifery and Obstetric Physician at this hospital are vacant. The governors advertise that they are willing to receive applications of candidates for the vacant offices.

ANOTHER DEATH FROM CHLOROFORM is reported in the American papers at Jersey City. The only proper safeguard is a *total discarding* of the article in ordinary surgical practice, says the *Philadelphia Reporter.*

A CASE OF LIBEL was heard last week at the Marlborough Street police court. John Alexander, a man who had been an in-patient at the Middlesex Hospital, was charged with libelling Mary Ann Dean, a nurse in the hospital. He had made a statement to the medical officers of the institution in which he charged Dean with immoral conduct in the ward in which she was nurse. She gave a complete denial to the charge. Alexander was committed for trial.

EXCISE PROSECUTIONS AGAINST DRUGGISTS. At York informations were lately preferred by the Board of Inland Revenue against Mr. Knowles, Mr. T. Cooper, Mr. Johnson, Mrs. Spurr, Mr. G. Brown, and Mr. Jacob Wood, all druggists residing in the city, and the charge was that they had sold methylated spirit without a licence. The magistrates convicted Knowles, Cooper, Johnson, Spurr, and Wood, but, in consideration of what they thought was their intention, they remitted the penalty to one-fourth, besides recommending the whole of the cases to the consideration of the board in London.

THE CATTLE-PLAGUE RETURNS show that the disease is still declining. The Contagious Diseases Prevention Act, 1866, which came into operation towards the close of February, was attended with the happiest results. Up to the enforcement of a policy of slaughter and isolation the disease continually extended its ravages, the attacks noted in July 1865, having been 2290; in August, 4821; in September, 6122; in October, 7955; in November, 16,240; in December, 38,532; in January 1866, 49,287; and in February, 57,004. In March, when the new Act had got into working, the attacks sunk to 35,986; in April they further declined to 15,886; and in May to 14,734.

Lord H. Seymour's Bequest. Judgment has been given on appeal against the order excluding from participation in the gift of Lord Henry Seymour (*"aux Hospices de Paris et de Londres"*), the Catholic Almshouses, Westminster, the Convent of Carlisle Street, the Governesses' Benevolent Institution, the British Society for Deaf and Dumb Females, and Bridewell. The Court held that the clerk was right in his exclusion of the first three of these institutions; that the claim of the Society for Deaf and Dumb Females should stand over for further evidence, and that Bridewell might be added to the list (already numbering 171) of those hospitals and institutions of London which were admitted under the word "hospices" in Lord H. Seymour's will.

Health of Scotland. The Scottish Return for the second quarter of the year 1866, shows that the deaths, 18,556, were at the high annual rate of 235 in every 10,000 persons of the estimated population, the average of the previous ten years being only 217. The health of the general mass of the adult population was good, but there was an increased number of deaths among the aged, and scarlatina and hooping-cough prevailed and were fatal among children. Continued fever seems to be abating; the epidemic typhus, which has been raging over Scotland for three years, is just dying out. No cases of epidemic cholera occurred in the quarter, but it is remarkable that both in 1832 and 1848, when there were severe attacks of epidemic cholera in Scotland, it was preceded by epidemic typhus, which just died out when cholera broke out.

Removal of the Dead from Cholera. A recent Order in Council empowers vestries in London to employ an undertaker, whose business shall be to remove the bodies of those who have died of cholera to a place provided for them. A death occurred last Tuesday in Chelsea; and the undertaker went to the house to remove the body, but was prevented by several men who were there. He then applied to the police for assistance, but was refused. Thereupon Mr. Lahee, the clerk to the vestry, applied to Mr. Selfe, at Westminster police-court, for an order to compel the police to give the required help. Mr. Selfe asked why assistance was refused; and an inspector in court produced an order from the commissioners of police prohibiting the force from giving assistance summarily in cholera cases. Mr. Selfe made some strong remarks on the impropriety of such an order; and finally, under the powers of a recent Act of Parliament, give Mr. Lahee the required authority.

Hospital Orderlies. The *United Service Gazette* chronicles a paltry piece of economy on the part of the authorities. Hitherto, hospital orderlies, when sick in hospital, have not been subjected to the stoppage of 10d. *per diem* that other soldiers are, but a recent order places them under this liability. Whether this is right in the abstract or not, it is a loss of privilege which the hospital orderlies think they do not merit, and so complain loudly. "They work hard all day, and are liable to be called up at any hour of the night, and they do not deserve this." The men of the Army Hospital Corps, they say, if their conduct is good, and they perform their duties to the satisfaction of the medical officer, are recommended for first-class orderlies, and receive 3d. per day extra pay—a privilege the regimental orderly has not. The military medical authorities having deemed it necessary to recommend that each soldier should be supplied with a flannel cholera belt, orders have been issued to provide each man with one at an expense to himself of 1s. 0½d.

Sisterhoods in England. The *Saturday Review* remarks that to the logical mind it seems at first sight as absurd to reject a good nurse because she wears "a religious dress", or has a "sectarian tone", as, to borrow Mr. Tulliver's homely simile, it would be to reject a good waggoner because he has a wart on his nose. But Englishmen are not governed by logic, and to run counter to a stout English prejudice is, like General La Marmora, to break one's head against a Quadrilateral. This is the cardinal error of the otherwise able and thoughtful letters which Mr. Capes has just addressed, on the subject of Sisterhoods, to the *Pall Mall Gazette*. Mr. Capes shows clearly enough that the nation wants first-class nurses, and that a large body of English women exactly fitted to make such nurses want employment. But he becomes unpractical when he goes on to ask, "If the sight of the chasuble and the odours of the incense are a delight and a support to a woman who is just going to pass her day at the bedside of cholera or fever patients, why should we complain?" or why should we object to her submitting herself entirely to priestly influence, since "the clerical order is the correlative of her religious susceptibilities?" He might as well tell the followers of Mr. Spurgeon that, as the Pope is a harmless and courteous old gentleman who tries in his way to do good, they ought not to refuse him the pious pleasure of sprinkling holy water over them. On such subjects as the odours of incense and priestly supremacy the English nation has strong and deeply-rooted feelings, which, whether they be sound or unsound, it is utterly useless to ignore in any attempt to obtain for sisterhoods national recognition and support. (*Pall Mall Gazette.*)

Local Anæsthesia. At the Glasgow Lying-in Hospital local anæsthesia has been tried on several occasions. The apparatus is a modification of that of Dr. Richardson, and is found to answer remarkably well. It is worked by the foot instead of the hand, whereby the ether spray can be projected with greater force, and the instrument worked with little or no fatigue. The ether spray has been freely applied over the lumbo-sacral region with the view of mitigating the pains of parturition. It has also been applied over the hypogastric region in cases of hæmorrhage, with the object of producing speedy and firm contraction of the womb after delivery. In one case of very severe *post partum* hæmorrhage, the ether spray produced immediate and permanent uterine contraction. Treatment of *post partum* hæmorrhage by intra-uterine injections of cold water, has been had recourse to in several cases, and with decidedly beneficial effects. The hospital has, for a considerable time past, enjoyed a remarkable immunity from disease. The last death which occurred was that of a German woman, who sank under an acute attack of broncho-pneumonia. There was no peculiarity, worthy of notice, in reference to her accouchment. She made a good recovery, and was about to leave the hospital when she was unfortunately seized with the above mentioned disease, to which she succumbed after a few days' illness. Among the operative cases may be mentioned that of a negress, who, after a painful and protracted labour, was delivered with the forceps by Dr. J. G. Wilson. Both mother and child did well. The generally received opinion, that women of colour bear children easily, did not hold good in this instance. (*Glasgow Medical Journal.*)

Advice Gratis. Advice gratis has an unfavourable reputation, which is, as a rule, by no means unjust. With the cholera has come, of course, the usual rush of letters from medical men addressed to the daily journals vaunting particular methods of

treatment. It is difficult to see the utility of such letters. Rational people are not likely to treat themselves or their nearest friends without taking medical advice, be it good or bad. It is certainly not the practice of the most eminent men in any profession to urge particular theories on an uninstructed public. Besides, there is the embarassment of deciding which recommendation to adopt out of so many. The College of Physicians are clearly undecided as to what remedies should be employed for the cholera, and are careful to avoid recommending as general measures more than early attention to premonitory diarrhœa; and when cholera comes on, warmth, horizontal posture, plenty of cold water, and warm frictions, with medical advice for particular symptoms. But your *Times'* letter-writer knows a great deal more than the whole College of Physicians. He has cured all his patients with camphor dissolved in alcohol, or with repeated doses of calomel and opium, or with emetics "perseveringly" administered, or with brandy and opium, or with salines, or lead, or quinine, or strychnine. There are as many newspaper cures for cholera as there are for cancer; but their parade in political journals is not even harmless. In the present state of medical science cholera curers stand on much the same footing as cancer curers; and just now they may do more harm if they are allowed to flourish in all the glories of print, where their flimsy theories cannot be exposed by an adequate discussion. (*Pall Mall Gazette.*)

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....Metropolitan Free, 2 P.M.—St. Mark's for Fistula and other Diseases of the Rectum, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TUESDAY. .... Guy's, 1½ P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.

WEDNESDAY... St. Mary's, 1 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.

THURSDAY.....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Great Northern, 2 P.M.—London Surgical Home, 2 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.

FRIDAY.....Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

SATURDAY.....St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1·30 P.M.—Charing Cross, 2 P.M.—Lock, Clinical Demonstration and Operations, 1 P.M.—Royal Free, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

REGISTRATION OF DISEASE.

RETURN of new cases of disease coming under treatment in public practice. (A.) Manchester and Salford (Sanitary Association). (B.) Preston (R. C. Brown, Esq.). (C.) St. Marylebone, London (Dr. Whitmore). (D.) Birmingham (Dr. Alfred Hill).

In the 4 weeks ending May 26th, 1866.

Diseases.	A.	B.	C.	D.
Small-Pox	7	15	9	15
Chicken-Pox	—	1	2	2
Measles	11	42	44	72
Scarlatina	26	2	19	25
Diphtheria	—	—	1	1
Hooping-Cough	49	14	66	132
Croup	1	—	—	9
Diarrhœa	103	9	292	142
Dysentery	9	2	6	9
Cholera	—	—	—	—
Continued Fever	—	33	—	171
Erysipelas	20	5	9	4
Insanity	54	4	11	4
Bronchitis and Catarrh	628	83	781	513
Pleurisy and Pneumonia	40	9	34	18
All other diseases and accidents	3897	375	3271	2233
Totals	4845	*594	4545	*3350

* Accidents not included.

TO CORRESPONDENTS.

*** *All letters and communications for the* JOURNAL, *to be addressed to the* EDITOR, 37, *Great Queen St., Lincoln's Inn Fields, W.C.*

COMMUNICATIONS.—To prevent a not uncommon misconception, we beg to inform our correspondents that, as a rule, all communications which are not returned to their authors, are retained for publication.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

THE August number of the *Dublin Quarterly Journal of Medical Science* contains the following original communications:—Dr. R. McDonnell—On the Operation of Trephining in Cases of Fracture of the Spine; Dr. Paton of Toronto—On the Action of the Heart; Dr. Compton—On Temperature in Acute Diseases; Dr. Kidd of London—On the Medical Uses of Chloroform Inhalation; Dr. Hayden—On Diphtheria; and Dr. McCormac—On Strangulated Inguinal Hernia.

CURE OF ITCH.—SIR: In answer to your correspondent L.R.C.P., I would respectfully say, he may meet with all he requires for the cure of itch, in the following cheap and efficient way. Let the affected parts be well washed with a strong warm solution of common soda, and, after being dried, then apply very freely paraffine; and a few repetitions will accomplish all you need. The plan is cheap as well as simple, and now paraffine is to be found in almost every cottage. I am, etc., M.R.C.S.

August 15th, 1866.

TREATMENT OF SCABIES.—SIR: A correspondent of a recent number of the JOURNAL (signature L.R.C.P.) asks for an inexpensive yet certain and quick cure for the itch. Provided the diagnosis be correct, and that the case be uncomplicated scabies, he will find the following plan all-sufficient. Let the patient be well rubbed all over the body, except the face and scalp, with simple sulphur ointment every night for three nights consecutively, wearing the same linen night and day. On the fourth day, put him in a warm bath, and wash away all trace of the ointment with plenty of soap. This done, clothe him with clean linen, give him clean sheets and pillow-case. Meanwhile give him a gentle purge every forty-eight hours, and in one week he will be perfectly cured. But mark well, *first*, that sulphur often produces a papulous eruption very like the itch. This must be treated tenderly, and it will soon get well. *Secondly*, inmates of workhouses are subject to an *epidemic* scabies, which will yield only to change of diet and to active purgatives, together with strong doses of quinine, sulphate of iron, and sulphuric acid. Relapses should be thus treated, and not by reiterated sulphur inunctions. *Thirdly*, cure all your cases in one week, or there will be endless relapses from the contagion of uncured cases. I am, etc., T. H.

NURSING.—SIR: I am sorry that you did not insert the extract I sent, from a speech of one of our select vestrymen, on the subject of nursing by religious orders, more especially as the JOURNAL has contained four articles in favour of such assistance; and the extract in question seemed to me to give very fair reasons why such should not be admitted into our public institutions. I have been attached to a school (Liverpool Lying-in Hospital) for the training of nurses for nearly twenty years, and I look upon my labours during that period with pleasure, inasmuch as I believe we have done good service, by sending out many women well qualified for their duties, whose services have been valued by the public, and received a liberal remuneration.

I am quite sure that no nurses can be thoroughly trained without the assistance of the profession; but I am not so sure that we need vows and religious orders in the work. Let me again appeal to the nursing in Liverpool, both public and private; and let me not forget the labours of free noble women, such as Miss Nightingale, etc.

I would suggest that the trustees of our public charities have no right to give the work into the hands of any section of the religious bodies, thereby throwing the money and influence into one party, to the exclusion of another. At least, let it be first shewn that the means at our disposal are not sufficient to the exigency.

Let me not be supposed to slight efforts put forth by any religious bodies to minister to the sick; for there are thousands in our courts and alleys needing help, and where such may get the blessing of those who are ready to perish.

I am, etc., B. BLOWER.

Liverpool, August 25th, 1866.

COMMUNICATIONS have been received from:—Dr. C. HANDFIELD JONES; Dr. G. H. PHILIPSON; Mr. A. B. STEELE; Mr. WILLIAM PARKER; Dr. G. HARDIE; Dr. GAMGEE; Mr. STONE; Mr. HAYNES WALTON; Mr. J. ROGERS; Dr. H. G. STEWART; Dr. THOMAS SKINNER; Mr. BLOWER; Dr. H. KINGLAKE; F.R.C.S.; Dr. EDWARD COPEMAN; Dr. TICKLER; Dr. COSSAR; Dr. SAUNDERS; Dr. C. ARNISON; Mr. J. HUTCHINSON; and Mr. PAUL SWAIN.

ESTABLISHED 1848.

Mr. J. Baxter Langley, M.R.C.S.

Eng., F.L.S. (late of King's College, London), PROFESSIONAL AGENCY, 50, Lincoln's Inn Fields, W.C.

Near the sea-side, for transfer,

with a long partnership introduction if desired, a good Family Practice in an improving and pleasant town. Patients of a good class, visits charged from 5s. to 10s. Midwifery fees from £1:1 upwards. Income upwards of £600; expenses moderate. The house being the vendor's freehold can be bought or rented. Terms, a year's purchase; receipts during introduction to be shared. Most complete evidence of *bonâ fides* can be given.—Address "V., 66," Mr. Langley, as above.

Warwickshire.—In one of the

best towns in the county, a good introduction to general practice can be given. Receipts about £350 a year. No low midwifery. Rent of house, stable, and coach house, £47. The advertiser has an excellent connexion, and is surgeon to the local hospital. Ill health the cause of resignation.—Address "V., 65," Mr. Langley, as above.

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transfer, a first class Practice in a good country town. The work is light and expenses moderate. The practice has been established sixty years.—Address "V., 63," Mr. Langley, as above.

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well established easily worked Practice for transfer, in consequence of the illness of the vendor. The house is detached, with garden, grounds, stabling, and coach house; rent £75. Income between £700 and £800, steadily increasing. All appointments have been declined. Midwifery fees from £1:1 to £3:3. Patients of a good class; few bad debts. No brougham, horse, or assistant necessary. Complete introduction secured.—Address "T., 987," Mr. Langley, as above.

In a first class seaport, an old

established non-dispensing Family Practice for transfer. Average income of last three years upwards of £1000 a year. Patients of a good class. Midwifery fees from one to five guineas. Excellent house in a healthy situation; rent £50. One horse and brougham kept. The books can be examined and the fullest opportunities for investigation afforded. The successor must be a gentleman of good professional acquirements, and not less than twenty-eight years of age.—Address "T., 965," Mr. Langley, as above.

Liverpool Royal Infirmary and

SCHOOL OF MEDICINE.—SESSION 1866-67.

The Introductory Address will be delivered on October 1st, 1866, at 2 P.M., by Mr. REGINALD HARRISON.

HOSPITAL PRACTICE—ROYAL INFIRMARY.

Physicians—DR. VOSE, DR. TURNBULL, DR. INMAN.
Surgeons—MR. STUBBS, MR. LONG, MR. BICKERSTETH.

LECTURES—WINTER SESSION.

Medicine—Dr. Cameron.
Surgery—Mr. Bickersteth.
Physiology—Dr. Waters.
Anatomy—Mr. Harrison.
Dissections—Dr. Roberts.
Chemistry—E. H. Birkenhead, D.Sc.Lond.

A Prospectus, and further information, can be obtained on application to the Registrar, Mr. HARRISON, 18, Maryland Street.

St. Mary's Hospital Medical

SCHOOL.—The SESSION commences October 1st, at 8 P.M. The Introductory Address by Mr. HAYNES WALTON.

At this Hospital the Medical Appointments, including five House-Surgeoncies, the annual value of which exceeds as many Scholarships of £50 each, and a Resident Registrarship at £100 per annum, are open to the pupils without fee. It has Obstetric and Ophthalmic Departments, and a Children's Ward (in the new wing). The Clinical and Pathological Instruction is carefully organised.

For Prospectus (with Addresses on Medical Education by the Archbishop of York, Professors Owen and Huxley), entry, and full information as to Prizes, etc., apply to the Medical Officers and Lecturers, or to ERNEST HART, Dean of the School.

Northern Hospital, Liverpool.—

The WINTER SESSION will commence on Monday, October 1st. Clinical Lectures will be delivered by the Physicians and Surgeons.

Physicians—Dr. Waters and Dr. Roberts.
Surgeons—Mr. Hakes, Mr. Manifold, and Mr. Lowndes.
Junior Surgeon—Mr. Harrison.

Fees for Hospital Practice:—Perpetual, thirty guineas; one year, twelve guineas; six months, nine guineas.

Pupils can enter to the Medical or Surgical Practice separately on payment of half the above fees.

For further particulars apply to the House-Surgeon, Mr. BRADLEY.

University of Aberdeen.

Chancellor—His Grace the DUKE OF RICHMOND.
Vice-Chancellor and Principal—The Very Rev. P. C. CAMPBELL, D.D.
Lord Rector—The Right Hon. EARL RUSSELL, K.G., LL.D.

FACULTY OF MEDICINE—SESSION 1866-67.

WINTER SESSION, commencing on the first Tuesday of November.

Anatomy—Professor Struthers, M.D. 11 a.m. £3 3s.
Practical Anatomy and Demonstrations—Professor Struthers and the Demonstrator. 9 to 4, and 2 p.m. £2 2s.
Chemistry—Professor Brazier. 3 p.m. £3 3s.
Institutes of Medicine—Professor Ogilvie, M.D. 4 p.m. £3 3s.
Surgery—Professor Pirrie, C.M., F.R.S.E. 10 a.m. £3 3s.
Practice of Medicine—Professor Macrobin, M.D. 3 p.m. £3 3s.
Midwifery and Diseases of Women and Children—Professor Dyce, M.D. 4 p.m. £3 3s.
Zoology, with Comparative Anatomy—Professor Nicol, F.G.S. 2 p.m. £3 3s.
Medical Logic and Medical Jurisprudence—Professor Ogston, M.D 9 a.m. £3 3s.

SUMMER SESSION, commencing on the First Monday of May.

Botany—Professor Dickie, M.D. 8 a.m. £3 3s.
Materia Medica (100 Lectures)—Professor Harvey, M.D. 10 and 3. £3 3s.
Zoology, with Comparative Anatomy—Professor Nicol. 11 a.m. £3 3s.
Practical Anatomy and Demonstrations—Professor Struthers and the Demonstrator. 9 to 4, and 2 p.m. £2 2s.
Practical Chemistry—Professor Brazier. 9 a.m. £3 3s.

Matriculation fee (including all dues) for the Winter and Summer Sessions, £1. For the Summer Session alone, 10s.

Instruction in Histology and the Use of the Microscope is delivered during the Summer Session.

Royal Infirmary: Daily, at Noon.—Perpetual fee to Hospital Practice, £6; or, first year, £3 10s.; second year, £3.
Clinical Medicine—Drs. Harvey and Smith. £3 3s.
Clinical Surgery—Drs. Keith and Pirrie. £3 3s.

General Dispensary, and Lying-in and Vaccine Institution: Daily. Eye Institution: Three days in the week. Royal Lunatic Asylum: Clinical Instruction is given for three months in the year.

The Regulations relative to the Registration of Students of Medicine, and the Granting of Degrees in Medicine and Surgery, may be had of Dr. Macrobin, Dean of the Faculty of Medicine.

The London Hospital Medical

COLLEGE.—The next WINTER SESSION will commence on Monday, October 1st, 1866, when the Introductory Lecture will be delivered by Dr. HEAD, at 3 p.m.

General fee to Lectures and Hospital Practice, 84 guineas, payable in two instalments of 42 guineas each, at the commencement of the first two Winter Sessions of attendance.

Perpetual fee to the Lectures alone, £50. Library fee, 1 guinea.
Students can make special entries to Lectures or Hospital Practice.

MEDICAL OFFICERS.

Consulting-Surgeon—Mr. Luke.
Physicians—Dr. Fraser, Dr. Davies, Dr. Clark.
Surgeons—Mr. Adams, Mr. Curling, Mr. Hutchinson,
Assistant-Physicians—Dr. Ramskill, Dr. Down, Dr. Hughlings Jackson, Dr. Morell Mackenzie.
Assistant-Surgeons—Mr. Maunder, Mr. Couper, Mr. Little, Mr. Rivington.
Obstetric Physician—Dr. Head.
Assistant Obstetric Physician—Dr. Palfrey.
Dental Surgeon—Mr. Barrett.

LECTURES AT THE LONDON HOSPITAL MEDICAL AND SURGICAL COLLEGE.

Medicine—Dr. Herbert Davies, Dr. Andrew Clark, and Dr. Ramskill.
Surgery—Mr. Hutchinson.
Descriptive and Surgical Anatomy—Mr. Adams and Mr. Rivington.
Physiology, General and Morbid Anatomy, and Practical Histology—Mr. Couper and Dr. Hughlings Jackson.
Practical Anatomy—Mr. Rivington, Mr. James Adams, and Mr. Tay.
Chemistry and Practical Chemistry—Dr. Letheby.
Anatomy and Pathology of the Teeth and Dental Surgery—Mr. Barrett.
Midwifery and Diseases of Women and Children—Dr. Ramsbotham.
Forensic Medicine—Dr. Ramsbotham and Mr. Rodgers.
Materia Medica and General Therapeutics—Dr. Down.
Ophthalmic Surgery—Mr. Hutchinson.
Botany—Dr. Dresser.
Comparative Anatomy—Mr. Rivington.
Special Operative Surgery—Mr. Maunder.

The London Hospital contains 445 beds, and receives an average of more than 4000 in-patients annually.

The appointments of Dresser, House-Surgeon, Resident Medical Officer, Assistant Medical Officer, Resident Obstetric Assistant, etc., etc., are open to the students without further fee, and include residence and partial board.

Two Scholarships and two Gold Medals will be awarded by competition during the ensuing Session.

Further particulars can be had on application to Mr. Hutchinson, Hon. Loc. Sec., 4, Finsbury Circus, E.C., or at the College.

Mile End, August 28, 1866.

Addresses and Papers

READ AT

THE THIRTY-FOURTH ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION.

[*Held in CHESTER, AUGUST 7th, 8th, 9th, and 10th*, 1866.]

ON THE TREATMENT OF RHEUMATIC FEVER.

By J. Birkbeck Nevins, M.D.Lond., Liverpool.

At a time when there appears to be a growing tendency to consider that it is a matter of indifference whether anything at all is done in rheumatic fever, except to keep the patient quiet in bed and supply moderate nourishment, I propose to lay before you a plan of treatment which I have adopted for many years, with the general result, as it has appeared to me, of: 1, speedily relieving the patient's most urgent symptoms; 2, shortening the general duration of the case; and 3, securing restoration to strength with less tendency to heart-complications or relapses than usual.

I shall illustrate the general features of the treatment by relating very briefly the last case treated in this manner, which occurred last month, and therefore has the advantage of not being a selected one, but merely the last under observation.

The fundamental principle to be attended to is the one pointed out by Dr. Heberden above a hundred years since, when he recommended the employment of cinchona, in consequence of the resemblance between rheumatic fever and ague, as shown in the rigors, hot and sweating stages in both diseases, and the tendency to periodicity observed in the nightly exacerbations of rheumatic fever; and, acting upon this analogy, he recommended the employment of cinchona in the treatment of rheumatic fever as well as of ague. Since his time, this remedy has been used from time to time; but it has not taken the firm hold upon the profession which it deserves, in consequence of the omission of various adjuncts, which it will now be my object to lay before you, as they were employed during the progress of the case to be related.

Case. W. J., aged 45, a delicate looking man, steward of a steam-ship, had been suffering from rheumatic pains for a fortnight, but had gone about his work with difficulty until two days before his arrival in Liverpool, during which he was confined to his berth, unable to help himself in any way. He was carried on shore, and I saw him in the evening. He was unable to turn in bed, or to move hand or foot, except his left hand a little, though even that was acutely painful. He had had no sleep for two days or nights; tongue furred; lithates in urine; pulse moderately excited, but no distinct heart-symptoms; not much sweat.

Treatment. He was immediately ordered a vapour-bath of vinegar, with subsequent cold douche in bed, and ten grains of Dover's powder, which was followed by two hours of sleep, and such abatement of pain, that he said he was easier the next day, though still unable to move his limbs or to turn in bed. He was also at once ordered two grains of quinine and five grains of iodide of potassium, to be taken four times a day. He had, on a subsequent night, a second Dover's powder, and this was all the opiate taken during the illness. The opium, therefore, formed a very insignificant part of the treatment; and this I have found to be the case almost without exception.

The remedies to which I attach importance are:

1. The vapour-bath, and subsequent cold douche; and

2. The combined quinine and iodine.

In this case, the bath was given in bed, for the patient could neither turn in bed nor move his limbs; and it will generally be necessary to give it in bed, in the first instance, in any case deserving the name of rheumatic fever; and it is so easily administered, that no difficulty can arise to prevent its employment in every case.

Two large pieces of coarse flannel (common scouring cloths answer the purpose admirably) are to be soaked in common vinegar;* about a pint being necessary for each cloth. Two common bricks are then to be heated nearly red-hot in the fire, folded up in these flannels, and placed on two plates. The patient being stripped, one plate is to be put a little distance from one knee and the other a little distance from the opposite shoulder, and the patient is to be covered over with the bed-clothes. In a few minutes, he is surrounded by a most refreshing steam-bath, which produces a warm, agreeable perspiration, that may be kept up for twenty minutes or longer, if the bricks retain their heat sufficiently.

As soon as it is decided to remove them, the patient, still in bed, is to be very rapidly mopped all over with towels wrung out of cold water, then immediately wiped dry with dry towels, supplied with a warm shirt or flannel garment, and covered with a fresh dry sheet, etc., or with blankets alone, as may be most agreeable to him.

The effects of this bath are a speedy relief of the acute pain, and frequently easy sleep for a time; an abatement of the offensive and distressing acid sweats; and a general state of greater comfort.

The cold water application immediately on the removal of the hot vapour is very important; as it prevents the continuance of an enfeebling perspiration after the hot bath.

The manner of removing the patient's bed garment is a point of importance in cases of such painful helplessness as rheumatic fever; and it is accomplished without pain to the patient or difficulty to the nurse by an extremely simple contrivance. The clothes must be torn down the back from top to bottom; and when this is done they can be removed and replaced as easily as a child's pinafore, without even lifting a limb of the patient or disturbing him in bed. By this means, fresh, clean, dry clothing can be applied without difficulty once or twice a day, according to the amount of sweating; and the sufferer is relieved from the discomfort of his damp, offensive garments.

This bath may be repeated twice a week; and during seventeen years that I have been in the habit of adopting it, I have scarcely ever had to use it a third time in bed; the patient, after the second bath, being almost invariably able to sit up and have the third in a chair.

When he is able to sit up, a steam-bath can be given with great ease by putting a bucket of boiling water under a chair, the seat of which is sufficiently protected to prevent the patient from being scalded, whilst he is sitting upon it surrounded by blankets; and, by putting a red-hot brick into the water in the

* For many years I soaked the flannels in simple water; but the vinegar is so much more fragrant and agreeable to the patient, that I have always used it for the last few years.

course of ten minutes, the steam is kept up, as by this time it generally begins to abate from the original boiling water.

A jug of cold water may be poured over the patient when the blankets are removed, or he may be wiped by cold wet towels, as is most agreeable to his own fears or feelings, and he must then be clothed and sit up for a few hours.

The second part of the treatment upon which stress is laid, is the combination of moderate—*i. e.*, two grain doses of quinine with five grain doses of iodide of potassium from the first. The theoretical grounds on which quinine was first proposed have been already mentioned; and the general experience of the profession will suggest the explanation of the probable benefit to be looked for from the addition of the iodine.

We will now return to the history of the case.

After using the bath and taking the Dover's powder, he slept two hours, and was easier.

Second Day of Treatment—Tongue rather dry. Two glasses of wine daily in addition to his medicine.

Fourth Day—Sleeps moderately, and takes food moderately. Very uneasy from lying so long unable to turn in bed. Can move one arm a little. Repeat the vapour-bath, and continue the quinine and iodide.

Next day—Fifth—Can sit up in bed, and move his arms so as to change his night-shirt in the ordinary way.

Seventh Day—Walked down stairs, with a little help.

Tenth Day—Had a steam-bath in his chair.

Eleventh Day—Walked a mile and a quarter.

Twelfth Day—Went down to the office.

Sixteenth Day—Called upon me just before going to sea.

Such is an outline of the plan of treatment which I have practised habitually for the last seventeen years. During this time, the cases have been numerous which have been thus treated; and the results have been so satisfactory, that I have always returned to this method, although I have given a fair trial to the alkaline and to the lemon-juice treatment. I have not tried the do-nothing method; nor have I ever relied upon opium alone; and bleeding and mercurials I have no experience of.

During this period, I have only had occasion four times to apply a blister for heart-symptoms; and there has not been any instance of troublesome cardiac affection. What has become manifest on these four occasions has readily yielded to slight blistering, and a continuance of the quinine and iodine.

When the disease previous to admission has been of a more chronic or frequently repeated character than in the case above related, the improvement has not been so rapid as to amount to complete recovery in a fortnight; and where there is much gouty complication, the case will probably be more lingering. But, after endeavouring to ascertain without partiality what method of treatment is most beneficial to the patient suffering from rheumatic fever, I am increasingly impressed with the conviction that the plan now advocated possesses the advantage of—

1. Relieving the patient's suffering most speedily, both as regards pain, loss of rest, and sweating;

2. Of most quickly restoring the patient to strength, for it is extremely rare for him to be confined to bed more than a week, or to be confined to his room for more than a fortnight; and

3. Of securing extraordinary freedom from heart-complications, or liability to relapses.

[In the discussion which ensued upon this paper, Dr. Falconer of Bath showed some tracings made by the sphygmograph in some cases of rheumatic fever, which showed that, whilst the power of the heart at the commencement of the attack was generally about equal to the natural standard, it fell as the disease progressed to such a degree as to exhibit, by the tracings, a loss of nearly half its strength. He thought that this loss of muscular power in the heart might account for those cases in which the patient dies after apparent recovery from rheumatic fever, and yet, after death, there is no apparent disease of the heart discoverable. These observations (which had been carried on by Dr. Falconer without any correspondence with the author of the paper) have a very important bearing upon the plan of treatment advocated in it, the principle of which is directed from the first to supporting the energy of the muscular and nervous system by the administration of quinine, in conjunction with the agents described; which are followed by an early cessation of exhausting pain, sweating, and loss of rest, and a remarkable immunity from heart-affections.]

ON LOOSE CARTILAGES IN THE ARTICULATIONS, AND A NEW INSTRUMENT TO EXTRACT THEM.

By Henry Dick, A.B., M.D., Surgeon to the National Orthopædic Hospital.

There is an affection of the knee-joint, and in some rare instances of that of the elbow, the origin of which is involved in great mystery.

Its diagnosis is sometimes very difficult, and on that account mistake is liable to be made in the treatment. There is one symptom of this affection which should always rouse our suspicion; namely, sudden pain in the knee-joint, followed by inflammation and swelling. The existence of loose cartilages in the knee-joint is a very serious affection. The patient suffers from repeated inflammation and swelling of the joint; and, in some cases, the pain is so great in walking, that he is unable to use the affected limb. I have seen some such patients remain for months without pain, when suddenly in some movement of the leg the pain returned.

How these loose cartilages are formed we can only theorise, on looking at their pathological anatomy and histology. They are, as a rule, quite loose in the articulations; but there are instances on record where, on *post mortem* examination, these bodies have been found fixed to the joint. In making such examinations myself, I have found these bodies loose in the joint; but, on a strict examination, the pedicle on the foreign body could still be distinguished.

I think, therefore, that these bodies have their origin on the walls of the joint, and become detached by certain circumstances.

The question now arises, Do they grow after they become detached? Future observation may, perhaps, solve the question. In cases where these foreign bodies were very small and loose in the joint, I have fixed them by a proceeding which I shall presently detail. They remained fixed in the joint; and, on examining them in one case four years afterwards, I did not find that they had grown, so that it is difficult to determine their growth after being once detached. There can be no doubt that the tissue composing them is cartilage, as it possesses all the anatomical elements of this tissue; and in a case of Mr. W. Adams's, both cartilage and bone were discovered.

They vary in magnitude from the size of a lentil

to that of a large bean. I was present at an operation performed subcutaneously by my friend Mr. W. Adams, where the foreign body extracted was of the size of a large bean.

When these bodies are large, their diagnosis is very easy, as they can be felt; or, if not found directly, the patients themselves know how to manipulate to bring them into such a position that the surgeon can feel them. But such is not the case where these bodies are small, and these are the cases wherein mistakes are liable. I am personally acquainted with a case of the latter kind. It was that of a gentleman residing in the country, and fond of the recreation of shooting. On two occasions of being out shooting, he felt a sudden pain in the knee, and fell down and was unable to walk any farther. On each occasion the cause was attributed to having taken cold. I would draw the special attention of the profession to the symptom of sudden pain in the knee-joint in walking. When this symptom presents itself, we may be almost sure there is a foreign body in the joint, even if we fail to discover it at once; and if we carefully examine the patient at different times of the day, we shall at last find it.

In some cases, after rest, in the morning before the patient leaves his bed, we may be so fortunate as to find the foreign body; but in two cases which I marked down I could only find it in the evening, or after the patient had taken some exercise. Hence no rule can be laid down; and it appears to me that it depends upon the position of the foreign body, as to when it is most easily to be discovered.

The mode of treatment is completely surgical. No medicament taken internally or rubbed into the joint has any effect upon the complaint. The only modes of treatment known to me are the radical removal of the foreign body and the palliative treatment, which is fixing the foreign body by galvanic electricity.

Another palliative mode of treatment consists in the subcutaneous removal of the body, and leaving it in the neighbourhood of the joint, whence it will not be able again to intrude into the cavity.

The radical removal of these bodies is practised by two methods: the open and the subcutaneous incision. The open incision I shall not discuss, because the danger therefrom is so great, that I think modern surgeons will hesitate before they undertake the operation. Several cases of death, some of them known to me personally, have resulted from the open incision; and in some cases anchylosis of the knee-joint was the result.

The subcutaneous incision must, therefore, remain the only reasonable operation. It is generally practised by making the incision with a long-bladed tenotome, at a distance of some inches from the spot where the foreign body lodges; on reaching which, the loose cartilage is pushed into the tract of the knife, and so extracted—an operation not very easily performed, and which, I dare say, is one of the reasons why surgeons have preferred the open incision.

But the operation can be much more easily performed by making a subcutaneous incision with an instrument which I have invented, and which is something like a pair of scissors,* each blade having sharp edges, and which, when closed, has the form of a lance, but, when introduced and opened, can act as a forceps. The operation with these forceps-scissors, as I may call them, is performed on the same principle as the subcutaneous incision with the tenotome. An assistant fixes the foreign body. The surgeon then thrusts in his subcutaneous scissors (closely shut), at a distance of about three inches from the foreign body (generally the neighbourhood of the border of the tibia is the most suitable spot, but the choice of the point of puncture must depend on the position and seat of the foreign body). When the point of the scissors comes into contact with the foreign body; they are opened, and the foreign body is then seized with them, and cautiously extracted as follows. When the surgeon perceives that he has grasped the foreign body, he should with his left forefinger press on that part of the foreign body and instrument which is next to the inner joint-wound, in order to prevent the air from entering; and the finger should follow the substance all along its course until it is extracted through the opening previously made. When the foreign body has arrived near the skin-puncture, it should be released from the scissors, which should now be *shut* and withdrawn; the foreign body should then, by gentle manœuvres, be pressed out through the external puncture. The reason of this latter part of the procedure is that, if the foreign body were retained in the scissors until they were finally withdrawn, the external opening would thereby be rendered much larger than it should be for a subcutaneous puncture. By the above method, it is not necessary to leave the foreign body in the puncture (or rather in the tract of the puncture) near the skin; and, indeed, I think it is much better to extract it at once, and thereby remove a source of local irritation. A small compress and piece of sticking-plaster, and the knee well bandaged and kept quiet with a well padded splint, in the semi-flexed position, propped up on a cushion, is the only after-treatment necessary.

Another method is the palliative treatment, consisting in the application of galvano-electricity, of which I have seen the good effect in three cases. Chance led me to adopt this method. In a case of chronic inflammation of the synovial membrane of the knee-joint, after having tried all the known remedies, except the iodine injection, I passed on each side of the joint an insect-needle, until it was freely moving in the joint. The needles must be very fine, and slowly passed into the joint. The operation is painless. Through these needles, electro-galvanic currents were passed. In this case, the patient got better; but at a later period, when the fluid was much diminished, I discovered a small foreign body, of the size of a lentil, in the joint. I inserted the positive needle on that foreign body, after fixing it on the border of the tibia as well as I could. A strong current was discharged on the needle for forty minutes daily for eight days, the patient being in the recumbent position. The foreign body remained where it was fixed by the needle; and I still can find it in the same place. I think the theory must be, that lymph has been coagulated round the foreign body by electricity. I cannot otherwise account for it. The gentleman remains perfectly well. The only inconvenience he has felt in four years was once when he took violent exercise; he felt his knee painful, but the pain was not nearly so great as that which he previously felt; and he has never since the galvanic operation had inflammation of the synovial membrane.

After what has been stated in the foregoing pages, I come to the following conclusions.

1. In the present state of morbid physiology, very little is known of the origin of loose cartilages in joints.

2. The loose cartilages should only be removed by the subcutaneous method; and the most safe

* The instrument, which was shewn to the meeting, was made r Dr. Dick by M. G. Ernst, of 19, Calthorpe Street, Gray's Inn oad, W.C.

and easy way of removing them is by the subcutaneous scissors.

3. When the loose cartilages are small (say of the size of a lentil), the electric current through insect-needles may be tried with advantage.

4. Open cuttings in the joint, such as were formerly practised, cannot be too strongly condemned.

Illustrations OF HOSPITAL PRACTICE:

METROPOLITAN AND PROVINCIAL.

BIRMINGHAM GENERAL HOSPITAL.

RIGHT HEMIPLEGIA: LOSS OF SPEECH AND AMAUROSIS.

Under the care of JAMES RUSSELL, M.D.

ELIZ. C., aged 44, widow, was admitted on April 3rd. Her case afforded an illustration of certain subjects connected with cerebral pathology, which have lately attracted attention. I therefore proceed to notice them in detail.

1. The patient presented an important combination of symptoms; viz., right hemiplegia, impairment of the faculty of expressing herself, both by spoken and by written signs, and double amaurosis. The hemiplegia was of the ordinary form, due, no doubt, to disease in the corpus striatum. With regard to the amaurosis, my friend Mr. Arthur Bracey discovered the presence, in an early stage, of the changes in the optic nerve, which are usually found to be associated with blindness from cerebral disease. With these were united some remains of foregone inflammation of the right iris only, of which, however, we could not obtain the least clinical history; but the latter appearances, besides affecting one eye alone, were perfectly distinct from the others previously described. When the patient left the hospital, she could read No. 8 Jäger, and sometimes No. 6. Of the aphemia, I shall speak presently.

In a very laborious and valuable paper in the *Ophthalmic Hospital Reports* (vol. iv, part 4, and vol. v, part 1), Dr. Jackson states that the union in the same subject of the three symptoms just mentioned is comparatively rare; he has met with it five times only. He further contrasts cerebral amaurosis with the defect of speech under consideration, in this respect; that the latter is usually associated with hemiplegia, the former exceptionally; he also believes that, when amaurosis is present with hemiplegia, the hemiplegia more usually affects the left than it does the right side, as was the case in my patient.

2. The pathological lesion which occasioned the hemiplegia, has much interest in connection with the combined symptoms of amaurosis and loss of expression. Loss of the faculty of expression appears to result from disease involving a special and limited portion of the cerebrum—viz. (according to Broca), a particular convolution near the extraventricular portion of the left corpus striatum; and is the result, most frequently, of obstruction of branches of the middle cerebral artery; sometimes of hæmorrhage.

Cerebral amaurosis, on the other hand, according to Dr. Jackson, is much more independent of any precise situation in the producing cause. The morbid change may be situated in almost any part of the hemispheres, or in the cerebellum, or at the base of the brain. It is, observes Dr. Jackson, a great mistake to suppose that this form of amaurosis necessarily indicates disease involving the optic nervous system. The latter may be secondarily affected, but the chief disease is scarcely ever found near it; he even doubts whether disease of the optic tract will produce the ophthalmoscopic appearances now alluded to.

With respect to the nature of the disease, amaurosis is apt to result rather from tumours, from syphilitic thickening, or from the irritation of an old clot, than from those conditions to which I have alluded, as causing loss of expression. In fact, whilst loss of speech depends upon the *situation* of the disease, amaurosis seems to depend to a greater extent upon its *nature*.

3. Still following Dr. Jackson, whilst the loss of speech takes place coincidently with the occurrence of the disease with which it is connected, the form of amaurosis we are considering never occurs suddenly as the result of injury to the cerebral hemispheres, but is the result of a gradual process; it requires time for its development, and takes place as a secondary consequence.

Now, applying these considerations to the case of my patient;—the heart was healthy, and there was no albumen in the urine. There was no evidence of syphilis, nor had she suffered from rheumatism nor from scarlet fever. She had not had fits, and her health was perfect. So far as we could learn, the arteries were also healthy. From the patient's imperfect power of language, and from her having led a solitary life, we could not get a full account of the attack of hemiplegia. She had made blood fast, had been a hearty eater, and was stout; she had suffered much from vertigo and headache for twelve months, and during that period had not menstruated. She had lately bled at the nose. Eleven weeks before admission, having complained during the day of weakness of the right arm, she became suddenly hemiplegic on the right side in the night. She kept her bed for three weeks, and did not come down stairs for three weeks longer. It was also stated that she had some aphæmia or incoherence, we could not learn which, a month before the hemiplegia; but that her loss of power of expressing herself at least greatly increased with the occurrence of the paralysis.

But, as regards the amaurosis, there was clear evidence of impaired vision for three or four months anterior to the attack of hemiplegia; she could not read for long at a time, "nor do any particular work."

I have now to describe the state of the faculty of expression. The abnormity in this faculty afforded a fair illustration of the title which I have prefixed to this case.

In the first place, it is important to note, in this connection, that the patient possessed imperfect voluntary control over the performance of the more complex muscular movements, especially in preparing her face and eyes to be examined by the ophthalmoscope; so that two attempts at examining her eyes had to be abandoned. Acts of a more habitual and less complicated kind, were performed in obedience to order with ease and correctness. The involuntary movements, especially those of an emotional character, however complex they might be, were perfectly effected; *e.g.*, laughing and crying. The patient was not passionate, and did not utter any interjectional sound.

But, although we had no opportunity of testing the influence of emotion upon uttered expression, it was very apparent, amidst the difficulty experienced in arranging sentences, that short and brief phrases such especially as would have been of frequent occurrence in the ordinary transactions of life, such therefore, as had become habitual, and therefore only

quasi-voluntary, were correctly given. In such cases, both the ideas and the words representing them would present themselves before the mind, and fall into their proper places, almost, if not quite, without any voluntary effort.*

There was abundant proof that, at least, simple ideas were clearly presented to her mind. She looked intelligent, assented and dissented promptly and correctly, and conducted herself quite sensibly and with perfect propriety. It did not appear how far she was able to conduct any more intricate process of thought; but it was stated by her friends, and afterwards positively confirmed by herself, that she could not read to herself; which agrees with the imperfect use she was able to make of external symbols, in the shape of written or spoken words.

There was, however, no question about the presence of serious derangement in her power of employing the symbols expressive of ideas. Apprehension, or, to quote the words of Dr. Moxon, "in-coming language", was little affected; the fault lay chiefly in the other term, the "out-going language", or expression; thus illustrating, as Dr. Moxon has noticed, the perfect distinctness of these "two departments of the mind's relation to language". Want of power to co-ordinate ideas (incoherence), though quite distinct from mal-coordination of words, the signs of ideas, may co-exist with it, as occurred in a lady whom I attended, in whom each of three epileptic fits was followed by delirium, and, as that subsided, by incoherence in the selection and allocation of words. It was difficult to say, but I suspected that the incoherence in talk did not occur in this lady until the incoherence in thinking had passed away; as in the case of emotion, the delirium took the place of the will in arranging the patient's utterance.

My present patient, however, was little able to co-ordinate the arrangement of her words, and little more capable of adjusting the action of her muscles so as to pronounce intelligibly. Any sentence requiring voluntary effort to arrange its component parts speedily became a mere confusion of sounds, in which even words were not articulate. To the same cause was to be ascribed her very imperfect power of copying the utterance of another person. She could not thus copy the pronunciation of her own name; and she failed in repeating after me the simplest sentence, unless dissected word by word; often isolated words were unattainable. Nor had she any greater ability to copy written words. It has to be added, however, that occasionally her imitations of articulated sounds had some phonetic resemblance to the original; as "nors", "funday", "see", "moom", for years, Sunday, three, more, respectively.

This imperfection in voluntary control became greatly exaggerated by the slightest emotion or hurry, even by the vexation of a failure; so that it was rarely that she could convey any information comprising more than one or two simple ideas.

But once more there was very manifest failure in recollecting words; and this was at the foundation of her trouble to quite as great an extent as loss of coordinating power. Thus she never recollected her surname; once even she substituted her maiden name; although she was quite ready with her Christian name.* Nor could she give me at any time the names of her children, of her family, the town in which she lived, etc.

This defect became especially apparent in questions involving numbers; *e. g.*, her age, that of her child, the length of her illness, the date of her husband's death. It was singular that, in replying as to the length of her illness, she uniformly (on several occasions) substituted "years" for "weeks"; and that, when corrected, she nevertheless made the same error immediately afterwards. On many occasions, however, she was sensible of her mistakes, and would set herself right by counting on her fingers; proving that it was the symbol, and not the conception of the number, which was wanting.

As regards the other nervous symptoms in the case, it is only necessary to add, that sensation was very slightly impaired in the paralysed arm; that the functions of the various cerebral nerves were performed naturally; and that hearing, smell, and taste were intact. The patient continued under observation for eleven weeks; she made some advance towards recovery; but her progress was not very satisfactory.

In conclusion, I would specially refer to a valuable paper by Dr. Jackson in the *Medical Times and Gazette*, June 23rd, in which some most important suggestions are made for associating the various forms of functional derangement noticed in the preceding description by one link of connexion—viz., suspension of voluntary regulation of muscular action; and thus the subject is brought into immediate connexion with the study of the phenomena of chorea. The more the two diseases are compared, the nearer will be the parallelism observed between them, and the clearer the light which each one casts upon the other.

* A somewhat parallel case is mentioned by Van der Kolk. A patient, who had lost the faculty of expression, could yet add up figures; and the combined effect of memory and of habitual connection of words was strikingly exhibited in a patient of my father's, who, having become aphemic, after abnormal mental labour in cataloguing a large manufacturing property, used the words "list complete", to express every idea, and to answer every question. The late Daniel O'Connell gave a good illustration of the distinction which subsists between emotional utterances and intellectual expressions, when he silenced a Billingsgate fisherwoman merely by flinging at her technical terms taken from the books of *Euclid*. He narrated the incident to a friend of my own.

Original Communications.

ON PROGNOSIS IN HEART-DISEASE.

By W. H. Broadbent, M.D., Assistant-Physician to St. Mary's and the Fever Hospitals; Lecturer on Physiology at St. Mary's Hospital Medical School.

[*Concluded from page* 217.]

Up to this point, I have been chiefly occupied in considering the organic and functional condition of the heart, and the effects of the changes which may have taken place in it on the systemic and pulmonary circulation; but there are other conditions not necessarily flowing from the heart-disease, which have a most important influence on the future of the patient. Among the most serious of these, is any tendency to anæmia, whether this is a consequence of the failing circulation, or induced by other circumstances. When the blood is poor, the walls of the heart are ill nourished, less competent to cope with any mechanical difficulty, less able to resist any dilating causes. There is also a liability to palpitation, which is injurious and dangerous in heart-disease, and an increased tendency to dropsy.

Again, in all cases, the position in life of the sufferer, and his habits, form a most important prognostic element. In violent efforts, or in sustained exertion, there is a great strain upon the valves of the heart; and vicissitudes of temperature tax its powers of accommodation to different conditions of

* A similar instance is afforded in a very interesting case read by Dr. Sanders of Edinburgh, before the Medico-Chirurgical Society of that city.

the circulation; while unfavourable hygienic influences tend to innutrition and degeneration. The man, therefore, who must labour with his hands, who is exposed to all weathers, whose food is often of inferior quality and sometimes insufficient in quantity, who breathes impure air and indulges perhaps in strong drink, who seeks advice only when he can no longer toil, and abandons all precautions as soon as he ceases to attend the hospital, has far smaller chances of long life than the man who can seek advice early, and who has adequate means to follow it out. In no cases, however, is the *nimia cura medici* more fatal. The patient should be encouraged to take a hopeful view of his condition, and permitted, and even urged, to work up to his strength.

A consideration of prognosis in heart-disease would be imperfect without reference to the modes of death; and, in connection with this part of my subject, I shall speak briefly of the symptoms which are the precursors of a fatal termination.

The immediate cause of death may be asthenia, pulmonary complications, or dropsy. I might mention, also, cerebral hæmorrhage, or softening, or embolism of the cerebral arteries; but, except the last-mentioned, these are in no way proper to heart-disease, and occur so often independently of it, that it is open to question whether they are not rather coincidences than consequences.

First, as to sudden death by syncope. I think I am not wrong in stating that, with the profession as with the public, it is very commonly believed that this is a contingency to which every sufferer from heart-disease is liable. This is indeed positively asserted by Dr. Fuller in the following passage, which closes his *résumé* of the prognosis of valvular disease of the heart (p. 120): "In any and all cases life is apt to be arrested suddenly by syncope"—an assertion repeated almost word for word by Dr. Aitken in his work on *Medicine*.

Is this so? My attention was first specially drawn to the question of prognosis in heart-disease by the discrepancy on this point between my experience and my preconceived opinion. I had watched very many cases of valvular disease of the heart without seeing this termination. In the *post mortem* examinations I had made in cases of sudden death, I had met with fatty degeneration of the heart in two, rupture of the left ventricle in two, aneurism of the left ventricle, adherent pericardium, ossification of the coronary arteries (with angina pectoris), plugging of these vessels by ulceration in the aorta, primary malignant disease in the walls of the heart, and but two instances of valvular disease, in one of which the heart was fatty. It became evident that either my opinion was wrong, or my experience singular. I found, however, that Dr. Stokes and Dr. Walshe had long since arrived at the conclusion to which my observation seemed to point. Dr. Stokes states that sudden death in diseases of the heart is by no means so frequent as is generally supposed, and that it happens principally in examples of solution of continuity; and Dr. Walshe, speaking of the different forms of valvular lesion, says that only one causes sudden death—aortic regurgitation, and that the more pure and uncomplicated it is, *i.e.*, by dilatation and hypertrophy, the greater seems to be the danger of fatal syncope. He mentions eleven cases; no large number considering his long and extensive experience; and the only instance in which I have known sudden death to be entirely attributable to valvular disease was one of aortic regurgitation. Its occurrence in these cases is explained by what I have said of the tendency of this affection to "stagnation" rather than "obstruction" in the circulation, and the liability of the former condition to cause syncope from deficient supply of blood to the nervous centres. This explanation applies especially to the cases which seemed to Dr. Walshe unaccountable, in which no hypertrophy or dilatation existed, the tendency to stagnation being, under these circumstances, uncompensated.

It may be stated then, and the conclusion has been fortified by the examination of *post mortem* records and reference to the experience of others, that, so far from life being apt to be cut short suddenly by syncope, sudden death is a contingency which may almost be left out of consideration in valvular disease, except in aortic regurgitation. I need scarcely refer to the unfavourable influence exerted by the dread of sudden dissolution, or to the relief which we can afford by removing this apprehension, which, spoken or unspoken, follows the sufferer who becomes aware that he is the subject of heart-disease.

Pulmonary affections are the most common immediate cause of death, and pulmonary symptoms among the most common of the immediate precursors of this event. Dyspnœa, at first coming on only after exertion, is excited by slighter causes of most varied kinds, or sets in without any assignable reason. The paroxysms are more severe and lasting. Frequently, it becomes habitual, and the patient is unable to lie down. This cardiac dyspnœa is peculiar, and readily distinguished from that of emphysema or asthma; it is rather want of breath than difficulty of breathing. The air enters and leaves the lungs freely, but does not satisfy the imperious demand which is felt, and which arises from the obstruction to the passage of blood through the lungs. There is very commonly cough, with or without free expectoration, and the auscultatory phenomena may be of the most varied character. Ultimately there will be the signs of bronchitis, effusion into the pleural cavity, or of pneumonia, or of combinations of these, according as one or other is to constitute the fatal complication. Bronchitis is not often the cause of death. Pleurisy, with effusion, or more frequently dropsical accumulation in the pleural cavity, is common. This last may be one of the manifestations of general dropsy, or strictly local and not associated with dropsical effusion elsewhere. Most common is congestive pneumonia in various degrees up to pulmonary apoplexy. This is most frequently a consequence of mitral affection, but is sometimes met with in aortic disease. It may occur independently of dropsy; but more often is associated with this condition, either as the final and fatal complication, when it has existed for a longer or shorter time, or the two coming on together.

Dropsy, which I have placed among the causes of death, would in most cases be more properly designated a precursor; associated pulmonary affections constituting the actual cause. It may come on very slowly, showing itself first as occasional slight œdema about the ankles; then permanently establishing itself; gradually creeping up, reaching the knees, invading the thighs and abdomen; the breath all this time becoming shorter, the strength failing, and the symptoms increasing; till at length the patient reaches almost the climax of misery before death brings release from his sufferings. Or the course of the affection may be rapid, usually from the effect of pulmonary congestion or inflammation. As a prognostic sign, it is always of great, but by no means uniform, gravity. When it comes on slowly in a patient who has enjoyed the advantages of repose, good diet, fresh air, etc., it may perhaps be kept down for a time; but once established it will usually go on, in spite of treatment, slowly but surely, to a fatal termination. It is a very serious indication when it accompanies an attack of pul-

monary congestion, or when it follows some debilitating influence; but in this case it is often recovered from. The probability of this favourable event in any given case will be estimated, according as the immediate exciting cause is inherent or accidental—in the state of the heart itself or the unfavourable conditions to which the patient may have been exposed. If the heart is found to be large and dilated, and the dropsy has crept on without provocation, or has been brought on along with pulmonary congestion by a little over-exertion or some other trivial circumstances, the chances are against recovery. If, on the other hand, the patient has been underfed, overworked, exposed to cold and wet, or has undergone other hardship, while the heart is not very notably enlarged, the probabilities are in his favour, if placed in favourable conditions. As a matter of personal experience, I am less anxious about a second attack of dropsy than about the first. To have recovered once is a reason for recovering again, provided always that the valvular lesion is not of the degenerative character.

Dropsy forms a very interesting question, and I am tempted to enter upon it a little more at length. It is generally, and I believe rightly, attributed to the obstruction, actual or virtual, of the circulation, caused by the cardiac disease. Opinions have fluctuated as to whether dilatation or the valvular lesion was the efficient cause. If my reasoning have been correct, the *rôle* of dilatation, as a cause of anything, is very small; its value as an indication remaining, however, as great as ever. But Dr. Walshe has raised the question whether heart-disease of any kind is of itself sufficient to give rise to dropsy, basing it upon the fact that dropsy is present in some cases of heart-disease, and absent in others apparently in all other respects similar.

He advances a series of propositions expressing facts derived from his experience, which may be summed up in the statement that any single valvular disease or combination of these, any structural alteration alone or complicating valvular affections, may exist for a considerable time without necessarily producing dropsy. He concludes from this that "something beyond and in addition to any one, or any group, is required in order to entail dropsy." It might with equal force be concluded that something beyond and in addition to mitral regurgitation and right hypertrophy is required to produce pulmonary apoplexy, since these conditions often coexist for years without giving rise to it.

But, to follow out Dr. Walshe's reasoning, he says again: "Some active cause beyond and independent of the heart is shown by the fact of no direct relation existing between the amount of heart-disease and dropsy; that dropsy sometimes comes on suddenly from extraneous causes, the state of the heart remaining, as far as is ascertainable, in precisely its previous condition; that dropsy comes and goes under treatment and spontaneously, while the organic changes in the heart are permanent and unmodified."

He does not, of course, ignore the influence of heart-disease, acknowledges that local conditions in the heart establish a difficulty in the circulation, but asks, "What influence actually and directly leads to the dropsical exosmosis?" replying that it is compound—in the blood, impoverishment—in the capillaries, a conceivable variation in density or texture—in the tissues, innutrition. He believes also that not stagnation merely, but other and more effective agencies work out all these changes.

A sufficient reply might be given to all this in the words of Dr. Latham on the same subject: "There are several forms of unsoundness in the heart which may be said rather to *tend towards* a certain effect upon the circulation than necessarily to produce it. They must reach a certain amount before the effect is sure to follow. Yet when each separately would not be enough to produce it, from their combination it would arise inevitably."

Acknowledging the existence of this tendency to dropsy inherent in heart-disease, it is easily understood how a slight extraneous cause, a cold, overwork, temporary debility, etc., increasing the task on the heart or diminishing for the moment its power, may bring it on, and how on the removal of these exciting causes it may disappear, the organic condition remaining the same. The changes in the blood, capillaries, and tissues, in which Dr. Walshe finds the actual and direct cause, again, can only be regarded as tendencies co-operating with those contributed by the impeded circulation.

It further seems to me difficult to imagine more effective agencies in the production of the changes referred to than a delayed circulation. The sluggish stream can neither furnish the digestive secretions in due quantity and of proper quality, nor take up the nutritive materials with normal rapidity, nor can the assimilating organs, impeded in their function by chronic congestion, effect perfectly the further changes necessary to the formation of healthy blood. The tissues, also, permeated only by a slow current of unhealthy blood, can neither obtain sufficient matter for their renewal, nor get rid of the products of waste, and consequently fall into a state of degeneracy.

But there is another consideration to be taken into account in the causation of dropsy, which goes far to explain its occurrence in one case and not in another; viz., the varying degree of pressure to which the capillaries are exposed under different circumstances of "stagnation" or "obstruction". When a vein is tied or blocked in any way, the heart continues to drive blood along the arteries of the part, and there being thus obstruction in front and pressure from behind, the capillaries are exposed to a distending force which favours effusion and a local dropsy is quickly induced. But in valvular disease of the heart, the case is by no means so simple. Here impediment in front and want of propulsion from behind combine in varying proportions to render the circulation slow. The predominance of obstruction on the one hand, or of mere stagnation on the other, will obviously make a great difference in the tendency to dropsy; but it is extremely difficult to estimate the degree in which one or other exists in any given case.

It would seem, at first sight, that, in aortic disease, whether obstructive or regurgitant, so long as the mitral valve remained competent, there could only be "stagnation" from propulsion of an insufficient amount of blood into the systemic capillaries, and there can be no doubt that this is the primary tendency of these affections. The right heart and the pulmonary circulation are, however, also affected. If blood arrived in sufficient quantity in the right auricle, as the right ventricle has an equal capacity with the left and has no affection of the valves to interfere with its action, it would send into the lungs a larger quantity than the left sent into the system, a larger quantity, therefore, than it could receive from the lungs. There would, consequently, be accumulation of blood within the pulmonary vessels, and obstruction to the pulmonary circulation, limited only by the slowness of the supply from the systemic veins. Hypertrophy and dilatation modify the results. Hypertrophy will certainly tend to prevent stagnation when the valvular lesion is constrictive, and dilatation with hypertrophy will have the same effect in regurgitation, the increased capacity of the

ventricle making up for a return of a portion of the blood from the aorta.

Turning now to clinical observation as bearing upon this point, obstruction or stagnation in aortic valvular disease. It is in aortic regurgitation that fatal syncope is liable to occur, caused by failure in the supply of blood to the nervous centres, and explained by what has been said on the subject of stagnation. Pulmonary apoplexy is not so common in aortic as in mitral disease, but it is occasionally met with. In some instances, but not invariably, it may be due to secondary mitral regurgitation from dilatation. Dropsy is common as a termination of regurgitant disease, sometimes with phenomena strongly indicative of pulmonary and venous obstruction, but often with symptoms which show that there is no engorgement of the veins and capillaries, and that the exudation of serum is due simply to the sluggish motion of impoverished blood through the tissues without pressure on the vessels. The face is pale, and the surface generally bloodless, the tip of the nose livid and cold, the veins comparatively empty. Pulmonary symptoms are not prominent. The dropsy generally advances slowly, and in the absence of dangerous pulmonary complications, often reaches an extraordinary degree of development, finally proving fatal by passive accumulation in the peritoneum, pleuræ, or pericardium.

In mitral disease, congestive pneumonia is more common as a final complication; and the clinical history is more or less that of pulmonary congestion, secondary changes in the right side of the heart, and systemic venous engorgement—all characteristic of obstruction, as distinguished from stagnation. But the blood, finding its way into the left ventricle with difficulty, or regurgitating into the auricle, will be sent in diminished quantity into the aorta. Stagnation, therefore, enters into the case from deficient *vis a tergo;* but, as this arises secondarily from the obstruction cutting off the supply of blood, the latter will predominate. It is exceedingly difficult, however, during life, to estimate the degree of vascular pressure, unless dropsy is to be taken as an indication; and still more difficult to determine it by examination of the heart after death. I have already attempted to explain the conservative action of the secondary changes in the walls and cavities of the heart not due to weakness or degeneracy. I revert to it for a moment, only to say that, unless this be admitted, it seems to me impossible to understand how the circulation has been carried on at all in the state of valves often seen after death.

To return now to the application of the prognostic indications enumerated to cases of heart-disease, under the various circumstances mentioned in the early part of this paper. These indications we have found to be based upon the following considerations.

1. The organic condition of the heart, which will depend upon—

a. The valve affected; and the character, obstructive or regurgitant, of the lesion. This we learn by means of the murmurs. The order of relative gravity has been given, and the special dangers and tendencies of each pointed out.

b. The extent of the injury to the valve, and the degree of mechanical difficulty to which it has given rise. This, which is of far greater importance than merely ascertaining the seat of the lesion, is indicated by the structural changes in the walls and cavities of the heart, dilatation, and hypertrophy, and by

2. The degree of impairment in its functional efficiency, as shown by—

a. The evidence of derangement in the systemic and pulmonary circulation (habitual cardiac symptoms);

b. The liability to paroxysms of dyspnœa, or attacks of palpitation, etc.;

c. The existence of secondary consequences—pulmonary complications or dropsy.

3. The state of general health and soundness, including—

a. The condition of the blood and tissues—the existence of anæmia and innutrition;

b. The soundness and functional activity of the important viscera, or the reverse.

4. The presence or absence of conditions tending to aggravate the valvular or structural lesions in the heart, or to precipitate the occurrence of complications; such as—

a. The progressive or stationary character of the disease in the valves;

b. The structural health or degeneracy of the walls of the heart and coats of the great vessels, when this can be ascertained;

c. The mode of life of the patient.

As has been said already, these considerations have very different weight in different stages; the last class of conditions, which may be called dynamic influences, being of the greatest importance early.

The case in which a valvular murmur exists, without either structural changes or symptoms, has already been considered. The lesion here being trifling, and the mechanical difficulty *nil*, the only point to be determined is, whether the lesion is likely to be increased, which may happen if the valves are subjected to severe and constant strain from the mode of life of the patient, or from acute or chronic rheumatism or gout; and will almost certainly be the case, if the disease is degenerative in character. The liability of aortic regurgitation occasionally to cause fatal syncope must not, however, be forgotten. That this occurs without hypertrophy or dilatation, we have on the authority of Dr. Walshe. Whether there may have been a complete absence of symptoms, I am unable to state.

When, with a valvular murmur, there is hypertrophy or dilatation, or both, but no symptoms of deranged circulation, the most important point to ascertain is still the character of the lesion, stationary or progressive. Next, perhaps, in importance, will be the dangers to which the patient is exposed, by his mode of life, of further damaging the valve on the one hand, or of inducing complications on the other. The structural changes, however, being present, and by their presence indicating a condition of valve strongly tending to the production of functional derangement, this derangement will sooner or later follow, but at what interval of time will be most uncertain. The patient may reach the period of life at which a general decay of the powers takes place, and the damaged organ will probably be the first to give evidence of this; or some debilitating cause may intervene, or some complication arise in the lungs from exposure to cold, etc. The probability of early failure of the heart's vigour, the liability to complications from slight external causes, and the danger attending these complications, will all be greater, the greater the alteration in the walls and cavities of the heart. In the absence of symptoms, unless there is reason to believe the valvular affection degenerative or otherwise progressive in character, a continued immunity may be expected, with greater or less confidence, according to the amount of structural change; this expectation being limited by any indication of failure in general health and vigour, and subject to accidental interruptions.

As symptoms manifest themselves, hypertrophy and dilatation cease to be the only measure of the

valvular incompetence, which is more directly manifested by the evidences of deranged circulation in the lungs or system. These consequently are to be carefully inquired into. The pulse is to be examined chiefly with respect to the indications it gives of ample or insufficient supply of blood, the characteristic modification of the particular valvular affection present being always borne in mind. A comparison also should always be instituted between the strength of the pulse and the force of the heart's impulse. The state of the veins and capillaries will usually be evident, and is of the greatest importance. The circumstances under which dyspnœa is experienced, and the liability of the heart to palpitation, must be inquired into. The information thus obtained, considered in connexion with the existing valvular affection and the degree of dilatation and hypertrophy, will furnish grounds for an opinion as to the patient's actual condition. If the symptoms are not severe, he may long remain *in statu quo*, or may go downhill very gradually. His future prospects will depend greatly on the influences, favourable or otherwise, which may be in operation—on the state of his blood and tissues, on the pathological character of the valvular lesion, and on the external conditions to which he is exposed. The state of the blood and tissues will affect his immediate prospects: if he is anæmic and ill-nourished, unless these conditions can be remedied, more serious symptoms are imminent. The character of the valvular lesion will have a more remote bearing. The position and mode of life of the subject, whether he is poor, compelled to toil, and exposed to great variations of temperature, or is more happily situated, will obviously have a great influence, both immediate and remote.

When the symptoms become more grave, the degree in which they in themselves threaten life will first claim attention; and it will materially influence the prognosis, according as they are found to be due solely to the heart-disease, or are accounted for by exposure to unfavourable influences. The statical condition of the patient—the valve affected, the degree of dilatation and hypertrophy, the vigour of the heart's action, the state of the pulmonary and general circulation—will now be by far first in importance; the dynamic influences little operative. Taking now two patients, rich and poor, the balance will incline in favour of the poor man. For him, rest, good diet, treatment reversing the conditions which have accelerated the progress of the disease and precipitated its consequences, may do much. There are no equally powerful remedial measures that we can bring to bear on the patient who has enjoyed, and not abused, the advantages attending the possession of wealth.

When consequences still more serious have arisen —pulmonary œdema, or congestion, or inflammation, or apoplexy, dropsy of the areolar tissue, or of the serous cavities of the abdomen and chest—now, indeed, it matters not greatly for the moment, whether the valvular disease has been rheumatic or degenerative in origin. The first point to be considered is the amount of mischief in the lungs, or the extent of the dropsy, and the rate of development of the one or the other; whether, again, any adequate external cause has cooperated in inducing them; next, the degree of dilatation and hypertrophy which, as indicating the preexisting mechanical difficulty and injurious tendency of the valvular lesion, give now more definite prognostications than the state of the pulse, the embarrassment of the respiration, etc., which are affected by the complications possibly accidental. Under these circumstances, the chances are altogether on the side of the poor man, and almost in proportion to the labour and privation to which he may have been exposed; the complications arising not solely from the state of the heart, but being due also to external influences; whereas, in the case of persons who have previously been sheltered from all injurious agencies, the only assignable cause is in the heart itself; and it is improbable that, having so far failed as to permit of these complications, it will be able to cope with the further difficulty to which they have given rise.

ON THE EVACUANT AND ASTRINGENT PLANS OF TREATING CHOLERA.

By Hamilton Kinglake, M.D., Taunton.

Of the many diseases that rightly claim the attention of the physician, there is at the present time one which comes home to him with much anxiety, because of the uncertainty in the weapons at his disposal for resisting its invasion; and thus it is that, notwithstanding the light of past experience and the amount of intellectual energy that has been expended on the subject of cholera, we should at this moment be fiercely contesting the question whether the disease be best treated by one class of remedies or its exact opposite—*i.e.*, by evacuants or astringents.

I have no intention, in giving expression to the views which this controversy has suggested, to join or do battle on either side; especially as I think that, in this as in most other contested questions, the truth is divided between the belligerents. All that I propose to do is this: to inquire, in as few words as possible, how far the evacuant and astringent modes of dealing with cholera are consistent with the indications of cure as they present themselves in the course of the disease; and to assign to each class of remedies its proper place in the order of treatment.

Before, however, entering on this inquiry, it is necessary to be armed with a hypothesis, in definition, as it were, of the choleraic poison; and as the one which makes it to consist of organised germs, capable, under favourable conditions, of rapid increase and development, in the fluid on which they may have fastened, is in accord with the main facts in the history of the disease, there is every reason for accepting it until a nearer approach to the actual truth be attained.

From what we already know of the habits, so to speak, of the class of zymotic poisons to which that of cholera belongs, it would appear that the germs representing such poisons find their appropriate food, and therefore the main conditions of their activity and increase, in certain substances educed from organised matter in the course of its decomposition or conversion into more simple or binary compounds; so that, if the blood should happen to become unduly charged with such decomposing substances, either through its importing from without food, air, or water, in a tainted condition, or through any break in that after series of oxidations by which these, along with the effete tissue-products, are ultimately shorn of their organic character, the choleraic germs that might have existed in or subsequently obtained access to the blood so affected, would find there the condition ready at hand for perfecting their development: whereas, if the food, air, and water received into the system be free from taint, and the effete materials of the organism should follow their natural course of oxidation uninterruptedly, and go straight to the excretory organs to be eliminated, the quantity of decomposing organic matter existing at any one time in the blood would be kept within the limits consistent with

health; and in such case these same choleraic germs would have to struggle for life, with the probable result of being starved out and extinguished because of the failure of the means necessary for their continued existence.

Applying these views to the treatment of cholera in its early stage, do we not recognise the occasion for testing the so-called eliminative cure, and find a cogent reason for directing our remedies to the casting out whatever of noxiousness may have been admitted into, or have formed spontaneously in, the blood, not directly by its forced excretion through one channel, but by means of its oxidation, and conversion into those simpler principles, which, when thus elaborated, naturally effect their own elimination in detail at the several organs specialised for that purpose?

Acting on these indications, care should first be taken that the blood be bathed in pure and constantly renewed air, the skin being at the same time prepared by the scrupulous observance of personal cleanliness to take its share along with the lungs in effecting such interunion. This being accomplished, the process of oxidation may be promoted by diluents holding a certain amount of the alkaline carbonates in solution; and, inasmuch as this same process is apt to be interrupted by the presence in the blood of any excess of purely excrementitious material, such as carbonic acid, urea, and the colouring principle of the bile, that may have accumulated therein through the failure of the excreting organs wholly to eject it, the skin and kidneys, under such circumstances, might be assisted in the work of elimination by the ordinary remedies suited for effecting such ends; and if the indications should lie specially in this direction, the functions of the liver and intestinal glands may be promoted by small doses of mercury and Dover's powder, followed by a mild aperient, such as castor-oil, or by full doses of ipecacuanha, according to the apparent requirements of the individual case. If the diarrhœa should persist, or become serious in its character in spite of these remedies, it will be clear that the choleraic poison has become too potent or has gone too far ahead to be thus overtaken.

Every circumstance would now point to the necessity of adopting the astringent treatment either by acetate of lead or gallic acid, or by sulphuric acid in combination with chloric ether and aromatics; aiming thereby to save the blood from a further loss of a fluid holding a certain amount of oxygen in solution, and moreover rich in alkaline and other salts, which, there is every reason to believe, are not only essential to the integrity of the blood-corpuscles, and therefore to the performance of their main function as distributors of oxygen, but also tend to quicken the oxidation of such decomposing matters as may be unduly retained in the blood, and in so doing serve also to accomplish the great end in view, that of drying up the source from which the choleraic germs would otherwise draw their supply of food.

In the collapse, or algide stage of the disease, the eliminative treatment, through the instrumentality of oxygen, in one or other of its allotropic forms, might still be persevered in; but, inasmuch as the inspired air now fails to reach the blood because of the pulmonary arteries refusing to pass it on in its vitiated condition to the capillaries of the lung, our endeavour should be to compensate the defect by bringing the blood to the outer air; and this may, to some extent, be done by those means which have been found effectual in promoting the capillary circulation in the skin; *e.g.*, friction with turpentine, the hot-air bath, etc.; and if, in addition to these appliances, a trial be made of the injection into the veins of a warm solution of peroxide of hydrogen, giving thereby the spoiled blood a last opportunity of righting itself in the presence of the nascent oxygen that would then be afforded, we shall probably have done all that our imperfect knowledge of the disease would warrant us in attempting.

It will be inferred from what precedes, that the evacuant and astringent modes of treating cholera, though irreconcileable at first sight, may yet each be consistently adopted in its order, with the like object of eliminating from the blood, not the choleraic germs directly, but the organic products by which their life, their increase, and their poison-power, are sustained. It will also be seen that these same organic products may thus, in fact, become the principal factors in the causation of cholera; and that, as regards the treatment of the disease, those remedies are consequently indicated whose property it is to promote, either directly or indirectly, the oxidation, and thereby the breaking up and ultimate elimination of those matters in the blood which, in passing from an organic to an inorganic condition, would seem to furnish the special pabulum of the choleraic germ.

Transactions of Branches.

YORKSHIRE BRANCH.

ON A SINGULAR CASE IN WHICH A LARGE AMOUNT OF IODIDE OF POTASSIUM WAS EXCRETED IN THE URINE, WITH SUBSEQUENT DISAPPEARANCE OF THE GLUCOSURIA WHICH EXISTED AT THE TIME.

By James Braithwaite, M.D.Lond. (Editor of *Braithwaite's Retrospect of Medicine*), Leeds.

[*Read July 26th*, 1866.]

On the 2nd of December, 1864, I was sent for to attend a woman sixty-four years of age, who complained of feverish symptoms, which she attributed to cold. The skin was hot, the pulse quick; and there were mucous *râles* all over the posterior part of the chest. She had cough, and expectoration, which, however, was not rusty in appearance. Her urine was free both from sugar and albumen. She soon improved, and went down stairs again; but she did not regain her strength beyond a certain point, and during the early part of January she grew weaker; complained very much of the cold; her skin assumed a dusky shrivelled appearance; her appetite entirely left her; and she was obliged to return to bed. She was quite free from fever, but so feeble that she could hardly remain upright in a chair many minutes at a time. I found that her urine now contained sugar; it was of specific gravity varying from 1022 to 1032; it was neutral or slightly alkaline immediately secreted; it contained a mere trace of uric acid. This was the state of the urine on the 18th, 19th, and 20th of January. On the 21st, however, the sugar had quite disappeared—there was no trace of it; but, on adding strong nitric acid to the cold urine, a dense and very copious, reddish black, amorphous precipitate was thrown down. This consisted of pure iodine, which was precipitated in a crystalline form by adding nitric acid to the urine, and which gave the characteristic blue reaction with starch.

On the next day, the sugar again reappeared in the urine in large amount; the specific gravity was 1032; but there was not a trace of iodine.

On the 23rd, the specific gravity was 1041; and there were both iodine and sugar. The following day, there was the sugar alone; nor did any iodine subsequently appear in the fortnight during which I

daily examined the urine; but the sugar remained as before. From this time she rapidly regained her health and strength, and I ceased to attend her. On May 1st, I found the urine quite free from sugar; and I have recently found it so still.

It is difficult to say, with any approach to accuracy, what amount of iodine was passed in the two days on which it occurred in the urine. I am satisfied, however, that it was very large; for the precipitate from four ounces of urine covered the bottom of the porcelain dish, in which it was just contained, to a depth of rather more than a line. I unfortunately did not weigh the precipitate obtained from four ounces of the urine; but it is, I think, under the mark to say that it would fill a drachm measure, and would consequently weigh about twelve grains.

I found that, three years before, she had taken iodide of potassium for rheumatic pains. This she procured at a druggist's, as she wanted it, in small quantities at a time. She has no idea how much she took. At the time she was passing sugar in the urine, she had none of the usual thirst of diabetics; nor was the urine much increased in amount. At first it could not be measured, owing to her having a little diarrhœa, and her voiding urine at the same time; but later in the case, when sugar was still present, I found the amount was about forty ounces. It may be objected, that the patient took the iodide on the days on which it was found in the urine; but I think that the large amount, and the fact of its occurrence on two days only, and these days separated by one during which no iodide was passed, preclude this idea. Ten or twelve days afterwards, I taxed her with taking iodide of potassium unknown to me. She most emphatically denied it, but told me at once that she had taken it three years before. The fact of the retention of so soluble a salt, and one which is generally eliminated so readily in the urine, for so long a period, is interesting in itself, and especially so in reference to the temporary diabetes produced, which, however, lasted at least two months. That the salt seemed to be set free by the previous attack of fever, may be explained on the supposition that it was retained owing to the electric affinity with some organ or organs, which affinity was destroyed, owing to a change in the polar state from fever. It is well ascertained, that the blood is always electro-positive with regard to the secreted fluids, which are electro-negative. It is possible that in fever the electro-positive state of the blood may be altered or lessened, and that this may account for the diminished secretions.

Ether as a Local Application. Dr. J. J. Black, of Philadelphia, in the *American Journal of Medical Sciences*, speaks favourably of the local application of ether in aphthæ and other diseases of the mucous membrane of the mouth. It is applied by a camel's hair brush. A little smarting at first is soon followed by relief. In "thrush", its results have been most pleasing among the many badly-nourished children of the Philadelphia Hospital. The deposit seemed to disappear gradually, and in most cases, after twenty-four hours, there was none whatever to be seen, and the one application completed the cure—at least, the local cure. In from three to four days the mucous membranes became perfectly normal. It has also been tested in three cases of "ulcero-membranous stomatitis". Dr. Black suggests its use in herpes preputialis, eczema, psoriasis, etc. Dr. Chas. E. Smith, jun., at his suggestion, has used ether locally in cases of chronic ulcer, with good results. (*Philad. Med. Ex.*)

We are requested to remind members of the Association that the Annual Subscriptions became due on the 1st of January. They can be paid either to the Secretaries of the Branches; or to the General Secretary, T. Watkin Williams, Esq., 13, Newhall Street, Birmingham.

British Medical Journal.

SATURDAY, SEPTEMBER 8TH, 1866.

CAPPING DAY AT EDINBURGH.

On the 1st of August, the annual ceremony of *capping*, or conferring medical degrees upon successful candidates, took place in the Assembly Hall. On this last occasion, twenty gentlemen received the degree of M.D., thirty-nine that of M.B. and M.C. (Master of Surgery), and three that of M.B. Since the passing of the new statutes for degrees in medicine in the University of Edinburgh, the number of Bachelors of Medicine has steadily increased; and this year, for the first time, the number of candidates receiving the degree of M.D. has been exceeded by that of Bachelors. Henceforward all the students of this University must of necessity first receive the preliminary degree of Bachelor, before proceeding to the "summi in medicinâ honores", as the diploma flatteringly, but somewhat facetiously, styles the doctorate.

The number of graduates has been steadily decreasing during the last few years—a fact which is a cause of congratulation rather than regret, as the falling off in numbers is traceable much more to the higher standard of qualifications now *insisted upon*, than to any great falling off in the number of students. This higher standard is obviously doing its work well. The number of candidates rejected at each successive examination has steadily increased, not because the candidates have fallen short of the mark to which their predecessors were wont to attain, but because a healthier spirit has imperceptibly come over those in authority. Those in authority have happily become persuaded that it is not the function of an University to compete with those corporations whose great aim it is to dispense, as early as possible, medical qualifications; and that an University degree should be a certificate of high culture and accurate knowledge, and not a mere license to practise.

The reputation of a great University will depend upon the renown of its teachers, and upon the reputation and success of its most distinguished alumni; but the value of its degrees will depend chiefly upon the difficulty which it throws in the way of ignorant men competing for them. The value of the degrees

of the London University depends perhaps more upon its having more rigorously than other bodies excluded all who had not a certain amount of accurate knowledge, than upon the high reputation to which some of its graduates have attained.

Candidates for the degree of M.D. have always, in the University of Edinburgh, been requested to present an inaugural thesis before being admitted to the degree. The custom has had little influence either for good or evil, in so far as the majority of candidates are concerned; for the thesis has been generally regarded as a formality which had to be fulfilled with the expenditure of as little labour as possible. The influence of the custom on the *élite* of the graduates has, however, been very good; for it has always been considered a highly creditable thing to be successful in carrying off one of the thesis gold medals, these being only conferred on the best of the dissertations which are the result of original investigation. Not an inconsiderable number of the Edinburgh graduates, who have in their subsequent professional career attained distinction or eminence for successful scientific researches, commenced these in competing for the thesis medals.

Two gold medals have this year been awarded. Of these, one was adjudged to a thesis on the Muscles of the Alligator; the other to a very important dissertation on the Physiological Action of Digitalis and Digitaline, by Dr. T. Z. Brunton. Dr. Brunton has investigated afresh the question as to whether digitalis acts as a diuretic when administered in a state of health, and has, with this object, subjected himself to a most laborious series of experiments. His results, whilst answering the question in the affirmative, will prove highly interesting as bearing upon the question of the influence of work, and more especially mental work, upon the excretion of urea. Dr. Brunton has attempted to determine the action of digitalis on the circulation, and has, with this object, made a large number of observations with the hæmadynamometer and sphygmograph. He has arrived at the following results. In the first place, digitalis lowers the number of cardiac pulsations, and, at the same time, causes contraction of the capillaries. The slowing is, in this case, apparently due to the direct action of the drug upon the heart, and not to the increase of the arterial tension from the contraction of the peripheral vessels. In the second stage of its action, the drug causes dilatation of the capillaries. The pulse then become irregular; quick beats being now and then interpolated amongst the slow ones. These quick beats become more and more frequent, until the pulse becomes a quick one, with a few slow beats occurring now and then. The dilatation of the capillaries leads to a great lowering of the arterial tension; and there now arises a tendency to syncope —syncope being the usual cause of death by digitalis in man. At a further stage, the different cavities of the heart, and even different parts of the same cavity, act irregularly (not in concert); and then, the muscular fibre itself becomes paralysed.

After the degrees had been conferred, and the gold medal awarded, Professor Christison, as promotor of the Faculty of Medicine, delivered an address, in which he gave an account of the early history of the Edinburgh School of Medicine, and drew attention to the causes which had influenced its destines, and raised it to the position which it has so long occupied. He contrasted the state of medical education at the time when Edinburgh first rose to a high position amongst the Universities of Europe, with its present condition; and maintained that it was a matter for congratulation and surprise that, with the great and constantly increasing competition in medical education, a greater decrease in the number of students attending its class-rooms and competing for its degrees had not occurred.

"Throughout England, medicine was taught nowhere in an University. In Ireland, it could not be studied in an University without the costliness of college residence, and submission to terms unpalatable and to many insuperable. But Edinburgh, blessed with the ablest teachers, also offered cheap living and no condition on the part of the student save due capacity and diligence. Thus, many circumstances, intrinsic and external, conspired to favour the success of the first great medical school established in Britain for her people, her dependencies, and her offsets. Soon after 1825, however, a change was undergone everywhere. Universities of repute, founded on the model of that of Edinburgh, and taught by men educated and graduated there, attained a firm footing in the United States. University College and King's College, London, laid the foundation of the flourishing University of the great metropolis. Ere long, the circle of rivalry was completed by the foundation of the Queen's University in Ireland and its Colleges. At the same time, the whole Universities of the continent, many of them most attractive, have been open to our countrymen and others for fifty years past. And, further, while competition in University teaching has thus grown up on every side, another important change took place simultaneously in the curtailment of the University privilege of exclusively qualifying for the University degree. Under the free-trade thus established in teaching, numerous schools were recognised in all quarters as qualifying more or less for graduation. Noticing next the fact, that qualification for the degree might now be obtained in great part at fifty schools at home and abroad, besides in the University, he said it was to him satisfactory proof of the vitality of the medical school, and the soundness of its system of instruction, that, under such wide-spread competition, the medical students in the Uniuersity had not fallen off in number more than had actually happened; for their number, which about 1825 varied from 800 to 900, had ranged for the last ten years between 450 and 550."

Dr. Christison also showed that, with the advance of medical science, the number of professorships in the University had greatly increased; the number of classes to be necessarily attended had multiplied; and the means of acquiring practical knowledge had

increased. With the multiplication of courses of instruction, it was a question, he remarked, whether the curriculum had not been over-charged with lectures, and whether enough time had been left for clinical study.

"To these questions, I am convinced that every competent and impartial inquirer must reply that grave errors have been committed, and demand correction. A material correction has been made in this University by the gradual reduction of the amount of lectures on all branches, and eventually the curtailment of the winter session to five months. For the old courses have thus been reduced from 120 or 140 lectures, as in 1820, to 100 only. But this reduction has been too indiscriminate. It has been applied sometimes where it is unsuitable, sometimes where it is insufficient. I am prepared to show, however, that, by altering our unequal sessions to two equal ones of four months each, with an interval, as at present, of a month between them, every object held in view by alarmists and reformers may be attained. Anatomy, chemistry, and practice of physic, restored to their due proportions, and all other branches, by a moderate extension here, or moderate abbreviation there, made more conformable to their own objects, and to the suitableness of the rest, and so as to leave ample opportunity for clinical study."

The latter portion of Dr. Christison's lecture was devoted to questions specially relating to the University of Edinburgh. If great improvements had been made, enabling students to acquire practical information in many subjects which were formerly not taught practically at all, there nevertheless remained much to be done. He drew attention to the very limited finances of the University, which rendered many desirable improvements impossible; and expressed a hope that the citizens of Edinburgh would not allow their celebrated University to be surpassed by others supported with greater liberality and more richly endowed.

At a late meeting of the Mansion House Cholera Relief Committee, the question of treatment of cholera by stimuli was brought forward by Dr. Andrew Clark.

"Dr. Andrew Clark took occasion to question some of the local committees as to whether, where brandy was administered, it was given under medical authority; remarking that, in cholera cases, any excess in the use of stimulants was positively injurious; that he had received letters from different parts of the east of London pointing out excesses in that respect; and that it had been observed that, immediately after pay-day among workmen, there had been a great influx of cholera patients."

Up to the present time, Edinburgh has been free from cholera; two cases having at most occurred. Dr. Littlejohn, the very active and able Medical Officer of Health, has, however, set on foot a system of inspection, or house-to-house visitation, which will doubtless be of the greatest use. The city has been divided into a number of districts, and these have been allotted to certain medical men who have kindly offered their services for the purpose. The medical men are to make a minute inspection of the district which has been confided to them; and are to report all nuisances which may have fallen under their observation to the Medical Officer of Health. The gentlemen appointed have already advanced considerably in their tedious but useful work.

The cholera has increased in Vienna. Several medical men have already fallen victims.

The Cattle-plague has assumed a serious aspect in Galicia and Hungary. The spread of it is attributed to the late unrestricted movement of cattle in consequence of the war.

Professor Pilz, the oculist and author, died at Prague last week, in his forty-fifth year.

Dr. Herz of Vienna strongly urges, in the *Wien. Med. Woch.*, on his medical brethren, the benefits of village hospitals, as adopted in England. He especially speaks of the Cranley Hospital.

M. Diday, in the *Gazette Méd. de Lyon*, describes yet another case of what he calls Eustachian syphilis, produced, as asserted, by the catheterism of the Eustachian canal. Really, this is drawing too much on the belief of the profession. If we are to believe all the French journals say, we must conclude that the Parisian aurist manufactures a case of syphilis every week by infecting the Eustachian tube with his dirty instruments.

The supporters of spontaneous generation have found a new disciple in M. Donné, Dean of the Faculty of Medicine of Montpellier.

M. Tavignot sends to his Academy a description of a new instrument for cataract; and adds to his letter an indication for the treatment of cholera.

La Fraternidad, a medical journal of Valencia (Spain), gives an account of an extraordinary scandal from abuse of power on the part of the sisters of charity in the provincial hospital of that city. After ablation of the eye in a child four years of age, the medical attendants had permitted the mother of the patient to sit up with her child during the night. The woman at the time was carrying a child at the breast. The sisters of charity chose to overrule the authority of the medical staff, and thrust the woman into the street in the middle of the night without her suckling child, which she only recovered from them after incessant applications. A Committee of the Faculty of Medicine at Valencia had convened a meeting, in which it was resolved *nem. con.* to bring this abuse of power under the notice of the civil authorities, as they found it imperative to have some restraint placed on the wilful behaviour of the sisters, who are declared now to take every opportunity of thwarting the intentions of the medical attendants in their relation to the sick.

THE CHOLERA.

The weekly return of deaths in London by the Registrar-General up to the 1st inst., shows a decrease in the deaths from the prevailing epidemic. The deaths from cholera during each of the last five weeks have been 1053, 781, 455, 265, and 198; and from cholera and diarrhœa together, 1407, 1045, 649, 394, and 326. Divided into districts, the 198 deaths from cholera in last week were distributed as follow. West 6, north 15, central 9, east 122, and south 46. While in the east districts the cholera has declined rapidly, it is nearly stationary in those of the south, the deaths happening chiefly by the river at Deptford and Woolwich, where (says the Registrar-General) it is to be feared the authorities and people are negligent, and where the pumps demand attention.

The daily return shows that the sudden increase of Saturday as suddenly subsided on the two following days.

Dr. Greenhill gives a remarkable instance of mortality due apparently to the introduction of a dirty cholera bed; thus enforcing the importance of the precept—Burn all the dirty bedding and linen of cholera patients.

The cholera epidemic in Liverpool shows a serious increase for the week ending last Saturday. Of the 592 deaths there registered last week, exceeding by 282 the average of the corresponding week of ten previous years.

In Dublin, the 147 deaths returned last week included 41 from cholera, although the mortality of that city from all causes scarcely exceeds the average.

The Bishop of London appears to be making a round of visits to the cholera-stricken districts of East London. His lordship's object seems to be to induce the different relief committees to act on some uniform, or as little varied, system as possible, in the relief to be afforded to widows, orphans, and convalescents.

A report from the Committee of Cholera Visitors in connexion with the King Edward Ragged Schools, Spitalfields, stated that they had under their visitation two hundred houses in that locality. The cases of cholera are fewer in number, but typhus is much on the increase. Many of the houses, they said, are found in a very shameful condition, and they are now drawing the attention of the landlords to the disgraceful state of the water-closets.

During thirteen days up to Sunday, 103 patients had been received into the temporary cholera hospital in Commercial Street, Whitechapel, of whom 27 had died, 31 had been discharged, and 45 remained.

It is stated that six cases of cholera have occurred at Richmond, three of which had proved fatal, one being that of a woman who had gone thither from Bow.

The Rev. T. Richardson, of St. George's-in-the-East, reports that since cholera had begun to subside low fever had set in. A local committee, also, from Bromley and Bow state that, while cholera was fast subsiding, fever of various kinds had supervened.

Vienna has been through the summer almost free from the disease; but in the return for the week ending 18th ultimo, 16 of the 366 deaths are referred to this head.

The news received from Naples regarding the cholera there is very reassuring.

In Berlin, the daily numbers of fresh seizures and of deaths by cholera, from the 18th to the 27th August, were respectively 30, 12; 45, 24; 41, 14; 40, 16; 32, 11; 25, 8; 28, 12; 27, 11; 40, 15. The exacerbations which thus occurred from the 26th to the 27th, appear to be accounted for by the fact that the former of these days was a Sunday; experience having proved the excesses in diet incident on the Sunday often to have been followed by such an increase. Up to Aug. 24th, the total of cases was 6295, of recoveries 1233, and of deaths 3627, while 1435 remained under treatment.

In St. Petersburg, the disease befel, from June 26 to Aug. 22, 11,951 persons; of whom 2594 died, 7941 recovered, and 1416 remained under treatment. Hence, supposing the cases reported were all genuine instances of cholera, the epidemic has proved not nearly so fatal as at Berlin.

In Moscow, the number of seizures up to August 19th was only 191; of which 61 ended in death, the number of recoveries being 49. (*Deutsche Klinik*, 1st Sept., 1866.)

THE NEW SYDENHAM SOCIETY.

The eighth annual meeting of the New Sydenham Society was held on August 10th, in the rooms appropriated to the British Medical Association at Chester; Mr. Turner, Vice-President, in the chair.

The minutes of the former meeting having been read, the Honorary Secretary presented the balance-sheet, and the draft of the report as prepared by the Council.

The balance-sheet showed that the Society had upwards of £1200 in its Treasurer's hands.

In reference to the works to be issued for the current year, the Report stated that one volume was already out, and that three others would follow. They are as follows. Bernutz and Goupil's Treatise on Diseases of Women. Translated and abridged by Dr. Meadows. Vol. I. Hebra on Diseases of the Skin. Vol. I. Translated by Dr. Hilton Fagge. The Society's Atlas of Skin Diseases; a Sixth Fasciculus, to comprise Three Plates.

In reference to the production of condensed translations, the Report had the following sentences.

"In Volume XXVIII (Bernutz and Goupil), the experiment has been tried of abbreviating the text of the original, and a volume of 590 pages has been condensed into one of 276. It is hoped that this has been done without any material loss to the usefulness of the work, whilst it has of course permitted a very great reduction in its cost. The Council is of opinion that from time to time other valuable foreign works of such large size as to render their translation *in extenso* inexpedient, if not wholly impracticable, may with great advantage be thus introduced to the English profession. It is not of course intended to contrast the value of a condensed translation with that of a complete one; but it is to be remembered that, instead of the full translation of one large work, it may be easily practicable to produce abbreviated editions of two or three. Not only is the Council able to secure for the responsible work of condensed translation the services of highly accomplished editors, but it trusts also as usual heretofore to obtain the co-operation of the authors themselves."

For 1867, four works are in preparation: Bernutz and Goupil's Treatise on Diseases of Women, Second and concluding Volume; A Biennial Retrospect of Medicine and Surgery; Hebra on Exanthems and Diseases of the Skin, Vol. II; and A Seventh Fasciculus of the Society's Atlas of Portraits of Skin Diseases.

The Report concluded by stating that the Society had obtained a considerable number of new members during the current year; and urged upon all in-

terested in its welfare, the importance of endeavouring to extend its sphere.

Dr. Morell Mackenzie moved, and Dr. Paget seconded, the adoption of the Report and Balance-sheet, which was carried unanimously.

Some discussion ensued as to the part of the Report referring to condensed translations; and all who took part in it coincided in the opinion expressed by the Council in their favour.

The ballot for officers next took place, and the following were declared duly elected. *President*—Jas. Paget, Esq., F.R.S. *Vice-Presidents*—W. W. Gull, M.D.; T. Laycock, M.D., F.R.S.Ed.; W. Bowman, Esq., F.R.S.; R. Partridge, Esq., F.R.S.; Sir D. J. Corrigan, M.D.; J. E. Erichsen, Esq.; W. T. Gairdner, M.D.; F. Sibson, M.D., F.R.S.; John W. Ogle, M.D.; E. Waters, M.D.; T. B. Peacock, M.D.; E. R. Bickersteth, Esq.; T. Turner, Esq., F.L.S.; Sir T. Watson, M.D., F.R.S.; C. J. B. Williams, M.D., F.R.S. *Council*—J. T. Banks, M.D.; J. Barclay, M.D.; R. Greenhalgh, M.D.; M. Martin de Bartolomé, M.D.; L. Beale, M.D., F.R.S.; C. Brooke, Esq., F.R.S.; T. Bryant, Esq.; J. Couper, Esq.; T. M. Daldy, M.D.; T. Hillier, M.D.; R. Druitt, M.D.; A. E. Durham, Esq.; E. L. Fox, M.D.; T. H. Bartleet, M.B.; J. B. Fletcher, M.D.; C. Heath, Esq.; W. McEwen, M.D.; F. E. Anstie, M.D.; R. Martin, M.D.; W. J. Clement, Esq., M.P.; H. Guéneau de Mussy, M.D.; Graily Hewitt, M.D.; E. Ray, M.D.; C. Handfield Jones, M.B., F.R.S.; R. W. Smith, M.D.; J. K. Spender, Esq.; A. P. Stewart, M.D.; W. S. Savory, Esq., F.R.S.; W. E. Swaine, M.D.; E. Wilson, Esq., F.R.S.; H. Weber, M.D.; J. G. Wilson, Esq. *Treasurer*—W. S. Saunders, M.D. *Auditors*—J. S. Bristowe, M.D.; Herbert Davies, M.D.; P. Gowlland, Esq. *Hon. Secretary*—Jonathan Hutchinson, Esq.

Dr. Sibson proposed, and Dr. Miller seconded, a vote of thanks to the retiring Council and to the Hon. Local Secretaries of the Society for their zealous services during the past year.

The meeting then adjourned.

The Social Science Congress. The preparations for the meeting are advancing rapidly. Mr. J. Stuart Mill has been requested to introduce the subject of extradition treaties. Mr. Wilson is preparing a paper on the principles of bankrupt law. The important topic of reducing the law of England to a compendious form will be dealt with by Mr. Gibbs. Sir J. P. Kay-Shuttleworth will read a paper on educational endowments. The Rev. W. J. Kennedy will introduce the subject of extending to rural parishes the advantages of education. The Rev. Canon Toole is writing on the physical education of the poor; Mr. B. Templar on the results of ten years' experience in the Manchester Free School, and that a valuable contribution to this section will be read by Miss Mary Carpenter. Dr. Angus Smith will discuss the evils produced by the non-consumption of smoke, and Dr. Stevenson Macadam, of Edinburgh, the pollution of rivers. Dr. Morgan, Mr. A. Ransome, and Mr. Royston are busy upon a report upon the health of Manchester and Salford for the last 15 years. The moot topic of the licensing laws will be discussed. Mr. Worthington will introduce the subject of working men's dwellings. Workhouse management will be the subject of a paper by Mr. North, and it is expected that recent disclosures will cause this question to be one of the most interesting at the meeting. Lord Brougham, the venerable President of the Council, will deliver an address during the sitting of the Congress. All the arrangements for the meeting are progressing satisfactorily. (*Manchester Guardian.*)

Association Intelligence.

COMMITTEE OF COUNCIL: NOTICE OF MEETING.

The Committee of Council will meet at the Queen's Hotel, Birmingham, on Thursday, the 27th day of September, 1866, at 3 o'clock P.M. *precisely.*

To receive the resignation of the Editor of the Journal, and to devise what steps shall be taken relative thereto; and other very important business.

T. Watkin Williams, *General Secretary.*

13, Newhall Street, Birmingham, September 6th, 1866.

WEST SOMERSET BRANCH: ORDINARY MEETING.

An ordinary meeting of the above Branch will be held at Clarke's Castle Hotel, Taunton, on Wednesday, September 26th. Dinner at 5 o'clock; after which, papers or cases will be communicated.

Gentlemen intending to be present at the dinner, or to read papers after, are requested to give notice to the Honorary Secretary.

W. M. Kelly, M.D., *Hon. Secretary.*

Taunton, September 4th, 1866.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT MEDICAL MEETINGS.

The next meeting of this Branch will be held at the Pavilion Hotel, Folkestone, on Thursday, September 27th, at 3 P.M.

Members desiring to bring forward papers, should communicate with the Honorary Secretary without delay.

R. L. Bowles, L.R.C.P., *Honorary Secretary.*

Folkestone, September 4th, 1866.

The American Army Medical Service. The following is Section 17th of the Army Bill passed by Congress during the last hours of its late session:—The Medical Department of the Army shall hereafter consist of one surgeon-general, with the rank, pay, and emoluments of a brigadier-general; one assistant surgeon-general, with the rank, pay, and emoluments of a colonel of cavalry; one chief medical purveyor and four assistant medical purveyors, with the rank, pay, and emoluments of lieutenant-colonels of cavalry, who shall give the same bonds which are or may be required by assistant paymasters-general of like grade, and shall, when not acting as purveyors, be assignable to duty as surgeons by the President; sixty surgeons, with the rank, pay, and emoluments of majors of cavalry; one hundred and fifty assistant-surgeons, with the rank, pay, and emoluments of first lieutenants of cavalry for the first three years' service, and with the rank, pay, and emoluments of captains of cavalry after three years' service; and five medical storekeepers, with the same compensation as is now provided by law; and all the original vacancies in the grade of assistant-surgeon shall be filled by selection by examination from among the persons who have served as staff or regimental surgeons or assistant-surgeons of volunteers in the army of the United States two years during the late war, and persons who have served as assistant-surgeons three years in the volunteer service, shall be eligible for promotion to the grade of captain.

Reports of Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, JUNE 26TH, 1866.

JAMES ALDERSON, M.D., F.R.S., President, in the Chair.

ELEPHANTIASIS ARABUM, OR ELEPHAS, SUCCESSFULLY TREATED BY THE APPLICATION OF A LIGATURE TO MAIN ARTERY OF LIMB; WITH REMARKS. BY THOS. BRYANT, F.R.C.S.

THE author, having made some general remarks on the disease, related a case of elephas, which occurred in the person of Mary T., aged 25, the daughter of Welsh parents, who was admitted into Guy's Hospital under his care on October 10th, 1865. She was a single woman, of healthy aspect, and had always enjoyed good health, never having had any illness of much importance. Ten years previously she had scarlet fever, which was unaccompanied by any of its ordinary complications; and it was during her convalescence from this disease that her left leg began to swell, the swelling beginning in the calf and extending upwards towards the knee; it was unattended by pain or any indication of general disease. For two years the enlargement was gradual, when she slept in a damp bed, and after this the disease progressed more rapidly, and extended upwards to the thigh. This increase was still, however, perfectly painless, She was subsequently admitted into the Carmarthen and Swansea Infirmaries, where all kinds of treatment were tried, but without success, the disease gradually progressing. Three years since, some small ulcers appeared in a deep sulcus in the calf, from which a quantity of dark fluid like blood escaped; the ulcers subsequentiy healed.

On admission, the left leg was found to be enormously enlarged from the ankle to the groin. To the hand it felt hard and brawny, the skin and cellular tissue being evidently infiltrated with a fibrinous material. Several deep sulci also existed between the folds of integument in the calf. The skin appeared to be coarse, but it was free from the cuticular induration and ulceration which is so frequently associated with this affection. It was also noted that the foot was perfectly sound. The measurements on admission were as follows:—Round the left or diseased calf, 24 in.; round the right, 15½ in.; round the diseased thigh, 28 in.; round the right, 21 in. The temperature of both limbs appeared to be alike. The pulsation in the left iliac artery was clearly to be felt; but the femoral and tibial vessels of the affected limb could not be made out. The patient was kept in bed for three weeks, with the leg well raised on an inclined plane. In the first week the calf had diminished an inch and a half, and the thigh one inch, all œdema having subsided; but after that date no further decrease took place. On the 31st of October the external iliac artery was ligatured, the patient being under the influence of chloroform. The vessel appeared to be perfectly healthy, and of normal size. The whole limb was subsequently swathed in cotton-wool, and raised as before. The subsequent progress of the case was one of uninterrupted success. The limb rapidly became softer and smaller, the calf measuring at the end of the week 19½ in., and the thigh 24 in., being three inches less than it was on the day of operation. At the end of the second week the limb had diminished another inch; and on the fifteenth day the ligature came away from the iliac artery, the limb all this time having been free from pain, and quite warm. By the 30th of November the wound had quite healed, and the patient's health was very good. By the 30th of December the calf had become reduced to 18½ in.; by January 31st it measured 16⅜ in.; by February 21st it was only 15⅞ in.; and on March 15th it measured 15½ in., being but three-quarters of an inch larger than the sound limb. The skin had gradually contracted, and had become natural in its aspect; all brawniness of the limb had also gone. The patient at the present date is walking about with an elastic legging, perfectly sound.

In his remarks, the author referred to Dr. Carnochan's cases, which were published in 1856, and stated that it was from their perusal that he had been induced to adopt the practice illustrated by the case he had detailed. He then gave a brief outline of Dr. Carnochan's four cases, in all of which a good result was obtained. He alluded to a case of solid œdema of the foot operated upon in 1858 by Mr. Statham, and gave a brief outline of Mr. Butcher's case published in 1863. He quoted also an example of Dr. Fayrer, of Calcutta, and of Mr. Alcock, of the North Staffordshire Infirmary. He then passed on to consider the pathology of the affection, with the microscopical appearances of the structure involved. He alluded to the theory that it was a disease of the veins of the part, and referred to the fact, illustrated by his own case, of the foot being free from the albuminoid infiltration as an argument against the "venous" theory. He quoted Dr. Carnochan's opinion, that it was due to a morbid condition and dilatation of the principal arterial trunk of the member affected, and pointed out the fact that this condition was present in only one of the cases related. He then described the pathological condition of a limb the subject of this affection, with its microscopical appearances, and pointed out that it was apparently a disease of the cellular tissue of a part, and that it was essentially due to an infiltration of fibro-plastic elements; the elementary structure of a fibro-plastic tumour and of elephas being identical, excess of nutritive material and of organisable products being present in both. Under such circumstances he asserted that the principle of the operation which had been performed must be looked upon as rational, and the practice based upon it as scientific; for if the disease of elephas be due to an abnormal effusion of tissue-making elements, to an excess of nutrition in a limb, the attempt to check its progress by the application of a ligature to its main artery, by which it lives, must be regarded with favour. But whatever the theory of the practice may be, he proved that the practice itself was a good one, for the success of the cases he had brought before the notice of the Society was clear and unequivocal. They tended to show that a new means had been given to the surgeon to cure a loathsome and hitherto incurable affection, and another triumph had been achieved for the science and art of surgery.

Dr. WEBSTER said elephantiasis was a very common disease in Brazil. He referred to the very large size limbs affected by it attained. He remarked, too, on the fact that Mr. Bryant's patient had never been abroad, and on the novel treatment of the case.

Mr. LEE asked if there was any reason to suppose that there was disease of the arteries in this case.

Mr. GASKOIN said that cases of elephantiasis were of great interest. There was a question as to the identity of elephantiasis with elephas. Some say it is not a disease of the skin. No doubt it was a blood-disease, and the point of chief importance was to know if the anatomical characters were alike in ele-

phas and elephantiasis. In elephantiasis the blood-vessels were diseased and cartilaginous. Amputation and ligature of arteries were not always successful.

Mr. HULKE said it would be interesting to know if the changes in the arteries had been observed by Mr. Gaskoin himself. In the specimens examined by the Pathological Society no changes had been observed.

Mr. GASKOIN gave reference to statements by authors on the subject.

Mr. BRYANT said the case he had operated on was elephantiasis Arabum, and not elephantiasis Græcorum. He again referred to Dr. Carnochan's operation, and said that although Dr. Carnochan was led to perform the operation on the hypothesis that there was arterial disease, further cases showed that disease of arteries was usually not present. However, the practice seemed good, although the theory that led to it was not tenable.

Dr. GREENHOW said the Committee at the Royal College of Physicians quite agreed that elephantiasis Græcorum and elephantiasis Arabum were quite different diseases. One was a blood-disease, the other was local.

CASE OF OBLIQUE INGUINAL HERNIA ON EACH SIDE, IN WHICH, THE TESTES REMAINING IN THE BELLY, THE HERNIAL SACS DESCENDED INTO THE SCROTUM, AND ALSO ASCENDED UPON THE APONEUROSIS OF THE EXTERNAL OBLIQUE MUSCLES. BY J. W. HULKE, F.R.C.S.

A man, aged 27, was admitted into the Middlesex Hospital with strangulated hernia January 20th, 1865. The right side of the scrotum was filled with a large irreducible globular swelling, which also reached upwards along the groin to the anterior superior iliac spine. This latter part of the hernial swelling was superficial to the aponeurotic tendon of the external oblique muscle. There was a similarly-placed hernia on the other side, not strangulated. The symptoms of strangulation were very acute. Herniotomy was performed three hours after their commencement, but the patient died next day of peritonitis. The right testis was found in the belly; the left hung freely in the inguinal canal, from a mesorchion derived from the parietal peritoneum near the internal abdominal ring.

In reply to Mr. John Wood, Mr. HULKE said both the testes were free and undeveloped.

THE INFLUENCE OF ALCOHOL ON THE TEMPERATURE OF NON-FEBRILE AND FEBRILE PERSONS. BY SYDNEY RINGER, M.D., AND WALTER RICKARDS, M.D.

In this paper the authors gave the results of some observations on the influence of alcohol on the temperature of non-febrile and febrile persons, and a few on rabbits. The authors gave alcohol in poisonous doses to three non-febrile adults. The temperature was greatly depressed in two. The depression amounted to 3° Fahr. In the third case the temperature was but little influenced. The subject of this observation was a confirmed drunkard. He confessed to getting drunk whenever he had the opportunity.

Alcohol was also injected into the rectum of two rabbits. In both the temperature was considerably depressed. The depression amounted to 15° Fahr.

The authors therefore concluded that alcohol in poisonous doses caused a very considerable depression of the temperature of the body of non-febrile persons, and also that it was probable that habit obviated this effect. Further proof in favour of this latter conclusion was given in a subsequent part of the paper.

The rapidity of the fall of the temperature after death of two patients and one rabbit was ascertained. This was compared with the rapidity of the fall of the temperature after the use of alcohol. It was found that the temperature falls as rapidly after the use of alcohol in poisonous doses as after death. The circumstances determining the cooling of the body, however, differed in the two conditions. Thus during life much heat was carried off by the air inspired into the lungs. Assuming that the cooling effects of respiration were equal to those resulting from radiation from the surface of the body, it followed that alcohol possessed the power to diminish by one-half those processes that produce the heat of the body.

Both of the patients whose temperature was depressed suffered from nausea and vomiting. In order to ascertain if the depression of the temperature were due to the conditions that accompany vomiting, tartar emetic was given to a patient every ten minutes, and continued long after vomiting was produced. The administration of the antimony was continued seven hours. No depression of the temperature resulted. Thus the authors concluded that the depression of the temperature was not due to the vomiting produced by the alcohol.

Alcohol was next given, in ordinary doses, to non-febrile persons. Eleven observations were made. In eight the temperature was depressed. In three cases the temperature was unaffected. These three persons were strong adults. The quantity of alcohol given them was small (an ounce of brandy). Two of them were confessed free drinkers. The amount of depression was slight. The authors concluded that alcohol, when taken in ordinary quantities by non-febrile persons, caused a slight depression of the temperature of the body, but that the amount of depression which occurs was too slight to contraindicate its use.

Numerous observations were made to ascertain the influence of alcohol on the temperature of febrile persons. To some of the patients very large quantities of alcohol were given. To a child of twelve years old eleven ounces of absolute alcohol were given on one day. From these observations the conclusion was drawn that ordinary and extraordinary quantities of alcohol caused only a slight and temporary depression of the temperature of febrile persons, and consequently alcohol could not bring the temperature of febrile patients to that of health. But if alcohol should be indicated by the general condition of the patient, it would also to some extent act beneficially in virtue of its power to cause some diminution of the temperature of the body.

Some observations were made to ascertain the influence of alcohol on the pulse. From these the conclusion was drawn that alcohol increased the force of the pulse, but lessened its frequency.

In conducting these observations the following precautions were taken: the patients were kept in bed; all the conditions were kept the same; the thermometer was kept the whole time in the axilla, and the temperature was noted every few minutes. The observations were continued many hours—in some cases during the entire day.

ACCOUNT OF A SECOND CASE IN WHICH THE CORPUS CALLOSUM WAS DEFECTIVE. BY J. LANGDON H. DOWN, M.D.

This was another instance of extensive deficiency in the great commissural connexion of the hemispheres of the brain, associated with marked imperfection of the intellectual faculties, similar to the case recorded by the author in vol. xliv of the *Transactions* for 1861. The rarity of the abnormality was indicated by the fact that this was only the second time the author had met with it in the dissection of 150 brains of idiots.

Dr. SANKEY said the case illustrated the facility with which causes were attributed. The mental defect in this case had been put down to masturbation, when it really depended on congenital malformation.

Correspondence.

MEDICAL PROVIDENT SOCIETY.

LETTER FROM JOHN CLAY, ESQ.

SIR,—I am probably the only one who considers the Medical Provident Society in connection with the British Medical Association to be a decided success.

Whether the Society was or is wanted by the profession, is no business of the few outside grumblers. It is sufficient to say that thirty-five members of the profession have thought such an institution needed, that number having enrolled themselves since April 6th, 1865, the day of the Society's registration. It would, however, be more correct to say during twelve months only, as some weeks were required to get the Society into working order after it became registered. During the past twelve months nearly £100 have been contributed to the sick-fund alone, and are now ready to be applied for relief in sickness, etc.; and there is an auxiliary fund, I believe, amounting to nearly £700. The members have gradually increased during the past year; and, if it had not been for the opposition which has been made to the Society, I have reason to believe that the number of members would have been nearer a hundred than the number already enrolled.

A great deal has been said about the *dictum* of Mr. J. T. Pratt, that the Society would not be a success unless it had two hundred members. Did the Registrar, or any member of the Association, imagine that that number would be enrolled in one year? Were the 2300 members of the Association, out of, say, 30,000 medical men, admitted in one, ten, or twenty years? And I suppose we must consider the Association a success. It would have been sufficient to secure the stability of the Society if it had numbered two hundred some years hence, when the funds might reasonably be expected to be required. All that would be necessary during the next five years to ensure success is to keep down the working expenses of the Society, and then, when the institution could shew signs of vigour, I have no hesitation in saying that there would be no lack of contributing members. I confess I am much annoyed to find that the directors should be so dispirited and deficient in courage. Why not smile at the threats of a small band of discontented members of the Association, who, right or wrong, had predetermined to demolish the Society? I consider the Society to be quite safe, excellently organised; in fact, quite a model society. I believe no institution ever started under more favourable auspices, or can boast of a greater success, than the Medical Provident Society during the past twelvemonth, or dating from its establishment. Why, then, do the directors show the "white feather"? It is a hardship to the gentlemen who have so nobly joined the Society, to find that the hope of a secure provision in the hour of need should be so ruthlessly dashed from them in the manner in which it has been done.

My object in addressing you, sir, is to enter my protest against the winding-up of the Society; and I hope the other contributing members will also strenuously object to this being carried out. If they could only be induced, although the blow has been struck, to continue members of the Society, and try to double its numbers during the next year, the success of the Society would be secured beyond all doubt, as I could easily convince them. If the length of this communication did not warm me to pause, I could point out where the shoe does really pinch, and where is its remedy.

I will only say, in conclusion, that I am quite confident, with a moderate amount of energy, and prudent management, that the stability of the Society would in a few years be placed beyond the cavil of the most determined opponent. I am, etc.,

JOHN CLAY,
Vice-President Medical Provident Society.

95, Newhall Street, Birmingham, August 1866.

LETTER FROM H. VEASEY, ESQ.

SIR,—If all would speak their mind, Mr. Clay might find the less occasion to write himself sole advocate of our Medical Provident Society.

Had the detractors of this scheme been present at those sittings when Mr. Clay's notes proved with what care and acumen he had studied every rule; and could the financial ability, business-like conduct, and entire devotedness, to this unselfish purpose, have been duly appreciated by those who can more readily demolish than construct, a general expression of gratitude for disinterested labour, and of confidence in the management of this Society, would have been readily accorded.

It is a trite saying, that "every good work is a gradual work"; and when I see one not yet thirty, firm, and full of healthy vigour, willing thus to provide against contingency of ill, and regretting the possible discontinuance of such incentive to frugality and forethought, it seems to cry shame on all beyond this need, who might readily give to the Auxiliary Fund, or start their junior on this laudable course. Our report virtually says, "Sat citò, si sat tutò." May we not further suggest, "Manete paulisper ut celerius expediamur?" Requesting your indulgence,

I am, etc., H. VEASEY.

Woburn, September 3rd, 1866.

SIR,—I, like Dr. Clay, beg to enter my protest against the dissolution of the Society; feeling sure that only time is required to increase the number of its members, and that it will ultimately prove a success and a great boon to the profession.

I am, etc., M.D.

THE BRITISH MEDICAL ASSOCIATION: READING OF PAPERS.

LETTER FROM THOMAS SKINNER, M.D.

SIR,—As a member of the British Medical Association I claim the privilege of addressing my fellow members through the pages of our JOURNAL; and I do so on the present occasion, not with the object of destroying existing unity, or of interfering with the great necessity there is for being true to ourselves—sentiments so beautifully, so feelingly, so lovingly alluded to by the greatest orator that has ever appeared among us; I mean Mr. Bowman, in his admirable address—but I do so, sincerely believing in my heart that the very life-blood and "existence of the Association is at stake if the gross mismanagement which I am about to allude to, and which occurred at the Chester meeting, is not rectified in the future", and that, too, *before* the next annual meeting of the Association.

The Association was founded by a provincial practitioner; it was born of, and cradled by, him in the

provinces; it was originated by him in order to meet a great want felt in the provinces, and felt by no man more than by the founder himself, the ever-to-be-remembered Sir Charles Hastings. I mean, the interchange of thought, the rubbing of mind upon mind on medical subjects. It was founded primarily, for "the promotion of medical science", and, secondarily, for "the maintenance of the honour and interests of the medical profession". (*Draft Charter.*)

Every succeeding year proves, that, so far as the annual meetings are concerned, scientific discussion, "the promotion of medical science" is but a secondary object, if even that; but this year beats all the preceding ones for mismanagement, as three days elapsed, or very nearly elapsed, before a single paper was read, and there were twenty-eight papers upon the list. Mr. Nunneley of Leeds led off, and nearly occupied three-quarters of an hour. Mr. Steele of Liverpool followed; and, after being several times most unceremoniously interrupted in an important practical paper, and called to time—although no time was ever specified—he had actually to leave a large and important portion of his paper undelivered. These were all the papers out of the twenty-eight upon the list which were read, during a sederunt of the Association of three entire days. On Friday, the fourth and last day—the "Sixth General Meeting"—the Association met at 9.30 A.M., instead of 10 A.M., as generally understood and advertised. The consequence was, that Mr. Steele and Dr. Richardson considered themselves warranted in protesting against a resolution which had been passed and carried unanimously in their absence, with reference to the Charter, neither of these gentlemen having received notice of the change in the hour of meeting. The resolution come to by the meeting had to be rescinded until the subject is again discussed at an annual meeting. One hour at least was consumed in receiving an excuse for the absence of Professor Christison—in reading a report from a special committee—and in some miscellaneous speaking which would have puzzled a reporter to give an account. Just before the papers were begun to be read, a motion was put to the meeting and carried; namely, that all papers were to be restricted to *fifteen minutes* in the delivery. One can conceive of reports of cases being so restricted; but papers on philosophic subjects in which the welfare and the lives of the community are concerned. *Cui bono?* Only fancy! "The philosophy of the algide condition in cholera" being treated of, and done justice to, in *fifteen minutes!* If such a paper is worth a hearing at all, it demands a full and a patient hearing as becomes a body of philosophers. By this time most of the twenty-six remaining readers of papers had left the meeting, sick and tired of the delay. One at least of those who remained, and who, at a great sacrifice of time, of thought, of inconvenience to himself and patients, not to mention expense, rather than mangle the production of his own brain, preferred to leave without a hearing. If the Association is desirous of fulfilling the object for which it was founded, "the promotion of medical science" (not the discouragement of investigators), then, assuredly some powerful effort must be made, and the sooner the better, to ensure to the future readers of papers and cases *as fixed and certain a hearing as the readers of addresses;* and the more so is this necessary in such an Association as ours, because in very many instances the annual and branch meetings are the only opportunities which many medical men in the provinces have of discussing or having expounded to them personally medical subjects.

Of course, as usual, no one is to blame. Indeed, it is not my object to blame any one. The interest of the Association is my interest, and I cleave to it as Dr. Richardson said he "would to his own life"; and it is on account of this extreme regard which I bear towards the Association, of which I have been a member since 1854, and from a strong desire to see it flourish and become a mighty power in the land, that I now write these lines.

In conclusion, I believe it possible so to time the meetings of the Association, that every one may know when his paper is likely to have a hearing. At Chester one could not calculate upon a day, leave alone an hour; and when an official was appealed to, he could give no information whatever,—not even to the individual whose paper stood *sixth* upon the list. If the papers and cases were looked upon and attended to as they ought to be, and if some one was made responsible for the proper management and superintendence of the real comforts of the members in this respect, there would be no hurry-scurry like the last week in Parliament, there would be no lack of readers of papers, no lack of valuable material for the JOURNAL. Our meetings would be conducted much more harmoniously and orderly; there would be no complaints nor disappointments, and members could better divide their time between business and pleasure. As it stands at present, to purpose reading a paper at an Association meeting, is simply to inflict self-martyrdom, or to do penance for the benefit of the souls of others instead of your own.

I am, etc., THO. SKINNER, M.D.

1, St. James's Road, Liverpool, 11th August, 1866.

FOWLER'S SOLUTION IN LUPUS.

LETTER FROM EDWYN ANDREW, M.D.

SIR,—In the discussion which took place at Chester after Dr. Broadbent's paper on Cancer, I mentioned that I was giving with advantage in a case of lupus half-drachm doses of Fowler's solution of arsenic.

So many members of the British Medical Association seemed to think I was mistaken, owing to the largeness of the dose, that I thought it might be more satisfactory to give you the exact manner of treatment.

I find, from my day-book, that I began with ten-minum doses of the solution on May 8th (generally taken three times a day after food). I increased it on May 24th to twenty minims; on June 6th to twenty-five minims; on June 14th to thirty minims; on June 19th to thirty-five minims; which last dose I have continued to the present time with the greatest advantage, the lupus having nearly healed.

Of course, I have watched these large doses with the greatest care, and with most stringent orders that I should be communicated with immediately soreness of the eyes or any diarrhœa should take place.

My experience tells me that there are certain constitutions which are highly benefited by large doses of arsenic, and on whom small doses seem to have little or no effect.

More particulars may be given, if required; but these are sufficient to prove the truth of my large doses. I am, etc., EDWYN ANDREW.

August 15th, 1866.

CONDEMNED MEAT. In the last five years no less than 939,016 lbs. of meat have been condemned in the city markets as unfit for human food. This statement relates only to the city proper; in the metropolis outside the city there is no effective supervision, and animals in the most diseased condition may be slaughtered and sold.

Medical News.

UNIVERSITY OF LONDON. The following are lists of candidates who passed the respective examinations indicated. 1866. First M.B. Examination. Pass Examination. Entire.

First Division.

Anderson, Tempest, University College
Cluff, James Stanton, B.A.Dublin, University College
Loy, Thomas Richardson, University College
May, Bennett, Sydenham College, Birmingham
Ridge, John James, St. Thomas's Hospital
Taylor, Frederick, Guy's Hospital
Wagstaffe, William Warwick, B.A., St. Thomas's Hospital

Second Division.

Addenbrooke, Edward Homfray, St. Bartholomew's Hospital
Batt, Charles Dorrington, St. Bartholomew's Hospital
Blackley, John Galley, Royal Manchester School of Medicine
Crowfoot, Edward Bowles, St. Bartholomew's Hospital
Fiddian, Alexander Paull, King's College
Marshall, Henry Flamank, Sydenham College, Birmingham
Nettleship, Edward, King's College
Saunders, Richard Careless, London Hospital
Willoughby, Edward Francis, University College
Wyman, J. Sanderson, Sydenham College and St. Bartholomew's

Excluding Physiology.

Second Division.

Heathcote, Rowland, Royal Manchester School of Medicine
Hurlstone, Adam Payton, University College
Lees, Joseph, St. Thomas's Hospital
Seccombe, Edward Hepburne, King's College
Yeo, Isaac Burney, King's College

Physiology only.

First Division.

Berridge, Edward William, St. Bartholomew's Hospital
Bird, John Durham, Royal Manchester School of Medicine
Raine, George Rolph, Guy's Hospital

Second Division.

Bell, Cyril William Bowdler, B.Sc., Hull Medical School
Dove, John Reuben Bathurst, London Hospital
Eager, Reginald, Guy's Hospital

Examination for Honours.

First Class. *Anatomy.*

Cluff, James Stanton, B.A.Dublin (Exhibition and Gold Medal), University College
Taylor, Frederick (Gold Medal), Guy's Hospital

Physiology, Histology, and Comparative Anatomy.

First Class.

Cluff, James Stanton, B.A.Dublin (Exhibition and Gold Medal), University College

Second Class.

Ridge, John James, St. Thomas's Hospital

Third Class.

Anderson, Tempest, University College

Organic Chemistry and Materia Medica and Pharmaceutical Chemistry.

First Class.

Cluff, James Stanton, B.A.Dublin (Exhibition and Gold Medal), University College
Taylor, Frederick (Gold Medal), Guy's Hospital

Second Class.

Anderson, Tempest, University College

Third Class.

Ridge, John James, St. Thomas's Hospital
Wagstaffe, William Warwick, B.A., St. Thomas's Hospital

INDIAN ARMY. The following candidates for Her Majesty's Indian Medical Service were successful at the competitive examination at Chelsea in March 1866, and have undergone a course of instruction at the Army Medical School. The number of marks are the totals obtained at the examinations at Chelsea and at Netley.

Griffith, G., London	5060
Cameron, L., University of Edinburgh	5060
Raye, D. O. C., Ireland	5036
Gage, J. T., University, Aberdeen	4600
Vesey, R. M., University, Dublin	4580
Warburton, W. P., University, Edinburgh	4460
Birch, E. A., Ireland	4370
Palmer, D. P., Ireland	4320
Keegan, D. F., University, Dublin and London	4135
Galloway, W. W., University, Aberdeen	4098
Eades, L. E., Edinburgh and Dublin	4090
Gray, W., University, Dublin	4085
Hughes, D. E., University, Edinburgh	3945
McKenzie, S. C., University, Edinburgh	3936
Holmested, T., London	3852
Macpherson, J., University, Aberdeen	3770
Bowman, R., Ireland	3767
Laing, A., Edinburgh	3760
Miller, A. H., Edinburgh and Dublin	3705
Cody, T., Edinburgh and Ireland	3670
Nanney, L. C., London and Glasgow	3637
Raby, J., London and Edinburgh	3395
Shannon, P. J., Ireland	3130
McVittie, C. E., Edinburgh and Ireland	3023
Cullinan, C. M., Ireland	2955
Mayer, H. C., Edinburgh and Ireland	2955
Rickard, F. M., London	2720
Bateman, D. F., Edinburgh	2590

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS, EDINBURGH. The following gentlemen have since 1st April last passed the examination in general education.

Ashburner, T., Lancashire
Bogle, J. H., South Wales
Brown, D. B., Glasgow
Brown, D., Comrie
Drew, H. W., Cape of Good Hope
Lyall, Andrew
Mackenzie, H., Edinburgh
Mackie, W., Glasgow
Mills, D. E., Nottingham
Naismith, G. C., Sultanpore, Oude
Robathan, G., Monmouthshire
Sime, David, Wick
Somerville, J., Moffat
Souter, John
Stewart, W. D., Madras
Sutherland, D., Wick
Taylor, F. P., New Brunswick
Vacher, F., London
Vaughan, P. M., Cheshire

The following gentlemen passed their first professional examinations during the July and August sittings of the examiners.

Ahearne, T. M. W., Cork
Beamish, Orssen, Clonakilty
Bryson, T. M., co. Londonderry
Dingwall, J. L., Glasgow
Elliot, G. S., Exeter
Jennings, John, co. Cork
Kane, J. B. N., Kilkenny
Knox, Wm., Tyrone
Limrick, Wm. T., Cork
Park, D. S., Hawick
Stuart, James, co. Cavan
Thomson, Wm., Edinburgh
Todhunter, Thomas, Whitehaven
Vacher, Francis, London
Wilson, John, Edinburgh
Windele, Richard, Cork

And the following gentlemen passed their final examinations, and were admitted L.R.C.P.Edinburgh, and L.R.C.S.Edinburgh.

Bookless, James P., Kelso
Bowie, John, Edinburgh
Brass, J. T. W., Orkney
Brown, Henry, Belfast
Chisholm, Wm., Edinburgh
Cribbes, H. S., Perthshire
Dolan, T. M., co. Tipperary
Dutt, Omesh C., Calcutta
Fergusson, Jas., Kirkcudbrightshire
Fearon, Thomas, Warrenpoint
Kerr, J. A. C., Edinburgh
Little, J. F., Kilkenny
M'Gann, T. J., co. Clare
Maher, Nicholas, Thurles
Meehan, James, Limerick
Paterson, Andrew M'Master, Madras
Sandham, Wm. Sale, Cork
Stewart, Wm. Day, Madras

ROYAL COLLEGE OF SURGEONS, EDINBURGH. The following gentlemen were admitted Fellows of the College at a meeting held on the 2nd inst.

Carmichael, W. Scott, L.R.C.S.E., Edinburgh
Manford, R. A., L.F.P. and S.G., Inverness
White, Joseph, L.R.C.S.E., Nottingham

The following gentleman passed their final examinations, and were admitted Licentiates of the College during the July sittings of the examiners.

Balfour, Wm. G., Montrose
Campbell, C. M., Cawnpore
Fitzgerald, R. G., co. Carlow
George, John, Carrickfergus
Gordon, James, Perthshire
Kingston, T., co. Cork
M'Nicol, J. C., Argyllshire
Moore, J. H., Downpatrick
Muir, John Stuart, Leith
Power, Robert V., Cork
Taylor, Francis P., St. John's, N.B.

APOTHECARIES' HALL. On August 9th, 1866, the following Licentiates were admitted:—

Croft, J. H., Guy's Hospital
Eagleton, Joseph, Wolverhampton
Hayden, J. A., High Wycombe
John, William, Haverfordwest
Keall, W. Powell, Bristol
Kingston, J. L., 2, Barking Road
Moore, George, Birmingham
Phillips, J. M., Taibach
Pollock, Robert, Lonsdale, Paisley
Salzman, F. W., Brighton
Watson, G. S., St. Marylebone Infirmary

At the same Court, the following passed the first examination:—

Carré, L. C. Achille, Guy's Hospital

Duke, Joshua, Guy's Hospital
Parkinson, Edmund W., St. George's Hospital
Sewell, Allen, University College Hospital

Admitted on August 30th—
Read, Charles, Falmouth

At the same Court, the following passed the first examination:—
Furnivall, Charles Henry, Westminster Hospital
Kelly, Alfred, King's College Hospital
Laking, Frank Henry, St. George's Hospital

APPOINTMENTS.

*Carter, R., M.B., appointed Resident Medical Officer to the United Hospital, Bath.

Army.

Archer, Assistant-Surgeon S., 98th Foot, to be Staff-Assistant-Surgeon, *vice* G. Traynor.
Carr, Surgeon J. K., M.D., 32nd Foot, to be Surgeon-Major, having completed twenty years' full-pay service.
Combe, Surgeon M., M.D., Royal Artillery, to be Surgeon-Major, having completed twenty years' full-pay service.
Grant, Surgeon W., M.B., 87th Foot, to be Surgeon 1st Foot, *vice* C. W. Woodroffe.
Woodroffe, Surgeon C. W., 1st Foot, to be Surgeon 87th Foot, *vice* W. Grant, M.B.

Royal Navy.

Adams, John S., Esq., Surgeon (additional), to the *Hibernia*, for Sheerness Yard.
Inman, William J., Esq., Assistant-Surgeon, to the *Dart*.
M'Aree, Francis, Esq., Surgeon (additional), to the *Ganges*, in lieu of an Assistant-Surgeon.
Negus, Fysher, Esq., Staff-Surgeon, to the *Hibernia*.
Peckthorn, Thomas R., Esq., Staff-Surgeon, to the *Saturn*.
Redmond, William, Esq., Assistant-Surgeon, to the *Industry*.
Yarde, William, M.D., Assistant-Surgeon, to the *Donegal*.

Indian Army.

Anderson, Deputy Inspector-General F., M.D., to be Inspector-General of Hospitals, Bengal Establishment.
Hutchinson, Surgeon-Major T. C., to be Deputy Inspector-General of Hospitals, Bengal Establishment.
Lacy, Surgeon-Major T. S., to be Deputy Inspector-General of Hospitals, Bengal Establishment.

Volunteers, (A.V.=Artillery Volunteers; R.V.=Rifle Volunteers):—

Fairbank, F. R., M.D., to be Assistant-Surg. 19th Lancashire A.V.
Gimson, W. G., M.D., to be Honorary Assistant-Surgeon 10th Essex R.V.
Taylor, F. A., Esq., to be Assistant-Surgeon 11th Hampshire R.V.
Wilson, J., Esq., to be Surgeon 19th Lancashire A.V.

The Devonport Naval Hospital. On the 4th instant, the Board of Admiralty visited the Devonport Royal Naval Hospital. They were received by Captain Codd, Dr. Stewart, Dr. Beith, and Dr. Duirs. Their lordships "walked" the hospital, where some improvements suggested themselves. Sir John Pakington made several inquiries of Dr. Stewart as to the accommodation, and expressed satisfaction at the good order and cleanliness everywhere displayed.

The Colour of Man. In the Physiological Section of the British Association for the Advancement of Science, Dr. John Davey read a paper on this subject. After enumerating the varieties of colour of the human race, and their connexion with latitude and climate, he proceeded to the consideration of the probable causes to which the difference of colour was to be referred. Of these, he placed first exposure to the sun's rays; next, warmth of climate and an average high temperature throughout the year, under the influence of which there appeared to be a tendency to accumulation of colour in the system, as indicated by the little difference of colour of the arterial and venous blood under the exposure of a high temperature. He adverted to hereditariness or ativism as deserving of attention in considering the colour of races, and more especially its importance as to the great question of unit or difference of race *ab origine;* how, if climate should be found to have greater effect than blood in modifying colour, unity might be inferred, and *vice versâ*.

Consumption of Spirits. In the first half of the present year 10,290,006 gallons of home made spirits have been retained for consumption as beverage in the United Kingdom. This is an increase in each of the three kingdoms over the quantity in the first half of 1865, and a still larger increase over the quantity in the first half of 1864. In the same first six months of 1866, 1,324,874 proof gallons of brandy imported from beyond seas have been entered for home consumption here, and 1,932,851 proof gallons of rum.

Naval Surgeons. We believe that the Lords of the Admiralty are contemplating carrying out very shortly one of the provisions of the circular which had its origin in Vice-Admiral Sir Alexander Milne's Committee, by promoting to the rank of staff-surgeon certain officers who, although they have not served the full term of twenty years on full pay, have by their zeal and professional attainments attracted the attention of the authorities. This intended act of their lordships is anxiously looked for by the profession. (*Army and Navy Gazette.*)

Ozone. In the Chemical Section of the British Association, a paper by Dr. Daubeny, on Ozone, elicited from Mr. Glaisher a statement of the results of his meteorological investigation on behalf of the Government on the outbreak of cholera in 1854. He found that where ozone existed there was abundant health; and that where there was none, sickness prevailed. The opinion of the section was that, if accurate relative results were to be obtained, there must be an uniform system of test-papers.

A New Fossil Reptile. M. d'Archiac lately laid before the Academy of Sciences the remains of a fossil reptile found by M. Frossard, a Protestant clergyman, in the bituminous schistus of Muse, near Autun, Saône-et-Loire. The new reptile belongs to Owen's Ganocephali, strange vertebrata, with uncertain characteristics, seemingly representing the embryo age of reptiles, just as the Ganoids with vertebra incompletely ossified represent the embryo age of fishes. The new fossil is to be called *Actinodon*.

Population of Towns. At the late meeting of the British Association, the Rev. A. W. Worthington read some remarks on the Disproportion between the Male and Female Population of some Manufacturing and other Towns, which in substance stated that the proportion of females to males on the whole population was 105 to 100; but where employment differed in different towns and districts, and as men or women found ready employment, one or the other predominated in number. In the mining district of which Newcastle was the centre, and that in which Sheffield stood, in Stafford, in the barrack towns of Canterbury, Winchester, and Colchester, men predominate; while in manufacturing districts like Manchester and others, and notably in Norwich, there is an excess of women. In Nottingham there was an extraordinary excess of women over men; and this was also the case in seaport towns like Plymouth and Bristol; and it was still more marked in Liverpool. It is supposed that female labour in manufacturing districts will increase rather than decrease, owing to its comparative cheapness; but it is attended by serious social and domestic evils, especially juvenile mortality. The rate of illegitimacy was also higher where there was an excess of women, and in Nottingham that rate reached 10 per cent. of all the births. It was suggested that the means of amendment of this state of things was to be found in the promotion of family life, and especially by having the wife and mother to attend to her domestic duties; and employers of labour were urged not to employ married women.

Hospital for Women, Soho Square. The following gentlemen have been appointed by the Committee Vice-Presidents of this hospital: Sir William Fergusson, Bart., F.R.S.; Dr. Arthur Farre, F.R.S.; and Dr. Jenner, F.R.S. Sir Charles Locock, Bart., F.R.S., has many years occupied a similar position.

Sisterhood Nurses. At a meeting of the Guardians of the Strand Union, the question of allowing the sisters of the All Saints' Home, Margaret Street, to give their gratuitous services in nursing the sick poor in the house, was introduced. Mr. Corbett, poor-law inspector, bore testimony to the advantage which Chorlton Workhouse had derived from the sisters at a time of panic, when no other nurses could be obtained. The proposal was shelved, the general feeling of the board appearing to be against the introduction of the sisters as nurses.

Preservation of Meat. A new process for preserving fresh meat has been patented by Messrs. McCall and Sloper, who are at present at Buenos Ayres employed in making experiments on a large scale. They profess to be able to preserve meat in its fresh and raw state, so as to reach England from South America in the exact condition of butcher's meat just killed, at a cost of from fourpence to fivepence per pound. Their curing process is simple, and is based on the exclusion of oxygen from the vessel in which the meat is packed.

The British Association. Few things are calculated to impress more strongly upon the mind the difficulty of keeping pace with the amount of information poured forth on any given subject than proceedings such as those of the British Association at Nottingham, where nine sections or sub-sections were concurrently in session. Persons, therefore, who take an interest in scientific subjects, will learn with satisfaction that a report of the papers, discussions, and general proceedings, with which they may familiarise themselves at leisure, is to appear very shortly. The task of revising and editing this publication has been undertaken by Dr. W. Tindal Robertson, whose name and recent performances in his capacity of local secretary afford the best guarantee for the character of the forthcoming work.

New York State Inebriate Asylum. Up to 1864 there had been 7245 applications for places in this institution at Binghampton, from every State in the Union, and from Europe, Mexico, and the British Provinces, 520 of whom were opium eaters. There were 39 clergymen, 8 judges, 197 lawyers, 226 physicians, 340 merchants, 680 mechanics, 466 farmers, 240 gentlemen, and 805 women. One of the opium eaters, a lawyer, who had filled a highly responsible office, in one year drank 3200 bottles of M'Munn's preparation of opium. In one day he drank twenty bottles, equal to ten thousand drops of laudanum. Patients at this asylum are received for not less than a year, are watched, controlled, and medically treated. The expectation is that at least 70 per cent. will be radically cured. It was stated at the recent Temperance Convention at Saratoga, that the names of 1300 rich men's daughters are on the list of applicants for admission to this asylum.

Deputation at Dublin. On Monday last His Excellency the Lord Lieutenant received a deputation from the Royal College of Surgeons, headed by Mr. Butcher, the president, who read an address, to which the Lord Lieutenant returned the following reply:—Mr. President, Vice-President, Council, and Fellows of the Royal College of Surgeons,—I receive with much satisfaction your congratulations and expressions of respect on my arrival in this country as Her Majesty's representative. It is of great importance that an institution like yours should be presided over by so distinguished a body of men, who, by their scientific researches, as well as by their example and practical skill, must exercise a most beneficial influence over the medical profession. I wish at all times to enlist your efforts in any undertaking in which your professional knowledge may render your assistance the more especially valuable, and I shall always be ready to give my best attention to any suggestion you may be disposed to offer me, either on behalf of your own profession or in the interests of the whole community.

Archæology and Ethnology. At the recent meeting of the British Association at Nottingham, Mr. Robert Dunn read a paper "On some of the bearings of archæology upon certain ethnological problems and researches". He remarked that there was a fascination about the subject of pre-historic times and pre-historic man—about the revolutions of our globe as revealed to us by geological investigation, and of the generations of mankind by archæological researches, and that the very obscurity of the subject whets our zeal in its investigation. He asked what could be more fascinating than the wonders of geology as we ponder over the revolutions which the earth has undergone—search after the evidences of the first appearance of life upon its surface, and recognise in its successive and changing phases the varying animal forms, rising higher and still higher in the complexity of their structure up to the advent of man himself—to us the crowning theme of all these wonders. But when did he first appear? Was he pliocene, miocene, or still more ancient? All that we can assume is that in the fulness of time, when the earth was fitted for his reception by the fiat of the Almighty, man made his appearance. Then was brought into existence a being in whom that *subtle force* which we call *mind*, was the grand and distinguished attribute, raising him so immeasurably in the scale of being above the whole brute creation. He dwelt on the antiquity of man, remarking that the men of the Drift shared the possession of the forest-clad valleys and plains of Europe with the mammoth, the cave bear, and the woolly-haired rhinoceros, when the British isles were alike united to one another, and to the continent of Europe; observing Lartet's exploration of the Cave of Aurignac in the Pyrenees, not only as proving the high antiquity of man but as tracing back the sacred rights of burial, and also the still more important belief in a future state of existence, to times long anterior to history and tradition. To the cave men of those days and to the rude tribe on the valley of the Somme, with their rude flint implements, he found a parallel among existing savages and the Esquimaux tribes of the present day. Archæology, he said, was the link which connects pre-historic man with history; and, as Sir J. Lubbock had so well remarked, "they were too studied in their works—houses for the living, tombs for the dead, fortifications for defence, temples for worship, implements for use, and ornaments for decoration". In their modes of sepulchre, their tumuli, cromlechs, dolmens, and cistvaens, we had unmistakeable evidence of differences of race and of phases of civilisation, for these ancient tumuli did not belong to one period nor to one race of man. In the tumuli of Denmark, during the stone and bronze ages, the distinctive characteristics were so marked and striking as to point to men of the bronze period as being a new race in a much higher state of civilisation, and who had exterminated the previous inhabitants. Their very general practice of cremation had deprived us of one important source of evidence in the shape of the skull as to their racial type.

Human palæontology, however, had made plain to us, that in the pre-Celtic times there existed both a brachycephalic and a dolichocephalic race, as primitive peoples, in Europe. He next passed to the consideration of primeval man. After comparing civilised with savage man, our own condition with that of those to whom the illuminating rays of civilisation had never reached, or among whom they had become extinguished; and after having pointed out, in their respective bony crania, distinctive differences impressed and stamped upon them, as unmistakeable and indisputable evidence of elevation and degradation of type, he discussed the important questions as to whether in time these types were convertible, and, if so, which was primordial.

Mr. Ibbetson on Fossil Teeth. In the paper upon fossil teeth of fishes in the Palæozoic and lower members of the Mesozoic rocks, read before the Odontological Society by Mr. Ibbetson, a few preliminary remarks were made upon the faithful history of the animal kingdom furnished by fossil teeth generally; and in examining the fauna of the different rocks, the advantage of commencing with the most ancient, and taking them in their order of stratigraphical super-position rather than proceeding from the most recent to the earlier beds, was clearly stated. Adopting this method, the leading species, genera, and families of the class fishes were noticed according to the order of their succession in time, not in rank, as they appeared in the various formations from the Silurian beds to the Lias. Of the 8000 or more known species of fishes, about 1000 belong to the Ganoid and Placoid orders, and to which those found below the Lias are limited, no instance of any of the 7000 or more species of either the Ctenoid or Cycloid orders being known below the Oolitic series. The existence of fishes was formerly believed to date from the Bala beds of the Cambrian rocks, but what were supposed to be the defensive spines of the Pinchus Murchisonii have since been proved to be the caudal appendages of a Crustacean. The earliest known evidence of their existence is furnished by fragments of jaws with teeth found in the Ludlow Group of the upper Silurian deposits. The affinities of these fragmentary remains have not been clearly determined. Agassiz refers them with a doubt to the genera Plectrodus and Sclerodus of his Placoid Order. Murchison in the last edition of his Siluria—on the authority of Sir Philip Egerton—supposes them to belong to a small species of Ganoid fish; whilst Mr. J. W. Salter suggests that they may have belonged to Pteraspis or Cephalaspis, the teeth of these genera—even if they possessed such organs—being yet unknown. The earliest evidence of the existence of the class whose affinities can be defined, is furnished by the teeth of several genera of fishes in the Devonian rocks, in which occur Ctenoptychius and Ctenodus genera of the family of Cestracionts, and belonging to the order Plagiostomi. The various species of the different genera of Cestracionts were enumerated as they respectively occur in the successive rocks from the Devonian to the Lias, Acrodus was referred to as possessing special interest, from the faithful interpretation which it afforded of the genus by its consanguinity with the Cestracian Philippi of the Australian seas, the sole existing representatives of this family of fishes, so rich in genera and species in the Palæozoic and Mesozoic ages. The species and genera of the Hybodontidæ were next noticed. In entering upon the order Ganoidei, Pteraspis and Cephalaspis were referred to as existing in beds of earlier date than those in which Plectrodus and Sclerodus are found; therefore in the event of the suggestion of Mr. J. W. Salter being confirmed, these genera would become the earliest known indication of the class fishes. The species and genera of the families Cælacanthi, Dipteridæ, Acanthodei, Sauroidei, Lepidoidei, and Pycnodontei were all referred to as they respectively occur in time, and the dental distinctions of the various species and genera were noticed. Occasion was taken to refer to the removal by Professor Owen of the genus Placodus, found in the Muschelkalk, from the Pycnodontei, and by Professor Huxley, of the genus Stagonolepis, found in the Devonian rocks, from the Dipteridæ, of the class fishes, to the class reptiles, and the dental characters and other correlations of structure upon which the amended classifications were established, were pointed out. The paper was illustrated by a valuable collection of fossils, and a number of beautifully executed diagrams.

OPERATION DAYS AT THE HOSPITALS.

Monday.....Metropolitan Free, 2 P.M.—St. Mark's for Fistula and other Diseases of the Rectum, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

Tuesday. .... Guy's, 1½ P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.

Wednesday... St. Mary's, 1 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.

Thursday.....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Great Northern, 2 P.M.—London Surgical Home, 2 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.

Friday. ..... Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

Saturday..... St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1·30 P.M.—Charing Cross, 2 P.M.—Lock, Clinical Demonstration and Operations, 1 P.M.—Royal Free, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

REGISTRATION OF DISEASE.

Return of new cases of disease coming under treatment in public practice. (A.) Manchester and Salford (Sanitary Association). (B.) Preston (R. C. Brown, Esq.). (C.) St. Marylebone, London (Dr. Whitmore). (D.) Birmingham (Dr. Alfred Hill).

In the 5 weeks ending June 30th, 1866,

Diseases.	A.	B.	C.	D.
Small-Pox	10	10	22	6
Chicken-Pox	2	2	6	5
Measles	18	36	66	94
Scarlatina	36	1	31	19
Diphtheria	2	—	3	3
Hooping-Cough	29	18	101	94
Croup	4	—	3	4
Diarrhœa	266	20	595	201
Dysentery	17	3	3	2
Cholera	—	—	—	—
Continued Fever	—	41	—	140
Erysipelas	34	1	21	7
Insanity	60	1	28	5
Bronchitis and Catarrh	626	78	697	454
Pleurisy and Pneumonia	49	7	35	32
All other diseases and accidents	5060	532	4640	3595
Totals	6213	750	6251	4661

BOOKS RECEIVED.

1. A Few Thoughts concerning Infanticide. By Mrs. Baines. London: 1866.
2. The Cholera Map of Ireland: with Observations. By Sir Dominic Corrigan, Bart. Dublin: 1866.
3. Medical Diagnosis, with special reference to Practical Medicine. By J. M. Da Costa, M.D. Second Edition, revised. Philadelphia: 1866.
4. On the Nature of Cholera, as a Guide to Treatment. By W. Sedgwick. Second Issue. London: 1866.
5. Annual Report of the Surgeon-General, United States Army. 1865.
6. Mechanical Treatment of Cholera. By a Physician. London: 1866.

TO CORRESPONDENTS.

*** *All letters and communications for the* JOURNAL, *to be addressed to the* EDITOR, 37, *Great Queen St., Lincoln's Inn Fields, W.C.*

COMMUNICATIONS.—To prevent a not uncommon misconception, we beg to inform our correspondents that, as a rule, all communications which are not returned to their authors, are retained for publication.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

A MEMBER should make inquiry at the hospital where the operations were performed. We can give him no information.

STATISTICS OF CANCER.—Mr. Moore has the pleasure to acknowledge the return of "Registers for Cases of Cancer", from Henry Barnes, M.D., Carlisle, and S. C. Noble, Esq., Kendal.

A GOOD IDEA.—SIR: You will not object to a good idea; and therefore will perhaps admit the following from a homœopathic journal: "The title of assistant-physicians and assistant-surgeons ought to be abolished. It is an insult to men whose qualifications in no sense differ from those of the full physicians and surgeons. They are fully qualified men, occupying an independent position; and are not assistants in the usual sense of the term."

I am, etc., EQUUS.

MR. BAKER BROWN'S TESTIMONIAL.—The following printed circular has been forwarded to us for publication.

"*Testimonial to Baker Brown, Esq., F.R.C.S.* The object of this testimonial being to give both the profession and the public generally an opportunity of testifying their opinion and appreciation of the eminent services which Mr. Baker Brown has rendered as a surgeon and operator, it is considered that this will be better shown by the large number of subscribers than by the amount of their individual subscriptions; and that all who desire it may have an opportunity of expressing their appreciation of those services, contributions will be received, however small. All friends who intend to subscribe, are earnestly requested to communicate at once to Dr. Holt Dunn, the Hon. Sec., 109, Hereford Road, Westbourne Park, W."

This notice is followed by a list of subscribers; amongst whom are included several givers of 2s. 6d. and 1s. up to £5:5. The subscriptions here published seem to amount to about £150.

COMMUNICATIONS have been received from:—Dr. J. BIRKBECK NEVINS; Dr. T. M. GREENHOW; Dr. H. KINGLAKE; Dr. EDWARD COPEMAN; Mr. G. GASKOIN; Dr. G. ARNOTT; M.D.; Dr. JAMES RUSSELL; Mr. H. VEASEY; Mr. T. T. GRIFFITH; Dr. JAMES BRAITHWAITE; Dr. H. DICK; Mr. CARTER; Dr. J. BULLAR; A MEMBER; TRÜBNER & Co.; Dr. T. O. DUDFIELD; Mr. T. WATKIN WILLIAMS; Mr. MOORE; and Dr. KELLY.

ADVERTISEMENTS.

MEDICAL EDUCATION.

The Addresses on Medical Education delivered at ST. MARY'S HOSPITAL MEDICAL SCHOOL, Paddington, by the Archbishop of YORK (1864), Professor OWEN (1865), and Professor HUXLEY (1866), may be obtained, together with the Prospectus for the ensuing Winter Session, on application to ERNEST HART, Dean of the School.

Classical and Mathematical.—Dr. STEGGALL prepares Gentlemen for their Examinations in Classics and Mathematics at all the Medical Boards, viz., the Preliminary Examination at Apothecaries' Hall; the Matriculation Examination of the London University; Preliminary and Fellowship Examination at the Royal College of Surgeons, etc.

Dr. STEGGALL continues his Instruction for all Medical and Surgical Examinations during the summer months.—Address Dr. STEGGALL, 2, Southampton Street, Bloomsbury Square, London.

AUSTRIAN VOESLAU WINES

(Still and Sparkling) from the Vineyards of M. R. SCHLUMBERGER, the largest Proprietor in the celebrated Voeslau District, near Vienna. Eight Prize Medals (London, 1862, and Dublin, 1865). May be had through all the principal wine merchants in the United Kingdom, or of M. Schlumberger's Depots, 33, Golden Square, Regent Street, and 12, Mark Lane, City, London.

Wanted, in the Country, Board and Residence in a private family for a Lady whose habits require the exercise of firmness and kindness.—Address, prepaid, to R. S., Post Office, Bowdon, Cheshire.

Weiss's Illustrated Catalogue, containing nearly 800 engravings of Surgeons' Instruments and Apparatus, classified for their various purposes. Price, 5s.
62, Strand, London.

"This catalogue has many and great merits. It is modest, truthful carefully arranged, and extremely well illustrated. In the great majority of cases the name of the surgeon is appended to the modification which he has introduced, and frequently other makers' names are honourably attached to instruments which they first originated. These are large principles of honour which we are glad to see strictly observed in this catalogue."—*Lancet*, September 12th, 1863.

New Medical Club.

THE SYDENHAM.

A New Club is being formed in London, to be called the "SYDENHAM," for the convenience of Members of the Medical Profession, securing, at a minimum cost, all the advantages of a modern Club, with the addition of sleeping accommodation for Extra-Metropolitan Members.

Terms for Metropolitan Members: Five Guineas Entrance; Annual Subscription, Three Guineas. Members residing beyond the Metropolitan Postal District: Three Guineas Entrance Subscription, One Guinea. Subscriptions to cease during absence on Foreign Service. Entrances and Subscriptions to be paid into the Bankers of the Club, London and Westminster, 1, St. James's-square, S.W.

Gentlemen desirous of becoming Members of the Club are requested to send an early intimation of their intention, addressed to DR. LORY MARSH, Hon. Sec.

Royal United Service Institution, Whitehall Yard, London, S.W.

St. Thomas's Hospital Medical SCHOOL-SESSION 1866 and 67. A General Introductory Address will be delivered by Dr. BARKER, on Monday, 1st October, at Three o'clock p.m., after which the Distribution of Prizes will take place.

Gentleman entering have the option of paying £40 for the first year, a similar sum for the second, and £10 for each succeeding year; or, by paying £90 at once, of becoming perpetual Students.

PRIZES AND APPOINTMENTS FOR THE SESSION.

First Year's Students.—1st. The Wm. Tite Scholarship. 2nd. A College Prize of 20. 3rd. A Prize of £10.

Second Year's Students.—A Prize of £30, £20, and £10. The Dresserships, and the Clinical and Obstetric Clerkship.

Third Year's Students.—A Prize of £30, of £20, and £10. Mr. Geo. Vaughan's Cheselden Medal. The Treasurer's Gold Medal. The Grainger Testimonial Prize. Mr. Newman Smith's Prize of £40. The Two House-Surgeoncies, the Resident Accoucheurships, Two Hospital Registrarships, at a salary of £40 each, or one at £80, are awarded to 3rd and 4th year's Students, according to merit.

The WM. TITE SCHOLARSHIP, founded by WM. TITE, Esq., M.P., F.R.S., the proceeds of £1000 consols, tenable for three years, is awarded every third year.

MEDICAL OFFICERS.

Dr. Barker, Dr. J. Risdon Bennett, Dr. Goolden, Dr. Peacock, Dr. Bristowe, Dr. Barnes, Mr. Solly, Mr. Le Gros Clark, Mr. Simon, Dr. Clapton, Dr. Gervis, Mr. Sydney Jones, Mr. J. Croft, Mr. Whitfield.

Clinical Instruction is given at stated times by the Medical and Surgical Officers. Special Medical Clinical Lectures, Dr. Barker. Ophthalmic Surgery, Mr. Jones and Mr. Croft; Midwifery, Dr. Barnes and Dr. Gervis; Dental Surgery, Mr. Elliott; Pathological Chemistry, Dr. Thudichum. Tutor in Arts, Mr. S. Hague.

MEDICINE—Dr. Peacock. Surgery—Mr. Solly and Mr. Le Gros Clark. PHYSIOLOGY—Dr. Bristowe and Mr. Ord. DESCRIPTIVE ANATOMY—Mr. Sydney Jones. ANATOMY IN THE DISSECTING ROOM—Mr. Rainey, Mr. J. Croft, and Mr. W. W. Wagstaffe. CHEMISTRY, NATURAL PHILOSOPHY, and PRACTICAL CHEMISTRY—Dr. Albert J. Bernays. Midwifery—Dr. Barnes. GENERAL PATHOLOGY—Mr. Simon. BOTANY—Dr. J. Wale Hicks. COMPARATIVE ANATOMY—Mr. Ord. MATERIA MEDICA—Dr. Clapton. FORENSIC MEDICINE—Dr. Stone. OPHTHALMIC SURGERY—Mr. Sydney Jones. DENTAL SURGERY—Mr. Elliott. VACCINATION—Dr. Gervis. PATHOLOGICAL CHEMISTRY—Dr. Thudichum. DEMONSTRATIONS MORBID ANATOMY—Dr. J. Wale Hicks. MICROSCOPICAL ANATOMY—Mr. Rainey.

Students can reside with some of the Officers of the Hospital.

W. M. ORD, M.B., Dean.
R. G. WHITFIELD, Medical Secretary.

For entrance or Prospectus, and for information relating to Prizes and all other matters, apply to Mr. WHITFIELD, Medical Secretary, The Manor House, St. Thomas's Hospital, Newington, Surrey, S.

Addresses and Papers

READ AT

THE THIRTY-FOURTH ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION.

[*Held in CHESTER, AUGUST 7th, 8th, 9th, and 10th, 1866.*]

THIRTEEN CASES OF COMPLETED OVARIOTOMY.

By Baker Brown, Esq., F.R.C.S.

Case I. *Multilocular Ovarian Tumour, two years' duration: Ovariotomy: Death on the Fourth Day.* Miss D., aged 34, came up from Essex to consult me on January 2nd, 1866, when I made the following notes. Five years ago, she first began to suffer from pain in the left side, but did not find any tumour or swelling till two years ago. This swelling gradually increased in size in the first year, and more rapidly in the second, particularly during the last two months, in which time it had doubled its size. The bowels were very much constipated, and she was obliged to take very frequently purgative medicines. Menstruation was irregular.

On examination, I found a large abdominal tumour, hard, obscurely fluctuating on the left side; the os uteri patulous, admitting the tip of the index finger. The sound passed two inches and a half.

On the 17th of January, she came up to London to put herself under my care. She was then suffering from severe abdominal pain, which had come on two days previously, and which had evidently been aggravated by a drive of ten miles in a carriage. She was suffering from an acute attack of inflammation, chiefly of the tumours. Under appropriate treatment, and after a good deal of trouble, she recovered from this, and was able to return into the country on the 5th of February to recruit.

After a month's stay at home, she returned once more for treatment in the beginning of March, and on the 5th was subjected to operation.

Assisted by Messrs. Philip Harper and B. Brown, jun., W. H. Platt, and Dr. Bantock, I made an incision six inches long, which was extended upwards an inch and a half more, after exposure of the tumour and separation of adhesions. The tumour was then tapped; between two and three quarts of coffee-ground fluid were withdrawn; and the remaining mass was extracted with vulsellum-forceps. This brought into view a flap of omentum adhering to the tumour. After separation, the clamp was applied to it, and the division effected by actual cautery; but finding that, in consequence of the fatty nature of the part, puckering of the seared edge was impossible, a ligature was subsequently applied to the large artery, which had not been closed. The pedicle (proper) was successfully treated by the clamp and cautery, and the wound closed by silver sutures.

After removal to bed, and recovery from the effects of the chloroform, she became very restless, and opium was freely administered *per rectum*. This had the desired effect, and she passed a good night. On the following day, she was able to take small quantities of beef-tea; and, with a good pulse, promised to do well. On the third day, the pulse became weaker; and her strength gradually failed, notwithstanding a very liberal supply of stimulants and nutrients; tympanitis became rapidly developed; and, with a violent attack of vomiting, she died somewhat suddenly at 7 A.M. on the morning of the fourth day.

Case II. *Multilocular Ovarian Tumour, four years' duration: Ovariotomy: Recovery.* Mrs. P., aged 54, first consulted me on the 21st of March. She gave the following history. She had been a widow for four years, and without issue. Menstruation gradually ceased, appearing for the last time at the death of her husband. Then the abdomen began to enlarge, and it gradually increased to its present size. She was not, however, aware of the nature of this enlargement until my examination. For two years she had suffered much from dyspepsia and constipation of the bowels, to the alleviation of which all treatment had been directed. Since November of last year, she had had several attacks of severe pain in the abdomen, and during the last four months she had become considerably thinner.

Examination. There was a multilocular ovarian tumour, part of which occupied the pelvic cavity, displacing the uterus to the left side, and pressing upon, so as to obstruct, the rectum. She had severe pain in the sacral region, and was unable to lie down, adopting a semi-recumbent position when in bed. Her features presented the usual characteristics.

The usual preparatory treatment was adopted; and, on the day of operation, I had the approval of Sir W. Fergusson.

The operation was performed on April 4th, 1866, in the presence of Sir W. Fergusson, Mr. Philip Harper, Dr. Wilkins of Melbourne, and Drs. Holt Dunn and Bantock; Dr. Wilkins giving chloroform. I made an incision four inches long, which, after exposure of the tumour and breaking down adhesions to the abdominal parietes, was enlarged to six inches. Fifteen pints of coffee-coloured fluid were drawn off, and omental adhesions were separated as the mass was being withdrawn. On complete extraction, a broad and thin pedicle, springing from the right side, was exposed; and the clamp and cautery were applied in the usual manner with complete success. The left ovary was seen to be the seat of cystic disease, which had apparently undergone calcareous degeneration. Careful examination of the portions of omentum which had been separated showed that there was no hæmorrhage; and they were returned, and the wound closed by nine silver-wire sutures. The tumour consisted of one large cyst, and a mass of smaller cysts, which occupied the pelvic cavity.

Two grains of solid opium were passed into the rectum within an hour, and small pieces of ice were occasionally given. At 10 P.M., a poultice was applied, and a beef-tea enema administered; and she was then turned on her left side, because the dorsal decubitus was irksome. Nutrients were carefully yet diligently supplied. On the third day, she enjoyed fish for dinner; on the fourth, fowl. Four stitches were removed on the same day, two on the fifth, and three on the sixth. She was outside the bed on the ninth day, was about her room within the third week, and returned home a long journey on the twenty-ninth day.

Case III. *Multilocular Ovarian Tumour, three and a half years' duration: Ovariotomy: Recovery.* Mrs. K., aged 35, was admitted into the London Surgical Home on the 18th of April, 1866, recommended by Dr. Evelyn Crook of Wainfleet, Kent; married; two children, and one miscarriage. She first noticed enlargement of the abdomen three and a half years ago, which, she said, appeared and disappeared several times. During the last year, she had been steadily enlarging, more rapidly during the last

quarter. Menstruation was occasionally excessive in quantity during the last two years; formerly it was regular and normal. There was a good deal of emaciation. The uterus was of normal length. I diagnosed multilocular ovarian tumour.

April 19th. An incision about six inches long gave exit to ten pints of ascitic fluid. The tumour, being free from adhesions, was seized with vulsellum-forceps, and gradually withdrawn, bringing to view a very broad (about five inches) and thin pedicle springing from the right side. The clamp and cautery were applied with complete success, notwithstanding the great vascularity of the pedicle; and the wound was closed by thirteen silver-wire sutures. The tumour was excessively multilocular.

She was a little sick the same evening and following morning. A poultice at 10 P.M.; beef-tea enema every four hours as long as required from the first morning. On the second day, she had fish dinner; on the third, a chop. All the sutures were removed by the tenth day, and she left the Home on the 15th of May—viz., on the twenty-sixth day—having made a very good recovery.

CASE IV. *Fallopian Dropsy, about fourteen years' duration: Tapping four years ago: Operation: Recovery.* Mrs. C., aged 31, was admitted into the London Surgical Home May 4th. She had had three children, the last five years ago; one miscarriage a year later. At the age of seventeen, she "thought there was something wrong in the abdomen." Since her marriage, ten years ago, she had noticed a progressive increase of the abdomen, which became so large four years ago, that she had to be tapped, when fifty-six pints of fluid were removed. For more than a year there was no increase; but then it became very gradual, and had been steadily progressive up to the present time. The length of the uterine cavity was two and a half inches; menses regular; general health good. The diagnosis was Fallopian dropsy.

May 10th. An incision about four inches long exposed a thin-walled cyst, which I emptied of ten pints of straw-coloured fluid, and then withdrew; when it was evident that it had resulted from a distension of the left Fallopian tube, to which was attached its corresponding ovary, in a state of cystic disease. The clamp was then applied, and the pedicle divided in the usual way by cautery, posterior to the ovary. The wound was closed by silver sutures.

As regards the after-treatment and progess, it is only necessary to say that she recovered without a single dose of medicine, and left the Home on the sixteenth day.

CASE V. *Multilocular Ovarian Tumour, four months' duration: Ovariotomy: Recovery.* Miss M., aged 45, came under my care in the beginning of May of this year, having been brought to me by her sister. She gave the following history. "She had noticed her abdomen enlarging for four months, but was unaware of any tumour. Menstruation was very irregular during the last six or eight months. She had not suffered from pain."

On examination by palpation, I readily found a tumour, which an exploring trocar and cannula proved to be ovarian. The uterus was of normal length; her general health was very good. The circumference at the umbilicus was three and a half inches. The abdominal walls contained a very large amount of fat.

Cheered and encouraged by the success of her sister's case, she readily decided to submit to operation. After a period of preparatory treatment, I operated on the 4th of May, assisted by Mr. Philip Harper, Mr. Davies, Drs. Holt Dunn and Bantock. Dr. Charles Kidd gave chloroform. The only features worthy of notice were the enormous thickness of the abdominal parietes, which contained a layer of fat two inches thick; and the large size of the pedicle, which was treated by clamp and cautery with perfect success. The tumour, which was multilocular, contained twelve pints of a pale fluid in one large cyst. Several superficial sutures were also employed, in addition to the deep.

This patient recovered without a bad symptom. All the sutures were removed on the fifth day; she was outside the bed on the twelfth; in the third week, was about her room; and she left her apartments quite well and strong on the 28th of June. Previously to her return home, she was in the habit of going out to walk daily for about a fortnight.

CASE VI. *Multiple Ovarian Tumour: Ovariotomy: Recovery.* Mrs. C. L., aged 29, was admitted into the London Surgical Home on the 21st of May. She stated that she had had several children, one still-born about seven months ago; that she did not notice any enlargement till after her last confinement, but had felt abnormally heavy during her pregnancy. The menses were regular, and her general health good. The circumference at the umbilicus was thirty-five inches.

May 24th. The operation was very simple, and free from all complications. The pedicle was divided by the actual cautery. The tumour presented an example of the multiple form, and consisted of a large cyst containing an immense number of very small cysts, with about twelve pints of dark fluid.

In a fortnight, this patient was outside her bed; but an abscess, which formed in the parietes, interrupted her convalescence. She, however, made a good recovery, and left the Home on the 14th of June.

CASE VII. *Multilocular Ovarian Tumour, thirteen years' duration: Tapping and Pressure: Enlargement after seven years: Repeated Tappings: Ovariotomy: Recovery.* Mrs. B., aged 43, a widow, and mother of eight children, came under my care ten years ago, suffering from an ovarian tumour. I tapped and applied pressure, as then advocated by me, with the effect of arresting the further development for seven years, although there remained a multilocular mass in the pelvic cavity. Three years ago, the tumour having grown to an inconvenient bulk, I again tapped her, removing seventeen pints of fluid. Since then I tapped her twice more. Re-enlargement speedily followed; and I then recommended ovariotomy, to which she readily consented. She was considerably emaciated, and her health was being gradually undermined. On the 28th of May, she entered the Home; and, having already undergone preparatory treatment, I operated on her on the 1st of June. There were present, Dr. Dewees, of New York; Dr. Hubbard, of Newhaven, Connecticut, United States; Dr. Charles, of Calcutta; and several other strangers and foreigners. The operation occupied only a few minutes. There were no adhesions, with the exception of one to the omentum, which was divided by actual cautery. Twenty-three pints of fluid were withdrawn; and the pedicle, which sprang from the left side, was divided also by actual cautery, and the wound closed by silver sutures.

In two days she was quite convalescent, and recovered without a bad symptom, leaving the Home on the 22nd of June.

CASE VIII. *Multilocular Ovarian Tumour of about ten months' duration: Tapping: Ovariotomy: Recovery.* Esther H., aged 29, was admitted into the London Surgical Home on the 30th of May. Ten months previously, she fell heavily on the belly, and shortly afterwards noticed, for the first time, swell-

ing in the left iliac region. This quickly enlarged, and in nine months she was tapped of four quarts of dark coloured fluid. She measured thirty-eight inches; and the tumour was rapidly refilling. The menses were regular; her general health was good.

June 7th. On exposure of the tumour, ten pints of clear fluid were evacuated. The mass was withdrawn, the pedicle treated in the usual way by clamp and cautery, and the wound closed by silver sutures. The tumour consisted of one large cyst, with a mass of smaller, and weighed thirteen pounds in all.

There was troublesome sickness after the operation; but she made an excellent recovery, and left the Home on the 25th of June—viz., the nineteenth day after operation. In this case, also, a small abscess formed in the parietes, and, bursting into the line of incision, somewhat interrupted her convalescence.

Case ix. *Multilocular Ovarian Tumour, very vascular, of seven years' duration: Ovariotomy: Recovery.* Mrs. S. B., aged 36, was admitted into the London Home on June 5th. She had had six children, and one miscarriage. Her youngest child was six months old. Seven years ago she first noticed a swelling in the left iliac fossa, of about the size of an orange, which remained in the same condition, and did not increase, till twelve months ago, when it began to increase in size. She was now inconveniently large, the abdomen being round and prominent. The tumour was very mobile and unadherent; the uterus was retroverted. The diagnosis was, multilocular ovarian dropsy.

June 14th. The tumour, having been exposed, was tapped, and eleven pints of dark coffee-coloured fluid withdrawn. The pedicle, which was long and vascular, was secured by clamp, and divided by actual cautery without hæmorrhage.

This patient suffered a good deal from sickness, evidently the result of the irritation attending the formation of an abscess at the umbilicus, which burst out in the line of incision. An abundant crop of aphthæ formed in the mouth and fauces, etc.; but under appropriate treatment she gradually recovered. For about a fortnight she was chiefly sustained by beef-tea enemata. She left the Home on July 14th, just one month from the date of the operation.

Case x. *Multilocular Ovarian Tumour of a year and a half's duration: Ovariotomy: Recovery.* Mrs. S., aged 47, was admitted into the London Surgical Home on June 12th, from Norfolkshire. She had had three children and one miscarriage. Sixteen months ago she first detected a small swelling in the left groin, which gradually increased and led her to suppose herself pregnant. She had no pain; and, having passed through the normal period of pregnancy, she was examined by her usual medical attendant and recommended to place herself under my care. The menses were regular, but scanty; general health tolerably good; os very patulous; a sound could not be passed. The tumour was merely an inconvenience to her at present; but she was anxious for its removal.

June 21st. On exposure of the tumour in the usual way by an incision about six inches long, I removed nine pints of a drab-coloured fluid by hollow trocar; and, seizing the clamp by vulsellum-forceps, extracted it, there being no adhesions. The pedicle being about six inches broad and very thick, was pierced in the middle for the passage of the clamp, and the two halves were secured in separate clamps and the divided surfaces secured. At the line of division into two halves, there was a small extent of open surface; two silver sutures were here applied, and the wound was then closed.

The wound healed by the first intention, and she made an excellent recovery, although somewhat hindered in getting about by the formation of a rather large slough, resulting from a burn of the integuments at the bottom of the incision and on the left side. This was merely an accident.

Case xi. *Multilocular Ovarian Tumour of seven months' duration: Tapping: Ovariotomy: Recovery.* About the middle of June I was called into the city by Mr. H. Taynton, to see Miss S. H. I found the patient to be 24 years of age, exceedingly emaciated, with a very anxious expression of countenance and hectic flush, unable to lie down, and altogether giving abundant indications of the very serious nature of her condition. She stated that nine months previously she noticed enlargement of the abdomen, which she attributed to constipation; that a fortnight ago she had been tapped by Mr. Taynton (who was then present), and that the tumour was very rapidly regaining its original size. I found the abdomen very tense (the integument almost shining), and occupied by a tumour not very multilocular. She had a great deal of pain and suffered very much from dyspnœa on lying down. The menses were regular till six months ago, when they became too frequent and abundant. I prescribed my usual tonic in such cases; and, her father being a poor missionary in the city, I recommended her to enter the Home. She did so on June 23rd, and was submitted to operation on the 28th.

There were very general slight adhesions to the abdominal parietes; ten pints of straw-coloured fluid were removed, and, on extraction of the mass, the clamp was applied to the pedicle, which sprung from the right side. On removing the clamp, blood burst forth from a large vessel, which was at once secured by a double ligature embracing the whole pedicle. The wound was then closed by silver-wire sutures, avoiding the peritoneum in applying them.

This patient made a most excellent recovery; the wound healed by first intention; all the sutures were removed on the sixth day. She left her bed on the 12th day, and the Home on the 23rd day.

I have to add that this patient was supported in every possible way from the beginning.

Case xii. *Multilocular Ovarian Tumour, a year and a half's duration: Ovariotomy: Death.* Mrs. McH., aged 55, was admitted into the Surgical Home July 14th. She had had eight children and two miscarriages. She ceased to menstruate four years ago. Eighteen months ago she first thought there was some swelling of the abdomen. During the last six months she had complained of pain in the back and right iliac fossa, and had been sensible of a tumour in the right side. Her general health was good; she was, however, readily fatigued, and was subject to attacks of faintness. She measured thirty-eight inches in circumference at the umbilicus. There was a tumour in the abdomen, inclining to the right side, fluctuating in part, apparently consisting of a large cyst on the left and a mass of smaller cysts on the right; puncture by a fine exploring trocar and cannula gave exit to the ovarian fluid. The uterine cavity measured three inches.

July 19th. An incision about six inches long exposed the tumour, which, being free from adhesions anteriorly, was emptied of four pints of opaque milky fluid, and withdrawn by vulsellum-forceps. This exposed a small extent of adhesion of omentum, to the posterior aspect of the tumour, which was readily broken down. The clamp was then applied to the pedicle, which arose from the right side, and division effected by the cautery. A glance at the omentum was enough to recognise a peculiar condition of that structure. On closer examination it was found that

the two layers composing it had become separated, and the space thus formed was occupied by a transparent fluid, which was pressed out. The parts were then returned. On removing the clamp, blood issued in a full stream from two large arteries, one near each extremity of the divided and seared edge. A ligature of twine was at once applied to each, and the stump returned. The wound was finally closed by wire sutures.

The patient appeared to be doing well till the 21st, when tympanitis came on; tongue dry and brown; pulse 103, soft and weak; no pain. 23rd. Tympanitis increased; rectum with difficulty retaining the beef-tea enemata; wound looking unhealthy. On the 24th, I removed the sutures and gave exit to a small quantity of fœtid grumous matter; but she continued to grow worse, and died at 4.20 A.M., on the following morning.

POST MORTEM EXAMINATION. There was no union in the line of incision; general peritonitis of a low form, with deposit of yellowish lymph in every favourable site, and almost universal slight adhesion of all opposing surfaces. No blood had escaped from the seared surface of the pedicle not included in the ligatures. The left ovary contained a cyst as large as a hazel nut, and numerous very small ones. The right side of the heart was full of blood, and contained a clot, which in the ventricle had moulded itself into the interstices formed by the columnæ carneæ and musculi papillares, and extended into the pulmonary artery beyond the first division, forming a complete cast of the vessel. The left side of the heart was empty. There was hypostatic congestion of the lungs.

CASE XIII. *Multilocular Ovarian Tumour of two years' duration: Ovariotomy: Death.* E. S., aged 17, recommended by Dr. Woodfall of Maidstone, was admitted into the Surgical Home, on July 16th. Two years ago she felt a hardness in the right iliac fossa, of the size of a hen's egg, which had continued ever since to increase, growing very rapidly within the last three months. The menses had never appeared; the bowels had always been regular and the appetite good; the bladder was irritable, and she had a frequent desire to micturate. She now suffered from dyspnœa on exertion.

On examination, there was found a very hard irregularly formed non-fluctuating tumour, which presented many of the characteristics of fibroid disease of the uterus; but which, on puncture by an exploring trocar, yielded a very small quantity of ovarian fluid. The diagnosis was, therefore, multilocular ovarian tumour of a very bad form. The patient was much emaciated, and her health was evidently being rapidly impaired. The uterine cavity measured two inches and three-quarters, and her circumference was thirty-four inches and a quarter at umbilicus.

July 19th. Having made an incision about four inches long, and ascertaining the nature of the tumour and the absence of adhesions, I enlarged the opening to seven inches, plunged a hollow trocar into the mass, and gave exit to about six pints of opaque greyish fluid chiefly from one or two large cysts, on the posterior aspect of the tumour; then, seizing the latter by vulsellum-forceps, I extracted it slowly and carefully. It was then apparent that the pedicle proceeded from the left side, and that there was a very strong adhesion to the right broad ligament. To the former the clamp was applied, and to the latter a ligature of twine. On removal of the mass by the knife, the cautery was applied to the pedicle in the usual way, with complete success notwithstanding its great vascularity. The band of adhesion to the broad ligament was so low in the pelvis that it was impossible to apply the clamp, and therefore I employed twine ligature. Finally, the wound was closed by silver suture.

Sickness came on soon after her return to bed, and continued troublesome; the pulse, though rapid, was of good strength. Beef-tea injections were begun the same evening. On the following morning she was evidently failing; the pulse became weaker and more rapid; sickness became more troublesome, and forbade the administration of stimulants by the mouth; towards evening the respiration was embarrassed, and she died at 11.20 P.M.

POST MORTEM EXAMINATION, nine hours after death. There were signs of commencing adhesion of the lips of the incision; the peritoneum for the breadth of an inch or more along the whole length of incision was ecchymosed; about a pint of bloody serum was taken out of the cavity, and coagulated blood in two clots about the size of half a walnut. The pelvic peritoneum was congested, and the neighbouring small intestines injected and mottled. On the left side, the greater part of the ovary remained in a state of cystic degeneration, and presented no signs of hæmorrhage from the line of division. On the right side, it was satisfactorily made out that the connection of the tumour was of the nature of an adhesion to the broad ligament, which supplied an artery as thick as a crow-quill; the cut surface was occupied by coagulated blood, and it was evident that this was the source of the coagula found loose. The right ovary was intact, but the seat of cystic disease, and was two inches in length.

REMARKS. The preceding thirteen cases of completed ovariotomy constitute the third series of cases in which the pedicle has been treated by the actual cautery, and of which two series of twelve and eleven have already been given to the profession within the last twelve months in the *Lancet* and in the *Transactions* of the Obstetrical Society of London. Of the whole number, thirty-six, five have died: two in the first two series and three in the third. On analysing these cases, we find that, with one exception, death occurred only in such as had been treated by ligature in addition to the cautery. In this death was due to hæmorrhage from the site of an adhesion to which neither the cautery nor ligature could be applied. In all the others a ligature had been used in addition to the cautery. I have, therefore, abundant reason to conclude that the cautery is preferable to all methods hitherto adopted; and, from the results in other cases, that failure of the cautery does not interfere with the proper application of the ligature, nor lessen the chances of success. I should not omit to say that great care should be exercised in having the clamp properly made; and it is worthy of remark, that the last case of failure was apparently due, almost, if not altogether, to the fact that the roughened surface had been worn down by repeated use, the pedicle being at the same time exceedingly vascular. To avoid this result, the rough surfaces should therefore be occasionally renewed.

THE HEAD QUARTERS OF DRUNKENNESSS. Liverpool has been pronounced the most drunken town in England. And it is true. Its extreme drunkenness arrests the attention of the judges, its pauperism weighs heavily upon the ratepayers; its rate, fifty-six per thousand, appalling. The drunken cases dealt summarily with by the magistrates are set down at the annual rate of one in thirty-three of the population. The habitual drunkards, in their periodic appearances before the bench, form an endless chain of besotted creatures. According to the recently published judicial statistics there are 3,100 habitual drunkards in Liverpool, and they are about equally divided as to sexes. (*Liverpool Albion.*)

Original Communications.

ON EPITHELIAL CELLS CONVEYING CHOLERA.

By Joseph Bullar, M.D., Physician to the Royal South Hants Infirmary.

The invaluable researches of Snow and Dr. W. Budd, showing that the contagion of cholera is conveyed in the secretions from the intestines, give a new interest to the microscopical examination of these secretions, for in them must the morbid poison be found. And, though it was well known that these rice-water secretions contained epithelium, the recent careful examination of these epithelial cells by so practised a microscopical pathologist as Dr. L. Beale renews attention to their importance.

In another contagious disease, epithelial cells are cast off in large quantities, and are believed to convey the contagion of that disease. In scarlatina, the epithelial cells are cast off from the whole surface of the skin; in cholera, from the intestinal mucous membrane; and the question presents itself, Are not these epithelial cells, in cholera as well as in scarlatina, the vehicles of contagion?

The common belief is, that the most contagious period in scarlatina is when the desquamation of the cuticle begins, and that the patient continues to be in a condition to infect others as long as this state of the skin lasts. According to our present pathology, this signifies that the epithelial cells of the skin from one person suffering from scarlatina, when introduced into the body of another who has not had the disease, will produce it, and that epithelial cells can be so introduced by inhaling or swallowing them.

The researches of microscopists, and especially the recent researches of Dr. L. Beale still in progress, show that so abundant is the desquamation from the intestinal mucous membrane of the columnar epithelium in cholera, that (as Dr. Beale observes) the whole of the villi, from the cardia to the ileo-cæcal valve, may be deprived of their outer coating, like the skin after a burn. This columnar epithelium is found in the rice-water stools, and more abundantly (as Dr. Parkes described many years ago) in the intestines themselves after death.

The evidence that these rice-water stools will produce cholera, if they contaminate the water which is drunk, is so strong as to have obtained general credence. By direct experiments, also, "Lauder Lindsay, Marshall, Thiersch, and Meyer, have succeeded in communicating cholera to dogs and cats, chiefly through the rice-water evacuations of cholera patients" (Aitken).

The analogy of scarlatina, and our present knowledge of cell physiology and pathology, point to the epithelial cells in the rice-water stools as the active agents in conveying cholera.

That the poison of scarlatina was conveyed by the epithelium of the skin, was a practical fact known and acted up to long before the true structure and physiology of cells were understood.

We now know that an epithelial cell consists of a cell, a nucleus, and granules; that such a cell is the simplest form of gland; and that cells so organised are the real agents in secretion. Besides secretion, such a cell has the power of producing other cells, and thus is a perfectly fit organ for containing a morbid secretion; for secreting it, for indefinitely multiplying it, and, from its minuteness and numbers, for conveying it. The whole surface of the body is covered by epithelial cells. The whole interior surfaces are lined with them; and they are unceasingly desquamating. New cells are incessantly generated beneath the old ones, which are thus pushed to the surface and removed in the air and in the various fluid excretions. In this way, our bodies are always moulting and incessantly renewed. The dry epithelial cells of the skin are got rid of in the air in such multitudes, that they may be caught in numbers in all close rooms where human beings congregate. "Epithelial cells" (writes Dr. Parkes) "are found in all ill-ventilated rooms. They were first detected by Dundas Thomson in the air of a cholera-ward in 1849 and 1854. I have examined the air of various barracks and military hospitals, and have detected large quantities of epithelium from the skin." (*Manual of Hygiene*, p. 70.)

We know that morbid poisons, as variola and the vaccine virus, may, in a dry state, be preserved for months, and, when moistened, regain their active power. Scarlatina seems to prove that its dry epithelial scales, retained in clothes in cupboards for weeks, preserve their vitality, and when received into a living body reproduce the disease. And there are cases of cholera of a similar kind. The last fatal case of cholera in Malta in the epidemic last year occurred some weeks after the disease had wholly ceased. The woman who died of it had secreted the clothes of a cholera patient for some weeks and had then worn them, and was attacked by cholera, which killed her.

The recent experiments of Dr. Bence Jones show how readily and rapidly the whole body is permeated with a single dose of some medicines. He finds quinine in cataracts removed by Mr. Bowman an hour after a small dose of quinine had been swallowed. It is no marvel, then, that every epithelial cell may be permeated with the scarlatina-poison, or any morbid poison affecting the whole system, and be the means, from its structure and powers, of conveying and multiplying the disease.

The poison of cholera is conveyed by the air as well as by water. The fact which struck Dr. Alison is very conclusive. A division of healthy troops going up the Ganges in boats were attacked by cholera as they passed to leeward of a village suffering from cholera without communicating with the shore. And another wing of the same regiment following them suffered in the same way. (Aitken.)

Two instances have been related to me proving the same. Mr. W. B. Shorto was acting surgeon to a passenger steam-ship when cholera was epidemic at Alexandria last year. The vessel arrived off Alexandria at five in the morning. There was no communication with the shore; but by nine o'clock there were twenty-five cases of choleraic diarrhœa among the crew, who were previously quite free from it. Col. Rigby, who was Her Majesty's Consul at Zanzibar, informed me that, when the cholera was very fatal there, several slave-ships at sea were attacked with it at the same point sixty miles south, when the north-east monsoon was blowing. This has been explained by the dry secretions from the bowels, or cholera-dust, being conveyed by the air. Is not cholera-dust epithelium?

The double vehicle of contagion of cholera, air and water, explains many phenomena. It is well ascertained that, when cholera is epidemic in an ill-drained town, few escape diarrhœa—which has been well called cholerine. As two circumstances, at least, must meet to produce cholera—the seed and the soil—the germ and the nidus—the cholera-poison

and the previous contamination of the blood by bad air, bad water, bad food—this general "cholerine" may be owing to the diffusion of the epithelial cells in the air, and the mildness of the majority of cases to the smallness of the dose.

As Nature's operations are simple and uniform, we should expect her to act by the same means in the same class of diseases; and that those contagious diseases in which the skin is affected, and those in which the mucous membranes of the lungs and of the intestines are the diseased tracts, would convey their contagion also by the epithelial cells of the skin or of the mucous membranes—that measles, small-pox, erysipelas—in all of which the vital properties of the inflamed skin are highly excited, and consequently the growth of the epithelial cells largely increased—would convey their contagion by the epithelial cells of the skin; whilst influenza, pertussis, catarrh, would be propagated by the epithelial cells of the respiratory track, and typhoid fever by those of the digestive track. The analogies between typhoid fever and cholera, the poison of both being conveyed by the secretions from the bowels, have been proved by Dr. W. Budd. Another striking analogy would be the conveyance of the poison in both cases by the epithelial cells of the intestines.*

Thus morbid epithelial cells of the skin would produce contagious skin-diseases; of the lungs, bronchial affections; of the intestines, diseases of the intestinal mucous membrane, like cholera and typhoid fever.

To sum up. It is admitted that the poison of scarlatina is conveyed by the epithelial cells of the skin, which desquamates freely, and that these dry cells retain their active power for some time, and when introduced into the body may propagate the same disease. In cholera, as in scarlatina, a similarly abundant desquamation of epithelial cells takes place, not from the skin, but from the intestines; and as it is by the excreta loaded with these cells from the intestines that the poison of cholera is chiefly conveyed, the inference is fair that, in cholera as in scarlatina, the poison is conveyed by epithelial cells.

I am not unaware of the deficiency of this view in proof sufficient to establish a fact relating to matter; and also of the difficulties in bringing such evidence in vital processes. It is an hypothesis explaining the several facts of contagion, and in accordance with our more advanced knowledge of cell pathology. But Lord Bacon said "Prudens quæstio dimidium scientiæ"; or, as Coleridge rendered it, "the forethoughtful quæry is the *prior* half of the knowledge sought."

PARALYTIC ECTROPIUM SUCCESSFULLY TREATED BY OPERATION.

By Haynes Walton, Esq., Surgeon to the Central London Ophthalmic Hospital, and to St. Mary's Hospital.

Ectropium, or the turning out of an eyelid, is certainly one of the serious affections of the ocular appendages; but it is by no means so common as the opposite state, entropium, or the turning in of the lid. In aggravated cases, and especially when both eyelids are everted, the eyeball may suffer from exposure and want of necessary moisture. In the ordinary, or less severe states, and where only one eyelid is everted, disfiguration and flowing of the lacrymal secretion over the cheek are the immediate evils. But in every degree there is a remote risk of injurious effects of inflammation of the eyeball, from inability of the eyelids to wipe off or brush aside intruding particles. The exposed palpebral conjunctiva is always unnaturally and highly vascular, and so is frequently the ocular also.

The causes of ectropium may be referred to three classes. The first class includes abscesses about the orbit, usually at the circumference; burns, scalds, chemical injuries, ulcerations, either simple or specific, as from syphilis, lupus, sloughing after erysipelas, wounds, contusions, and surgical operations.

The second class includes eversion from disease, and thickening of the conjunctiva without tarsal disease.

The third class is ectropium from palsy of the portio dura—hemiplegia fascialis, by which the orbicularis palpebrarum muscle, among those that are palsied, no longer acts, and the power of closing the eye is lost; the upper eyelid cannot be depressed, while the lower falls down and turns outwards, becoming more everted in process of time. There are degrees of the paralysis here, just in fact as is witnessed in paralytic affections in other parts of the body.

The paralytic ectropium, the only one of which I shall treat, is the rarest of all. I am induced to make it the subject of a short communication, because I have lately treated a marked example most successfully by operative surgery; and I am not aware of any recorded instance of similar practice; nor do I know of any case having been so treated.

A gentleman, aged 24, was sent to me by Mr. R. Reid, in January of this year, on account of a distressing and increasing ectropium of the left lower eyelid from facial paralysis on that side, which occurred in childhood. It is unnecessary to speak of the condition of the face. The ectropium produced much deformity, as the margin of the eyelid was very much depressed, and the conjunctiva was thickened and projecting, and very vascular. But a more annoying result was the constant flow of tears and mucous secretion over the cheek, roughness of the skin, and some excoriation.

After a short examination I was convinced that I could render essential benefit, and my patient readily assented to my proposal of treatment.

Chloroform having been given, I removed a strip of the diseased conjunctiva along the entire length of the eversion; and I may mention that I effected this by making two incisions with a scalpel, in the form of an ellipse, and dissecting away the isolated bit. It is by the contraction that ensues from this loss of substance that the eyelid is braced up, and in ordinary cases of ectropium I generally excise as much of the conjunctiva as is permanently exposed, and that effects the desired end. But here the lengthening of the tarsus, and the total loss of muscular support to it, required something more to be done; and also, the undue raising of the upper eyelid was another obstacle to success. To overcome these complications, I shortened both tarsi by removing a portion of each at the outer canthus, taking away conjunctiva as well, and brought the wound together by stitches.

It is not necessary to give a detailed account of the progress. It will answer every purpose merely to tell that the repair was rapid, and as effectual as it was possible. The eyelids are nicely bound up, and the stare arising from the prominence of the eyeball, and the exposure of it is almost overcome; so little indeed remains, as not to be noticed by a casual observer. The punctum lacrymale in each

* In the loose secretions from the bowels of a patient in advanced typhoid fever, which I examined to-day, there were nucleated cells in abundance, with columnar epithelium. For the sake of science, may I express the hope that Dr. L. Beale will extend his searching examinations to the intestinal secretions in typhoid fever.

eyelid having been returned to its proper position, the tears are thoroughly conveyed away through the proper channels. Withal, there is no trace nor mark of the use of the scalpel.

Transactions of Branches.

SOUTH-WESTERN BRANCH.

ON RECENT IMPROVEMENTS IN SURGERY.

By William Paul Swain, Esq., Surgeon to the Royal Albert Hospital, Devonport.

[*Read June 20th*, 1866.]

In the very short space of time which is allotted to me, it cannot, of course, be expected that the remarks I am about to address to you should be of a very elaborate nature, or that they should range over a large number of subjects. I shall endeavour to lay before you, as concisely as possible, some of the most recent improvements in surgical procedure, illustrating my remarks, as far as I can, by the exhibition of the surgical instruments to which reference will be made.

Noticing first in order ophthalmic surgery, I would draw your attention to the suction-curette, introduced by Mr. Pridgin Teale, jun., of Leeds, by which soft cataracts, either congenital or traumatic, are removed with great facility. The pupil being dilated with atropine, the anterior capsule is lacerated with a needle, an opening is then made at the edge of the cornea sufficiently large to admit the point of the curette, and the lens-matter sucked out. The results, after the use of this instrument, are most satisfactory.

The operation for extraction of the lens by flap-operation is less frequently performed than it was. The modification made by Mr. Bowman and Mr. Critchett in Schuft's spoon, enables the operator to remove even hard amber senile cataracts by traction. The old shaped spoon was of such dimension that it was difficult to insinuate it behind the lens, without rupturing the hyaloid membrane, and thus allowing vitreous humour to escape. The iris was also frequently bruised, and other damage inflicted on the tissues of the eye, which often resulted in the unfavourable termination of the case. The scoop now used is of much smaller dimensions, and avoids all the evils I have mentioned. The advantages this operation possesses over the old flap-extraction, are, that chloroform may be given with safety, and that confinement to bed is seldom required after the second day, as the corneal wound heals very rapidly.

Passing on to the consideration of general surgery, I would call your attention to some cases of excision of the entire tongue, or a portion of it, which have been performed by Mr. Syme of Edinburgh and Dr. Buchanan of Glasgow. Some eighteen months ago, Mr. Syme removed the entire tongue from a patient affected with epithelial cancer of that organ. Twelve months after the performance of this operation, Mr. Syme reports, that the patient is in perfect health, can articulate well, sing without difficulty, and swallow finely divided food and fluids with great ease.

Dr. Buchanan, twelve months ago, excised one lateral half of the tongue with perfect success; and reports a case of excision of the entire organ, the patient sinking on the ninth day from pyæmia. Cancer of the tongue is one of the most fearful maladies with which the surgeon has to contend. I hardly know of any disease which brings such horrible concomitants in its train. Constitutional and topical remedies alike fail to arrest its progress. A lingering and a painful death is its sure result. To surgeons, then, and especially to those in charge of hospitals, it is a matter of congratulation, that the knife does sometimes effect a cure; and I trust that further experience of this operation will warrant its more frequent application.

Another form of disease, not so frequently met with, but most painful and distressing in its effects, is closure of the jaws by rigid cicatrices in and about the mouth, the result frequently of sloughing after fever. This condition has been remedied by Mr. Holt, of the Westminster Hospital, in one case, by simply separating the tissue of the cheek from the lower jaw, and sawing through a dense mass of new bone which had been thrown out between the alveoli of the upper and lower jaw; the adhesions being prevented from again taking place by the introduction of metal shields. In another case, Mr. Heath, of the same hospital, performed the operation advocated by Professor Esmarch of Kiel; viz., that of cutting out a wedge-shaped piece of bone and forming a false joint. I saw this case at Plymouth not long ago, and can testify to the satisfactory amount of movement the girl now possesses.

Laryngoscopy has now been sufficiently before the profession to require little remark from me. I introduced the subject in order that I may show you the instrument I am in the habit of using, which I believe to be the simplest and best. Dr. G. Johnson has kindly lent me the small instrument he uses to remove pendulous tumours. The tumour is caught in a loop of fine wire, and by drawing back the trigger it is strangulated and torn off.

Before quitting the throat, I would just show you this tracheotomy-tube, which I have found very easy to introduce. I believe the most difficult part of the operation of tracheotomy is the introduction of the tube through the incision in the trachea. In this tube, when the inner one is removed, the outer one may be pinched up to a fine wedge-shaped point, which very much facilitates its introduction. You have doubtless seen reported in the *Lancet* of June 9th a curious case of death from hæmorrhage on the fifth day after tracheotomy; the hæmorrhage being produced by ulceration into the innominate artery. The accident was caused by the inner tube presenting a sharp point to the trachea, which caused the ulceration. In the tube I show you the edges are so turned that an accident of this kind could not happen.

The question of tracheotomy in croup is one which, I have no doubt you will agree with me, is very difficult to decide. I cannot, of course, now enter upon it fully; but I would suggest that, in cases of rapid exudation, where air very imperfectly enters the lungs and symptoms are urgent, the insertion of a tube into the trachea frequently affords rapid relief and the only chance of salvation for the patient.

In amputations of the lower extremity, many improvements have taken place. The application of compression to the abdominal aorta, in amputation at the hip-joint, has deprived that formidable operation of its great danger; viz., hæmorrhage in the posterior flap from branches of the internal iliac. A clamp has been invented by Professor Lister of Glasgow, by which the circulation through the abdominal aorta may be completely controlled. In a case of my own, where I amputated at the hip-joint for encephaloid disease, the abdominal aorta was very effectually compressed by hand; but the use of this

clamp is far safer, and prevents the occurrence of any arterial hæmorrhage at all.*

The usual flap-operation in the thigh is beginning to lose favour. It is found that the traction of the long ham-string muscles coming from the pelvis drags the cicatrix over the end of the bone, and that painful conical stumps frequently result from this method of amputation. I am very partial to Teale's amputation by rectangular flaps, provided the thigh be not very muscular, when it necessitates a too high division of the bone. But, in cases of disease, where the limb is generally much attenuated, the rectangular flaps are very successful. Below the knee, I am adverse to this method; the anterior flap is so long and thin, that sloughing sometimes takes place, as it did in the last case in which I performed this amputation. I have turned out admirable stumps by dissecting up two equal semilunar flaps of skin only, one anterior and the other posterior, dividing the muscles down to the bone, at the point where the tibia and fibula are to be sawn through. I may say that our after-treatment of amputations at the Royal Albert Hospital is of the simplest. The stump is placed on a broad curved splint covered with oil-silk, and retained by a turn or two of bandage. No dressing of any kind is applied to it, nor is it in anyway interfered with, except to wipe off the discharge from the splint. I have given up the use of wire-sutures, as being very painful to remove, and offering no advantage whatever over silk.

The treatment of stricture of the urethra has of late years undergone considerable change. From my own experience, and from the wonderful success which has attended his plan of treatment, I am inclined to adopt Holt's plan of treatment by rupture, whenever it is practicable to do so. The rapidity with which the worst cases of stricture are thus cured, and the immunity from subsequent ill effects, is a great recommendation for Holt's method. I do not think, however, that it promises a longer freedom from return. In three of my cases, I know that relapse has taken place in periods varying from four years to six months.

Mr. Henry Thompson, a short time ago, communicated to me a plan of treatment, which he has since published in the *Lancet*.† He remarks that the spot where stricture most frequently occurs, is at that portion of the urethra which is nearly double the diameter of the meatus. If, then, you simply dilate the strictured portion to the same size as the meatus, you but half dilate the stricture. In such cases, he uses his own dilator (which I show you) to overdilate the strictured portion up to about No. 16. By this stretching, the elasticity of the tissues is destroyed and recontraction prevented. Whilst on urethral disease, I must allude to the medicated soluble bougies lately introduced by Mr. H. Thompson in the treatment of gonorrhœa and gleet. I show you some which I have obtained. The bougie is introduced into the urethra, and a strip of plaster placed over the meatus. It dissolves in six or seven minutes; and the preparation permeates every portion of the canal, entering all the rugæ and lacunæ, and thus effectually attacking the disease.

Perhaps the most startling innovation in surgery of late years has been the introduction of ovariotomy. Our old notion, that it was death to the patient to interfere with the peritoneum, has been somewhat rudely swept away by the wholesale manner in which it is now cut through, and burnt through, and mopped out with sponges. The wonderful success of ovariotomy, in affording a perfect cure in a vast number of cases for what was, only a short time ago, a hopeless condition of disease, is a matter of deep congratulation to the profession. One of the greatest improvements in the method of performing this operation, is the separation of the pedicle by the cautery-clamp introduced by Mr. Baker Brown. This step in the operation is thus performed. The clamp being applied to the pedicle, the cyst is divided a few inches above it. The assistants then hold up the cut end with forceps, and the operator severs the pedicle with the red hot cautery-knife on a level with the surface of the clamp. There is considerable heat given out, and the parts must be protected with wet flannel. Any fatty exudation during the burning must be carefully wiped off, as if it enters the cavity it is apt to produce mischief. In taking off the clamp, great care must be used not to touch the seared edge of the pedicle. It must be allowed to fall back gently into the cavity. Mr. Baker Brown tells me, in a letter I received from him the other day, that he has now employed this plan in thirty-two successive ovariotomies, and that out of this number he has had twenty-nine recoveries.*

I also show you some tubular needles used by Mr. Baker Brown in vesico-vaginal fistula. The needle is first passed, and then the wire is threaded, the needle being then drawn back over the wire. By this means, all dragging on the wound is avoided.

Of the use of hypodermic injections of morphia I can speak most highly, from considerable experience. The great drawback I have found to its use is the difficulty to get patients to give it up when once they have become accustomed to the practice. I use the following solution:—Morph. acet. gr. x; acid. acet. fort. ♏x; aq. destil. ʒi, neutralised with a few drops of liquor potassæ, which takes away the pain caused by contact of the strong acid with the cellular tissue. Every drop thus contains one-sixth of a grain of morphia.

The application of a solution of chloride of zinc, forty grains to the ounce, to the surface of wounds, immediately after operation, is a new feature in surgery, for which we are indebted to Mr. De Morgan, of the Middlesex Hospital. Its effect is to check suppuration, and cause healing by the first intention. This, in a London hospital, is a point of great importance. It is asserted to be specially useful after operations for the removal of cancer, in that it prevents the return of the disease. Mr. Moore and Mr. Lawson have also been using, with very good results, chloride of zinc paste, in cases of cancer of the orbit, by which that portion of the disease which the knife and bone forceps could not remove was destroyed.

The short remaining time I have I shall devote to the consideration of the endoscope, which I have much pleasure in showing you. This instrument has been reintroduced to the surgical world by M. Désormeaux of Paris, and perfected by Dr. Cruise of Dublin. It consists of a lamp, the rays of which are directed by a lens upon an oblique perforated mirror. This mirror is set in a tube, to which an eye-piece is attached at one end, and to the other end is fitted the long tube for examination. If the urethra be the part under examination, a long urethral tube, of about the size of a No. 10 catheter, is passed down to the prostatic portion. The lamp and mirror are then attached, and the rays of light are thus thrown down to the end of the tube. By gradually with-

* On Saturday, August 18th, I amputated the thigh of a boy, aged 15, at the hip-joint, for long standing disease of the articulation, the femur being too much involved for excision. Lister's clamp was used, and not a drop of arterial blood was lost during the operation.

† *Lancet*, 1866, vol. i, p. 655.

* My colleague Mr. Bulteel, on Saturday, August 25th, removed a large fibroid tumour, using Mr. Chambers's "Parallel Clamp", described in the *Lancet* of July 21st, 1866, which is a great improvement on the old clamp.

drawing the tube, the entire course of the urethra may be examined. A similar tube of larger size may be used for the rectum; but, for examination of the interior of the bladder, it is necessary to use a tube with a piece of glass at the end, to prevent the escape of urine into the tube.

For the following notes on the use of the endoscope, I am indebted to my friend Mr. Christopher Heath, of the Westminster Hospital.

"I have been working with Cruise's modification of Désormeaux's endoscope for some months, and have latterly obtained very satisfactory results with it as regards diagnosis at least, for more time is necessary to test the treatment by means of the endoscope in all its branches. I have used Désormeaux's original instrument, as well as Cruise's modification of it; and I certainly give the preference to the latter, on account of the improved light, and the fact that it can be readily moderated as circumstances may require, although I think that Cruise's instrument might be simplified by doing away with the rachet, etc., used to bring the lens opposite the flame of the lamp. This appears to me quite unnecessary; for, the lamp being fixed, the lens should be fixed too; and I find in my instrument (which I send you), that, having once raised the lens about a quarter of an inch, it requires no further adjusting, unless, indeed, as sometimes happens, it gets accidentally depressed in using the instrument.

"I have examined endoscopically a large number of cases of gleet, and can confirm Désormeaux's statement that the majority of them depend upon a granular condition of the mucous membrane of the urethra at some point or other, and most frequently at the bulb. This granular condition frequently leads to a form of stricture of the urethra evidently due to the state of the mucous membrane; for, after treatment applied to the granulations by the topical application of a strong solution of nitrate of silver (gr. xx ad ℥i), the normal calibre of the urethra is restored, without the use of any form of bougie whatever. It is obvious that the recognition of this form of stricture (which, from what I have seen, I imagine to be far from uncommon) will necessitate a more accurate diagnosis and more varied treatment than is now generally adopted; and I think it not unlikely that those cases of stricture which have been satisfactorily treated from time to time, and specially by Mr. Wade, with the bougie 'armed' with caustic potash, have been instances of 'granular stricture'. Désormeaux believes, and I think with justice, that a simple granular stricture may in course of time develope into a *bonâ fide* condensation of the submucous tissue, and thus give rise to the more commonly recognised form of stricture.

"The diagnosis of an indurated, even of only very slightly contracted, portion of the urethra, by the endoscope, is very easy; and a very little practice will enable one to distinguish the sudden and uneven contraction of the condensed tissue upon the end of the tube, as contrasted with the uniform and gradual closure of the healthy urethra upon it, which so closely resembles the familiar closure of the vaginal or rectal mucous membrane upon the speculum. When the stricture is too tight to admit of the passage of the tube which is being employed, the face of the stricture is at once brought into view, and is very characteristic; the canal being sometimes narrowed to a minute central aperture, at others being more or less slit-like, and this slit having varying degrees of obliquity, as figured by both Désormeaux and Cruise in their illustrations.

"I have not had the opportunity as yet of ascertaining the exact site of the aperture in a case of impassable stricture; but I am quite confident that it would be possible to do so, as in the case related by Désormeaux, where he succeeded in passing a catgut bougie through a stricture which had failed the practised hand of Civiale. I have had the opportunity of examining one case of stricture after the use of Mr. Holt's dilator, and can confirm Dr. Cruise's account of the appearance presented. The case was one which admitted a No. 5 catheter, which endoscopically showed the canal converted into an oblique slit. After the operation, when No. 10 catheter could be readily passed, this slit was seen to be considerably increased, particularly at the upper part; and, on passing a tube through the stricture, it was seen that the mucous membrane beyond was paler than normal, and that the induration extended beyond the point where the stricture was split.

"With regard to the examination of the bladder, I found Désormeaux's angular tube so difficult to introduce, that I had a catheter and tube made upon the plan suggested by Dr. Cruise, which allows the bladder to be washed out, and the endoscopic tube to be used through the same instrument. With this I was able to examine the bladder of a man suffering from paralysis and consequent chronic cystitis, and was able to see very satisfactorily the congested condition of the mucous membrane. I last week had the opportunity of examining the interior of the female bladder in a patient of Dr. Ray of Dulwich, and used for this purpose Désormeaux's tube most satisfactorily. This lady had been suffering from obstinate hæmaturia, and I was able to show Dr. Ray the anæmic condition of the mucous membrane in its greater part, and also a distinct growth springing from the left side of the bladder, and no doubt the source of the hæmorrhage.

"In conclusion, let me say that practice is needed in the use of the endoscope, as with every other 'scope'; and warn those who are short or long sighted to use their glasses when looking through the tube of the endoscope, or they may fail to focus the tissue at the end of it."

By the kindness of Dr. Beith of the Royal Naval Hospital, I have been enabled to test this instrument in the stricture ward of that hospital. Of course, I lacked experience in its use; but I was astonished at the results I was able to obtain. In one case, where Dr. Beith had that day succeeded in passing a No. 1 bougie, we were able distinctly to make out the orifice of the stricture; and the grey cicatrised tissue, as compared with the pink colour of the anterior portions of the urethra, was wonderfully shown. In a case of fistula *in ano*, I was able to demonstrate the presence of a small ulcer on the mucous membrane about four inches within the anus, to which it was quite possible to apply any topical remedy through the tube.

YORKSHIRE BRANCH.

ON CHOLERA.

By Thomas M. Greenhow, M.D., Leeds.

[*Read July 26th*, 1866.]

The various opinions which prevail respecting the nature and treatment of cholera, and the probability of an early visitation of that much dreaded disease, render it a subject of the greatest interest both to members of the medical profession and to the general public. I must plead this universal interest as my apology for directing the attention of the society to the interesting questions relating to cholera, though I should prove unable to throw new or additional light on its real nature, its pathology, or its treatment.

The doctrines or opinions of Dr. G. Johnson have

recently engaged a large share of attention, and have given rise to much warm discussion among its advocates and opponents. I need not remind you that Dr. Johnson looks upon cholera as a blood disease, depending on the introduction of a zymotic or fermenting principle into the system, and that the profuse serous or *rice-water* discharges from the stomach and bowels are a wholesome effort of nature to eliminate the morbid produce of the supposed fermentation, and relieve the system from its morbid influence; hence he concludes that this eliminating process ought to be promoted rather than attempts made to check or counteract it. This theory has the merit of great simplicity, and is probably not entirely without some degree of truth. But it appears to me, that to make it the basis of practice in all cases would be extremely dangerous; that, without curing the disease, it would not unfrequently tend to increase the exhaustion of the patient and hasten the fatal result.

Nevertheless, I am not prepared to deny that a diseased condition of blood really takes place in cholera — whether by fermentation or otherwise, requires yet to be proved; nor that there is some truth in the supposition that the profuse discharges are partly dependent on a natural effort to eliminate (so to speak) the disease. But admitting so much, I must still maintain that such effort requires careful watching, and frequently at least attempts at restraint.

Assuming, then, that in cholera a morbid change or diseased condition of the blood takes place, the question arises how or when is this effected? Is it a primary or secondary result of the efficient cause of the disease? This question will be best answered by a reference to the nature and sequence of the phenomena or symptoms characteristic of an attack of cholera.

Let us remember, in the first place, that what has been called choleraic diarrhœa is in reality cholera in its first stage or in a mild degree, and is as much dependent on the proper cause of cholera as the second and more characteristic stage of the disease, usually called collapse. This form of the complaint only occurs when it is either epidemic or endemic, and when the stomach and bowels have discharged their contents of recent ingesta and well digested fæces, and the serous or rice-water discharges are taking place; then the arrested secretion of the mucous membrane occurs, soon to be followed by that of the kidneys and liver. Here, I would inquire, what is the cause of the suspension of the action of these organs? Is it occasioned by a morbid change in the condition of the blood? or does it arise from a nervous impression made on the mucous membrane of the stomach and bowels by the poison or morbific cause of cholera (whatever that may be) conveyed thence to the nervous centres in the ganglia, the great sympathetic and the spine, and thence by reflex action to the liver and kidneys, thus suspending or paralysing their respective powers of secretion.

To me, it appears that the latter is the most probable explanation of the mode in which the poison of cholera attacks the human system, and that the morbid condition of the blood is the effect and not the primary cause of the phenomena which follow and especially characterise the second stage. Admitting, what is highly probable, that specific changes in the condition of the blood are produced by the poison of cholera entering into its chemical or vital constitution, without doubt it becomes further changed as the disease progresses, by what it parts with during the profuse discharges by vomiting and purging, as well as by what it retains in consequence of the non-secretion of the kidneys and liver.

But let us pass on to the second stage of cholera, which is called collapse. I shall endeavour to give a summary of this stage of cholera, which, however familiar to most of my hearers, it is necessary to recapitulate to render intelligible the line of argument I am desirous of pursuing. With a continuance of the serous discharges, great pain is often felt at the pit of the stomach, with severe cramps of the muscles of the abdomen and limbs; the biliary and urinary secretions remain in abeyance; urgent thirst; suspension nearly complete of the action of the heart and arteries, with its necessary consequences, failure of animal heat, as exhibited in cold surface, cold tongue and breath, blueness and wrinkled integuments of the extremities, livid, shrunk countenance, with the glazed and sunken eye, so expressive of anxiety and suffering, and which add in so remarkable a manner to the apparent age of patient; to which must be added the hoarse or whispering voice. We must also remember that, while the circulating and secreting functions are at a stand, the sensorial powers remain unaffected, nearly, if not entirely, to the last. The patient is sensible of all that passes around him; he answers questions with distinctness and accuracy, though it may be in monosyllables only; respiration goes on with apparent ease and regularity, till within a few minutes of death. The whole exhibits an impressive picture of the death of one set of organs, while life still maintains its seat in others. Is it probable, I would inquire, that these phenomena are entirely dependent on a morbid condition of the blood, which admits of being discharged or eliminated either by the salutary efforts of nature or by the aid of evacuant medicines? If this were so, would not the brain suffer derangement in an equal degree with the organs of secretion; and would not the muscles of respiration cease to act when the blood was no longer propelled through the lungs to undergo the process of oxygenation? Certain portions of the nervous system are affected, but not the whole, by the poison of cholera, as happens when other poisons are introduced into the human system; but, surely, if the poison resided in the blood only, its effects would be *universal* and not *partial*, since all would be subjected to the baneful influence. Granting for an instant, according to Dr. Johnson's theory, that nature attempts to eliminate the noxious qualities of the blood, which result from the poisonous cause of cholera, must she not signally fail while the elementary constituents of bile and urea are retained in it; and how are these to be eliminated except by the restoration of the secreting functions of the liver and the kidneys? I must maintain, therefore, my opinion, that in the treatment of cholera, whether in the first or second stage, the restoration of the secreting functions of these organs must form one of our primary indications; and, further, it seems pretty evident that in proportion to the extent in which the circulating mass is deprived of its thinner parts, will be the difficulty of re-establishing these functions.

If I may be permitted to repeat what I said in an essay published in 1832, I would still say that, "In the treatment of cholera, we must hold in view—

"1. The necessity of allaying the irritation in the nervous expansion of the stomach and bowels; in other words, to check the vomiting and purging.

"2. To excite the vascular system and restore animal heat.

"3. To restore suppressed secretions.

"4. To obtain healthy evacuations from the bowels and kidneys.

"5. To moderate reaction and obviate congestions, local determinations, and organic inflammation.

"The first indication may be considered as common to the first and second stages of the disease;

the three succeeding ones relate principally to the second stage, and the last is peculiar to the third stage of cholera"—the stage of recovery from the characteristic symptoms of the disease which occasionally leave behind them serious organic affections which require careful treatment.

Since the first appearance of cholera in this country in 1831, the medical profession has often been reproached by the general public for its ignorance of the disease, and its inability to discover for it any certain specific or unfailingly successful method of treatment. Such reproaches are surely equally misplaced and unmerited. During epidemic cholera, the members of the profession have unfailingly devoted themselves to the study of the disease, and to the discovery and application of the most appropriate means of treatment; nor is it wonderful that in this, as in other diseases of fatal tendency, their efforts have not always been successful. But I cannot believe that they have so utterly failed as has been supposed. In the first stage of the disease, I am convinced that many patients have been cured, so to speak, and prevented from falling into the second stage, in which the danger is so imminent; nor, indeed, in the stage of collapse, when death seemed inevitable, have the curative measures pursued been frequently entirely unavailing. This success in the first stage may have been effected by the use of absorbents and astringents; but of this I do not possess any experience. The power of mercury over the secreting organs is well known and generally acknowledged. It is needless to refer to its peculiar influence over the salivary secretion; and experience has amply shown that over the secretion of bile it is often not less efficient. Nor do I believe that we are without proof of its power over the action of the kidneys. It is not without reason, therefore, that mercury has been so often employed in the treatment of cholera. Calomel is the form in which it has been usually prescribed, though the quantity and frequency of the dose has varied in an extraordinary degree. The extremes in both are exemplified in the single grain doses of Dr. Ayre of Hull, given every quarter or half hour, and the scruples or half drachms administered by the Indian practitioners of former days, and still advocated in a pamphlet kindly sent to me a few days ago by Dr. C. Searle, of the Hon. East India Company's service, who seems to consider calomel in cholera as a really specific remedy. In the earlier stages, Dr. Searle recommends smaller doses; but, in the more advanced state of disease, he says, "from six grains to twenty every quarter or half hour, considering (he says very truly) that it is not the quantity of the remedy, but the effect produced, which should govern us in its administration." Dr. Searle disapproves of giving opium with his doses of calomel. I must acknowledge that my reasoning and experience have led to a different conclusion. The value of mercury appears to me difficult to be disproved; but I fancy that I have proved to my own satisfaction that its effects on the secreting organs are more certain when given in smaller doses; and that preference over calomel may be fairly given to blue pill, because it is of a less irritating quality, and is in a chemical condition to admit more readily of being received into the circulating mass. With the view of fulfilling the first indication, I have proposed to myself, in cases of cholera, "allaying the irritation of the nervous expansion of the stomach and bowels." I have united with blue pill a small quantity of opium. I think I have convinced myself that the effect of half-grain or grain doses of opium is to soothe the nervous system, relieve spasm, and prevent the mercury from passing away from the system, so as to prevent its influence over the secretions, which it is intended to restore.

But, having given my reasons for dissenting from the eliminating theory and treatment of cholera maintained by Dr. Johnson, I have fulfilled the purpose of this short paper; and I feel that it would be little less than impertinent in me, before so many able and experienced practitioners, to enter into general and minute details on the means of preserving the lives of cholera patients.

One means, however, perhaps peculiar to myself, of rousing the nervous system in cases of collapse, I may be permitted to refer to. It is well known that the application of external heat, or of mustard and Cayenne pepper plasters, has seldom been found very successful. In the cholera epidemic of 1853, I was therefore induced to try a more rapid and powerful stimulus, and on several occasions with evident temporary, and in three cases with permanent and complete, success. It was a brandy blister; a piece of rag moistened with brandy, and best placed over the dorsal or lumbar spine. When ignited, it burns for some seconds, stimulating the spinal cord, so as to restore the action of the heart and arteries and animal heat in a remarkable degree. As it is attended with considerable pain, this remedy will scarcely be resorted to except in cases of extreme danger or impending death.

Teaching Science in Public Schools. The Rev. F. W. Farrar, at the Nottingham meeting of the British Association, argued that the introduction of scientific instruction into the public school system was necessary on three grounds: first, because it called into play a *different* order of faculties in boys who had studied language with success; secondly, because it evolved those faculties in boys who were naturally unsuited for classical training; thirdly, because the schools had ceased to be solely preparatory for the Universities, and were therefore bound to give boys the opportunity of acquiring some knowledge which would be of practical use to them in their future professions. He next treated of the difficulties in the way of carrying out these views. Those difficulties did not arise from the prejudice of public schoolmasters; but from the conflicting opinions of scientific men; from the absence of any definite and well-considered scheme; from the badness of many existing text books; and from the immense amount of time already devoted to the teaching of the modern languages, mathematics, and classics, a term which now involved a very wide range of studies. The author suggested that many of these difficulties might be removed if a committee were appointed by the Association, partly composed of scientific men and partly of masters accustomed to the methods of public schools. He stated that at almost every school something was being done, but that the plans mainly adopted were three; viz.—1. Modern schools in which science was made a part of the course. 2. Occasional and compulsory lectures, of which notes were taken by the boys; and, 3. A voluntary system, by which boys were *encouraged* rather than *compelled* to make themselves acquainted with various sciences. Rugby is the only school at which science is now regularly and completely introduced, and the author therefore described the system there introduced and the no less characteristic voluntary system which has been established at Harrow, and is working most advantageously. Finally, the author suggested his own scheme, which was a combination of the voluntary and compulsory systems, for which in the case of many boys ample time could be gained by a wise abandonment of the practice of Greek and Latin composition.

We are requested to remind members of the Association that the Annual Subscriptions became due on the 1st of January. They can be paid either to the Secretaries of the Branches; or to the General Secretary, T. Watkin Williams, Esq., 13, Newhall Street, Birmingham.

British Medical Journal.

SATURDAY, SEPTEMBER 15TH, 1866.

THE HASTINGS MEMORIAL.

THE first list of subscriptions to the Hastings Memorial Fund is published in this day's JOURNAL. The amount is about £180.

The formation of this Fund was determined on during the meeting of the Association at Chester. It was but natural that the members there present should desire to do something more than verbally record their sorrow at the loss which they had then but recently sustained in the death of the founder and guide of the Association—that they should desire to perpetuate their veneration for his memory, and their admiration of his character, in some tangible manner. What form the memorial should take, was a point that might possibly have admitted of some discussion; but on the occasion in question there appears to have been but one opinion—that it should be something which should in itself be a means of actively carrying out some one of those objects for which Sir Charles Hastings founded the Association, and that it should bear the impression of that catholic spirit, that desire for the universal good of his profession, which was ever the leading principle of his life.

A nucleus already existed in the Association which fulfilled one of these requirements; and it was only necessary to give this a further development to make it a worthy memorial of a great and good man. Some years ago, the Association instituted a medal under the name of the "Hastings Medal", to be given to the best essay by a member on some subject in medical science. The Association, at the Chester meeting, resolved that the best memorial of Sir Charles Hastings would be a further development of the prize already instituted in his honour; that a sum of money should be raised, the interest of which might be presented to the recipient of the medal; and that the prize, in place of being confined to members of the Association, should be open to medical men *ubicunque gentium*.

No decision at which the Association could have arrived would, we opine, have been more judicious; no memorial could have been devised that would have been more truly calculated to remind men that he, in whose honour it was raised, was one who sought the universal good of his fellows, and the general advancement of his profession. As a matter of feeling, then, the determination of the Association was a right one. But, more than this, the Hastings memorial is, we trust, calculated to bear good fruit. Men cannot carry on useful investigations in medical science, without some outlay; and it is not always those who least feel the outlay that are the most zealous or the most able in putting together such essays as should alone be thought worthy of the Hastings prize. To such men, the receipt not only of an honourable recognition of their labours, but of a pecuniary recompense to some extent at least, would be a fitting compensation; and it is to be trusted that the encouragement may be so great as to lead to the addition of much valuable matter to medical science and art.

We hope earnestly that the profession will, one and all, regard this matter in the same light as those who have already subscribed; and that, before long, we shall have to record that a sum has been raised which shall make the Hastings prize, already one of the most honourable, one of the most valuable which our profession in this country has at its disposal. Let the memorial be worthy of the man in whose honour it is raised.

CHOLERA NOTIONS.

DR. NIVEN once used oxygen and nitrous oxide inhalations in two severe cases of cholera. Both died; but he recommends another trial of the nitrous oxide inhalation. The effects of it, he says, reminded him of the sensational details once given of the galvanised corpse of a recently executed criminal.

Dr. Corner has long used, "with the most beneficial results," liquor potassæ as an antidote to tainted drink and food. Under this idea, he has treated cholera "with most favourable results." He believes a "solution of caustic potash to be the best known remedy or antidote for the cholera poison." To excite the biliary flux, he uses taraxacum; for it causes a secretion, whilst calomel only produces an excretion of bile. To "conserve the fluids," he gives astringents, especially acetate of lead, with "larger quantities of fluid nourishment"; and opium to relieve cramps.

Dr. Fennell, in the Crimea, employed two drachm-doses of spirits of turpentine "with the best effects". It acts as an "astringent, diuretic, and stimulant." In the course of a few doses at half-hour intervals, it turns the rice-watery into bilious evacuations.

Dr. Whitworth finds successful a pill of calomel and opium, followed up by a mixture of bicarbonate of potash, rhubarb, and sal volatile. In collapse, he gives sulphuric ether and laudanum, and applies external heat.

Dr. Westley argues that the Great Fire of London banished the Plague, through the "disinfecting qualities of the vapours of smouldering wood," and that we ought to imitate this "tremendous lesson." He advises, therefore, that we treat cholera by disinfectants; by "administering incessantly large doses of animal charcoal, and impregnating the air with chlorinated and ozonised oxygen vapours." All attendants on cholera patients should keep a charcoal lozenge continually in their mouths.

Sir Dominic Corrigan has published a pamphlet—*Cholera Map of Ireland.* In it he desires to show, that telluric or epidemic agencies have more to do with the spread of cholera than contagion has.

Dr. Jeanneret, in a pamphlet entitled *Epidemic Cholera, Diarrhœa, and Dysentery*, points out, he assures us, "an effectual and expeditious method of cure." This perfect cure is camphor with aromatic confection. "I soon collected that camphor alone sufficed to cure the symptoms of cholera, but then diarrhœa often remained; whereas the combination was completely effectual in obviating every symptom of either." Dr. Jeanneret complains that the profession will not listen to him; and that, in fact, the world has little thanks to give doctors in general for the remedies they possess.

"If boards and public journals decline to test one's statements, or to give publicity to them, or allow themselves to indulge a habit of snubbing whatever does not square with their own antiquated notions, there seems no plan but that I now pursue, by which to obviate the injury to the community which might accrue from the concealment of an important revelation. We should always keep in mind that comparatively few of our most useful remedies owe their adoption to the professors of medicine; nay, they are generally forced upon our notice."

The Rev. C. Parnell proposes to give the people of Liverpool an opportunity of being under the homœopathic treatment. He gives the following reasons as his justification.

"1. The great success of the homœopathic treatment of the typhus fever during the last twelve months. 2. A similar success in diarrhœa. 3. The report in the Parliamentary blue book bearing testimony to the marked success of that treatment in previous visitations of cholera."

One Dr. Holcombe, who hails from New Orleans, in his profession of faith, "How I Became a Homœopath", gives his estimate of the value of camphor, cuprum, and veratrum, in cholera.

"The discovery of the planet Le Verrier is often adduced as one of the most splendid triumphs of human genius. No eye had ever seen the distant globe. Le Verrier conceived the idea that a certain perturbation in the movements of the planets could be accounted for only on the supposition of the existence of another planet, of certain dimensions, occupying a certain orbit, at a certain distance beyond all the others. Powerful instruments were brought to bear on the sidereal spaces, and the new orb, first discovered by the mind, was revealed to the eye. The only fact in history which matches it in grandeur, and excels it in utility, is the prediction by Hahnemann, that camphor, cuprum, and veratrum, would be found the best remedies for cholera. No European physician had ever seen the Asiatic plague. No experiments had been made; no theories tested. Hahnemann, without ever seeing a case or prescribing for a patient, being guided by the eternal therapeutic law which he had discovered, *Similia similibus curantur*, predicts the successful treatment as confidently as he would have directed the proper course of a vessel by the help of the magnetic needle."

THE PROPAGATION OF CHOLERA.

We must confess to some surprise at finding "Q" in the *Times*—a well known and highly accomplished physician—giving way to the publishing of possible and very probable error relative to the propagation of cholera. "Q" assumes an unproven statement as a fact; viz., that cholera has been produced by the drinking of water tainted with the evacuations of cholera patients. He therefore chides the managers of the Cholera Committee for sending convalescent cholera patients to Walton. This statement is by others vigorously objected to. Therefore "Q" rejoins, in a second letter to the *Times*. He says:

"You permitted me to state that the Cholera Committee of the Mansion House had sent, or had assisted in sending, convalescent cholera patients to an institution at Walton-on-Thames; and that, as this locality was near the source of the principal water-supply of the metropolis, most lamentable consequences might result from the practice."

"Q" then goes on to say:

"Now, seeing that the recent outbreak of the disease at the east end of London has been attributed to the use of the waters of the River Lea, infected by cholera-poison derived from the Epping cases of last year, the consequences that may result from the poison of even those twelve cases reaching the Thames above the sources of water-supply are dangerous enough to excuse me for having drawn attention to them."

Now, in reference to "Q's" main objection, we may say, that it is at once removed by the fact that the sewage of the Institution does not flow into the Thames.

But this is not the point upon which we venture to take issue with, we suppose we may say, our friend Dr. Quain. We object to his assuming as a fact that the River Lea water was last year poisoned by the evacuations of cholera patients at Epping. We must be excused for saying, that such a statement is contrary to all *à priori* medical reasoning; and is completely unproven by fact. We do not believe that a single case on record either proves or justifies the fact, that cholera poison has passed bodily as such with water into a man's stomach, and then and there produced cholera in him. We are not (let it be clearly understood) denying the possibility of such an occurrence; but we do deny that the proof, or any thing like the proof of it, has ever yet been given. The famous Broad Street pump

cases proved nothing of the sort. They indicated that water contaminated with sewage or other impurities will bring the body into such a state as to render it an easy prey to cholera; but they indicated nothing more. The east end of London cholera outbreak indicates nothing more. Are we really, upon such fragile evidence as lies before us, to believe that the evacuations of two or three cholera patients by some roundabout way found their way at Epping into the River Lea last year, and have reappeared this year in the shape of the East London outbreak of cholera; that they were the cause of that effect; and that ever since last year they have been floating in, and propagating microscopic fungoid or some other imaginary species in its waters? Are we to believe that this poison has been for a whole year sticking to the banks of the river; or that it is of so rapid a growth as even to grow against the stream; and so adhesive as to refuse being washed away downwards, like other effete matter, with the stream? We are sorry we must confess that so cautious an observer as "Q" should have assisted in propagating what seems to us so very unproven a statement; or that he should have accepted as true what is really at present purely hypothetical. Heaven knows, we have reason enough to be cautious as to the quality of the water we drink; but surely there is no necessity for frightening the public to death hypothetically by reasoning upon most inconclusive and improbable data, and deducing from them a statement strong enough to make all Londoners who drink Thames water shudder. And when we add to this suggested poisoning of the Thames with cholera excretions "near the source of the principal water-supply of the metropolis," the assertion of Professor Frankland that boiling will not destroy the poisonous purging germ or element in tainted water, we have from two high authorities a statement which is enough to drive metropolitan teetotallers mad, and to make all reasonable Londoners not of that creed eschew all drink except Bass's ale, French brandy, or fiery Oporto compounds.

However ancient a proverb, it continually requires repeating, and *Ne sutor ultra crepidam* as often as any proverb. Professor Frankland, in his dealing with cholera, has reminded us of the error people make who get too far outside their legitimate line of study. A letter in the *Times*, signed "Y", which we suppose may be taken for Percy, very well and properly calls Professor Frankland to book on the occasion. Professor Frankland says:

"I have conclusive evidence that even boiling, which is generally regarded as the most efficacious means, will not prevent water, which is so contaminated (*i. e.*, with organic matter alleged to constitute choleraic poison), from producing violent cramp and diarrhœa."

He adds in a note, that

"This fact is not incompatible with the theory that choleraic and similar poison are the germs of organisms; for it is well known that organic germs can develope into life after being boiled in water for a short time."

On this, "Y" comments as follows.

"The evidence which has been collected concerning outbreaks of cholera seems clearly to point to water as one vehicle for the communication of the disease. But Professor Frankland tells us he has 'conclusive evidence' that water may contain organic matter which will afflict those who drink it with 'violent cramp and diarrhœa', although chemical analysis, like every other mode of investigation, is powerless to detect its presence; and, what is extraordinary, even boiling for a short time will not render it innocuous. Hence it appears that, so far from the 'conclusive evidence' in question being founded on direct chemical or physical observation, it is simply an inference from assumed premisses. Whether this view be correct or not, it would be very desirable that Professor Frankland should inform the public of the precise nature of the evidence which satisfied him as conclusive. The particulars of the observations or experiments concerning the indestructibility of the poisonous matter by boiling should be fully stated. The enunciation of dry conclusions, even by the highest authorities, will not, in the absence of the data on which they are founded, suffice to insure general acquiescence. Men who are best fitted to observe and reason upon the phenomena of disease know well how much caution is needed in drawing conclusions respecting the action of drugs, especially in a few cases; and exactly the same caution is necessary in investigating the action upon the human system of water supposed to contain choleraic poison. In the case which Professor Frankland adduces, of violent cramp and diarrhœa consequent on the drinking of water which had even been boiled, specific details should be given, such as whether he refers to a single case, or whether the same result occurred in several or many cases; the time which elapsed between the drinking and the manifestation of the symptoms of poisoning, and other obvious incidents."

Since the above was written, Professor Frankland has, we observe, responded to "Y". He has published the crucial instance which, as he thinks, proves his case. It is as follows.

"I stated that boiling will not prevent water which is contaminated with poisoned excrementitious matter from producing violent cramp and diarrhœa. The case upon which I founded this opinion is the following. A gentleman and his wife partook of tea made with well-water, which was poured boiling from the teakettle into the teapot. Between three and four hours after partaking of the tea, and after they had been asleep for some time, they were both awoke by violent cramps both in the limbs and body, which were soon followed by excessive diarrhœa. The cramps lasted for several hours, and the diarrhœa until the following afternoon. Both patients were affected in exactly the same way. The well-water was suspected; and the well, which was a very shallow one in slate-rock, was at once opened and examined. It was soon found that a pipe from a water-closet had burst, and that some of the contents had made their way into the well; in fact, some fragments of excrementitious matter were found floating on the surface of the water. The water from this well was never again used; for the well

was filled up, and another excavated at some distance; and the symptoms, which were entirely novel to the patients, never again occurred.

"The attack took place in a very healthy locality in the country, and at a time when no epidemic diarrhœa or cholera prevailed. Were such an experiment tried now, the result can scarcely be doubted. I am intimately acquainted with the sufferers, and was at once informed of all the circumstances. The evidence afforded by this case is unexceptionally conclusive—first, because the parties never, under any circumstances, drank this water except in the form of tea or coffee; and secondly, because they were at the time the only inmates of the house, being without a servant. There can, therefore, be no doubt about the water having been boiled. The case excited my special interest on account of the unexpected conclusion to which it leads; and I mentioned it because it is important at the present juncture that we should not place implicit reliance upon a precautionary measure founded upon the assumption that the noxious qualities of the organic matters of sewage are destroyed by boiling."

Now, we must beg to assure Professor Frankland that this case, from a clinical and medical point of view, is very far from being "exceptionally conclusive". He does not even tell us whether the man and wife ate anything with their tea; and if so, what they ate. Neither does he say if they had or not drank of the same water on previous occasions with impunity. As people ordinarily drink, in tea or coffee, water every day of their lives, we may in this case fairly suppose that these two persons had daily drank of this very water, but only on this occasion ascribed poisonous effects to it. We have, however, said enough to show the very little value of this case, as it at present stands. Professor Frankland must much improve it, if it is to be of use as evidence of the case from his point of view. It is full of defects.

The Cholera Hospital in Commercial Street is under the charge of Dr. Sutton, and managed by Miss Sellon and the Sisters of Charity. There have been in it 114 admissions and 33 deaths up to last week. Almost all the patients, Dr. Sutton says, came from houses in which cholera patients had already died. Truly, these may be said to be *nests* of cholera. Saline injections, or any hot injections, into the veins of cholera patients, do no appear to have been resorted to, except in a few cases, during the present epidemic; and we observe that the cases in which attempts of this kind have been made were in a desperate state, all other methods of cure having been thought in vain. We need hardly say that the results of these attempts give no real indication as to the actual value of the remedy.

Dr. Watzke of Vienna has published a paper with a title ominous to the homœopaths, *On the Causes of the Dearth of Homœopathic Medical Recruits.* The dearth is admitted also in England, in the following comment on Dr. Watzke's paper by an English homœopathic journal.

"We incline to think that the greatest reason is, 'the want of theoretical and clinical professorships of homœopathy.' A very large number of the allopathic profession would willingly study homœopathy, were there some '*men to guide them*'. Our literature wants arrangement, and our principles and practice require *public demonstration.*"

The Medical Club, which has been started under the energetic auspices of Dr. Lory Marsh, has, we hear, already enrolled one hundred members. A meeting was last week held at Mr. Propert's, to assist progress. Five hundred members, it is thought, will form a body large enough to launch the Club. Comfort, rather than luxury, it is proposed, shall preside in the arrangements. Mr. Propert was elected Treasurer. Perhaps it might be well to extend the Club to other learned professions.

The Municipality of Paris have determined, Dr. Webster says (*Lancet*), to erect ten new lunatic asylums, three of which are now in course of erection—viz., one on the south side of Paris, one at Vaucluse (ten miles south of the city), and the third at Ville-Errard, about the same distance. All the ten are to be placed in the country, at convenient distances from Paris. The estimated cost of the whole is £2,000,000. Each asylum is to accommodate between five and six hundred lunatics. The pavilion style has been selected.

THE CHOLERA.

On Tuesday last, the number of cholera cases in the London hospital wards, which had fallen on Monday to 57, rose to 63. On Monday, one patient was admitted; on Tuesday, nine persons. Some of these new cases were of a very bad kind.

At the Cholera Hospital in Commercial Street, a slight increase in the severity of the attack has also been noticed. But throughout the East-end generally medical men are of opinion that there is no present tendency to a recurrence of the ravages which took place in July and the beginning of August. In the Whitechapel district, the Board of Works have dispensed with the services of seven of the eleven medical gentlemen who were appointed to give gratuitous advice and medicine to the poor who should be attacked with the cholera. Four of the medical students who were appointed some weeks since to make the house-to-house visitation have also been given notice to discontinue their duties; and one of the three inspectors of nuisances has been dismissed. In the hamlet of Mile-end Old Town a similar reduction has been made.

Dr. Pusey has been labouring among the cholera sufferers in the east of London.

Cholera has almost disappeared from New York.

The New York Bureau of Vital Statistics, and several physicians of that city, are pointing out lessons to be learnt from the waste of life which has just occurred by cholera. Foremost among them is the value of fresh air. Dr. L. W. Lewis states that the best prevention of cholera is to keep the windows of your house open night and day. Dr. F. Hamilton, when the cholera broke out upon Blackwell's Island, kept the people out of doors all day, and the windows of their rooms open all night, and thus in five days checked the disease. Dr. O. Doremus says that "God's oxygen is one of the best antidotes to disease." But so great is the force of prejudice felt to be, that Dr. Harris, the registrar of vital statistics, congratulates even the sanitary inspectors upon "their faith in facts." In England, the general practice still is to shut all windows by sunset, and keep the entire house well corked against fresh air throughout the night.

The cholera is making terrible progress in Western America. In St. Louis, during twenty-four hours there were 119 deaths, and the people were fleeing from the city in panic.

Dr. T. J. Dyke, Medical Officer of Health, of Merthyr Tydfil, in his report to the Local Board of Health, says of the cholera:—"The epidemic cholera commenced on the 23rd of August. Cases of the most malignant character occurred almost simultaneously at Abercannaid, at Caedraw, in Merthyr, and at Cae Harris, Dowlais. The first-named place is two miles south-west of Merthyr; the last-named place two miles north-east. Abercannaid is about 500 feet above the sea, on the west bank of the river Taff. Cae Harris, 1100 feet above the sea, and no water course near. On the 24th of August cases equally malignant occurred in Quarry Row, Tramroad north, George Town, and Penyard Penydarran, places as you are aware, widely separate. No communication had taken place between any of the three first afflicted with each other, or with any other town or place in which cholera had been. But in the neighbourhood of the residence of each of the persons first attacked, I believe I shall, on a future occasion, be able to show that the cause which gave rise to the epidemics of typhus fever in 1864 and 1865, has given rise also to cholera in 1866; I mean putrefying human filth. From the 21st a very evident blue mist was seen in the valley. It is not to be supposed that this mist has anything to do in causing the disease, for it may be seen in these valleys whenever, after much rain, a high temperature and a still atmosphere follow; but it is in such a condition of air that vegetable and insect life most rapidly grow."

At Naples the cholera has spread extensively. One or two of the barracks have been visited by the epidemic. The heat has been intense; and here, as in all other places where it has raged, we can recognise the consequences of the violation of simple sanitary laws. Bad water, or a deficient supply; bad sewerage, or no sewerage; dirt in the streets and dirt on the person; unwholesome food, and that in abundance, all proceding from individual carelessness or municipal neglect, have been all the summer inviting a visit from the cholera, and now we have it at the commencement of autumn. Even at this crisis, the filth and indecency which are apparent in the most frequented and best parts of Naples are frightful.

Association Intelligence.

COMMITTEE OF COUNCIL: NOTICE OF MEETING.

The Committee of Council will meet at the Queen's Hotel, Birmingham, on Thursday, the 4th day of October, 1866, at 3 o'clock P.M. *precisely*.

To receive the resignation of the Editor of the Journal, and to devise what steps shall be taken relative thereto; and other very important business.

T. Watkin Williams, *General Secretary*.

13, Newhall Street, Birmingham, September 6th, 1866.

WEST SOMERSET BRANCH: ORDINARY MEETING.

An ordinary meeting of the above Branch will be held at Clarke's Castle Hotel, Taunton, on Wednesday, September 26th. Dinner at 5 o'clock; after which, papers or cases will be communicated.

Gentlemen intending to be present at the dinner, or to read papers after, are requested to give notice to the Honorary Secretary.

W. M. Kelly, M.D., *Hon. Secretary*.

Taunton, September 4th, 1866.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT MEDICAL MEETINGS.

The next meeting of this Branch will be held at the Pavilion Hotel, Folkestone, on Thursday, September 27th, at 3 P.M.

Members desiring to bring forward papers, should communicate with the Honorary Secretary without delay.

R. L. Bowles, L.R.C.P., *Honorary Secretary*.

Folkestone, September 4th, 1866.

SOUTH EASTERN BRANCH: WEST KENT DISTRICT MEETINGS.

The next meeting is appointed to be held at St. Bartholomew's Hospital, Rochester, on Friday, Sept. 30th, at 3.30 P.M. Dr. Burns will take the chair.

Dinner will be provided at the Bull Hotel, Rochester, at 5.30 P.M.

Paper promised (if there be time for the reading): On the acquired Blood-relationship of the Wife to her Husband.

Frederick J. Brown, M.D., *Hon. Sec.*

Rochester, September 10th, 1866.

SHROPSHIRE ETHICAL BRANCH.

The next annual meeting of the above Branch will be held at the Raven Hotel, Shrewsbury, on Monday, October 1st, at 1 P.M. Dinner at 3 P.M. W. Slyman, President, in the chair.

Members intending to read papers, or to be present at the dinner, are requested to communicate with the Honorary Secretaries without delay.

Jukes Styrap, L.K.Q.C.P. } *Hon.*
Edwyn Andrew, M.D. } *Secs.*

Shrewsbury, September 11th, 1866.

HASTINGS MEMORIAL FUND.

At the recent meeting of the British Medical Association, held at Chester, it was resolved to raise a Special Fund, to be called, in memory of Sir Charles Hastings, "The Hastings Memorial Fund", the produce of which shall be devoted to provide, and supplement with a sum of money, the "Hastings Medal", which shall be awarded for distinguished labours in medical science to any member of the profession in any country.

FIRST LIST OF DONATIONS.

	£	s.	d.
Dr. Waters, *President*..	3	3	0
Professor Stokes, M.D.	10	0	0
H. D. Carden, Esq.....	5	5	0
Dr. H. Day	3	3	0
Dr. J. Edwards	3	3	0
Ellis Jones, Esq.....	3	3	0
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Thomas Turner, Esq...	3	3	0
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M. H. Clayton, Esq. ..	2	2	0
T. T. Griffith, Esq.....	2	2	0
W. Hey, Esq.	2	2	0
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G. E. Horton, Esq.....	1	1	0
George Critchett, Esq.	1	1	0
Dr. Prichard	1	1	0
Prof. Christison, M.D.	1	1	0
Dr. Croker.....	1	1	0
— Forsyth, Esq.....	1	1	0
Dr. Merriman	0	10	6
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Dr. Harper	0	5	0
J. Essex, Esq.	0	5	0
H. MacColl, Esq.....	0	5	0

Gentlemen desirous of contributing, whether members of the Association or not, are requested to forward their donations to the Treasurer, Dr. R. W. Falconer, Bath, or to the Secretary.

T. Watkin Williams, *General Secretary*.

13, Newhall Street, Birmingham, September 10th, 1866.

Reports of Societies.

OBSTETRICAL SOCIETY OF LONDON.

Wednesday, July 4th, 1866.

Robert Barnes, M.D., President, in the Chair.

Five gentlemen were elected Fellows of the above Society.

Specimens, etc. Dr. Meadows showed an *Ecraseur* made for him by Messrs. Mayer and Metzler. It consisted of a single wire, tempered in a peculiar way, rendering it stronger than any wire-rope or chain he knew of. He also exhibited a good specimen of the so-called Cauliflower Excrescence, which he had removed by means of the single-wire *écraseur*.

Hypertrophy of the Labium. The patient, 27 years of age, about six weeks after her second confinement, three years since, experienced sudden pain and enlargement of the labia. Treatment was adopted, and in 1864 she was admitted into St. Bartholomew's Hospital, where drainage-tubes were passed through the mons veneris and left labium; but she left the hospital unrelieved. When seen by Dr. Meadows, the left labium was of the size of the fist, and the whole mons was much thickened, indurated, and brawny looking. On July 20th the entire labium was removed, together with an elliptical portion of the mons. The operation was successful, and left the parts on that side of their normal size.

Dr. Neal exhibited two specimens of Singular Malformation, showing the influence of maternal impressions on the fœtus in utero in the lower animals, the cow and the mare.

Mr. Sheraton showed a Steel Fillet designed by him to supersede the forceps. It is constructed by combining a rotatory action with the fillet principle. The rotatory action is obtained by pressing upon transverse bars, by which the blades are formed into a loop of elliptical form, having a short transverse diameter of four inches and a quarter, and a long diameter of five and a half or six inches. Mr. Sheraton explained its application, and considered the flexibility and thinness of the blades as important, in allowing ready adaptation to the axis of the pelvis, and to the form of the head.

Dr. Graily Hewitt thought the instrument highly ingenious, and likely to be serviceable in some cases, particularly when the head was quite low down; but he believed it could not take the place of the forceps in those cases where the forceps is so particularly valuable, viz., when the head is not so low down, and where there is some degree of impaction.

ON EXTREME SURGICAL TENDENCIES OF UTERINE PATHOLOGISTS; AND ON THE DIVISION OF THE CERVIX UTERI. BY E. J. TILT, M.D., M.R.C.P.

Dr. Tilt deprecated the extreme surgical tendency that seemed to characterise the present epoch. He gave as a proof of this tendency the frequency with which operations have been discussed at Medical Societies, the unnecessary multiplication of surgical instruments, and the warmth with which their inven-

tion or modification was supported. He likewise noticed two books which have lately appeared; one, a very important work by Dr. Marion Sims, in which constitutional means of curing diseases of women were almost completely ignored; and another, by Mr. I. B. Brown, in which it was recommended to cure hysteria, epilepsy, and insanity by amputation of the clitoris. Dr. Tilt stated that he had known the division of the cervix uteri to have been frequently performed or recommended in cases where he was able to pass the uterine sound, and he submitted that no practitioner was warranted in dividing the cervix, either for sterility or dysmenorrhœa, when the cervical canal had that width; as microscopic animalculæ could find no difficulty in ascending where the uterine sound could pass. He alluded to the difficulty of passing a sound into the virgin womb, which did not interfere with the frequency of conception, in young women, soon after marriage. The author's experience led him to believe that the utility of dividing the cervix uteri had been unintentionally exaggerated. There were no statistics to show that conception was frequent after the operation; and he had frequently been consulted by those who had been operated upon during the last ten years, and who had remained barren. Dr. Tilt argued that there was so great a tendency on the part of the divided surfaces of the cervix to reunite, that the operation was generally useless, unless followed up by dilatation; and he thought that in the majority of cases of uterine stricture dilatation was the safest and best way to relieve dysmenorrhœa, and to facilitate conception. He wished the division of the cervix to be restricted to cases where the cervical canal was extremely narrow or the cervical walls very hard, and to cases wherein dilatation had proved a failure, or where there was flooding from uterine fibroids. He reserved his opinion respecting the value of the operation in cases of uterine displacement, or of malformation; and deprecated the operation being resorted to as a kind of *pis aller* in those intractable forms of uterine disease in which relapses depend either on a congenital unhealthy tendency of the organs of generation, or on some deeply rooted constitutional taint. Dr. Tilt mentioned that in three of his patients the operation had been performed without the knowledge of the patients or their friends, and he took occasion to remark that this did not accord with the usually received notions of medical ethics.

Dr. Henry Bennet thought that Dr. Tilt deserved the thanks of the Society and of the profession for the paper read that evening. Although for the last seven years ill health had kept him out of active practice, he had continued to take the liveliest interest in uterine pathology, and had made himself acquainted with all that had been written and said on the subject. As a result he was deeply impressed with the idea that the therapeutics of uterine disease had taken of late too surgical a direction, and he thought, like Dr. Tilt, that this tendency required restraining, limiting, directing. After a seven years' absence from the debates of the Society, he could not but feel that it was passing strange that he should have to rise as a conservative, and that in the very arena where he had many a time, in former days, defended progress, and where he had been opposed and stigmatised as a rash innovator. When he commenced practice in London twenty-three years ago, uterine therapeutics comprised little else but the treatment of cancer, tumours, prolapsus, and constitutional conditions. The most continued and irrational opposition met his efforts to establish more correct views, to demonstrate that physical means of investigation were as imperatively demanded in the study and treatment of diseases of the uterus as in those of diseases of the heart, lung, bladder, rectum, etc. By degrees, however, more reasonable ideas gained ground, and this senseless opposition to the progress of science was vanquished. Now it had entirely ceased, and had become a mere remembrance of the past. Indeed, as stated by Dr. Tilt, the danger rather appeared to be in going too far the other way, and interfering too much. This seemed probable when a recent surgical work on female diseases, written by a clever, experienced, laborious American surgeon, his friend, Dr. Marion Sims, proposed division of the cervix uteri on both sides, down to its vaginal attachments, as a remedy for all kinds of morbid conditions, for various deviations, and for sterility. Indeed the doctor, in one page, stated that he and his colleague in the Female Hospital at New York, performed this operation 500 times in two years! Again, many recent writers and operators seemed imbued with the idea that the passage through the cervical canal to the cavity of the uterus ought to be, what might be termed metaphorically, as open "as a carriage door," constantly finding stricture therein, for which they operate by ruthless divisions, if it is not so. He (Dr. Bennet) believed that this view was founded in error and would not be so constantly made were his discovery of a sphincter at the os internum recollected or recognised. This sphincter was a vital contraction of the circular fibres of the cervix at the os internum, similar in function to the sphincters which closed other cavities, the stomach, rectum, bladder. When the cold uterine sound reached it it contracted, and impeded its entrance into the uterine cavity, and a stricture was declared to exist. A wax bougie, No. 4 or 5, on the contrary, its extremity warmed by the hand, and slightly curved to the shape he had described as that of the uterine passages, generally entered with ease. The patent condition of the cervical passages which these authors appeared to consider necessary for conception was not natural, and certainly not necessary for the entrance of microscopic spermatozoa. It must not be forgotten either, in treating of sterility, that in England one married woman in six is sterile; in America, according to Dr. Marion Sims, one in eight. The causes of sterility were very numerous, and were not to be removed merely by cutting a royal road for the spermatozoa. Moreover, these divisions of the cervix healed up, and in a few months the narrowed condition was as bad or worse than ever in most cases. Twenty years ago, at Sir James Simpson's instigation, he operated in many cases, and all but abandoned the operation on account of these relapses. Since then he had generally used very small sponges if he wished to dilate, and had never once had an accident. The attacks of inflammation that had occurred in the hands of others had no doubt been caused by the attempted dilatation of inflamed tissues. The cervical canal ought to be perfectly sound when it was interfered with. In conclusion he repeated that he quite agreed with Dr. Tilt that the uterus is now-a-days too frequently interfered with surgically, and that the indications for operations required better defining.

Mr. Baker Brown said he thought the paper was brought forward at a most appropriate time, for he perfectly agreed with the author and with the observations of Dr. Henry Bennet that operations upon the cervix uteri were performed too frequently, and without proper regard to preparatory and subsequent treatment. He was glad to have the opportunity of stating before the Society, in the strongest language, his reprehension of the rashness with which this operation was performed in both the out-patients' departments of hospitals and the consulting rooms

of the operator. He had always taught that the operation of dividing the os and cervix uteri was one of great danger; and although he had performed it a vast number of times, he had never done so without careful preparatory treatment, and the most absolute rest for two or three weeks after the operation. He thought the danger was also increased by the frequent division of the internal os. For his own part, in all cases of flexions, he simply divided the cervix up to, but not through, the internal os; but in all cases of uterine hæmorrhage or intrauterine fibroid tumours, he then carried his incision through the internal os. In all cases, immediately after operation, he plugged with oiled lint, and took every precaution to prevent the admission of atmospheric air. He believed the neglect of these precautions would generally account for the untoward results which so frequently followed the operation. He could confirm all that Dr. Bennet had said as to the opposition and persecution he had met with in reference to his treatment of uterine diseases; and when he reflected how triumphantly Dr. Bennet had overcome all his opponents by the truth of his practice, he (Mr. Brown) felt consoled for the opposition he received for publishing the results of his experience on a subject of which he as yet confessed himself to be but a learner. But as he had always, through a long professional career, immediately published any innovation which he had believed to be practically useful, so he would continue unto the end, feeling sure that the majority of the profession would always honestly investigate anything which he might place before them.

Dr. Head was of opinion that the expression "stricture of the os uteri" demanded a clearer pathological definition. He never had had the opportunity of seeing after death a stricture of any portion of the cervical canal, and thought the specimens must be extremely rare. He believed that cases of coarctation of the os uteri internum, not dependent upon organic disease or deviations of the uterus from its normal axis, may be attributable very frequently to spasm of the muscular wall of the uterus, especially at the orificial zone. Irritation acting upon the lining membrane of the uterus or cervix reflects itself to the muscular apparatus of the uterus much as occurs in cystitis. He concurred with Dr. Tilt in the belief that in numerous cases operative interference had been premature; and that we should hesitate before we appeal to the knife; indeed that it should be the last resource, and only employed after all constitutional and local measures had been found utterly inefficacious. He (Dr. Head) had lately contrived an apparatus, by means of which the vapour of chloroform unmixed with air can be passed into the cervical and uterine cavities, and had found chloroform vapour thus injected a remedy which was likely to afford considerable relief in cases of neuralgic dysmenorrhœa.

Dr. Graily Hewitt believed with Dr. Tilt that the operation of incision of the cervix uteri was too frequently, and therefore unnecessarily practised. He differed from Dr. Tilt as to the indications for the operation. The uterine sound could frequently be introduced with a little patience in cases where the cervix was for menstruation purposes virtually strictured. He alluded particularly to cases, such as were by no means infrequent, where the canal was distorted and sinuous—a condition arising from thickening of the tissues of the cervix. The mucous membrane might be thickened also; but the chief condition was the irregular hypertrophy of the cervix itself. Then, again, he thought Dr. Tilt attributed too little importance to the effect of the presence of small fibroid tumours in determining flexions and consequent virtual stricture of the cervical canal. He believed many cases of cervical distortion and narrowing could only be dealt with effectually by means of a cutting operation; but the indiscriminate application of the operation was to be strongly deprecated.

Dr. Routh said the discussion proved how little the profession was agreed as to either the anatomy or pathology of stricture of the uterine canal. Anatomically, Dr. Savage did not admit a special sphincter at the internal os. Besides, did not circular fibres abound everywhere in the cervix? Then, as to the seat of stricture, it was strange to find eminent men—accoucheurs—fixing stricture almost invariably at the external os; whilst others, quite as eminent, place it at the internal os. Then, again, was it to be said the uterine cervical cavity was never to be cut except in cases of stricture?—and could not the depth of the uterine incision be regulated according to the case? In chemosis of the eye, who would deny the advantage of relieving the congestion by incision? So in uterine disease a mucous lining might be so congested as to require scarification. The hysterotome effected this most satisfactorily. In parenchymatous uterine congestion itself it also was most beneficial. In conclusion, he could not allow physician-accoucheurs to remain under the stigma put upon them. Obstetric medicine was essentially *surgical*; and an accoucheur only proved his skill in acting *surgically* when prompt relief would follow, instead of acting *medically*, when cure would be thereby made very tardy, or not occur at all.

Dr. Barnes expressed his gratification at seeing again amongst them one who had rendered such eminent services to obstetric science as Dr. Bennet. Referring to his memoirs on Dysmenorrhœa and allied affections depending upon a peculiar conoid form of the cervix uteri with minute os externum, the President reminded Dr. Bennet that he had there quoted and adopted Dr. Bennet's views as to the os uteri internum. He believed it was very rarely the seat of stricture, or the source of difficulties requiring division. All his experience still pointed to the opinion expressed in that memoir, that the os externum was the seat of trouble. And when the peculiar formation which he had described existed, the consequences were very often severe, and even dangerous. He had seen retro-uterine hæmatocele caused by it, and had known examples of young girls dying in consequence. It was absurd to rely upon medicines, or indeed upon anything short of division of the os externum in such cases. As performed by him, the operation had always been safe. Speedy relief followed, and that in many cases which had undergone every other kind of treatment for years before. These were cases for surgical treatment.

Dr. Tilt having replied, the meeting adjourned to the 3rd of October.

Protoplasmic Movements of the Egg of Osseous Fishes. At the recent meeting of the British Association, Dr. Ransom said that the subject of these rotations or oscillations had engaged attention since the time of Rosconi. By means of diagrams, the phenomena of movement visible in the unimpregnated egg were shown. After water had entered the ovum, a distension of the outer rim and a diminution of the yolk mass itself occurred, while the separation of the food-yolk took place. Then the protoplasmic movements ceased, fissile contractions commenced, and the general process of yolk-division occurred. The author detailed the results of a number of experiments with various agents, the object of which was to ascertain their action on the rhythmic movements he had described in the yolk.

Correspondence.

THE ADDRESSES IN MEDICINE AND SURGERY.

LETTER FROM EDWARD COPEMAN, M.D.

SIR,—Surely there can scarcely be a member of our great Association who does not congratulate himself on having heard or read the eloquent addresses of Dr. J. H. Bennett and Mr. Bowman, delivered at the annual meeting at Chester. What delight it would have afforded our late lamented President to have found *his* Association so complimented and assisted by men of such erudition, sound judgment, exalted views and high notions of morality and religion! Who can for a moment doubt that all Mr. Bowman says with regard to the necessity for united action in our profession is strictly and entirely true? and it is chiefly on this point that I trouble you with a few observations.

Our Association has been the first of late years to encourage the combined efforts of medical men in the elucidation of subjects connected with medical practice and experience; and although the benefits already obtained fall short of what might have been expected, yet there is sufficient encouragement in what has been done to urge the matter more and more, with a reasonable hope that great good to our patients and ourselves might be the result; and I trust you will exert your powerful influence to promote so desirable an object.

To my own mind, it is clear that the preliminary education of medical men should consist quite as much (if not more) of mathematical and scientific studies as of classical pursuits, however enticing, and, in a degree *necessary*, the latter may be; the former are, for the most part, auxiliary to medicine, whilst the latter are fully proved to be no obstacle (amongst the clergy, for instance) to the encouragement of any kind of medical error, or quackery, that may at the time be prevalent. Well did Dr. J. H. Bennett observe, that the decision of the Medical Council, that a knowledge of Greek shall be imperative on medical students, whilst an acquaintance with natural philosophy and logic shall be altogether optional, *was not made with a full comprehension of the tendencies of our science, or of its future requirements.*

The oneness of our profession is declaring itself progressively, although there still are and always will be various distinct lines of practice, according to the tastes, feelings, and acquirements of its different members. Some prefer the practice of medicine, some that of surgery, many that of both combined; and they all want the same fundamental professional education, in order to meet the requirements of any one department satisfactorily.

Perhaps few physicians practise the *manual* art of surgery; and many of them, for want of the dexterity which experience alone would afford, would be unable to do so efficiently; but all surgeons practise medicine, and in the provinces nine-tenths probably of the cases they have to treat are medical. It is a somewhat curious circumstance, that in our provincial hospital all the physicians, three in number, were previously general practitioners, two of them in the country and the other in the city; and as they are always called upon, in consultation with the surgeons, to pronounce an opinion as to the propriety or otherwise of capital operations, their previous education and employment render them more capable of forming a judgment in such cases than if they had from the first been physicians strictly so called, with only the small experience to be derived in the uphill work of consultation practice in provincial cities or towns.

In our hospital, as in others, the physicians take the medical and the surgeons the surgical cases; but every day's experience shews how desirable it is that both physician and surgeon should be well acquainted with the principles which in either case guide them in their treatment of disease. How, for instance, can a "pure surgeon" treat constitutional symptoms resulting from operations, if he neglect the knowledge of treating fevers in general? And this remark leads me to make a suggestion in accordance with Mr. Bowman's desire for combined action amongst the members of our profession; viz., that we should endeavour, through the medium of our Association, to ascertain and report upon the therapeutic action and properties of turpentine, with especial reference to its effects in the cure of "surgical fever". Of its beneficial action in puerperal fever, there can no longer be any question; and, reasoning from analogy, we may expect similar good results in the low pyæmic fevers which so often follow accidents and surgical operations. What is the therapeutic action of the medicine upon the system? Does it act simply as a stimulant, keeping up the circulation in parts in a low state of vitality, or has it any specific action in subduing inflammation and preventing the degeneration of tissues? Or does it, from its action on the kidneys, hasten the removal of morbid ingredients from the blood?

I am, etc., EDWARD COPEMAN, M.D.

Norwich, August 30th, 1866.

FOWLER'S SOLUTION OF ARSENIC IN LUPUS.

LETTER FROM TILBURY FOX, M.D.

SIR,—I think it of great importance that the value of Dr. Andrew's case of lupus, in which half-drachm doses of Fowler's solution were given, should be clearly stated. The case seems to me to exemplify the *toleration* by the human system of arsenic, rather than the beneficial use of the drug in lupus.

The patient from May 8th to August 15th (three months and a week) appears to have taken no less than seventeen ounces and a half of Fowler's solution, representing sixty-nine grains and three-quarters of arsenious acid, or about three-quarters of a grain a day. The peasant arsenic-eaters of Styria and Hungary take, after gradual training, from two to three grains only a-day; and Dr. Andrew's patient has managed in three months to reach a most creditable proficiency as a beginner. Very few persons can take such doses with impunity.

It is well known that when once an individual has for any length of time taken large doses of arsenic, he (like the opium-eater) cannot omit the daily dose without, in the majority of cases, being liable to the occurrence of rapid loss of flesh, emaciation, and frequently death. It does not seem improbable that less serious after effects may follow such large and continued doses of arsenic as those given by Dr. Andrew. There is such a thing as curing at the risk of after ill effects, and curing without any risk of the kind. I have seen bronchitis, subacute congestions of different parts—the intestines, for example—dyspepsia, disturbance of vision, etc., follow in the wake of long continued arsenical courses; and it would be very interesting if Dr. Andrew would give us in a year's time a short note of his patient's health.

If the good desired cannot be produced by mode-

rate doses, perseveringly given, we should hesitate before hazarding larger ones; the disease we are combating may possibly be cured, but the patient's health suffer. I do not believe we fairly watch the results of long courses of arsenic. When we have been puzzled by the obstinacy of a disease, we obtain now and again a cure by employing the drug heroically. The object gained, our observation usually ceases; but did we continue to scan the subsequent progress of our patient, we should sometimes have reason to regret the mode by which the cure has been obtained.

I do not for a moment wish to imply dogmatically that Dr. Andrew is at fault in the treatment of his patient. The history of the case, no doubt, fully commends it; but only to point out that the case should not be taken as a guide in reference to the treatment of lupus in general; for the exhibition of arsenic alone or as the chief agent in the cure is scarcely based upon sound pathology, and it is not the quickest mode of cure. In lupus, there is a proliferation of the cell-elements of the derma—a peculiarity of cell-growth—especially at the extending edge of lupus patch, and we must destroy this fairly and freely. The use of caustics—arsenical, ioduretted, mercurial, silver, or carbolic acid, according to circumstances—is the most important point of all in the management of lupus. Caustics require great care in their use. If they set up too much irritation, the disease is very likely to appear in contiguous parts; but the use of general measures should be made subservient to them.

I trust that Dr. Andrew's case will not tend to make us lose sight of the value of caustics in lupus, or induce any of us to begin physicking our refractory cases with large doses of Fowler's solution. The happy medium, a moderate course, is no doubt the correct use of both local and general means.

I am, etc., TILBURY FOX.

43, Sackville Street, Piccadilly, W., Sept. 10th, 1866.

USE OF STIMULANTS IN CHOLERA.

LETTER FROM ANDREW CLARK, M.D.

SIR,—I beg permission to offer a few words of explanation concerning certain remarks on cholera which you have transferred from the columns of a daily paper as having been made by me at the Mansion House.

One might infer from these remarks that I had discussed, or animadverted upon, the treatment of cholera pursued by my medical brethren in the East of London. But it was quite otherwise. To have done so, in such a place, would have been, in my opinion, an unpardonable impertinence, and was, I assure you, very far from my thoughts.

Abuses in the distribution of stimulants by lay visitors having been brought to my notice in various ways, I took occasion, in my place at the Mansion House, to tell local committees that an extra consumption of stimulants afforded no protection from cholera; to show them, by statistical returns, that the most numerous and fatal cases occurred after excessive indulgences of this kind; *and to urge them to administer their supplies of wine or spirits exclusively through the medium of their medical advisers.* My remarks had no reference to the treatment of cholera by these agents.

In the greater number of cases my advice has been followed; and I find from personal inquiry that the houses referred to have in great measure ceased to exist.

I am, etc.,

ANDREW CLARK.

September 10th, 1866.

Medical News.

APOTHECARIES' HALL. On September 6th, 1866, the following Licentiates were admitted:—

Bloxam, John Astley, Bedford Place, Russell Square
Gronow, Owen Tudor, Carlton Villas, Slough
Leah, Thomas, Lock Hospital, Harrow Road
Robinson, Robert, Avenham Place, Preston

APPOINTMENTS.

CROWTHER, Edward L., Esq., appointed Resident Surgeon to the Birmingham Lying-in Hospital.

*LAURENCE, J. Zachariah, M.B., appointed Ophthalmic Surgeon to St. Bartholomew's Hospital, Rochester.

*MACKENZIE, Morell, M.D., appointed Assistant-Physician to the London Hospital.

NUNN, John R., Esq., appointed Surgeon to Warwick County Gaol, *vice* H. Blenkinsop, Esq.

SYKES, Walter J., M.B., appointed House-Surgeon to the Clayton Hospital and Wakefield General Dispensary.

INDIAN ARMY. To be Assistant-Surgeons, Bengal Army:—

BIRCH, E. A.
CAMERON, L., M.D.
EADES, L. E.
GAGE, J. T., M.D.
GALLOWAY, W. W., M.B.
GRIFFITH, G.
KEEGAN, D. F., M.D.
MACKENZIE, S. C., M.D.
PALMER, D. P., M.D.
RAYE, D. O'Connell, M.D.
WARBURTON, W. P., M.B.

To be Assistant-Surgeons, Madras Army:—

BATEMAN, D. F.
CULLINAM, C. M.
M'PHERSON, J., M.D.
M'VITTIE, C. E.
MAYER, H. C.
NANNEY, L. C.
RICKARD, F. M.
SHANNON, P. J., M.D.

To be Assistant-Surgeons, Bombay Army:—

BOWMAN, R.
CODY, T.
GRAY, W.
HOLMESTED, T.
HUGHES, D. E., M.D.
LAING, A., M.D.
MILLER, A. H.
RABY, J.
VESEY, R. M.

DR. S. D. LEES, of Ashton-under-Lyne, has been appointed a magistrate for the county of Lancashire.

GLASGOW MEDICO-CHIRURGICAL SOCIETY. Dr. Allen Thomson has been elected president, and Dr. Robert Paterson and Dr. John Coats vice-presidents, of the Glasgow Medico-Chirurgical Society.

SCURVY IN INDIA. The heat at Mooltan is described as intense. Scurvy has broken out among the 35th Regiment stationed there, and as many as 350 of the men have been laid up with the disease.

CENTENARY OF JOHN DALTON'S BIRTH. Wednesday week, being the centenary of the birth of John Dalton, the chemist (the discoverer of the atomic theory), was celebrated in Carlisle by a public dinner. Dr. Lonsdale, of Rose Hill, Carlisle, presided.

SALMON. Mr. E. Buckland condemns the discouragement of salmon by the pollution of rivers; and says that the Trent and other rivers now unproductive can be so far cultivated as to bring salmon down to sixpence or sevenpence a pound.

THE HEALTH OF LIVERPOOL. At a late meeting of the Liverpool Health Committee, Dr. Trench reported a still further increase in the mortality of the town. The deaths from cholera had been 225 during the week, and the total rate per week was 282 in excess of the average of the last ten years.

BRITISH ASSOCIATION. Dr. Hooker, in his lecture upon "Insular Floras", related the results of his explorations in the islands of the southern seas, including Madeira, St. Helena, the Azores, and Kirk Williams Island. The flora of Madeira was like that of Europe, except that the plants grew larger, parsley being there produced on trees. On Desolation Island he found only 150 plants, and he never thought of that place without unpleasant associations of cabbage and penguin soup.

The Outhwaite Convalescent Fund is to be raised to commemorate the services rendered by Dr. Outhwaite to the Bradford Infirmary.

The Case of Cæsarean Section operated on by Dr. Greenhalgh has proved fatal. The infant is doing well.

A Testimonial has been presented to Dr. Moore on his vacating the office of Deputy-Superintendent of the Lancaster County Lunatic Asylum by the officers and servants.

The Testimonial to Mr. Griffin. The *Illustrated London News* of this day contains an engraving of the testimonial presented to Mr. Griffin by the Poor-Law Medical Officers.

News for Teetotallers. A meeting was held in Liverpool at which it was determined to support the Town Council in its effort to secure further legislation with a view to diminish drunkenness in the town.

The Royal Touch. It has been ascertained that four several Oxford editions of the Book of Common Prayer were printed after the accession of the house of Hanover, all containing as an integral part of the service, "The Office for the Healing."

St. Bartholomew's Hospital, Chatham. The Trustees of this ancient charity (founded A.D. 1078) have opened four wards, with twenty-four beds, for the treatment of ophthalmic cases. The care of these wards has been entrusted to Mr. J. Z. Laurence of London.

Absence of Kidney. Mr. W. Symonds of Ross (*Lancet*) examined a man who had died from typhus, and found entire absence of the right kidney, although the right suprarenal capsule was then natural and healthy. The left kidney weighed 7½ ounces, and was healthy.

Apothecaries' Hall. At the competitive examination, on the 8th August, for the prizes in Botany annually given by the Society of Apothecaries, the successful candidates were—James Ryall Rouch, St. Bartholomew's Hospital, gold medal; Marmaduke Alexander Lawson, King's College Hospital, silver medal and a book.

Fraudulent Medical Diplomas. The authorities of the Royal College of Surgeons have directed the attention of the American Minister to a practice which, if not checked, may tend to cast discredit on the medical profession and inflict deep injury on the public generally. An advertisement is inserted in some of the leading English journals containing this announcement: "Diploma (Medical) to be disposed of, a bargain." It is supposed that many of these are in the market, and that any person so disposed, whether he have any medical knowledge or not, may set up as a medical practitioner by the purchase of one of them. It has been ascertained that the diploma advertised is from an institution in New York, that it is duly attested, and is signed by "Examiners." A space for the name of the purchaser, or any nominee who may be desirous of medical honours, is left blank, so that any of the quacks who infest the metropolis, or any other person, may at once convert the diploma into his duly certified medical qualification, and do irreparable mischief to the ignorant people who may be unfortunate enough to place themselves in his hands.

College of Physicians of Ireland. His Excellency the Lord Lieutenant on August 29th received a deputation and congratulatory address from the King and Queen's College of Physicians. The President (Dr. Beatty) having read the address, the Lord Lieutenant said I have great pleasure in receiving your address. It is most gratifying to me to be met on my arrival in Ireland with the assurance, from so distinguished a body, both of devotion to her Majesty the Queen and of personal esteem for myself. I am aware of how unremitting your labours have been to secure the objects for which your ancient college was founded, in promoting the advance of scientific knowledge, and in alleviating sickness and suffering. The respect in which you, the physicians of Ireland, are universally held is a convincing proof of the success which has attended your efforts. At this particular moment, when the country is menaced with a visitation of cholera, I rely with confidence on the assistance which the medical profession are doubtless prepared to give to the government and the local authorities in the efforts they may be called on to make for the prevention of this formidable disease. I feel sure that, should the necessity occur, the public, and particularly the poorer portion of the community, will derive much benefit from the devoted attention, scientific knowledge, practical skill, and humane exertions which have always been evinced by the medical profession in similar cases of national peril.

Glorious War. The Commissioners despatched to the lazarets and field hospitals by the Patriotic Help Association (Hilfsverein) of Vienna has published an interesting report. They draw a pitiable picture of the condition of the peasantry in Northern Bohemia. For six months their country has been occupied by great armies. The peasant's food has been devoured, his field laid waste, his house burnt or torn down and laid in ruins. They declare that the dead were left unburied in many places, and that the poisoned air destroyed the living. Nearly all the amputations made by the Prussian military surgeons ended fatally, but no difference was made in the treatment of Austrian and Prussian wounded by the medical men. They found the condition of the hospitals in all that related to nursing and medical attendance "deplorable". The Commission started to Brünn on the 1st of August with fifteen waggon-loads of medical comforts. In Wilkersdorf they found a Prussian company as a guard to a cholera hospital. The pestilence was so bad that in a short time 450 had died out of 700 patients, and the officer in command said, "I hope in Heaven we shall soon leave this, for my sick will all be dead in a few days". At Pardubitz they found seven wounded Austrian officers, who were getting well in airy, well-shaded tents. At Königgrätz itself they found the hospitals overstocked and short of what was needed. In one house were 115 wounded officers, and in another were 198 more. They needed splints, lint, bandages, medicine, lotions, as well as tobacco and wine. On the 9th the Commissioners visited Rosnitz, Westar, Sadowa, Nechanitz, and Hradek, and describe with horror and astonishment the condition of the country. The hands and feet of the dead were sticking out of the hasty graves. As to the hospitals in these places, the Commissioners declare all appliances and necessaries were deficient. The Prussian doctors deplored their want of success in amputations. Many of the wounded had been left forty-eight hours on the field without help, and were in the most unfavourable condition for treatment by the knife. On the 14th they visited Jaromierz, Skalitz, Nachod, etc., and all the hospitals up to Trautenau. In all cases their supplies were most welcome. The report affords a terrible peep behind the scenes of a great battle—the *après*, when the conqueror has moved off with drums and trumpets, and banners flying in the setting sun, and night settles on the dying and the dead.

Dr. Fordyce dined every day at Dolly's chop house. His researches led him to conclude that man eats oftener than nature requires, one meal a day being sufficient. He made the experiment on himself, and finding it successful, he continued the following regimen for more than twenty years. At four o'clock, his accustomed dinner hour, he entered Dolly's chop house, and took his seat at a table always reserved for him, on which were instantly placed a silver tankard full of strong ale, a bottle of port wine, and a measure containing a quarter of a pint of brandy. The moment the waiter announced him, the cook put a pound and a half of rump steak on the gridiron, and on the table some delicate trifle, as a *bonne bouche*, to serve until the steak was ready. This delicacy was sometimes half a broiled chicken, sometimes a plate of fish; when he had eaten this, he took a glass of brandy, and then proceeded to devour his steak. We say devour, because he always ate as rapidly as if eating for a wager. When he had finished his meat, he took the remainder of his brandy, having, during his dinner, drunk the tankard of ale, and afterwards the bottle of port. The doctor then adjourned to the Chapter coffee-house, in Paternoster row, and stayed while he sipped a glass of brandy and water. He made no other meal till his return next day, at 4 o'clock, to Dolly's. (*Temple Bar.*)

Lunacy in Ireland. The number of the insane in Ireland increased considerably during the year 1865. The inspectors-general mention that, at the end of 1864 the insane of all denominations numbered 8272. In December last the number had risen to 8845; 4835 were in public asylums, and 2733 in poorhouses; private asylums held 583, and the remainder were in gaols or special criminal asylums. During the year 596 were discharged cured, and 123 improved. The number of those returned as incurable is 3623. The average mortality of the Irish asylums is as low as 8 per cent. The inspectors express astonishment at the small amount of congenital idiotcy, or helpless imbecility, which presents itself. The simple idiots number altogether only 1175. The most prominent causes of insanity, according to their observation, are hereditary predisposition, dissipation and irregularity of life. Moral causes are more prevalent among females, physical among men, and the former sex exceed in the amount of recoveries. There were but two cases of suicide and five "escapes." The non-restraint system is generally adopted, and 2632 patients are engaged in employments, of one sort or another. 242 acres of tillage are cultivated by their labour, and a profit of £2400 was realised upon it last year. It has been found by Drs. Nugent and Hatchell that out-door and other employments have a most important curative effect.

On the Sources of the Fat of the Animal Body. At the meeting of the British Association at Nottingham, Mr. J. B. Lawes and Dr. J. H. Gilbert read a paper on this subject. In 1842 Baron Liebig had concluded that the fat of Herbivora must be derived in great part from the carbo-hydrates of their food, but might also be produced from nitrogenous compounds. Dumas and Boussingault at first opposed this view; but subsequently the experiments of Dumas and Milne-Edwards with bees, of Persoz with geese, of Boussingault with pigs and ducks, and of the authors with pigs, had been held to be quite confirmatory of Liebig's view, at any rate, as far as the carbohydrates were concerned. But at the Bath meeting of the British Association in 1864, Dr. Hayden expressed doubt on the point, and at the Congress of Agricultural Chemists held at Munich last year Professor Voit, from the results of experiments with dogs fed on flesh, maintained that fat must have been produced from the nitrogenous constituents of the food, and that these were probably the chief, if not the only, source of the fat even of herbivora. Baron Liebig disputed this conclusion, and his son, Hermann von Liebig, had since sought to show its fallacy by reference to experiments with cows. The authors agreed with the conclusions of these latter authorities, but pointed out the inadequacy of the data relied upon by Hermann von Liebig. They showed that, owing to the much less proportion of alimentary organs and contents, the higher character of the food, the much larger amount of fat produced both in relation to a given weight of animal within a given time and to the amount of food consumed, the much less proportion of the solid matter of the food that passed off in the solid and liquid excretions, and finally the larger proportion of fat in the increase, results obtained with pigs must be much more conclusive than those with either cows, oxen, or sheep. Numerous tables were exhibited showing the results which had been obtained by the authors in experiments with pigs, from which the following conclusions were drawn. Certainly a large proportion of the fat of the herbivora fattened for human food must be derived from other substances than fat in the food. When fed on the most appropriate fattening food, much of the stored-up fat must be produced from the carbo-hydrates. The nitrogenous constituents may also serve as a source of fat, more especially in defect of a liberal supply of the non-nitrogenous ones.

Poisonous Nature of Crude Paraffin Oil. At a recent meeting of the British Association, Dr. Stevenson Macadam read a paper on the deleterious effects produced on fish in streams by the discharges from paraffin works. The spent acid liquor and the spent soda liquor are the most serious discharges which escape from paraffin oil works, and their influence upon the health and life of fish is much more decided than the paraffin oil itself. The spent acid liquor consists of the sulphuric acid which has been added to the crude oil, accompanied by tar products, including picoline and other basic oils. It is a black tarry liquid, of the consistence of molasses, with a somewhat sulphurous odour, and a very small quantity added to water confers upon the latter poisonous properties. In one instance, Dr. Macadam found this spent acid liquor which was collected, somewhat diluted with water, to possess the following powerful effects upon fish: 1. When the liquor was taken by itself, and fish emersed therein, they were dead in five minutes. 2. When the liquor was diluted with three times it volume of good stream water, and fish introduced into the mixture, they were killed in ten minutes. 3. With one of the liquid and twenty of water the fish died in fifteen minutes. 4. One of the liquor and hundred of water killed the fish in fifteen to twenty minutes. 5. One of the liquid and one thousand of water was poisonous to the fish in two hours; whilst in one of the liquor to ten thousand of water, the fish were not killed by their immersion in the mixed liquid for twenty-four hours, but were apparently sick and prostrate. The spent soda liquor which has been employed in treating the oil which had been previously acted upon by acid, is necessarily decidedly alkaline and caustic in its nature. It has extracted from the oil, and retains in solution, more or less carbolic acid and its homologues, and the poisonous nature of the spent soda liquor is doubtless materially augmented by the presence of these acids. One sample of this soda liquor which was flowing from a paraffin oil work,

and which contained extra water, proved destructive to fish in ten minutes; diluted with three parts of water, it killed fish in twenty minutes; with twenty of water, the fish were dead in twenty-five minutes; with hundred of water, the fish were killed in thirty minutes; diluted with a thousand times its volume of water, the soda liquor was destructive to fish in twenty hours; whilst in ten thousand parts of water the fish were not killed, but were apparently slightly sick. Experiments were also made with crude shale oil and the refined oils obtained therefrom, and with Pennsylvanian petroleum and the refined oils extracted from it. The crude shale oil was destructive to fish in the proportion of one of the oil to one thousand of water, in twelve hours. The Pennsylvanian petroleum in the same proportion, did not kill the fish for twenty-four hours. The refined oils acted in a corresponding manner on fish; thus the refined shale oil, in the proportion of one to a thousand of water, killed the fish in twenty-four hours, whilst the refined Pennsylvanian oil did not prove destructive till two days.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....Metropolitan Free, 2 P.M.—St. Mark's for Fistula and other Diseases of the Rectum, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TUESDAY. .... Guy's, 1½ P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.

WEDNESDAY... St. Mary's, 1 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.

THURSDAY.....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Great Northern, 2 P.M.—London Surgical Home, 2 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.

FRIDAY. ..... Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

SATURDAY..... St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1·30 P.M.—Charing Cross, 2 P.M.—Lock, Clinical Demonstration and Operations, 1 P.M.—Royal Free, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TO CORRESPONDENTS.

*** *All letters and communications for the* JOURNAL, *to be addressed to the* EDITOR, 37, *Great Queen St., Lincoln's Inn Fields, W.C.*

COMMUNICATIONS.—To prevent a not uncommon misconception, we beg to inform our correspondents that, as a rule, all communications which are not returned to their authors, are retained for publication.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

USQUE AD FINEM.—Mr. South has been an Examiner of the College of Surgeons hard on twenty years! He was elected in 1848. Mr. Luke became an Examiner in 1851; and has therefore *only* tasted the sweets of office for fifteen years! As a commentary, the Council of the College have, as we lately announced, declared by a resolution that these are examples *not* to be imitated. But why does not the Council publish its resolution, in order to let the Elective Body—the Fellows—know its opinion? This is the question a correspondent wisely asks.

A WRITER calls attention to the singular decrease of cholera cases which invariably occurs on Sunday and Monday—being about one-half of the cases returned on other days. Is there any way of accounting for this? Is it the Sunday rest, or the absence of public-house temptations?

APHASIA.—In our leader on Aphasia, whilst speaking of writings on language, we omitted the names of two authors whose contributions are of so high value, that the omission is rather a striking gap in the advice we were then giving to students. We allude to Dr. James Russell of Birmingham, and to Dr. Banks of Dublin, authors of most valuable contributions towards the elucidation of the difficulties which crowd round our studies of the pathology of language.

COMMUNICATIONS have been received from:—Mr. I. BAKER BROWN; Dr. J. BULLAR; Dr. JOSEPH STEVENS; Mr. FURNEAUX JORDAN; Dr. BALMAN; Dr. TILBURY FOX; Dr. F. J. BROWN; FAIR PLAY; Mr. WM. PAUL SWAIN; Mr. T. LANGSTON; Mr. HAYNES WALTON; Dr. H. JACKSON; Dr. SYMONDS; Dr. MURCHISON; AN OLD INHALER; Dr. E. ANDREW; Dr. M. MACKENZIE; Dr. JAMES RUSSELL; Dr. DE G. GRIFFITH; Mr. GRIFFIN; and Mr. HILL.

BOOKS RECEIVED.

1. Cholera: What it is, and how to prevent it. By E. Lankester, M.D., F.R.S. London: 1866.
2. Reflections on Cholera. By Alexander Hamilton Howe, M.D. London: 1866.
3. Report on the Sanitary Condition of Merthyr Tydfil. By T. J. Dyke. Merthyr Tydfil: 1866.
4. Cholera: a New Theory. By C. D. Kingsford, M.D. London: 1866.
5. Report to the Board of Guardians of the City of London Union, on House to House Visitation. By W. S. Saunders, M.D. London: 1866.
6. Instructional Observations and Notes on the Cholera Regulations issued by the Privy Council. By W. G. Lumley, LL.M. London: 1866.

ADVERTISEMENTS.

NOW READY, the Small Edition of the

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GENERAL COUNCIL OF MEDICAL EDUCATION AND REGISTRATION OF THE UNITED KINGDOM,

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The Medical Club.

—A Club is being formed in London for the convenience of Members of the Medical Profession and gentlemen engaged in the pursuit of those sciences allied to Medicine.

The following Terms of Admission are applicable only to Members joining during the present year—viz.: Residents within the London Postal District, five guineas entrance and three guineas annual subscription; those beyond the London Postal District, three guineas entrance and one guinea annual subscription. Entrances and Subscriptions to be paid to the Bankers of the Club, the London and Westminster, 1, St. James's Square, S.W.

JOHN PROPERT, Esq., Treasurer,
6, New Cavendish Street, W.
LORY MARSH, M.D., Honorary Secretary,
Royal United Service Institution, Whitehall Yard, S.W.

September, 1866.

Royal College of Physicians

OF LONDON.—FIRST PART OF THE PROFESSIONAL EXAMINATION FOR THE LICENCE. The next Examination of Students who have completed two years of Professional Study at a recognised Medical School will commence on Tuesday, October 2nd.

SECOND PART OF THE PROFESSIONAL EXAMINATION.—An Examination of Gentlemen who are eligible for admission to the Second Examination for the Licence will commence on Tuesday, October 9th.

Registered Medical Practitioners, qualified before January 1861, are admitted to Examination under special Bye-Law.

Candidates are required to give fourteen days notice in writing to the Registrar of the College, with whom all Certificates and Testimonials required by the Bye-Laws are to be left at the same time.

Pall Mall East, 1866. H. A. PITMAN, M.D., Registrar.

Society for the Relief of Widows

and ORPHANS of MEDICAL MEN. Founded 1788. Incorporated by Royal Charter 1864. The Members are reminded that a QUARTERLY COURT of DIRECTORS will be held on the 10th of October next, at which Candidates for admission into the Society can be proposed. It is desirable that the forms of proposal be filled up and forwarded to the Secretary at least a week before the Meeting. The form of proposal may be obtained of the Secretary. The benefits of the Society are restricted to the families of deceased Members of not less than two years standing. The Secretary attends at the office every Wednesday and Friday, from Four to Five o'clock.

S. W. J. MERRIMAN, M.D., Secretary.

53, Berners Street, W., September 11th, 1866.

THE

Jacksonian Prize Essay

FOR 1865.

ON DISEASED CONDITIONS OF THE KNEE-JOINT

WHICH REQUIRE AMPUTATION OF THE LIMB, AND THOSE CONDITIONS WHICH ARE FAVOURABLE FOR EXCISION OF THE JOINT; WITH AN EXPLANATION OF THE RELATIVE ADVANTAGES OF BOTH OPERATIONS, AS FAR AS CAN BE ASCERTAINED BY CASES PROPERLY AUTHENTICATED.

BY

WILLIAM PAUL SWAIN, M.R.C.S.,

SURGEON TO THE ROYAL ALBERT HOSPITAL, DEVONPORT, ETC.

Section I.—General Anatomy of the Knee-Joint.

The Knee-joint, the largest and most complicated articulation in the body, belongs to that class of joints termed *ginglymoid*. Its osseous structure is derived from the lower extremity of the femur, the upper extremity of the tibia, and the patella.

The Femur, at its lower extremity, terminates in the external and internal condyles, continuous with one another in front, but divided posteriorly by a depression called the intercondyloid fossa. Of the two condyles, the external presents the larger articular surface in front; but the internal extends below the external. If the condyles of the femur be placed flat on the tibia, it will be found that the shaft diverges about 15° from a line perpendicular to the tibia. It is to compensate for this oblique position of the shaft of the bone that the internal condyle is so much longer than the external. (Humphry, *On the Human Skeleton*, p. 475.) It is most necessary to bear this fact in mind when sawing the bone through, as one of the steps in excision of the joint. If the saw be carried at right angles to the shaft of the bone, the cut surface, when in contact with the tibia, must of necessity bow the knee outwards. In writing on the operation of excision of the knee, I shall again refer to this point. Each condyle possesses a large articular surface covered with cartilage, on either side of the fossa, for articulation with the tibia; whilst between these two surfaces, in front, lies the patellar articular surface, over which the patella plays. It is of some practical bearing to note that the external articular condyle is of the two the more prominent, as in diseased conditions of the joint the patella is frequently found attached to this surface. On each side of the condyles are rough surfaces for the attachment of the external and internal lateral ligaments; and on the side of the external condyle is also a smooth groove terminating in front in a depression, from which the popliteus muscle takes its rise. It is of importance to observe particularly the origin of this muscle, as in noticing certain pathological conditions of the joint we shall have again to refer to it.

Development. An ossific nucleus is not deposited in the lower extremity of this bone until the eighth or ninth month of fœtal life; and although this is the first of its epiphyses in which bone is deposited, yet it is the last to become united to the shaft, complete union not being accomplished before the twentieth year. (Humphry on *The Human Skeleton*, p. 476.) Barwell, in his work on *Diseases of the Joints*, p. 6, relates a strumous case in which union did not take place until the twenty-fourth year.

The Tibia. The head of the tibia presents two condyloid surfaces corresponding to the articular condyles of the femur. Between them rises the spine, and at its base, one in front and the other behind, are the depressions which give attachment to the crucial ligaments and semilunar cartilages of the joint. On the outer side of the head is an articular surface for the head of the fibula; and on the inner side, and somewhat behind, is a groove for the insertion of the tendon of the semi-membranosus muscle. In front is the anterior tuberosity, giving attachment to the ligamentum patellæ, and behind the rough popliteal line passing obliquely downwards and inwards from the outer tuberosity of the head, bounding the attachment of the popliteus muscle.

Development. There is a special nucleus for the head of the tibia which does not appear until some weeks after birth. This epiphysis includes the anterior tuberosity within its boundary, a point of considerable importance to the surgeon, although there is sometimes a special nucleus at this point. At the age of 20 years, this epiphysis is frequently not yet united to the shaft of the bone.

The Patella is a sesamoid bone developed in the tendon of the quadriceps extensor muscle. It is subcutaneous; its under surface being coated with cartilage for articulation with the patellar articular surface of the femur. It is attached by the ligamentum patellæ to the anterior tuberosity of the tibia. At birth this bone is cartilaginous, and an ossific deposit appears about the third year.

The Growth of the Bones. Before leaving the consideration of the bones entering into the formation of the knee-joint, it may be well to refer to the very important subject of their growth. It is well known that long bones grow longitudinally by successive additions to their extremities; an ossific nucleus being deposited in the epiphysal cartilage, the bony matter extends in all directions, stopping short, however, of the edge of the cartilage, and leaving two layers—one, the articular cartilage, between it and the joint, and the other, the epiphysal junction, between it and the shaft of the bone.

The further researches of Humphry, Ollier, and others, show, moreover, that the larger ends of the long bones, and those in which the epiphysal cartilages remain the longest, grow the most. Thus, at the lower end of the femur, where the epiphysal cartilage is the last to be united to the bone, the growth is most rapid and prolonged. Much, if not all, of the growth in length at the upper epiphysis is lost, owing to its extreme obliquity; it is, therefore, of great importance to preserve the longitudinal growth of this bone. In the case of the tibia, the longitudinal growth being at both epiphyses is all gain (Hodges on *Excision of Joints*, p. 157); but here, too, the most important growth is at the larger end, that in connection with the knee-joint. Ollier points out that, whereas removal of the epiphysal ends of the humerus and ulna at the elbow-joint interferes but little with the subsequent growth of the

limb, yet that the analogous proceeding at the knee-joint, removing, as it does, the two principal sources of longitudinal growth, must materially interfere with the after proportions of the limb. (Ollier, *Journal de Physiologie*, vol. iv, p. 87.)

The Muscles and Tendons in connection with the knee-joint, which are more or less involved either in morbid conditions or operative procedures, next require notice. Passing anteriorly to its insertion in the anterior tuberosity of the tibia is the tendon of the quadriceps extensor femoris, beneath which muscle is the subcrureus, extending from the lower part of the anterior surface of the femur to the synovial membrane of the knee-joint.

On the inner side, a little below the insertion of the quadriceps, is inserted the tendon of the sartorius, and beneath this the tendons of the gracilis and semitendinosus. The semimembranosus is inserted by three slips: one passing to the inner side of the tibia, one to the popliteal fascia, and one to the posterior ligament; and, with the semitendinosus, forms the inner ham-strings. The biceps femoris, forming the outer ham-string, passes to its insertion in the head of the fibula by two slips, between which passes the external lateral ligament, a bursa being interposed. Posteriorly, the gastrocnemius arises from the condyles of the femur. Under the inner head, separating it from the tendon of the semimembranosus, is a synovial sac, which sometimes communicates with the knee-joint. The plantaris takes its origin from above the external condyle and the posterior ligament of the knee-joint. The popliteus, as before remarked, arises from a depression in front of the popliteal groove on the external condyle within the capsule of the joint, and is in contact with the external semilunar cartilage.

Action of the Muscles. The quadriceps extensor extends the knee-joint; the ham-string muscles flex it. The inner ones with the popliteus act as rotators inward, especially in flexed conditions of the joint. The outer ham-string, the biceps, acts as an external rotator. The subcrureus is supposed, in extension of the joint, to pull up the synovial membrane, and prevent its being pressed between the patella and the femur.

The Ligaments of the knee-joint are the external, internal, and the posterior, or ligament of Winslow; this latter one being strengthened by slips from the tendons of the semimembranous, the popliteus, and the heads of the gastrocnemius, and presenting a strong and firm partition between the joint and the popliteal vessels and nerves which lie upon it.

The ligamentum patellæ, although strictly the tendon of the quadriceps, may be considered one of the ligaments of the knee-joint. The attachment has been already noticed. Between it and the top of the tibia a bursa is found.

The crucial ligaments are within the joint. The anterior, arising from the depression in front of the spine of the tibia, passes backwards and upwards to be inserted into the inner and posterior part of the external condyle of the femur. The posterior, arising from the depression behind the spine of the tibia, passes forwards and upwards to be attached to the intercondyloid hollow and inner condyle of the femur.

The transverse ligament is a slight band of membrane connecting the interarticular fibro-cartilages of the knee-joint in front.

The capsular membrane is a fibrous tissue occupying the space between the ligaments. It is specially present between the sides of the patella and the femur, and covers the condyles of the femur beneath the gastrocnemius.

The Semilunar Cartilages are placed on the articular surface of the head of the tibia. They are surrounded by synovial membrane. The outer convex borders are thick, whilst the inner concave borders are bevelled down to a fine edge; the surface of the tibia within the borders being uncovered by them.

Articular Cartilage. The entire articular surfaces of the femur, tibia, and patella, are coated by a layer of cartilage varying in thickness from one-sixteenth to one-seventh of an inch. (*On the Thickness of Articular Cartilage.* P. Redfern, M.D.) As has been already noticed in considering the growth of bone, this cartilage is the layer of unossified cartilage which exists between the deposits of bone in the epiphysis and the joint. It is a tough elastic material, permeated neither by vessels, nerves, nor lymphatics. Exposed as it is to continual wear and tear at its free surface, there is special arrangement made for its repair. It is attached, or is rather continuous with the bone; but that portion of bone with which it is immediately in contact, the articular lamella, consists, according to Barwell, of a series of minute tubes running forward to the cartilage surface, through which passes the nutrient fluid from the bone to the deep surface of the cartilage. It is very doubtful as to whether the surface of articular cartilage is covered with any membrane. It is more than probable that the peculiar arrangement of the cartilage corpuscles has led some observers to the conclusion that the free surface of the cartilage was covered by epithelium. It has been pointed out that these corpuscles, as they approach the free surface, gradually change their position; from being perpendicular, they gradually assume a horizontal position, until, at the free surface of the cartilage, they form several layers of corpuscles placed horizontally one on another. (Barwell on *Diseases of the Joints*, p. 12.) By this arrangement, a continuous growth of cartilage takes place from the attached surface to compensate for the loss at the articular surface.

The Synovial Membrane of the knee-joint encloses the largest synovial cavity in the body. It forms a large sac beneath the quadriceps, and invests the entire circumference of the lower end of the femur. It is thence reflected on to the tendons of the gastrocnemius behind. A process invests the crucial ligaments, the upper and lower surfaces of the semilunar cartilages, and thence passes to the tibia. Another process passes down on the popliteus, and sometimes is blended with the fibular joint. It sends processes named "ligamenta alaria" between the tibia and patella; and another process, "ligamentum mucosum", through the joint to the front of the intercondyloid fossa. These processes lie on and enclose fat, which fills up the numerous interstices in the joints and forms a soft pad on which the synovial membrane rests. A variety of opinions has been expressed as to the prolongation of the synovial membrane over the articular cartilage. Barwell states that it is his conviction that the cartilage is not covered by this membrane, but that it is lost near its edge (Barwell, p. 14); whilst, on the other hand, Toynbee has

proved its existence in the fœtus (*Philosophical Transactions*). Price states that he is convinced that more than once he has traced a prolongation over the cartilaginous surface; and that, in some diseased conditions of the articulation, it can be demonstrated. (Price, *On the Knee-joint*, p. 7.) Seeing, however, that the resemblance between cartilage structure and the structure of synovial membrane is very great, and that diseased conditions extend rapidly from the one to the other, I am inclined to coincide with Barwell's views upon this point, and to regard the synovial membrane, not as a closed sac, but as a simple tube terminating at either end at the edge of the articular cartilage. The loose arrangement of the membrane, and the plentiful deposit of soft fat and subsynovial tissue, seem especially to provide against the bruising and injury to which it would otherwise be subjected; and it appears to me that this arrangement would be materially interfered with if the synovial membrane were prolonged tightly over prominent portions of bone such as those found in the knee-joint.

The Vascular Supply to the joint is derived from an anastomotic branch of the superficial femoral, branches of the popliteal, and a recurrent branch of the anterior tibial artery.

The Nervous Supply is obtained principally from the internal popliteal nerves, and a small twig from the obturator nerves may be traced to the back of the joint.

[*To be continued.*]

Dr. Maclaren, of Blairgowrie, receives in his house victims of tippling, dipsomaniacs as they are called.

Presentation to Dr. Jones, of Washington, Durham. At the seventh anniversary of the Court North Biddick, of the ancient order of Foresters, held at Washington, on the 3rd inst., a silver tea and coffee service, snuff box, medal of the order, and address were presented to Frederick Denbigh Jones, M.D., Surgeon to the Court, by his numerous friends and brethren of the Court, in token of their great regard and esteem, and in appreciation of his private worth and professional abilities. The event was celebrated by a dinner, at which nearly one hundred gentlemen sat down, under the presidency of S. B. Coxon, Esq., head viewer of Usworth Colliery.

The Dark Races. The Supreme Court of Michigan has worried itself to discover what is a white man. It has been clearly established by the laws of several States, that a man may be a white man, and at the same time a black man. Everything depends upon the cartilage of the nose. "A certain peculiarity of the cartilage of the nose," says the scientific testimony taken before the Circuit Court of Wayne County, "is an infallible indication of African blood." A man, being ignorant that he was a negro, attempted to vote at a local election, and was arrested for violation of the laws. He brought numerous witnesses, who testified that, to the best of their knowledge, there was not a drop of negro blood in his body. But this availed not. A Dr. Pitcher examined his nose before the Court; and, from the conformation of his cartilage alone, he was pronounced to be but fifteen-sixteenths of a white man, the remaining sixteenth being pure African. The defendant appealed to the Supreme Court, and that intelligent body sustained the nose; and the man, we believe, was punished for voting contrary to law. (*New York Tribune.*)

Addresses and Papers

READ AT

THE THIRTY-FOURTH ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION.

[*Held in CHESTER, AUGUST 7th, 8th, 9th, and 10th, 1866.*]

THREE CASES OF COMPOUND DISLOCATION OF THE ASTRAGALUS, WITH REMOVAL OF THE BONES.

By T. T. Griffith, Esq., Wrexham.

The chief interest and value of the following cases, is that they illustrate and confirm the clear practical rules laid down by Mr. Turner, in his valuable monograph on "Dislocations of the Astragalus" published in the eleventh volume of the *Transactions* of our Association. The rules of practice there recommended are logical deductions from a thorough consideration of the subject in its anatomical, physiological, and pathological relations, and have received the sanction of the principal surgical authorities which have subsequently treated of this branch of local injuries; and I consider myself most fortunate in having read Mr. Turner's paper before meeting with a case of serious accident to the astragalus.

One important fact is that in compound complete dislocations of the bone, reduction may be considered impracticable from the almost immediate contraction of the muscles acting upon the os calcis and foot generally, bringing the tibia, fibula, and calcaneum into more or less close and firm contact, leaving no space for restoring the astragalus to its wedge-like position within the joint. Then follows, as a conclusion, the necessity for removing the bone at once, to prevent the constitutional and local disturbances so likely to arise from its presence as a foreign body, detached more or less from its vascular and vital connexions, and liable to a long process of caries and suppuration.

1. *Case of Complete and Compound Dislocation of the Astragalus forwards and outwards: Removal of the Bone: Death from Tetanus.* David Roberts, aged about 40, of spare habit and of nervous temperament, suddenly leaped from a horse which started. He alighted on his feet, stood for a moment, and then fell. On visiting him, I found the astragalus of the right foot *completely* dislocated forwards and partially outwards through an extensive wound reaching across the instep; it remained attached to the ankle only by a few ligamentous bands. Upon dividing these the bone was at once removed. There was neither fracture nor displacement of the tibia or fibula. It was at once apparent that reduction of the astragalus would have been impracticable, and here I felt the great value of the rules laid down by Mr. Turner deduced from sound physiological and pathological principles, as to the treatment such cases required. On examining the astragalus, I found that a small portion had been broken from its posterior and inner angle, and doubtless retained in the joint by ligamentous union. The same circumstance occurred in another case; but there the fracture was through its posterior and outer angle. In both cases I deemed it best to allow the broken off portion to remain,

hoping that its connexion with living parts might secure a continuance of its own vitality. The wound was closed, and the limb laid on its outer side on a leg-splint with a foot-piece. As far as the foot and wound were concerned, all went on favourably, and the general constitution was less disturbed than might have been expected, but on the fifth day symptoms of tetanus appeared and continued rapidly to increase till they ended in the patient's death. I think we may fairly exempt the mere removal of the astragalus from participation in causing the tetanus, but rather refer this untoward event to the laceration and contusion of the soft parts, and more particularly of those fibro-ligamentous structures through which the bone had been so violently forced.

II. *Case of Compound Dislocation of Ankle-joint, with Complete Fracture of the Neck of the Astragalus, and Excision of the Bone.* On August 14th, 1854, I was sent for to Wynnstay, to see, with Mr. Richard Roberts, a patient who had received a serious injury to his right foot. Edward Redington, aged 20, in perfect health, a helper in the stables, had three hours before mounted a restive horse, which rearing, fell backwards and upon the boy, whose foot was under the horse. Upon examining the foot, I found a compound dislocation of the ankle-joint; the ends of the tibia and fibula projecting, with a large portion of the astragalus, through a wound extending from the front of the internal malleolus across the instep to the posterior surface of the outer angle. Neither tibia nor fibula was fractured. The astragalus was entirely separated from the os calcis, and fractured through its entire neck; its articulation with the navicular bone was undistured; but a portion of bone lay loosely between the fractured portions, and this I removed. The foot was completely inverted to a right angle with the leg. There was free arterial hæmorrhage, but from no one branch of any size. It would appear that the foot had been doubled inwardly on itself; and thus, probably, lacerations of the soft parts and dislocation of the bones were produced; but the direct fracture through the neck of the astragalus—a kind of amputation—and the detached portion between the body of the bone and the portion remaining attached to the navicular bone, must have resulted from a force directly applied across the neck of the bone, probably from the stirrup, or some hard, sharp inequality in the ground. The portion of bone now exhibited will show this. The shock to the system was considerable, and the vital powers were much depressed. Amputation naturally suggested itself; but, bearing in mind the rules laid down by Mr. Turner, supported by cases, and seeing that the man was perfectly healthy, I decided upon making the attempt to save the limb. Having placed him on a suitable mattress with pillows, and put him fully under the influence of chloroform, I attempted the reduction of the bones. This I found so difficult (though I made a free division of whatever soft parts seemed to offer resistance), that I feared to continue the effort, lest I should inflict further injury. I then dissected the body of the astragalus from its tibio-fibular articulation; and the complete reduction of the tibia and fibula was very easily accomplished. Finding the portion of the neck of the astragalus, with its navicular articulation, undisturbed, I left it *in situ*. In removing the body of the bone, besides facilitating reduction of the bones of the leg, I felt that, with so much of its cancellated structure exposed, and the uncertainty of so large a lacerated wound uniting by adhesion, there would be a great probability of caries of the bone and other bad consequences likely to implicate seriously the whole of the ankle-joint. The integuments were brought together, except at a depending point, from which some blood still flowed. The leg was placed on its inner side, and water-dressings applied. As the influence of the chloroform passed away, the boy complained of pain, which was relieved by an opiate. I only saw the patient three or four times afterwards; but I learnt from Mr. Richard Roberts that the progress of the case was satisfactory. The wound partially united by first intention; some suppuration from the fibular side took place; and an abscess formed near the tendo Achillis, which required opening. But little disturbance of the constitution took place, and after a few weeks he moved about on crutches; and he eventually recovered, with a stiff ankle and a shortening of rather more than an inch in the leg, requiring a high-heeled shoe. But he was able to resume his duties as a helper in the stables.

III. *Case of Complete Compound Dislocation of Astragalus outwards, complicated with Fracture of a small Portion of its Inner Posterior Angle: Removal of Bone: Recovery.* William Brancker, Esq., aged 63, in perfect health, whilst galloping his pony, lost his seat from the stirrup-leather giving way, and leaped on the ground and fell, but, anxious to keep hold of the reins, attempted to stand, and then found that he had sustained some serious injury to his left foot. I found the left foot so inverted, that its inner side pressed against the internal malleolus, and produced an apparent hollow there; whilst the outer ankle formed an unnatural projection, opposite to which lay the astragalus, completely dislocated through a circular opening of the soft parts, and resting on the cuboid bone, its neck most firmly girt by the structures through which it had passed. There was neither fracture nor displacement of the malleoli; very little hæmorrhage. Efficiently assisted by Mr. Perkins, who first saw the patient, I freely divided the soft parts, and then attempted reduction of the astragalus; but the tibia and fibula were so firmly drawn to the os calcis, that I desisted from further attempts, and, with a little dissection, removed the astragalus, which had lost its articular connections with the calcaneum, ankle-joint, and navicular bone. On examining the depth of the wound, I found at its inner and posterior angle a small piece broken off; but, as this retained its vascular and ligamentous attachments, I hoped its vitality would be continued, and I did not disturb it, and it gave no further trouble. The wound was drawn together by sutures and plaster; the foot was placed on the heel, thus allowing the escape of fluids from the wound; a splint applied along the leg, with a footpiece. Everything progressed favourably, and without any interruption. The wound, in nearly its whole extent, united by adhesion. The general health suffered much less than could have been anticipated. Some gouty symptoms occurred, attended with spasm of the heart, threatening immediate death.

At the end of two years and a half, this gentleman is able to follow the hounds; to walk with and without a stick; has some motion in the joint; and the shortening is so little, that a small addition to the thickness of the left shoe enables him to walk comfortably.

A Homœopathic Cure. "*The Kalmia Latifolia. Eruption on the Face.* (See Hull's *Jahr.*) A woman had one drop of *Kalmia Lat.* ϕ, in divided doses, during twenty-four hours, for facial neuralgia. She reported that before the twenty-four hours were completed, a crop of 'dark red boils' came out on her face. When seen five days after they had disappeared."

Illustrations
OF
HOSPITAL PRACTICE:
METROPOLITAN AND PROVINCIAL.

FARRINGDON DISPENSARY.

A CASE OF SYPHILIS IN A CHILD, THE RESULT OF INDECENT ASSAULT, TREATED WITHOUT MERCURY.

Under the care of R. WILLIAM DUNN, Esq., Surgeon to the Dispensary.

M. B., aged 13 years, always had good health from birth, and was quite well when she went out of town with her uncle. When they arrived at their journey's end, her uncle and she, with their friends, proceeded to a public house, where they partook of cyder. In this public house, the girl felt stupid and giddy, but was able to walk home. On arriving, the uncle insisted that the girl should sleep with him. He said that, as the mother had placed her daughter under his care, she should sleep in the same bed with him. The girl did not remember anything of this conversation, nor being undressed. Her uncle undressed her, and she slept with him two nights; but on the third night the grandfather said he would not allow it any longer. On the second morning, the girl felt great pain in passing urine and walking; the latter she could not accomplish, on account of the pain she experienced. She also noticed a yellow-coloured discharge, which discharge continued the whole time she was in the country; also the pain in passing urine. On her return to London, she told her mother, who took her to the Carey Street Dispensary, where she was examined by Dr. Hooper, who found that the girl had a chancre or chancres on the labia, and a yellow-coloured discharge. He advised the parents to take the girl to some surgeon to be examined; and she accordingly came under my care at the Farringdon Dispensary three or four weeks after Dr. Hooper first saw her.

She complained of pain in passing urine. I found the parts so inflamed that I could not make a complete examination, but found that she had a yellow discharge, and great pain in the external labia, which were much swollen, particularly the left. I could detect no fluctuation. The glands in the left inguinal region were enlarged.

From July 10th, 1865, till August 17th, I did not see her; but she was visited at home by the house-surgeon of the Dispensary. At the latter date, she was brought to the Dispensary in a cab, having a discharging bubo in the left groin. The labia were very much swollen. She still complained of pain in passing urine, and felt very ill; appetite bad; pulse 120. I ordered her bark and ammonia, beef-tea, wine, fomentations to the labia, and a poultice to the groin.

Aug. 24th. The labia were still very much inflamed; the groin still discharged. She felt very ill, and was not able to walk. Pulse 110. She had syphilitic roseola on different parts of the body. I ordered bark and nitric acid, and fomentations and poultice to the groin. I told the mother what I considered to be the matter with her daughter; and she told me that the girl had slept with her uncle in the country. I desired her to make inquiries as to the state in which this uncle was at the time; and she found out that he had been about that time under treatment for syphilis.

Aug. 31st. The patient was better. The left labium was discharging; the groin was nearly healed. She had now syphilitic sore-throat, as well as roseola. I ordered her chlorate of potash gargle, and bark and nitric acid.

Sept. 7th. The throat was better; the rash fading.

Sept. 14th. She was better. There was syphilitic psoriasis on the face, legs, and arms. The medicine was continued.

Sept. 21st. To-day I was able to make a careful examination, and found that the hymen was lacerated at the upper edge. The glands in the neck were enlarging; the rash was the same; the labia were still discharging. She was ordered five minims of tincture of sesquichloride of iron three times a day.

Sept. 26th. She complained of pain in the right arm and elbow-joint. The glands in the neck were enlarged and painful; the rash was fading. She did not sleep at night. She was ordered to continue the steel, to take five grains of Dover's powder at bed-time, and half a teaspoonful of cod-liver oil three times a day.

Oct. 5th, 12th, 20th, 25th. She was much the same. The glands in the neck were still enlarged. The remedies were continued.

Nov. 16th. She was not so well. Pulse 120; skin hot and dry; tongue coated. She complained of pain in all her limbs. The rash and the glands in the neck were the same. I ordered an ounce of the following mixture to be taken every four hours.

℞ Liquor. ammoniæ acetatis ℥ij; ammoniæ sesquicarb. gr. xii; ætheris chlorici ʒij; aquæ ad ℥vj. M.

Nov. 10th, 22nd, 30th. She was much better, but felt very weak. The rash was fading. I ordered cod-liver oil and steel wine.

Dec. 4th, 17th, 21st, 28th. She was much better; only a few spots were left on her face, and the enlargement of the glands was nearly gone. No medicine was prescribed.

Jan. 25th, 1866. She complained of pain in her limbs, but otherwise was quite well. A few spots still remained upon her face. She was ordered plenty of good food, fresh air, and exercise; no medicine.

April 1866. She came to the Dispensary to-day to report herself. The only remains of the disease was, that she had slight enlargement of some of the glands in the neck. She looked quite well, the picture of health; and said she had not felt so well for many years.

REMARKS. The uncle of this girl was tried for rape and indecent assault at the Southwark Police Court. The magistrate sent the case for trial down to Taunton, as it was in the county of Somerset that the offence was committed. The grand jury struck out the indictment for rape; and he was tried for the indecent assault, found guilty, and sentenced to two years' imprisonment with hard labour, the extreme sentence that the law would allow. There are also some very interesting medico-legal questions in this case.

1. *As regards the Hymen.* When I was able to examine her carefully, I found that there was a hymen, but it was lacerated at the upper edge. In children, according to Casper, the hymen is never found to be destroyed, on account of the extreme tightness of the vaginal canal; for the extremity of the glans penis is not able to reach the point of insertion of the hymen.

2. *The Time when the Discharge first made its Appearance.* In this case, the child noticed it on the second

day; and it was of a greenish yellow colour, and soiled her linen. A question the judge asked me was, Would the discharge make its appearance so soon, if the child had been assaulted, as was supposed, the first night that she went into the country? I said that I did not consider this a case of gonorrhœa, but a blenorrhœal discharge, the result of rough usage. Casper considers this one of the most important signs, since it is always found in children from twelve to fourteen years of age.

3. *The Absence of Blood.* In reference to this point, Casper says that in young children it is always absent, but is always present with adults.

4. *Pain in Walking.* This symptom was well marked in this case; and, according to Casper, in children this symptom is never simulated.

5. *Pain in Passing Urine.* This was also well marked in this case. The pain came on the second day, owing to the inflamed state her private parts were in.

6. *The Venereal Symptoms.* In this case, when the girl first presented herself for examination to Dr. Hooper, they were well marked, she having chancres in the labia. Mr. Brookes, of the Westminster Road, proved that the man was about the same time labouring under the venereal disease, not gonorrhœa. When I first saw the child, I did not detect any chancres, only the discharge and enlarged gland in the groin.

7. *How was the Offence committed?* The girl was either drunk, or else completely worn out by fatigue. By her own account, she does not even remember being undressed. Beck, in his work on *Medical Jurisprudence*, says, in reference to this point: "If the sleep has been caused by powerful narcotics, by intoxication, or if syncope or excessive fatigue be present, it is quite possible for a female to be violated during her sleep without her knowledge." In this case, on the trial, it was proved that some one saw her uncle lying quite close to the girl, and asked him what he was doing that for; and, as there were no signs of violence, and the examination also proved that he did not succeed to penetrate very far, all this clearly points out to my mind that the offence was committed on the girl when she was under the effects of drink and fatigue, and that this was the reason of her not knowing anything about it.

8. *The Motive for the Assault.* In the West of England, it is considered that, if a man labouring under syphilis can have connexion with a child, he himself will be cured of the disease. I believe that this was the motive in this case; for he knew that he was labouring under syphilis at the time when he took the child into the country.

9. Another very interesting point in this case is, that the girl is now quite well, and free from all appearance of the disease, *without the aid of mercury.* Both Dr. Hooper and Mr. Brookes, when at Taunton, thought the child was so ill that she would never recover, but die. I am glad to state that she is now in better health than she has been for years, and looks as if she had never been ill at all.

NEW MAGISTRATE. Dr. Cocker, of Blackpool, has been placed in the Commission of the Peace for Lancashire. "Dr. Cocker has the distinguished honour of being chosen the first resident magistrate of Blackpool, and we hope he may enjoy a long career of public usefulness in the administration of justice. The appointment of a resident magistrate will be a great convenience, and the influential position Dr. Cocker holds in the town, naturally points to him as the gentleman upon whom should fall this distinctive mark of confidence and favour."

Original Communications.

ON A CASE OF LOSS OF POWER OF EXPRESSION;

INABILITY TO TALK, TO WRITE, AND TO READ CORRECTLY AFTER CONVULSIVE ATTACKS.

By J. HUGHLINGS JACKSON, M.D., Assistant-Physician to the National Hospital for Epilepsy and Paralysis; and to the London Hospital.

[*Continued from page* 94.]

THE reader will observe how much worse the spelling is in the preceding specimen than in what the patient copied from the test-types. Whilst he was copying, I noticed that he kept referring to the original for nearly every letter. He transferred each particle quickly, so that it lost nothing in carriage. He did not trust it to his memory for a moment. To use a simile, it passed from his eye to his fingers without any adulteration from his own damaged organisation. The patient brought me the following since the previous part of this paper appeared. I give it in his spelling.

"The great fault in me sempt (crossed out) seams to be that I cannot speel when writing, if fact (crossed out in pencil) at some times I cannot at first recollect how to put down the Letter L. I have ofter been bothered as to how make the note* (letter) until I but it down in my memory by spelling my own name. (His name begins with the letter L.) Sometimes I am bothered to recollect various letters, and then I run the A B C in my head until I cum (crossed out in pencil) come up to the note (letter?) I want, and then I can bring it out to my"—

My patient tells me that he frequently cannot write a letter until "I have got it before my eye." When he said this, he put his hand before him. He could make the motions for using a pen; but he had lost the power of reproducing completely the impulses for the particular actions he had learned for the writing of particular words, and had, as it were, to submit to a new, although a transitory, education when copying.†

In further illustration of such difficulties, I will give an extract from my notes of the case of a patient called Sadler, lately under the care of Dr. Fraser in the London Hospital.

"May 18th. I found that he had tried to write something for me. The paper was written over in many places, and words were often crossed out. His name was the only word written in writing letters, and his Christian name "Thomas" was correctly spelled, but his second name 'Sadler' wanted the letter 'r'. It was written nine times, and in each the letter 'r' was absent. The words 'London Hospital' he had printed, and he had doubtless copied them from his bed-ticket."

"May 29th. He showed me with some triumph three or four lines of writing. I saw at once that

* The word note was crossed out, and the word letter substituted; but I observed that throughout our conversation on the statement he had written out, he used the word note for letter. Neither his father nor myself could get him out of this use of the word. He stared at our objections vacantly.

† Professor Bain says (*Fortnightly Review*, February 1st, 1866):—"It must be considered as almost beyond a doubt, that *the renewed feeling occupies the very same parts, and in the same manner as the original feeling*, and in no other parts, nor in any other manner that can be assigned." Again, he says:—"For every act of memory, every exercise of bodily aptitude, every habit, recollection, train of ideas, there is a specific grouping or co-ordination, of sensations and movements, by virtue of specific growths in the cell-junctions."

they were copied. They were taken from a hymn-book; and every particle of the text was imitated in the most slavish manner. When he wrote his name, he used the letters of writing; but in copying the lines of the hymn, he made the letters exactly as they were printed in the book. Where there were capitals he made capitals. The letters 'l', 'r', and 'a', cut a very singular figure in his copy."

These facts are of great importance. Patients who cannot write anything—*i. e.*, who cannot write from themselves—can frequently copy from books with comparative ease. If we tell an out-patient who has defect of speech to bring a specimen of his writing, the next time he comes he is pretty sure to bring something copied from a book or from a newspaper, and the spelling is generally quite correct; the penmanship is often wonderfully good, even when the writing is, as it often is in these cases, obliged to be done by the left hand. It is quite different when the patient tries to write anything, to use a common expression, "out of his own head."

The patient whose case I am now relating read Latin words with scarcely a mistake. He knew no Latin, and was therefore obliged to look at each syllable carefully. He seemed to have lost power in doing things by habit, except when the habit was very strong, as in writing his own name. [March 1866. He now makes mistakes in reading Latin.]

This part of the subject has many difficulties; and we may easily get wrong in our conclusions as to the degree of a patient's power of writing. If we ask a hemiplegic patient with considerable defect of speech to sit down and write something—sending him into a separate room with his friends in order that he may not be nervous—the result very often is that he writes nothing but his name. In recording such a fact in our case-books —*i. e.*, that the patient "can write"—we should be careful to mention what he had written. If we tell the patient to write something more, in nearly all the cases I have seen, in which speech has been very much affected, he either cannot or will not. I then ask him to bring a letter the next visit; but very often, by neither entreaties nor bribes, can I obtain anything. The patients will say they "can't think." When they do bring a letter, it is of one, two, or three lines only; and then very likely their friends have helped them with suggestions. I have by me several letters written by patients who have defect of speech, in which there are no mistakes. These letters might be taken as evidence that the patient's power to write was not impaired by the damage to their brains which had impaired their speech. But, in preserving such letters as specimens, we ought to record on them a statement as to whether or not the patients had a difficulty in writing them. I can easily understand that, whilst some would consider them as "evidence that the patient could write", others would point to the difficulty with which they were written as evidence that "power to write was impaired." One patient, a woman, whose defect of speech was little more than Ataxy of Articulation, brought me a note of three lines correctly written; but her husband told me that she had got the words from books, and he confessed that, after all, he had given her some help, although I had particularly requested him not to help her. Besides, it had taken her a week to write the letter; and she had written it on her slate several times before she copied it on paper. This woman brought me at first a long piece correctly copied from a book. She did not always spell her own name quite correctly. She spelled Caroline "Caroliney." I took care to ascertain that she had been able to write letters before her illness. Her husband procured for me several letters she had written to her sister before her seizure.

Another instance, a man, 35 years of age, who looked intelligent, had, when I saw him, but slight defect of speech, with paralysis of the right side. I will here mention what took place, although I am not without misgivings that these lengthened accounts may be tedious. I hope the reader will grant that it would be far easier to make general statements than to sit for an hour with a patient in order to be able to record what he really could do. It requires much patience and a great deal of time to get precise information on the defects in many cases of this kind. And, in working very carefully, we frequently seem to get further off final conclusions. One object in writing this paper is to try to show how different cases are, and that we cannot yet make general statements on the defects of mind and motion which occur with hemiplegia. I have not the smallest wish to found any doctrines; but I am very anxious to contribute a little to the methodical investigation of a large and important subject, and such a note as the one I give is the only way I can think of, of giving a faithful illustration of the things which happen in some cases of this class. Indeed, I wish to state most earnestly that I am not writing with the intention of "proving" anything. And any suggestions in this paper are of little value if they do not lead to further investigations.

I asked the patient to write his name and address. He did so pretty well, although slowly, and he wrote only part of his address, No. 5, St. Edmu[nd's Terrace.] When he had done this, he said he could not go on; and when urged he again said he could not, and added that "his brain would not let him." His sister then urged him, and he said peevishly "I can't, Ann." The next time he came, he wrote his address readily. I asked him to bring a specimen of his writing when he came again. He brought a paragraph copied from a newspaper in the characters of ordinary writing. I told him this would not do, and that he must write me a short note about anything he liked; but I mentioned the weather and his own health as topics. I sent him into a room by himself, but he wrote only his name. I then gave him some money, telling him jokingly that it was in payment for a letter. The next time the poor fellow came he offered me the florin again, simply saying, in his usual curt style, "I can't." I returned it; and, perhaps as a point of honour, at the following visit he brought me a short note. "1st December, 1864. Sir,—I went out to dinner on Sunday at my father-law going there w met a friend tried a took [took crossed out] a to speak to him could him [him crossed out] not." The next word I cannot even guess at. This, I was told, took him half an hour to write. However, next time, on January 6th, he brought a much better letter, and on June 1st a short note, which was very well written, and the words of which he could spell when I asked him. The letters were written on a slate first, and he had no help from books. In this case, the apparent defect of talking had been ataxy of articulation. He never made mistakes in names of things, according to his sister's report. Some of the words he said were clear. He jerked out his sentences slowly—*i. e.*, the jerk came after a pause. The sentences were curt, and in a healthy person would have been thought rude.

As a rule, when speech is quite lost, power to write is quite lost too; and when it is impaired there is usually difficulty in writing. I speak of chronic cases. I do not, however, assert that there is any exact relation; and I wish particularly to repeat that in a few cases of considerable impairment of

speech, power to write is not impaired—at least, I think not. In one case of temporary loss of speech, with numbness on the right side, I found that the patient could write well, in every sense of the word write.

Dr. Sieveking, my colleague at the Hospital for Epilepsy and Paralysis, has given me brief particulars of a very interesting case which occurred in his private practice in January 1865. This patient had *no paralysis of the limbs*; but his mouth was drawn to the left side. "He could not articulate, but uttered uncouth sounds." He wrote replies, but *spelled badly*. This patient quite recovered.

I dwell on these points, as they are of importance in shewing how deep the defect of expression is when speech is even a little impaired from disease of the hemisphere. It will be found that, in cases of loss of speech from paralysis of the tongue, there is no difficulty in expression by writing. I have a patient now under my care at the Hospital for Epilepsy and Paralysis, whose power to talk is so much impaired from paralysis of the palate and tongue, that I cannot guess anything she tries to say. She carries a slate, writes quickly and correctly, and thus we can communicate accurately, if not conveniently. The loss of power to talk, or to talk well, which occurs with disease of the left* hemisphere, is a very different thing.

Now there is a certain kind of difficulty in articulation, which I have already mentioned under the name of Ataxy of Articulation, which occurs with disease of the hemisphere; but there is nearly always evidence—at least, I hold that there is—that other modes of expression (by other acquired movements) are impaired too. It is a great mistake to confound this sort of difficulty of articulation with the difficulty which occurs in partial paralysis of the tongue, palate, etc., and which paralysis evidently depends on disease in the medulla oblongata, or on disease of both sides of the brain, as very likely happens in general paralysis. Above all, it must be kept in mind that in Ataxy of Articulation the patient's articulatory muscles seem to have good power, even when articulation is very bad, even when it is much worse than in patients who have paralysis† of one side of the face, half the tongue, and one vocal cord, all on the same side.

With the exception of deaf-mutism, I can call to mind few cases of permanent loss, or even of great permanent defect, of articulate language without other troubles. (I use the word permanent chiefly to exclude cases of Epileptic Loss of Speech). Indeed, deaf-mutism stands in great contrast to mutism from disease of the hemisphere. I have, however, recorded one case from the practice of Dr. Wilks, in which, with nearly total loss of speech, there remained power to write. But I cannot be sure that this patient's power of expression by writing was really good, as I unfortunately only asked her to write her name. However, she did that well. About a year ago, I saw a well-educated gentleman who had hemiplegia of the right side and loss of speech; he wrote his name readily with his left hand when asked to write something, but he either could not or would not write anything more; he became angry when pressed. I should not now be sure that either of these patients could write well; although when I made a note of the case of Dr. Wilks's patient in a paper I have published on Loss of Speech, I considered it to be a case of aphemia—*i.e.*, a case of loss of *articulate* language only.

Last month, Dr. Martin pointed out to me the case of a man who had had total loss of speech with hemiplegia of the right side, beginning May 27th. This is a remarkable case, and is decidedly exceptional. This patient wrote a letter, with which no fault could be found, on June 25th, although, even on July 3rd, when I saw him, he had considerable difficulty of articulation (Ataxy of Articulation); a difficulty of a kind which, as I have said, depends on disease of, or near to, the corpus striatum.

I afterwards saw another of Dr. Martin's patients, who had had loss of speech five months before, but who had recovered so as to be able to say a few words. This patient wrote the names of several things I shewed him—*e.g.*, "umbrella", "ink", etc. I begged Mr. Square, Dr. Martin's clinical clerk (to whose courtesy I am much indebted) to get the patient to write a note. The patient wrote a few words, in which I could make out clearly, "Dear Sir,—I happy you and so become. I remains yours." Other words mixed with these I could not make out.

It is, then, very important to try a patient's power to write in various ways. It is not enough to get him to copy, nor to write his name, nor to write single words even when he finds the words. We must try all these, and besides ask him to write a note "out of his own head."

To return to the case the text of this paper. It is chiefly of interest as shewing the great diversity of defects of expression one may meet with in a single case of brain-disease. The unity of this diversity is, that the defects are disorders of acquired movements, or co-ordinated movements, as some call them. There is no evidence to demonstrate that the left hemisphere only is affected; but the defects this patient had are of the same kind as those we meet with in cases of hemiplegia of the right, and very rarely with hemiplegia of the left side. To use terms, the case illustrates, at least, the clinical relationship of epilepsy and chorea, and of mental and motor symptoms.

I will now approach the subject from another point of view.

A Digression on Epilepsy, etc. In the above I have, speaking of epileptic loss of speech, used the word epilepsy in its common meaning; but I think, as I have elsewhere suggested, that the term should be degraded to stand for our knowledge, or rather for our ignorance, of the various permanent and temporary conditions of nerve-tissue in functional divisions, or perhaps in nutritive regions, which conditions cause or permit temporary failures or losses of function. Thus, epilepsy would not, in this sense, necessarily convey the idea of convulsion, but of temporary disorders of function of many kinds, sensory as well as motor, and mental as well as physical. For instance, epileptic loss of speech might mean failure of any part of the "circle" by which mind lives outside in words. But, to give a more simple instance, and in more general terms, and with but indirect reference to speech, I would study convulsions according to—(1) tissues

* Nevertheless I have, since these remarks were written, seen in consultation with my colleague Dr. Morell Mackenzie, a woman who had partial paralysis of the tongue, with much wasting, who, in two letters, made odd mistakes in writing—*e.g.*, hospitable for hospital. She spoke correctly, so far as expressing herself went, and her talk was thick, and not like the gabble which occurs with disease of the hemisphere near the left corpus striatum. Moreover, in loss of speech from disease of the hemisphere, there is no wasting of the tongue. Again, Dr. Mackenzie's patient had no limb paralysis. Although it may appear that I am arguing in a circle, I cannot but think this patient had, besides disease of the lingual nerves or nuclei, some more general impairment of her nervous system. This is the only case of the kind I have seen.

† To the student I wish to speak earnestly on the many fallacies there are in observations on cases of defect of speech, especially when the defect is slight. Unless he know well the tricks and habits of disease, by seeing many cases of all sorts, he will be unprepared for the investigation of the large subjects of language and mind. He will be tripped up by little things.

affected, or the nature of local damage which affects these tissues; (2) organs injured; (3) functions disordered. The first (1) might be many things betwixt, let us say, health and cerebral hæmorrhage. And the standard of value in each (in one convulsion in fatal cerebral hæmorrhage, as well as in the most common chronic seizures) would not be any supposed types, such as idiopathic epilepsy. The grouping of one's thoughts would be about Health of (1) tissues, of (2) organs, and of (3) functions; so far as we know, or can get to know, about their healthy states. I have spoken of convulsions in preference to temporary failures of speech, but the principle is the same in each instance. For our point of departure in cases of defect of speech should be from what we know of healthy mind, language, and movement—an imperfect knowledge, it is true, but one with most of the elements of progress in it. In this way of looking at them, temporary defects of speech are very important, although, unfortunately, they are very difficult to study.

I hope shortly, as a plan of work, to attempt the comparison and contrast of (1) unilateral irregular movements, (2) unilateral attacks of spasm, and (3) unilateral paralysis. I would work at these, as if we had forgotten the terms chorea, epilepsy, and hemiplegia, according to (1) the tissues affected, (2) the organs damaged, (3) the functions disordered. I limit my illustration to one physiological region for convenience. I would in this region study all disorders in the movements and actions of muscles, from those of health to total paralysis, not omitting any cramps, jerks, or spasms, however partial these might be in range or in degree. Many reasons could be given for a comparison and contrast of certain cases of chorea, epilepsy, and paralysis. One reason is, that these diseases have in their very clinical history affinities which cannot be disregarded. I have now under my care in the London Hospital a girl who has had chorea of the left side, one convulsion, and left hemiplegia. I could relate many cases shewing similar relations. I have under my care at the Hospital for Epilepsy and Paralysis another patient, a girl, who has permanent hemiplegia, continuous irregular movements of the paralysed muscles, and occasional convulsive attacks. She has besides another disorder of motion, an ataxy of articulation, and her talk is of a sort which would be usually called stammering. Such anomalous cases have a place in our thoughts on classification of disease, similar to that which such animals as the ornithorhynchus have in zoological studies. The zoologist is more anxious to know what kind of a vertebrate this animal is, than to decide whether it is a mammal or a bird. So our anxiety should be, not altogether to see how far a case resembles most this or that disease, as described by distinguished men, but to learn when we can, in what way, and how far, the symptoms are a departure from health. But I urge this plan just now, in order that we may learn peculiarities and defects of motion with a view to the wider study of the movements of speech or the subjective movements of thought, and this too apart even from what we call the "complications" of the above named diseases with defective talking. We shall thus, I think, get some materials for better speculations about the education of centres and nerve-regions—a most important thing in our work on artificial acquirements, whether these be universal, as talking, or special, as playing the violin—such as (1) the odd contractions of the limbs in some infants, (2) the irregular movements in the chorea of children, and (3) agitations, etc., in persons beyond adult age. On this Positive—in contrast to which I would call the Metaphysical—Method of studying certain Diseases of the Nervous System, I shall speak again later.

We should also at the same time, I believe, get materials for studying more exactly the Time of the organism itself. And these materials would, I hope, at length bear (although they would bear very remotely) on Mental Consciousness, in its relation to Time and Succession.* For it will be found that there are no abrupt boundaries betwixt physical and mental symptoms.

There are at least two chief views on the periodicity or intermission of convulsive paroxysms and other temporary disorders of function, to both of which views I would pay attention as equally as I could. One is, that the nutritive changes in the enfeebled region itself are the causes of the occasional attacks of spasms; the other that the injured part fails in some general change in the organism—a change possibly starting from the medulla oblongata or beginning in the vaso-motor system. Or, to use speculative language (which I could only partially agree with), in one the tension of (impaired) nerve-tissue is relaxed, not in the orderly actions of healthy purpose, but suddenly running down when the tension has attained a certain degree. In the other, the failure occurs because nerve-tissue cannot keep its tension in general disturbances of the system, whether these disturbances begin in a sort of (arterial?) wave in the organism itself, or are secondary to something outward, as fright. The enfeebled part is, as it were, "out of tune." Here it is interesting to consider the occasional influence of general emotional states on groups of partially paralysed muscles—causing them to become stiff, as in the "contracture" of infancy—to jerk, as in chorea—or to tremble, as sometimes happens in the paralysis of old people. The influence of certain respiratory acts, such as yawning, is well known. To use once more very speculative language, it would seem as if in such general states there was a discharge of tension, possibly, in the case of movements of the hand, of the nerve-fibres of some part of the hemisphere through the corpus striatum.

The convulsions of cerebral hæmorrhage ("ground-currents" from decomposition of nerve-tissue round the clot?), and possibly convulsions from plugging of vessels, seem to be instances of the first; and the fits which depend on the secondary changes of foreign bodies—*e.g.*, tumours of the hemisphere—of the second.

Before leaving this subject, I may say that I adopt the views of my esteemed senior colleague, Dr. Radcliffe, so far as this, that I have no doubt that all clinical evidence goes to show that spasm is a sign of decreased and not of increased vigour of nerve-tissue. Indeed, without adopting these views, I do not see how we are to put in any reasonable order the phenomena of spasm, and paralysis, incoherence, and loss of speech, pain and loss of sensation, coloured vision and amaurosis, etc. In short, separating, by a scientific artifice,† the two really inseparable things, life and function, we may say that, within the limits of integrity of structure, function is highest where life—nutrition—is lowest. I think we may show that disorders of function occur in an order rather according to the warp of life (arterial regions) than

* These last few words are the title of a most important paper by Sir H. Holland.

† G. H. Lewes writes:—"In the study of animal organisms, the scientific artifice called Analysis, which separates ideally what Nature has indissolubly united, isolating each portion of a complete whole to study it undisturbed by the influences of other portions, has established a division of life into animal and vegetable. The division is as old as Aristotle, but has become the common property of science only since the days of Bichât. It is not exact, but it is convenient."

according to the woof of function. The value of this speculation, if it have any, is only as leading to investigation of disease, according to an anatomical method. I ask: Do the symptoms of temporary failures of function admit of being placed in an order according to what is known of the physiological relations of functional divisions and arterial (nutritive?) regions? It must be kept in mind, that most of our so-called knowledge of epilepsy is very speculative. And I think we should try to get rid of all those speculations which, although they give ease and comfort by "explaining things", have not in themselves the vitality to open out more work.

I have no doubt wandered far from the general subject of this paper; but a careful study of disease shows, that we must learn how the nervous system *can* suffer, if we wish to know what a particular set of symptoms means, rather than what it should be called.

[*To be continued.*]

CASES ILLUSTRATIVE OF THE USE OF BATHS IN THE TREATMENT OF DISEASE.

By George B. Mead, M.D., Ph.D., M.A., L.R.C.P. Lond., etc., Newmarket.

Case i. *Rheumatic Fever.* John B., Newmarket, aged 30, employed at the Gas Works, was attacked in November 1865 with rheumatic fever, and was bedridden several months. He gradually recovered; and in April attempted to return to his work, but after very few hours found himself quite unable, and had a severe relapse in consequence of his effort to do so. The pains were most severe all over his body and limbs, and his joints became so rigid he was scarcely able to walk. He was ordered to take the improved Turkish bath at 120°, with feet in hot mustard and water, followed by the warm douche and partial cold douche, twice a week, and tepid followed by cold sheet every morning at rising, and a mild dose of antacid saline three times a day.

After the first bath, all pain and much of the stiffness left him. While in it, he perspired most freely. The perspiration had a very peculiar sour smell and highly acid reaction. A bath was given every third or fourth day, gradually raising the heat to 160°, and the cold douche prolonged. After a few baths, he was able to walk with comfort six miles at a stretch. He has much improved in health and appetite; and is quite free from pain, and quite enjoys the bath.

The effect of the bath in improving the firmness of the muscles and healthiness of the skin was remarkable. His general health and appetite also very much improved.

The baths were continued with slight modifications for three weeks. At the end of that time, he was quite well, and returned to his employment, where he has continued ever since.

Case ii. *Rheumatic Fever.* C. F., aged 35, labourer, near Newmarket, had, ten years since, a severe attack of rheumatic fever. He was bedridden and helpless for months, suffering the most violent pain. It took him nearly a year to get over it.

The present attack came on in the beginning of May 1866. It began with rigors, great heat and thirst, restlessness, followed by severe pains attacking all the joints with such extreme tenderness that the slightest motion was attended by intolerable anguish. The joints were puffy; the tongue covered with white fur; pulse sharp and incompressible; urine scanty; bowels torpid; the skin was covered with unctuous perspiration of peculiar acid odour. Examination of the heart shewed that it had been implicated in a previous attack, accounting for the occasional fits of numbness to which the patient was subject.

The portable hot air bath was ordered, with a magnesian saline aperient. The patient was kept in the bath twenty minutes, at the heat of 120°, and perspired very freely; the perspiration being most pungently acid. He was sponged over with warm water under sheets, and got quickly into a warm bed. He was ordered to be carefully sponged over with warm water night and morning, care being taken only to uncover part of the body at a time. He felt none the worse for the bath; and on the next visit his pulse was found to be softer, the kidneys and bowels acting freely; all the signs of acute inflammation had subsided, and he had slept well; he was perfectly free from pain, and had partly recovered the use of his limbs. After a week, a second bath was given; and his improvement was so rapid that in a few days he was able to get out of doors, and expressed himself highly delighted with the treatment and result. He has since continued to improve, and is now suffering from debility only.

Remarks. In this case, the debilitated state of the patient, and the injury to the heart from the former attack, rendered imperative the greatest caution in the use of the bath; therefore, it was only used for a short time, and at long intervals. The result shews that, even where the heart has previously sustained injury, its use is perfectly safe—indeed, tends to ward off disposition to cardiac affection. The patient's blood was loaded with morbid poison, which Nature was seeking to eliminate by the skin and kidneys. By the assistance to the natural powers of these organs afforded by the bath, more poison was eliminated in a day than, without its help, could have been thrown off in a month; hence the disease was enabled to run its course quicker; and, instead of the sufferer being in agonising pain for weeks and slowly recovering, his sufferings were speedily terminated, and a cure effected in Nature's own way.*

A gentleman, now in the most robust health, some years back, when reduced to an almost hopeless condition, was cured by similar means in a very few weeks, after all other remedies had failed, and may be referred to, so satisfied is he of the value of the means which he justly says "saved his life."

Case iii. On Monday, May 16th, 1866, at 10 a.m., Dr. Mead was requested to visit a stable-lad in Newmarket, who had been for a day or two complaining of pain and difficulty in swallowing, for which a saline mixture with acid gargle had been used.

There were redness of the velum, uvula, and fauces; restlessness and anxiety; difficulty of deglutition, each attempt being attended with sharp cutting pain; the act of inspiration was protracted, whistling with throttling noise. The voice was a hoarse whisper; the countenance anxious, ghastly; the eyes protruded; there was a painful sense of suffocation. The cough was harsh, stridulous, and husky. There, was great tenderness of the laryngeal cartilages; which were painful on pressure. Pulse 120, hard; skin hot and dry.

The patient was stripped, placed in a chair, and enveloped in blankets, with his feet in hot mustard and water, and hot fomentation-cloths around the throat, and, by means of the portable apparatus, subjected to a heat of 130° Fahrenheit. After about ten minutes, copious perspiration was caused, with feel-

* The apparatus used was invented by Dr. Mead; it is portable, and, by a very simple contrivance, allows a ready adjustment of the heat.

ing of sensible relief. After fifteen minutes longer, he was placed upright in a shallow bath and drenched with tepid water, enveloped in dry sheet, rubbed dry, and put into a warm bed, when the pulse was found to be 90; the pain nearly gone; and the breathing easier. He swallowed some aperient medicine with very little difficulty.

When he was visited three hours afterwards, it was found that he had perspired freely since his return to bed, and was in all respects better. Pulse 85. He was ordered a second dose of aperient medicine.

At the evening visit, the pulse was 80; skin moist; bowels not opened. He was ordered to take two aperient pills and saline mixture every four hours.

May 17th. He had a good night. The bowels acted early in the morning, without pain. Pulse 80; skin moist. He took soft food readily, swallowing without difficulty.

May 18th. He continued to improve, and by the end of the week was able to resume his employment.

Remarks. This treatment and its success will bear most favourable contrast with that recommended by any medical author. It afforded immediate relief. In less than two hours, the patient might safely be pronounced out of all danger. The rapid recovery that ensued was owing to Nature's vital powers not having been sapped by violent bleeding or strong mineral medicines. A physician, subject to sudden and violent attacks of this dangerous disorder, has several times obtained immediate relief in this manner; and there is no doubt that, if laryngitis be treated thus, a fatal issue is almost impossible.

REMARKS ON THE CONSTITUTION OF THE MIND; AND ON UNSOUNDNESS OF MIND.

By Frederick James Brown, M.D., Rochester.

Mind is the term used for the faculties of personal spirit acting in conjunction with living organic matter. The existence of mind apart from matter belongs to theology. Physiology and psychology recognise mind in conjunction with matter, and in this condition only. The physician observes the mind to be mastered by somatic conditions in delirium, and the body to be mastered by the mind in violent emotions and in impulses. Influence of mind and body, mutually, is a matter of daily experience.

The human mind is constituted of numerous faculties, grouped under the Understanding, the Will, the Affections, and the Moral Sense or Conscience.

Insanity is an abnormal condition of the judgment, under which this faculty loses its freedom. Delusions arise from distortion of the subjective and objective impressions; and erroneous conclusions arise from distortion of the intellectual conceptions. The mind is unsound because the judgment, that habitually balances the faculties, is disordered. So long as the judgment continues sound, unsoundness in one faculty may be corrected by another faculty, or at least may be acknowledged. Spectres that are not credited are instances of this kind; whilst, if believed in, they are hallucinations, and constitute mental unsoundness.

Insanity usually, perhaps invariably, is preceded and accompanied by unsoundness of the affections. The will may continue free, or may become affected; and the same holds good with the conscience. Sometimes the conscience is first affected, next the affections.

I have watched perversion of the will occurring in males. One boy recovered after three months. A young man recovered after many years. The judgment was not affected, except that it gave no response to argument; but, in cases of perversion of the will, the judgment is unfettered, and the affections suppressed voluntarily; and the observer must be keen to note changes of countenance and gesture, whilst arguing and appealing to reason and feelings.

Possibly insanity may commence in disorder of the will in some cases, the affections suffering next in order.

When the affections are unsound without implication of the judgment, the individual is not mentally unsound: therefore the term moral insanity is not correct. Yet the affections are unsound. The individual *knows*, but does not *feel*, the difference between what is right and what is wrong. Some persons do not feel the sanctity of human life, and would as lief take the lives of their fellow-men as of vermin. Knowledge of what the world esteems right and wrong alone restrains their hands. The same remark holds good in respect to regard for property; also in relation to the principles of justice, virtue, truth, and decency. In some men, there is absence of the principles of morality. The human mind, in such instances, *appears* to be constituted like those of brute animals. It is doubtful whether such be the fact; but the *moral faculties are not developed*. So long as the judgment be not implicated in unsoundness, such men are not mentally unsound. This is an axiom never to be lost sight of.

If sudden impulses arise in the mind of a man healthy in mind and body, self-control is demanded of him by society, and rightly so. But, if any of the faculties be unsound, is the mind capable of self-control, in the event of sudden impulse? The condition of the judgment previously to the commission of crime must be inquired into, as well as its condition subsequently; otherwise a faulty conclusion may be arrived at. In some cases, the judgment is free both before and after the event, and is only overborne for the moment. One night I was called to see a woman who awoke maniacal at 1 A.M. She was quiet, but completely insane. In one hour she fell asleep, and awoke next morning well. She had suffered much domestic distress and privation. If she had strangled her bed-fellow, and had then gone to sleep and awoke in a sane state next morning, what then?

After these remarks, I return to the consideration of the commission of motiveless crime by the children of lunatics. These individuals are sane, and may be divided into two categories: *a*. Those possessing all the faculties sound: *b*. Those that have certain faculties unsound. Both classes are liable to commit motiveless crime. The cause must be sudden impulse in class *a*. The same cause may operate in class *b*, or the judgment may grow tired of controlling and balancing ill-poised faculties.

Are the children of lunatics equally responsible with the children of sane persons? I trow not. There ought to be a compromise, in the way of punishment, between that appointed for sane persons and that for lunatics. Human responsibility is a variable quantity: it is never two days equal, from the cradle to the grave. Such being the case, allowance should be made for mental infirmity as an inheritance either actually or by predisposition. The mind, equally with the body, is inherited; and the mind developes equally with the body. If there be arrest of any of the mental faculties, the individual deserves our pity, even when it becomes necessary to censure his conduct. The connexion between insanity, crime, drunkenness, etc., is well known; and the subjects of these horrors deserve our pity.

NOTES OF A CASE IN WHICH EVULSION OF THE UMBILICAL CORD OCCURRED AT BIRTH.

By G. De Gorrequer Griffith, M.D., Physician to the Hospital for Women and Children, Pimlico; Physician-Accoucheur to St. Saviour's Maternity; and some time House-Surgeon to the London Surgical Home.

On Sunday evening, July 8th, I was summoned to attend Mrs. ——, who was in labour with her first child. I attended almost immediately; and, on my arrival, I was told that my services would not be required just yet, as the pains had come on only within the last two hours. I forthwith entered her room. At the very moment I did so, she had a strong bearing-down pain; and I told her that she had better lie down as soon as the pain was over. While yet in pain, she attempted to get on the bed; but, as she made the effort, she called out that the child was in the world; and, before I could endeavour to catch it, the little thing fell upon its head with some force, and rolled upon the floor.

I noticed that the child was quite livid; that the cord had been torn out from the abdomen; and that the child was apparently lifeless. The blood spurted out from the umbilical aperture; and, before I could render any assistance, some little quantity was lost. The child seemed to be in a state of syncope, very soon lost its livid hue, and became all over deadly pale. As quickly as I could, I seized the integument surrounding the umbilical aperture—there was not a vestige of the cord—and tied it as tightly as I could, which I was enabled to do, owing to the state of syncope of the child by which it was prevented from feeling any pain. It was tied so effectually that the thread did not slip off, nor was disturbed when the child began to cry and move.

No ill effects obtained to the mother, and the placenta was easily removed.

As the case I have described is of extreme rarity, and as I do not know of even one similar to it being on record, I have thought it fit to bring forward.

The treatment in this case was extremely simple: first, because of the syncope into which the child fell; and secondly, because of the lax condition of the abdominal integuments affording an opportunity of securing the ligature tightly.

I need not here dwell upon the difficulty usually attendant upon deligating the integuments surrounding the umbilical aperture in the abdomen when the accident of which I speak has occurred, inasmuch as it must be impressed upon the mind of each of those practitioners who have been consulted in such circumstances.

Syncope in infants is a rare occurrence. I mean true syncope resulting from concussion of the brain, and not merely that imperfect state of animation which so often obtains at birth, and is manifested by feeble action of the heart, and an uncertain state of the entire system, which, as it were, oscillates between life and death. A condition of coma, or semi-coma, is by no means so infrequent. One case of complete coma occurring in the infant at birth, as the result of compression during labour, and lasting for two days, then terminating in death, has recently come under my notice.

"Only in one instance," says Dr. Underwood, "have I seen anything at all resembling the true syncope after the living powers have once prevailed. In this case, the child was born at the instant its mother was moving from her chair into her bed, and, in consequence, fell with violence on the floor; it, however, very soon cried, and did not appear to be very materially injured, but, a day or two afterwards, fell into a strange, languid state; it revived, but at intervals sank into its former languor, and breathed very faintly, and died about the sixth day."

Mr. Hey of Leeds communicated to Dr. Underwood the notes of a case of an infant, which, born at full time, lay moaning and languid for four or five hours, and was then seized with a fainting fit, in which it continued for half an hour. It had ceased to breathe, except now and then giving a gasp or sob, and was as pale as a corpse. There was, however, a sensible pulsation of the heart, though feeble and slow; but whether the circulation had been kept up all the time previous to his (Mr. Hey's) visit, could not be ascertained. The child was revived by the use of stimulants, but had three other similar attacks in the course of the day, though it had slept composedly between whiles, and sucked at the breast. It had seven more fainting fits in the night. The infant became a very healthy child.

On the fourth day of the existence of my patient, that portion of the integument outside the ligature showed signs of vitality having ceased in it; and on the fifth day it came away, leaving a round evenly cut wound in the skin of the abdomen, surrounded by a ring of inflammatory redness.

All the time of my attendance (nine days), the child did well; had no untoward symptom; and the wound was healing rapidly when I took leave of my patients.

9, Lupus Street, Belgravia, S.W.

Transactions of Branches.

EAST ANGLIAN BRANCH.

ON MELASMA AND ALLIED AFFECTIONS.

By Peter Eade, M.D.Lond., M.R.C.P., Physician to the Norfolk and Norwich Hospital, etc.

[*Read June 29th*, 1866.]

I am well aware how valuable is our time to-day, and how few minutes can be allotted to any one communication. I have therefore sought to compress the subject matter of my paper into as short a compass as is possible consistent with intelligibility. The purport of it is, to call attention to the subject of diseased pigmentary discoloration of the skin, and the supposed origin of this in disorder of the great centres of the sympathetic nervous system of the abdomen; and, after recording two cases of such discoloration, to add a few remarks upon some forms of that obscure but intractable disorder, which, for want of a definite knowledge of its nature, we are content to designate from its most striking symptom, and to term general debility; suggesting therefrom analogies to show the possibility of the origin of this and some other diseases in disorder of the same nervous centres.

I think, sir, I may venture to assert that the profession to which we have the honour to belong now thoroughly recognises the services which Dr. Addison rendered to the cause of medical knowledge, when he discovered and called attention to that remarkable bronzing of the skin and that special train of symptoms which accompanies this, which together are now so generally known by the name of melasma, melanopathia, or Addison's disease. No less are professional thanks due to Dr. Wilks, for the zeal and

intelligence with which he has brought his great pathological knowledge to bear upon the subject of fatal disease of the suprarenal capsules—a knowledge which has enabled him to diagnose more accurately than Dr. Addison had done the special lesion of the capsules which produces the disease in question, and thereby to save us from confounding together in future disorders which, though perhaps allied in their character or source, are yet, as he has shown, inherently and essentially distinct.

The value of Dr. Addison's discovery consisted not only in pointing out a new disease and so enlarging the boundaries of our knowledge, at the same time teaching us that a pair of organs whose functions were generally believed to have almost ceased with infantile life, were capable when diseased of producing a definite train of symptoms and of exerting a fatal influence upon the processes of life; but it consisted also, and perhaps still more, in the fact that our attention at once became thereby fixed upon those great sympathetic nervous plexuses and ganglia which lie in their immediate vicinity, and with which the capsules are so largely and intimately connected; for, from this contiguity, the probability was at once recognised that some other obscure disorders whose nature we were unable to explain, but whose general symptoms were allied to those observed in true Addison's disease, might also be due to a diseased condition of these great abdominal nervous centres, and receive their explanation from a careful study of their morbid states.

It is, I think, not only a curious but an important fact, as bearing upon such a possible connexion, that Dr. Addison should have been led to the discovery of the disease which bears his name, by an examination into the nature of some cases which had occurred in his practice of what he terms "idiopathic general anæmia", and the symptoms of which, omitting the discoloration of the skin, bore a close resemblance to those seen in the cases he has recorded of true suprarenal diseases.

But, although eleven years have elapsed since Dr. Addison published his work on diseases of the suprarenal capsules; although the attention of Dr. Wilks, Dr. Habershon, and of many other thoughtful minds, both in this country and abroad, has ever since been actively directed to this class of disease, our knowledge of it is still in its infancy; and, indeed, appears to be limited to the apparent ascertainment by Dr. Wilks, that true Addison's disease with bronzing of the skin is due not to destruction of the capsules from any cause indiscriminately, but only to one particular form of disease attended with the deposit in them of some fibrinoid material allied to the scrofulous; and, further, we can still only vaguely guess that many conditions of obscure asthenia or so-called general debility which, as to their cause and origin, are still quite inexplicable by us, may yet be shown to be due to disease or disorder of the solar plexuses, the semilunar ganglia, or the adjacent suprarenal bodies.

Dr. Addison himself attributed to the suprarenal capsules the function of regulating the formation of the colouring matters of the body; or, at least, he believed that disease of these bodies caused the production by the skin of an excess of black pigment; but subsequent research has tended to modify this opinion, and competent observers now rather incline to the belief that recorded facts are best explained by regarding such an excessive formation of pigment as due to irritation or disease of the solar ganglion, the great centre of innervation of the assimilative organs. Mr. Erasmus Wilson has expressed himself to this effect; and Dr. Wilks writes that he believes "the solution of the question is to be found in the implication of the vaso-motor nerves"; and, that "the symptoms of Addison's disease are not due to the disease of the structure of the capsules, seeing that these are totally destroyed for months or years before the death of the patient".

I will now read my two cases to you. The first one of extensive bronzing of the skin, and from which the patient recovered, is briefly, as follows.

William B., aged 36, bricklayer, was admitted into the Norfolk and Norwich Hospital, under my care, on April 11th, 1863. He stated on admission that he had always enjoyed good health until twelve months previously, when, after exposure to the weather, he was seized with pains of a rheumatic character, which gradually settled in his back and hips. From the time of his seizure he began to lose flesh and strength and became partially incapacitated from work. For the last six months he had continued to suffer the original pain of the back and hips, and also from pain in the upper part of the belly, coming on soon after taking food, as well as from a constant sense of gnawing and sinking in this part, and occasionally from active vomiting. He had also suffered from increasing weakness, and latterly from giddiness and dimness of sight on assuming the erect posture.

It was not till five weeks before admission that any discoloration of the skin was observed; but at about this date his friends noticed that his face was getting of a yellowish colour, and from that time the dark tinge had gradually increased and spread to other parts of the body, so that for three weeks there had been a dark almost bronzed discoloration of the skin of the face, of the outside of the elbows, of the axillæ, the front of the knees, the scrotum and penis, and of the sacral and ischial regions. These appearances, as well as the general symptoms, continued at the time of his entering the hospital, and in addition a number of small ecchymoses or purpuric-looking spots were observed upon the hamstrings, legs, and a few other parts of the surface.

The deepened colour varied from that of a dark bilious or jaundiced tinge to that of the blackened stain produced by walnut-juice, and was quite as marked upon the face as elsewhere. The conjunctivæ were of pearly whiteness; the gums and finger nails were also abnormally white.

The urine tested was free from albumen, and contained many dark crystals of uric acid. He was treated by tincture of steel, with nitric acid, and chlorate of potash, and as much good food as the stomach would bear, and at the end of a month I made the following note. He is greatly better. The sickness and pain of the stomach are gone. A large portion of the dark discoloration has disappeared, the cuticle in some of the darkest portions, as it has peeled off, carrying the pigmentary matter with it. The purpuric spots are gone. He was discharged cured on May 27th, about six weeks after admission, the forehead being the last of the discoloured surfaces to recover its natural hue.

The symptoms in my next case, one of pellagra, bear a very close resemblance to those of the one I have just read.

Julia P., aged 65, hawker, was admitted to the hospital on July 8, 1865, complaining greatly of feelings of general debility, with sensations of swimming in the head, giddiness, faintness, and general sinking, dyspnœa and palpitation on any exertion, pains in the right hypochondrium, loins, and sacral region, and lowness of spirits. The face, hands, and wrists were of a deeply browned (or rather of a dark yellowish-brown) colour—a condition which at once arrested the eye, and which she said had been present more or less every summer for several years past, but was

now worse than usual. She attributed it to exposure to the sun's rays in the prosecution of her business as a hawker.

She was kept in the hospital ward and out of the sun for six weeks, and treated with ammonia and the citrate of iron and strychnia. Improvement commenced at once, continued steadily, and on August 24th she was discharged, relieved of all her feelings of pain and debility, and with the colour of the hands and face faded to a very light-brown tint.

With regard to the first case, however rare and exceptional it may be, I do not bring it forward as introducing an original view of the subject; for I am aware that a late French writer, M. Louis Martineau, has quoted some cases of Addison's disease, which he alleges were cured; neither do I absolutely assert that disease of the capsules was present, seeing that the patient happily recovered, and therefore I was unable to verify my diagnosis; but the very close resemblance which the discoloration bore to that which I have seen in fatal cases of Addison's disease, coupled with the accompanying general symptoms, render it highly probable that whatever is the special part of the body diseased in true melasma—whether capsules, ganglia, or plexus—this was the part affected in the present case, and to the disorder of which the discoloration of the skin was due.

In all cases of true suprarenal melasma, the condition of general asthenia—especially at an advanced period of the disease—is most marked; the patient's consciousness of want of nervous power often most distressing; and the feeling of sinking and uneasiness at the epigastrium, as well as the vertigo and other head symptoms (which latter are doubtless due to an insufficient supply of blood to the brain in consequence of imperfect sympathetic innervation of the heart and arteries) both constant and urgent. These were all present in my case, and were in fact identical in character with those I have recently had the opportunity of observing in a case of undoubted Addison's disease which I saw with Mr. Allen, of this city.

But, the symptoms which I have above described are precisely those which were most marked in the second case of disease attended with discoloration of the skin which I have just read, and to which, as answering in most of its characters to the description given in books of the affection known in the north of Italy, where it chiefly occurs, by the name of pellagra. I have ventured to give this name, and of which I believe it to be an example.

The difference between it and true melasma would seem to consist chiefly in the facts—1, that in pellagra the hyperpigmentation is less dark in colour, and is restricted to those parts which have been most exposed to the rays of the sun; and, 2, that, while in melasma the discoloration appears to be due to disease originating directly in the pigment-producing centre, in pellagra it is induced by *indirect* over-stimulation of this central organ through an exciting cause—viz., the burning rays of the sun, applied to the exposed parts of the skin; but in both these diseases the main outline of the general symptoms is the same, and in both the termination is (usually) ultimately fatal.

Again, these very symptoms of asthenia are those which appear to have especially struck Dr. Addison as characteristic of the disorder which he has described in his work on suprarenal disease under the title of *Idiopathic Anæmia*, and the contemplation of which, as I have said, appears to have led him on to the discovery of the true meaning of the group of symptoms constituting the disease to which he has given his name. They are also marked and characteristic features of the complaints of a class of patients not infrequently met with in the medical wards of our hospitals as well as elsewhere (for I doubt not the experience of most of those present can furnish examples of the disorders I allude to),—a class who, without any definite discoverable disease, are very difficult to cure, and whose ailments often altogether baffle our efforts even to relieve, and who for this reason are often considered, I believe wrongfully, to be hypocrites or malingerers. The patients to whom I allude are generally pale; always feeble and flabby; often depressed in spirits; unequal to much exertion of body or mind; quickly, after effort, breathless or palpitating; rarely suffering much pain, but always complaining of uneasy sensations referred to the epigastrium or its neighbourhood. These sensations are often merely a constant and depressing sense of sinking or uneasiness at this part; but they may amount to a feeling of quivering or "flickering", or even of positive discomfort or worry, such as is sometimes compared to that of some animal biting or gnawing at them here. These patients have also often a depressed, anxious, I might almost say, a specific physiognomy.

To this group of symptoms, for want of a better name, it is usual to apply the term *general* or sometimes *nervous debility*; but to some of the cases of this affection which I have recorded in my hospital case-books, I have ventured to append the title "Asthenia Sympathetica"; and the appellation is one which, I believe, very accurately expresses both the localisation and the principal features of the disorder.

The physiognomic aspect of the disease I have said is peculiar. To my mind, it is identical with that seen in some stages of melasma, of diabetes insipidus, and of some forms of Bright's disease,—in all of which we may assume asthenia or exhaustion of the great sympathetic abdominal ganglia.

I think, further, I have observed that patients of a peculiar whitish colour; *i.e.*, of pale complexions, and with a tendency to light hair, or with hair which if originally dark has become grey or even quite white,—in fact, in whom there would appear to be a present deficiency of pigment—are more liable to this class of disorder than others; and I have even several times actually diagnosed its existence from this condition in patients admitted for the first time to the out-patients' room without asking them a single question.

The peculiar pallor also of patients suffering from Bright's disease is proverbial. It is usually attributed to the secondary effects of the disease upon the blood; but, I would make the suggestion whether some at least of this peculiar whiteness or loss of colour may not be due to some more direct affection of the pigment-forming organs, seeing that it is present more or less in some of the other disorders I have been alluding to; and, again, if so, I may perhaps be allowed to theorise one step further, and to suggest the possibility (in our present utter ignorance of its cause) that ordinary Bright's disease, or albuminoid degeneration of the kidney may itself be due to some disease located or beginning in the great abdominal ganglionic centres.

Further, if, as Dr. Wilks says, the peculiar deposit in suprarenal disease is a fibrinoid or albuminoid material having a tendency to degenerate into scrofulous matter; and if, as he seems to think, the general symptoms are probably due to implication of the adjacent vaso-motor nerves and centres, I would ask why it may not be that the disease causing the suprarenal effusion *begins* not in the capsules but in the nervous ganglia,—just as I now suggest the possibility of the peculiar effusion or deposit in the renal

organs in Bright's disease being due in its commencement to a similar form of nervous disorder?

We might, then, almost venture to carry our speculations a little further, and to assume the existence of a group of affections due to disease of the same central nervous ganglia, which might be classed in this way:—

A. Functional disorders produced by affections of the abdominal ganglia.	{	Nervous debility (asthenia sympathetica).
	{	Diabetes insipidus (and possibly also D. mellitus).
B. Organic diseases produced by affections of these bodies.	{	Addison's disease.
	{	Bright's disease (and possibly lardaceous disease of liver, spleen, etc.)

Having made these suggestions, rash as they probably are, and crude and imperfect as I know them to be, I will conclude by simply recapitulating the points to which I have wished to call attention. These are:—

1. The probability, as illustrated by my first case, that melasma or bronzing of the skin may not always be necessarily connected with organic and fatally destructive disease of the suprarenal capsules or the adjacent nervous ganglia, or at least that the condition which causes it may be capable of a temporary cure or of an amendment equivalent to this.

2. That other diseases attended with alteration of the secretion of colouring matter—in *plus* or *minus* quantity—may, as Mr. Erasmus Wilson has suggested, be due to disordered conditions of the great abdominal plexuses.

3. That there is a large group of diseases still very imperfectly understood, but which, though varying in many important particuliars, agree in the one great fact that they are all marked by great and peculiar asthenia and other such symptoms as I have mentioned, which seem from their peculiar characters and their great family resemblance to be all fairly referable to disordered states of the same physiological organ or system, and that this is the sympathetic system of nerves, and especially its great central abdominal ganglia.

Progress of Medical Science.

SURGERY.

Excision of eight inches and a half of Tibia: Recovery. Dr. W. P. Moon, of Philadelphia, relates the case of J. S., aged 39, who was admitted to hospital on July 22nd, 1864, for gun-shot wound of the right leg, received at the battle of Petersburgh. A minie-ball entered the upper third of the outside of the right leg, passing downward obliquely through the spine of the tibia, at middle third, carrying away a small portion of the bone and emerging at the inner side of the leg. The injury to the bone, though *apparently* slight, proved to be one of those contusions which destroy the vitality of the tissues to a considerable extent, and eventuate in a large amount of necrosis. Sloughing of the soft parts, first in the track of the wound, and then of the bones, supervened. The slough of the bone also extended, until two-thirds of the tibia became involved in its entire circumference. Abscesses formed constantly, which were required to be opened. Active inflammation subsiding, it was decided on October 24th, 1864, to remove the sequestrum, which proved to be eight inches and a half in length, from the epiphysis of the ankle-joint. The periosteum being in a measure loose and quite easily detached, the posterfor portion of it was left in the entire extent of the shaft. An incision along the spine of the tibia, exposing nine or ten inches of the bone, was made, when it was readily removed by means of bone forceps. Dry dressings were used after the operation. The hæmorrhage being trifling, was easily controlled. Nourishing diet with tonic treatment was continued, as before the operation. The soft parts, which had had an unnatural congested appearance, from this time took on healthy action, and the case progressed rapidly and favourably, new bone forming the whole length of the periosteum which was left in the wound. On December 8th, healthy granulations throughout were filling up from the bottom with new bone. The patient was able to be about the ward on crutches. On January 19th, 1865, being very anxious to go home, he was discharged. On May 10th, 1865, he wrote, "I am at work at my trade, coach-building, and have complete use of my injured leg, running up and down stairs as well as any of the workmen. The wound has entirely healed and new bone formed throughout. I still wear my artificial support." Another case, in which Dr. Moon removed five inches and a half of tibia, on November 7th, 1865, under similar circumstances, resulted in a like cure.

Rupture of the Corpus Cavernosum: Death. Dr. D. C. Rathburn communicates (*Cincinnati Lancet and Observer*) a case where he made a *post mortem* examination of a man who was reported to have come to his death by violence at the hands of his wife, the fatal injury having been inflicted upon the penis. On examination there was found extensive sloughing of the cellular tissue in the pubic and inguinal regions, with the loss of integument and connective tissue of the left half of the penis. The urethra was ruptured one inch and a quarter anterior to its pubic attachment, involving about four-fifths of the left and one half of the right cavernous body. The doctor in attendance had made several ineffectual attempts to introduce a catheter. There was extensive infiltration of urine; and death occurred eight days after the accident. His dying statement to a friend was to this effect, that on the evening that he received the injury he was about to have connection with his wife who was mad. She seized him by the erected penis, and bending it suddenly and forcibly upon itself broke it. The physician who attended the case, when asked why he did not amputate at the break, replied that he had no authority to do so, as the books said nothing about it and we had no literature on the subject.

Non-Mercurial Treatment of Syphilis. Mr. R. W. Dunn, in a pamphlet on the Mercurial and Non-mercurial Treatment of Syphilis, gives the results of experience of many authorities, as well as of his own; and from these draws the following deductions. 1. The primary sore can be healed without mercury. 2. Mercury does not prevent secondary symptoms. 3. The secondary symptoms that follow the non-mercurial are slighter than those that follow the mercurial treatment. 4. Secondaries are more frequent after the mercurial than after the non-mercurial treatment. 5. If the patient be of a strumous diathesis, mercury ought to be avoided. 6. Rupia and bone-disease seldom follow the non-mercurial treatment. 7. Perhaps the disease disappears more rapidly under the mercurial treatment, but the result is not effective or lasting; and by avoiding the use of the drug altogether, we do not damage the constitution, and nature, with a little help, will cure the disease. 8. In hereditary syphilis, the rate of mortality is lower, and the duration of treatment is shorter, when treated without mercury.

We are requested to remind members of the Association that the Annual Subscriptions became due on the 1st of January. They can be paid either to the Secretaries of the Branches; or to the General Secretary, T. Watkin Williams, Esq., 13, Newhall Street, Birmingham.

British Medical Journal.

SATURDAY, SEPTEMBER 22ND, 1866.

THE INTERNATIONAL SANITARY CONFERENCE.

Of the political aspects of this project of the Emperor Napoleon we have nothing to say. There may have been, perhaps there was, hid under the beneficent proposal of a sanitary inquiry an astute scheme for increasing the influence of French diplomacy in the East. While we leave the honour of our diplomacy and the defence of our national interests to their appointed guardians, we are happy to lay before our readers, with such occasional comments as we may think needful, a summary of the Report of the International Commission in reference to the Asiatic cholera. They have investigated the subject under the following heads:

1. Its origin—its endemic and epidemic character in India;
2. Its transmissibility;
3. The mode of transmission;
4. The influence on its development of great assemblages (*agglomérations*) of people—*e. g.*, at pilgrimages, fairs, etc.;
5. Deductions, with a view to prophylaxis, as to the attributes of the generating principle of cholera.

Whence, then, did the cholera, called Asiatic, originate? And in what countries is it now endemic?

It is beyond a doubt that, for several centuries before 1817, a disease prevailed in India, and in some of the neighbouring countries, which had the greatest analogy to the cholera of our times, and raged from time to time with fearful violence. Garcia da Horta, it is stated, a Portuguese physician of eminence, mentioned the existence in India, in the sixteenth century, of a disease called *mordechim* or *mordexim*, which, judging from the description he gives of it, could be nothing else than the cholera. And, to come down to more recent periods, it is well known that, towards the close of last century (from 1781 to 1791), several murderous epidemics, during one of which twenty thousand victims are stated to have been cut off in the course of eight days at the sacred fair of Hurdwar, are recorded as having prevailed both in the northern and southern parts of Hindustan.

This sketch of the cholera in India, if brief, is also comprehensive; but we are of opinion that the existence of the disease in other countries deserved more than a casual reference. There is one notice by the Dutch physician Bontius which has been often quoted, but which, on account of its interest and importance, we cannot withhold from our readers. In that portion of his work which is entitled "Jacobi Bontii, medici, methodus medendi quo in Indiis orientalibus oportet uti, in cura morborum *illic vulgo ac populariter grassantium*" (there commonly raging), he has one chapter "De Cholera", and another "De Spasmo". Writing in Java, "*coloniæ Bataviæ novæ, in regno Jacatrense, anno* 1629, *Novembris* 19," he says: "Besides these alvine discharges (*alvi profluvia*) just mentioned (dysentery, etc.), cholera here often attacks the sick (*hic familiariter ægros infestat*)." Then, after describing the "almost continual discharges which take place in great abundance *per gulam simul ac per anum*," he goes on to say:

"Since, however, along with these excessive discharges, the vital and natural powers are poured forth (*spiritus effunduntur*), such a weakness, arising from foul exhalations, oppresses the heart, the fountain of all heat and life, that the sick for the most part die, and that very quickly, as within twenty-four hours, or even earlier. This happened, among many others, to Cornelius van Royen, the governor (*œconomo*) of the patients in the hospital, who, though well at six o'clock in the evening, was suddenly seized with cholera, and before midnight most wretchedly expired, after simultaneous vomiting and purging, with dreadful cramps and convulsions (*vomendo simul ac per alvum dejiciendo, cum diris cruciatibus ac convulsionibus, miserrime expiravit*), the violence and rapidity of the disease setting at nought every kind of remedy. . . . The pulse in this disorder is extremely weak (*hic admodum debilis est*), the breathing difficult; the limbs externally are cold. Internally, a vehement heat and thirst torment the sick, whose watchings are perpetual, with most restless tossings of the body, which, if accompanied with a cold and fœtid sweat, most surely betokens approaching death."

If to this we add his description (in his chapter on "Spasm", one of the names by which the disease is known among the natives) of the red glaring eyes, the livid countenance, the terrific look, and the hoarse cavernous voice, we cannot well refuse to acknowledge, notwithstanding his description of the discharges as containing copper-green bile (*bilem æruginosam*), that this malady, so new to us, has attained the respectable age of at least two centuries and a half in the Indian Archipelago, in which—at least, in Java—it was then endemic; for, in his *avant-propos* (p. 57), Bontius says, "*Eosque morbos descripsi, quos endemios esse, ac populariter hic grassari animadverti.*" The fact of its being endemic affords a strong presumption of its having originated spontaneously in Java.

As regards India, the notices of its prevalence there during the fifty years immediately preceding the memorable outbreak in 1817 are numerous and

circumstantial. Some of the very best and most graphic descriptions of the disease have come down to us from the last century. Curtis, in his admirable work on the *Diseases of India*, quotes a letter, dated Madras, February 12th, 1774, from Dr. Paisley, who mentions some of the leading and most characteristic symptoms, and states that it is "*often epidemic* among the blacks, to whom it was horridly fatal." In the books commonly used by the native practitioners (*Madras Report*, p. 3, and also *Miscellaneous Extracts*, p. 251), there are two diseases known by the names of *Sitanga* and *Vidhúma Vishuchi*, the former exactly corresponding to the "spasm" or "cramp" of European authors, the latter to their cholera morbus. The name mordexi or mordexim, already referred to, is stated by Bontius to have been in use among the Malays 240 years ago, and is thought to be derived from two Sanskrit words signifying "sudden death." This was corrupted by the Portuguese into *mordesheeng*, whence the phrase, which seems to have originated with the French traveller Sonnerat, who remained in India from 1774 to 1781, of *mort de chien*, or dog's death. This author states that on the Coromandel coast an "epidemical disorder which prevails, and in twenty-four hours or less carries off those who are attacked" by it, appeared twice during his sojourn in India. The first epidemic was of the spasmodic kind, and cut off above 60,000 from Cherigam to Pondicherry. The other, two years later, was even more dreadful, and was characterised by the absence of pains and by sudden sinking of all the powers of life. In 1775, "a disease most strongly resembling it in its symptoms, progress, and termination, did for some time prevail" in the Mauritius, "and caused a great mortality, particularly among the blacks and people of colour. A frightful outbreak occurred in 1781 at Ganjam among 5000 Bengal troops on their march to join Sir Eyre Coote's army. On March 22nd (*Bengal Report*, p. 18), the pestilence assailed them with the most inconceivable fury. Men in perfect health dropped down by dozens; and even those less severely affected were generally dead or past recovery within an hour. Besides those who died, *above five hundred were admitted into hospital that day*. Nearly twelve hundred men were attacked, and seven hundred perished. This epidemic afterwards spread to Calcutta, and even further north; but no accurate record was kept of its progress. In the spring of 1790, another detachment of Bengal troops, marching to Seringapatam, was attacked in a manner exactly similar, but with smaller loss, while traversing the same belt of land. Madras was again visited in 1782; Hurdwar, in the far north, in 1783; and Arcot in 1787. Travancore had also been the seat of many outbreaks; so that Mr. Hay, writing in October 1818 (*Madras Report*, p. 16), mentions that the disease had been long familiarly known in that province, committing frequently great mischief, and sometimes (twenty-five years since) desolating the country. This brings us down to 1793; after which we find little or no mention of it till June 1814, when it broke out with great virulence in the 1st Battalion of 9th Native Infantry, marching from Jaulnah to Trichinopoly, while the 5th Native Infantry, marching along with them, entirely escaped. On this protracted silence, the Commissioners lay great stress, as indicating either that the disease was extinct, or that, on account of its trifling severity, it had escaped the attention of medical observers. At all events, they remark, forgetting or unaware of the outbreak in 1814 just described, "there was no question of epidemic cholera in India or elsewhere till 1817." And when at length they saw it at Jessore, Dr. Tytler, and other medical men, did not at first recognise it as identical with the sporadic disease; whence the Commissioners conclude, that "in fact the new cholera would seem to have differed in certain respects from the old"—a conclusion, we think, scarcely warranted by the recorded facts, and more especially by Mr. Cruikshank's graphic description of the symptoms present in 1814: "the skin cold, and covered with cold perspirations; the extremities shrivelled, cold, and damp; the eyes sunk, fixed, and glassy; and the pulse not to be felt. These persons all died; and I find, on referring to such notes as I have preserved, that, influenced by the consideration of the vascular collapse, and total absence of arterial pulsation, I had denominated the disease *asphyxia*." A deeply interesting passage, not only as shewing the complete identity of the "old" and "new" diseases, but as proving that the term "asphyxia" was first correctly applied to cholera by Cruikshank, as indicating *pulselessness*, and not, as afterwards misapplied, in the sense of suffocation.

On the whole, we conclude that cholera, marked by all its present characteristics, has been prevalent epidemically in India and the Indian archipelago for at least three hundred years; endemic in Java in the seventeenth century; epidemic in Mauritius in 1775; frequently recurring with destructive virulence in all parts of India during the last thirty years of the eighteenth, and occasionally, but rarely, reappearing in the first years of the present century. Next week we shall consider the epidemic of 1817 and its consequences.

RISE AND FALL OF CHOLERA IN LONDON.

Under the above heading, the Registrar-General gives an interesting sketch of the history of the connection of cholera outbreaks in London with the distribution of impure water. He says:

"Cholera has been very unequally distributed over

London; it has been in every district, but it is only in the field of one water company that the violence of the epidemic recalled the ravages of 1849 and 1854, when nearly the whole of the water was unfiltered, and when much of it was drawn from parts of the Thames and its tributaries polluted with sewage.

"The Lambeth and the Southwark Companies in 1849 could not improve the water supply; the ground was undrained; the pumps were polluted; and the epidemic pursued its natural course. It first appeared in the autumn of 1848, subsided partially to break out again in the summer of 1849, when week after week it grew more fatal, until in the first week of September it killed, reckoning diarrhœa, 2298 persons. The Lambeth water was drawn in 1853-54 from a purer source, and the mortality by cholera was immediately shown to have declined in the districts it supplied.

"Nearly the same general law of development in 1866 was observed in the districts of the south, the centre, the north, and the west of London. In the midst of this calm the whole of London was startled, in the three successive weeks of July, by 346, 904, and 1053 deaths from cholera; and it was found that the great majority of deaths happened in the houses supplied from the reservoirs at Old Ford, belonging to one company.

"It appeared, then, right to call attention at once to the complete coincidence of the cholera field with the field of supply of the East London Water Company, in the hope that the state of its water might be immediately looked to. The weekly report was published on Wednesday morning, 1st August. On that day, the engineer of the Company called at the General Register Office; and on the day following he published a letter in the daily journals showing that he fully appreciated the importance of the crisis. The supply might have been changed on Wednesday morning, but on that day no result appears; the deaths were 170. On Thursday the deaths fell to 155; on Friday to 114; on Saturday to 112; on Sunday to 119; on Monday, 6th August, 115; on Monday, 13th August, to 44; on Monday, 20th August, to 31; on Monday, 27th August, to 21; on Saturday, 1st September, to 8.

"This coincidence between the intervention of Mr. Greaves and the decisive declension of the cholera in the week following deserves to be noted.

"No corresponding rise or fall was observed on the same days in the other fields of water supply.

"Now the epidemic has partly subsided in the East, and the Company's water, as far as we can judge of its effect, is returning to the normal state, it is desirable that Mr. Greaves should be permitted by the company to publish all the facts of the case.

"The difficulties of supplying 21,000,000 gallons of pure water from the Lea with only one small reservoir, holding a third part of the day's supply, below and in close juxtaposition to the tidal portion of that river, full of foul sewage in all seasons of the year, are immense, and, in the conditions given, casualties which no skill can entirely avoid, are almost inevitable."

A FULL-LENGTH marble statue of the late Sir Henry Marsh has been completed by Mr. Foley for the King and Queen's College of Physicians, and will at once be placed in that institution. The same artist is also engaged on a similar statue of Sir Dominic Corrigan, who was for several years President of the College.

THE Administration of Public Charity in Paris resolved, on the authority of medical offices of hospitals, to isolate in special wards the cholera patients of 1865. During former epidemics, the patients were distributed through different wards. The objection to this isolating of cholera patients was, that it had a demoralising influence on patients themselves, and especially on those patients who, seized with cholera in hospital, were carried into a cholera ward. Another objection was, that placing cholera patients in an atmosphere impregnated with cholera-poison would be increasing the severity of the disease by increasing the dose of poison. With regard to this last objection, an examination of the statistics of cholera patients in Paris hospitals during 1865 shows that the mortality of 1865 is somewhat less than that of 1849 and 1853-4, when separation was not carried out. As to the number of cases of cholera which arose in the hospitals, it would appear to be less in 1865 than in previous years, when there was no isolation of the patients. In 1865, the number was 17.40 per cent.; in 1853-54, 29.05 per cent.; and in 1849, 23.49 per cent. It is understood, also, that during the present epidemic of 1866 (isolation still being practised), the number of cases of cholera arising in hospitals is comparatively small. However, no positive conclusions can yet be drawn. Some striking facts have been noted. At Lariboisière, for example, where the isolation of cholera wards is complete, the number of cases which have arisen in the hospital amounts to 20 per cent.; whilst at St. Antoine, where the isolation has only been imperfectly carried out, the cases amount only to 2 per cent. *L'Union Médicale* says it is well to be cautious in our conclusions on any point connected with cholera. "We admire the assurance of certain promulgators of laws of this pathological sphynx called cholera—of this mysterious and terrible scourge, which would seem to take pleasure in creating for those who study its nature, difficulties, obscurity, and contradiction."

DR. PART, a medical man long in practice in Camden Town, has had a heavy charge brought against him in the Coroner's Court. It is alleged that, while in attendance on an old man named Goldsmith, who died at the age of 80 in December last, Dr. Part induced the patient to make a will leaving the greater amount of his property to him (Dr. Part); and that he afterwards administered to Mr. Goldsmith (the old man) medicines which produced death—in plain words, that he poisoned him. An analysis of the viscera of the deceased has been made by Mr. Rodgers, who states that he has not been able to detect any but mere traces of arsenic and morphia, and attributes the death to bronchitis. As yet, there is nothing to show that the accusation is not one of those to which medical practitioners are some-

times subjected by the malevolent. At the same time, the case is one which, we hope, will be fully inquired into.

At the last meeting of the College of Physicians, it was suggested by some of the Fellows that the College should take the occasion of his being made a baronet to show some fitting token of respect for their President. The suggestion made was that of a portrait of Sir Thomas Watson to be suspended in the College, or of a lectureship to be founded in his name, or of both these.

We are happy to learn that Dr. John Brown's health is much improved, and that he is about to resume his professional duties. We are sure that this will be gratifying news to all his friends.

The Annual Report for 1865 of the Surgeon-General of the United States Army contains some interesting matter. Dr. Barnes says:

"The ample provisions for sick and wounded existing at the date of the previous Annual Report was increased during the ensuing months, until a maximum of 204 general hospitals, with a capacity of 136,894 beds, was reached. Field-hospitals, hospital transports and cars, ambulance corps, and the purveying depots, were kept in condition to meet all possible requirements; and General Sherman's army was met at Savannah by four first-class sea-going steamers, thoroughly equipped as hospital transports, with extra stores and supplies for five thousand beds, should it have become necessary to establish large hospitals upon his line of operations.

"Since April 1861, there have been appointed 547 surgeons and assistant-surgeons of volunteers; mustered into service, 2,109 volunteer regimental surgeons, and 3,382 volunteer regimental assistant-surgeons; employed as acting staff-surgeons, 75; as acting assistant-surgeons, 5,532.

"As far as returns have been received, during the war 34 officers of the medical staff have been killed, or died of wounds received in action; 24 wounded; and 188 have died from disease or accident incurred in the service; one died in a rebel prison; and six of yellow fever. A completed record will increase this number.

"The returns of sick and wounded show that, of white troops, 1,057,423 cases have been treated in general hospitals alone, from 1861 to July 1, 1865, of which the mortality rate was 8 per cent. In addition to the alphabetical registers of dead not yet fully completed, the records of the Medical Department contain 30,000 special reports of the more important forms of surgical injuries, of disease, and of operations. These reports, with statistical data, and a pathological collection numbering 7,630 specimens, furnish a mass of valuable information, which is being rapidly arranged and tabulated as a Medical and Surgical History of the War, for the publication of the first volumes of which an appropriation will be asked.

"In this connexion, and as illustrating more in detail the importance of this work, the Army Medical Museum assumes the highest value. By its array of indisputable facts, supported and enriched by full reports, it supplies instruction otherwise unattainable, and preserves for future application the dearly bought experience of four years of war. Apart from its great usefulness, it is also an honourable record of the skill and services of those medical officers whose contributions constitute its value, and whose incentive to these self-imposed labours has been the desire to elevate their profession. A small appropriation has been asked to continue and extend this collection.

"During the fiscal year ending June 30th, 1865, an Army Medical Board was appointed to meet in Cincinnati, Ohio, on the 18th day of October, 1864, for the examination of candidates for the medical staff of the army, and of assistant-surgeons of that corps for promotion. Nine applicants for admission into the medical staff were invited to present themselves before this Board. Of this number, two were fully examined and approved; one withdrew before his examinations were concluded; two were rejected as unqualified; and four failed to appear. Six assistant-surgeons were examined for promotion, and found qualified. Two assistant-surgeons were reported for re-examination. Of the approved candidates, two have been appointed assistant-surgeons.

"Boards have been in session at several places, for the examination of candidates for appointment in the Volunteer Medical Staff; 152 candidates were invited before these Boards, 58 of whom passed satisfactory examinations, and were appointed accordingly; the remainder were rejected, failed to appear, or withdrew before examination was completed. These Boards were discontinued in June 1865.

"In conclusion, I desire to bear testimony to the ability, courage, and zeal manifested throughout the war by the officers of the Medical Department, under all circumstances and upon all occasions. With hardly an exception, they have been actuated by the highest motives of national and professional pride; and the number who have been killed and wounded bears most honourable testimony to their devotion to duty on the field of battle.

"To the Medical Directors of Armies in the Field and of Military Geographical Departments, especial praise is due for the successful execution of their arduous and responsible duties."

The cholera is said by *Wiener Medizinische Wochenschrift* to be on the increase. From thirty to thirty-five persons were daily attacked. Baron Wattmann, Surgeon in Ordinary to the Emperor of Austria, had been attacked by cholera, and was reported to be dying.

M. Trousseau, physician to the Hôtel Dieu, and M. Cazenave, physician to the Hôpital St. Louis, have resigned their appointments.

Dr. Schnepp, recently appointed French vice-consul at Djeddah, has died.

Dr. Berguesse, a medical practitioner at Havre, while lately engaged in attending a woman in labour, was suddenly seized with illness, and died on being removed to an adjoining room.

The Academy of Sciences has been authorised to accept a legacy of 41,834 *francs* from the late Dr. Montagne. The interest is to be applied to the foundation of two prizes of 1500 *francs*, or two of 1000 *francs* and two of 500 *francs*, to be awarded annually to the authors of the best essays on cellular plants.

THE LATE JAMES DUNCAN, M.D.

THE *Edinburgh Medical Journal* speaks as follows of Dr. Duncan.

"Dr. James Duncan was beloved by his patients, and respected by his fellow-practitioners; and it may be truly said that he had no enemies. He harboured no ill-will to any one, but ever displayed that charity which is kind and full of mercy and good fruits, He was domestic in his habits, and his flow of humour made him shine in the social circle.

"James Duncan was the only son of the leading partner of the well-known firm of Messrs. Duncan, Flockart, and Co. He was born at Perth on November 2nd, 1810. He prosecuted his early studies in Perth, and then at the High School of Edinburgh. At the University of Edinburgh he took the degree of M.D. in 1834, his thesis being on Empyema. In the same year he became a member of the Royal College of Surgeons of London.

"In 1835 he became a fellow of the Royal College of Surgeons of Edinburgh, and wrote his inaugural paper on tracheotomy. He afterwards travelled on the Continent, and visited the schools of France, Germany, Austria, and Italy. He used his pencil and his brush on many occasions with much effect. One of the last things he did, about a day before his death, was to take a sketch of a scene at Tours. He was also fond of photography.

"He acted first as house-physician under Gregory, and then as house-surgeon under Liston, in the Royal Infirmary of Edinburgh; and he subsequently followed that great surgeon to London, and acted as his house-surgeon in University College Hospital. He was a special favourite with Liston, for whom he entertained feelings of affectionate regard. He had the honour of being elected a fellow of the Royal College of Surgeons of England in 1842.

"He settled in Edinburgh as a medical man in 1837, and rapidly rose to eminence. He was surgeon of the Royal Infirmary for many years, and was twice re-elected to that office. He was afterwards consulting-surgeon of the institution, and latterly one of its managers. When senior surgeon of the Infirmary, he delivered lectures on clinical surgery. He was elected a fellow of the Royal Society in 1858. He was the medical officer of the Scottish Provident Institution, and consulting-surgeon of the New Town Dispensary and of the Eye Dispensary.

"Though too much engaged in practice to be a frequent contributor to medical literature, Dr. Duncan wrote some valuable papers. Among these may be mentioned: Case of Carotid Aneurism; Case of Fatal Hæmorrhage from Perforation of the Aorta by False Teeth impacted in the Œsophagus; Removal of a Coin from the Larynx by Inversion of the Body; Femoral Aneurism, with Ligature of the External Iliac; Excision of a Fibrous Tumour entirely surrounding the Sciatic Nerve; Paper on Hernia; etc.

"During 1866 the increase of his practice was such as to exhaust his strength, and accordingly, with the view of relaxation, he went with his wife and family, at the end of July, to the Continent, leaving his son to take charge of his practice in his absence. He visited Paris in the first instance, and spent several days there. Cholera was prevalent in that city, and he seems to have imbibed there the germs of that disease. On Sunday, August 12th, he had an attack of diarrhœa, which, however, yielded to remedies, and did not prevent him from going next day to Orleans. Thence he proceeded to Tours, and there it was, on the morning of the 15th, that marked choleraic symptoms were developed, which proved fatal on the morning of the 16th. There were, however, no urgent cramps or other painful concomitants of the disease, and he appears to have sunk from exhaustion. He was attended by a medical man at Tours, and by his friend Mr. Chapenell, from Paris; and all that a wife and daughters could do in the emergency was assiduously supplied. He was sensible to the last, was aware that he was dying, spoke to the members of his family in a collected and calm manner, and his latter end was peace.

"His loss will be long felt among us. Many a family circle will mourn over his departure. His kind manner and his genial flow of spirits cheered many a patient, who loved him as a friend, and trusted him as a doctor."

THE CHOLERA.

ABOUT fifty cases of cholera are reported as occurring daily in Genoa, and one hundred and twenty in Naples. At Genoa, the people of the lower classes believe that they are poisoned by "*acquetta*," the source of which no one knows, though all believe in its existence. One is reminded, by such superstition, of the middle ages.

The *Moniteur* of the 13th instant gives the following account of the progress of cholera in Paris during the last two months. The disease commenced in the beginning of July, the maximum mortality was reached in a few days, but the greatest daily amount did not exceed one hundred and fifty in the hospitals and in the town. During August, the average daily mortality was twenty-three; and fifteen in the first nine days of September. It will thus be seen that, especially if we take into account the population of Paris, (1,667,841), the epidemic has not prevailed severely in that capital, and that in a few days it will, to all appearances, have entirely disappeared.

The "weekly" return of the Registrar-General for Saturday last shows an increase of deaths from cholera over the preceding week by 25, although this is nearly compensated by a decrease of 22 from diarrhœa. The two first weeks of September have hitherto been noted in cholera visitations. In the first week of September in the years 1849 and 1854 the number of deaths were respectively 2,026 and 2,050, which in in the second week fell to 1,682 and 1,549. In 1866 our experience has been very different. In the first week of this September the deaths were 198 from cholera and 128 from diarrhœa, together 326; in the second week 157 and 132, together 289; in the third week 182 and 110, together 292. The deaths in Liverpool during the past eleven weeks have averaged 50.7 per 1,000 persons living; and the last four weeks the deaths from cholera have been 146, 225, 145, and 182. The mortality from diarrhœa, however, fell to 51 from 84.

The "daily" return for Sunday and Monday once more brings before us the extraordinary decrease in mortality which takes place on those days as compared with the other days of the week, and for which no adequate explanation has yet been given. The deaths by cholera in the two days were 31, or 15½ for each day, while those of the five preceding days were respectively 26, 32, 28, 26, and 31. Also in the kindred disease there were but 21, or 10½ deaths for each day, while on Saturday there were 19. Divided into districts the deaths for Sunday and Monday last were :—Cholera, west 1, north 3, central 3, east 12, and south 12; diarrhœa, west 2, north 1, central 1, east 9, and south 8.

Dr. Mapother, medical officer of health, has pub-

lished a report on the health of Dublin for the four weeks ending the 8th of September, by which it appears that the death-rate has been rather high as compared with the corresponding period of last year. The report gives valuable information concerning the present outbreak of cholera, calculated not only to allay panic, but pointing out the best means for avoiding the disease. It states that "nothing has occurred to show that cholera is not the most preventable of diseases, no person having perished who was living under healthful conditions." It has been stated that not one-half of the cases reported as cholera can be assigned to the plague. They are chiefly diarrhœic, or choleraic cases, of more or less intensity, such as every year occur at this season.

In Dublin of the 181 deaths last week 55 resulted from cholera; and in Vienna during the week ending 8th instant the fatal cases of this disease had increased from 64 in the previous week to 107.

Dr. Mapother, of Dublin, obtained from the police magistrate an order for the immediate interment of a man who died in hospital of a contagious disease, and whom his friends wished to "wake,"—the first application of the kind under the recent Act.

The Committee of the Donnybrook Dispensary District sat to investigate a charge of neglect of duty brought against Dr. Murdoch, one of the medical officers, by a man named Aspill, whose wife died of cholera a few days ago. After a lengthened investigation the Committee separated with the understanding that there must be a Poor-Law inquiry on the subject.

The *Maidstone Journal* states that at Yalding, a large village in which there is a considerable acreage of hops, there has been a serious outbreak of cholera. The cases as yet are all imported ones, and the disease appears to be of a very virulent type, the persons attacked dying in the course of a very few hours. Hospital tents have been erected, and a temporary hospital hut has been built. The immigration of hop-pickers from London has been the means of introducing cholera to a considerable extent.

A Coroner's Arithmetic. Dr. Lankester is an energetic and valuable public officer, but he can hardly be congratulated on his management of figures. He held eighty inquests on children found dead in one year, and he then assumes that there are no doubt eighty more murdered and never found. This is, however, pure hypothesis; and Dr. Lankester might as reasonably assume that there are two or three times as many, or half as many again, for one guess is as good as another. Then he assumes that there are just as many child murders in the other two coroners' districts in London; which is a guess also. Then, again, he says that the average age of child murderesses is 20. Still more extraordinary is his assumption that women who kill one child kill only one. Of the eighty slaughtered infants who came before his notice how many does Dr. Lankester suppose to be the only one of a family of brothers and sisters not doomed to die? And how is the average age of the mothers ascertained, when, in a large number of instances, the mother is not known? Doubtless, too, it is the youngest mothers who are chiefly found out, the older being more skilful in the concealment of crime. On the whole, the calculation breaks down at every step, and whatever be the real frequency of the crime it never can be ascertained by these haphazard guesses, which serve only a sensational end, and terrify people into imagining that the evil is too gigantic to be arrested. (*Pall Mall Gazette.*)

Association Intelligence.

COMMITTEE OF COUNCIL: NOTICE OF MEETING.

The Committee of Council will meet at the Queen's Hotel, Birmingham, on Thursday, the 4th day of October, 1866, at 3 o'clock P.M. *precisely.*

To receive the resignation of the Editor of the Journal, and to devise what steps shall be taken relative thereto; and other very important business.

T. Watkin Williams, *General Secretary.*

13, Newhall Street, Birmingham, September 6th, 1866.

WEST SOMERSET BRANCH: ORDINARY MEETING.

An ordinary meeting of the above Branch will be held at Clarke's Castle Hotel, Taunton, on Wednesday, September 26th. Dinner at 5 o'clock; after which, papers or cases will be communicated.

Gentlemen intending to be present at the dinner, or to read papers after, are requested to give notice to the Honorary Secretary.

W. M. Kelly, M.D., *Hon. Secretary.*

Taunton, September 4th, 1866.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT MEDICAL MEETINGS.

The next meeting of this Branch will be held at the Pavilion Hotel, Folkestone, on Thursday, September 27th, at 3 P.M.

Members desiring to bring forward papers, should communicate with the Honorary Secretary without delay.

R. L. Bowles, L.R.C.P., *Honorary Secretary.*

Folkestone, September 4th, 1866.

SOUTH EASTERN BRANCH: WEST KENT DISTRICT MEETINGS.

The next meeting is appointed to be held at St. Bartholomew's Hospital, Rochester, on Friday, Sept. 28th, at 3.30 P.M. Dr. Burns will take the chair.

Dinner will be provided at the Bull Hotel, Rochester, at 5.30 P.M.

Papers promised (if there be time for the reading): On the acquired Blood-relationship of the Wife to her Husband.—Chorea: fatal, with Heart and Brain Complications. By Dr. S. Monckton.

Frederick J. Brown, M.D., *Hon. Sec.*

Rochester, September 10th, 1866.

SHROPSHIRE ETHICAL BRANCH.

The next annual meeting of the above Branch will be held at the Raven Hotel, Shrewsbury, on Monday, October 1st, at 1 P.M.

Dinner at 3.30 P.M. Dr. W. Slyman, of Newtown, in the chair.

Members intending to read papers, or to be present at the dinner, are requested to communicate with the Honorary Secretaries without delay.

Jukes Styrap, L.K.Q.C.P. } *Hon.*
Edwyn Andrew, M.D. } *Secs.*

Shrewsbury, September 11th, 1866.

Correspondence.

THE MEDICAL PROVIDENT SOCIETY.

Letter from A. B. Steele, Esq.

Sir,—As the discussion on this subject has been reopened in your columns, I desire to express my opinion that the Vice-President, Mr. Clay, has fallen into an error when he speaks of the greatly preponderating number of associates who cannot agree with him as "a few outside grumblers", and when he attempts to throw ridicule upon the expression of their honest convictions as the "threats of a small band of discontented members, ... who, right or wrong, had predetermined to demolish the Society." Although I fully accept the responsibility of having, to the best of my ability, opposed the connexion between the Society and the Association, I repel any attempt to impute less worthy motives than the promotion (according to my own conscientious belief) of the best interests of my professional brethren.

If Mr. Clay and his friends are still of opinion that a Medical Provident Society is desirable, the matter might readily be put to the test by appealing to the profession at large, in such a manner as to ascertain the probable number of individuals who would give their support to such an institution—a step which need not involve any great expense. A much wider and probably a more favourable field for the experiment would be found outside the British Medical Association. The attempt has twice failed within its limits; and in fact, as we are told on the authority of Dr. Richardson, the scheme has been incubating there for many years—sufficiently long, we may presume, to prove the utter improbability of its ever reaching a practical development in that quarter.

The determined and uncompromising opposition which I have maintained to this Society is founded upon a conscientious conviction, that it is calculated only to bring grievous disappointment and serious loss to all who may become dependent upon it. No motive of less power would have compelled me to take a prominent part in opposing a movement which has brought out in such strong relief the disinterested philanthropy of a noble band of associates, who have so freely given both time and money in furtherance of a scheme which they believed (however erroneously) would prove a boon to their less fortunate medical brethren. I honour their high-minded benevolence; and I feel sure they will not misunderstand my sincere and earnest desire, in my own humble way, to protect my professional brethren from threatened disaster, although they may fail to recognise the soundness of my judgment, or however widely they may differ from me in their views upon this question. I am, etc. A. B. Steele.

Liverpool, September 8th, 1866.

Letter from Joseph Stephens, M.D.

Sir,—I join most heartily with Mr. Clay and others in protesting against the dissolution of the Medical Provident Society. I do so as one of the thirty-five contributing members; and I hope that the remaining thirty-four will join, "one and all," in entering a similar protest. If they will so join, I trust it is not yet too late to discomfit the *few* enemies of the Society arranged under the banner of Mr. Steele.

It has for a very long time been felt by a large number of the profession that some society was needed to afford mutual help and comfort when sickness and disease attacked those dependent on their daily labour for their daily bread; and, unfortunately, I shall not be guilty of exaggeration when I say that there is a very large number indeed of the members of the medical profession who may thus be categorised. When sickness attacks persons so circumstanced, pecuniary distress must be the immediate result; and a cankering care, most inimical to recovery, must be the inevitable concomitant.

Dr. Richardson said at Chester the other day, that Mr. Steele had been successful in his opposition to the Medical Provident Society by his "touching the pride of the profession"; but, if men who can but barely live by their profession when in health are too proud too assure against loss of the means of living caused by sickness, their "pride" can be only that which "goeth before destruction". I consider that, in such a case, the shame falls on the man who does not assure. To assure against sickness is no more disgraceful in any case, *whether of the rich or poor*, than it is disgraceful to assure one's life, or to assure against accident or fire. The principle is the same. In each case, a number of persons pay into a common fund for the common benefit; and there is no more disgrace in receiving benefit from such common fund in sickness, than there is in a similar participation on the part of one's family or oneself in case of death, or accident, or the burning of one's house.

There are, again, many members of the profession who are not absolutely living from hand to mouth, but to whom, in sickness, the additional cost of an assistant, to keep their practices together, would be a grievous burden. In such cases, the weekly receipt of an amount equal to the assistant's salary would obviate sudden and undue pressure.

And, lastly, as regards our more fortunate *confrères* who think themselves removed from danger of pecuniary difficulty, I would say that, as they know they have passed through preliminary stages during which prolonged sickness might have caused shipwreck, let them set a good example, and show a fellow-feeling to their younger brethren who have not yet threaded the narrow strait which leads to fortune, and let them enrol themselves in a Society which has for its object mutual help and comfort in time of need, and which seeks to give a practical expression to the precept, "Thou shalt love thy neighbour as thyself."

But Mr. Steele would say, "If such a Society be desirable in itself, its objects are extraneous to the purposes of the British Medical Association; and it is not right that such a parasite should be allowed to grow on the parent trunk." I deny that it is a parasite. It is the legitimate offspring of the Association; and I assert that it is the most creditable child to which the Association has yet given birth. Dr. Richardson showed, at the last meeting of the Association, that the question of the formation of a Provident Society in connexion with the Association had been on the *tapis* for more than thirty years. After careful and full consideration—after, I may say, a gestation extending over more than thirty years, the Association gave birth to, and formally acknowledged, the Provident Society; but now, after thirty-five men have joined as contributing members, and many others, in the spirit of "love thy neighbour as thyself", have formed a magnificent auxiliary fund, Mr. Steele comes forward and places his *veto* on the whole affair! He repudiates the Society; and says that, whereas he has had nothing to do with the procreation or conception thereof, it is not the legitimate offspring of the Association. Is then, Mr. Steele the British Medical Asso-

ciation? I do say, sir, that it will be disgraceful to the Association, if it turns round now at the dictation of Mr. Steele, and repudiates its offspring; and it will be most pusillanimous on the part of the Directors, if they submit to such dictation and take any steps to wind up the Society.

In any case, even if the British Medical Association finally determines on securing a connexion *honourable to both*, the parent need not strangle the child. The Medical Provident Society is, in my opinion, able to run alone even now. The dictum of Mr. Tidd Pratt as to two hundred members being required for safety does not apply to a Society possessing an auxiliary fund. If there were no fund, and the members were few, a sick member or two might swamp a Society; but with some £800 in hand, and an income of £100 a year or more from thirty-five contributing members, whose contributions are, on the best authority, ample, there must be an unparalleled, nay, I venture to say, an impossible amount of sickness, ever to bring such a Society into jeopardy. What is the experience of other societies? I have now before me the Annual Report of the Sussex Medical Friendly Society. This Society has been in existence since 1857, and from that time till 1864 no member thereof claimed assistance; and, although the contribution is only a guinea *per annum*, the accumulated fund has reached the respectable sum of £321 : 4 : 11. This Society has twenty-seven members, and amongst them are some of the leading medical men of the county, who evidently are not too "proud" to belong to a Medical Provident Society. If, then, the Sussex Medical Friendly Society, with twenty-seven members and no auxiliary fund, has so little sickness, and lays up money against the time of need, why is the Medical Provident Society, with thirty-five members to start with, and an auxiliary or accumulated fund of £800, to come to grief in the summary manner predicted by Mr. Steele? I dispute Mr. Steele's prognosis altogether; and I believe that the Medical Provident Society, if it is not strangled in its infancy, has in it the germs of such vitality as will make its duration coeval with the existence of the medical profession as a recognised body in this country. It may be, that the rules of the Society are susceptible of improvement in matters of detail; but the organisation of the Society is essentially healthy, and will become constantly more vigorous with development.

I protest, then, sir, in the first place, against the severance of the Medical Provident Society from its parent, the British Medical Association; and, in the second place, against the dissolution of that Society, should such severance be accomplished.

I am, etc., JOSEPH STEPHENS.

5, Pavilion Parade, Brighton, September 10th, 1866.

THE ANNUAL MEETINGS OF THE ASSOCIATION.

LETTER FROM E. J. TILT, M.D.

SIR,—I quite agree with Dr. Skinner respecting the management of the scientific part of the British Medical Association during its annual meetings; and suggest that it would be easy so to arrange matters that both the readers of papers and the listeners might be much better pleased. Doubtless anything should be done to facilitate the discussion of papers; for, if there be no discussion, the papers might be as well published in the JOURNAL without having been publicly read. At Chester, the papers were above the average value; but there was a lamentable failure of discussion, owing to several causes that I shall enumerate.

1. It was quite impossible to know when a paper would be read, because the reading of papers was preceded by the general business of the Association. The general business of the Association should therefore be separated from the scientific. Let it be taken during the first day or the last, but do not let it be mixed up with the reading of papers.

2. I would submit that the papers should be really papers. Dr. Sibson read us some very interesting extracts from a valuable work on Hospital Statistics, uniting these extracts in a pleasant extemporary manner. It was a charming exercitation, but not a paper, and as this took more time than could be spared, there was no discussion. Dr. Stewart's paper was the first on the list for the second day; but, somehow or other, it did not reach him till late; so it was read late, and there was little discussion on the most important question of the present day, the advisability of returning to the treatment of disease by the old method of expectation. This cause of unpunctuality would be avoided, by enacting that all papers should be sent to the General Secretary a week before the annual meeting, which is the custom of most societies.

3. The time for reading papers at the annual gathering is so limited, that, with deference to Dr. Skinner, I think it would be better to send to medical societies such subjects of discussion as cannot be condensed into what it will take fifteen minutes to read; and while I do not think it would be worth while to listen to most of us for more than five minutes, it might be optional for the President to extend the time, if the treasures of long accumulated wisdom were flowing from the lips of a man like Dr. Stokes.

As a social gathering, the Chester meeting was a great success, and such meetings cannot fail to promote brotherly love and increase the *esprit de corps* of the profession. The great cordiality of our Chester brethren, the sumptuous hospitalities of the President and of the excellent Local Secretary evidently succeeded in imparting happiness; for there was such a decided holiday expression on every medical face, that I firmly resolved to attend the next annual meeting of the Association. Trusting that I shall there find that some of my suggestions have been thought worthy of adoption. I am, etc.,

E. J. TILT.

Grosvenor Street, September 1866.

ON LOOSE CARTILAGES IN THE JOINT.

LETTER FROM HENRY DICK, M.D.

SIR,—Mr. Christopher Heath made some observations on my paper on Loose Cartilages in the Joint, read before the British Medical Association at Chester, which I think right to answer, to prevent error. I value very much Mr. Heath's opinion about the ingenuity of the instrument; but I cannot admit that the joint would be torn, or that the foreign body is difficult to catch; neither will the incision be too large, nor will air be admitted.

It is impossible to tear the joint, because the outside edges of the blades of the instrument are both cutting; so that, if the joint-incision should be too small, the opened blades would certainly rather cut than tear. I found no difficulty in catching the foreign body with the instrument. In fact, the instrument is useful rather for large cartilages, than for small ones. As to admitting air, I distinctly stated in the paper how it can be avoided with certainty. Concerning the size of the instrument, when shut it is

of the usual size of the various knives used in the subcutaneous operations in joints, but when opened, and the foreign body in it, it would certainly make the skin-puncture very large; but I also pertinently insisted in the paper that, once arrived near the skin-puncture, certain rules must be observed to avoid Mr. Heath's objection. I am, etc.,

HENRY DICK.

London, August 28th, 1866.

THE TREATMENT OF RHEUMATIC FEVER.

LETTER FROM THOMAS LANGSTON, ESQ.

SIR,—After what we have read and heard about the natural course of disease, the uselessness of all medication, and the practice of some of our leading physicians, it is really quite a pleasure to hear from an associate the good news that something medical may be done, and that with advantage to the sufferer, in rheumatic fever.

No member of the profession has done more than Dr. Birkbeck Nevins to investigate and prove the relative value of the many drugs we possess. But somehow it seems fashionable to discard them in the treatment of disease, and that partly because many cannot see how they act. Is it not a fact beyond dispute, that the pathology of disease has been studied to the neglect of the treatment? Granted that no treatment can be conducted satisfactorily without an accurate pathology, it is still a fault to separate these studies, and one which can only result in the disgust of the patient and disappointment to ourselves.

I am convinced that we have around us remedies for the cure of many, if not of all, the diseases incident to humanity; but how to select and apply them seems a subject very much overlooked by our men of science in the profession.

I am ready to admit that the subject is a difficult one, and shrouded in obscurity; yet that is no reason why we should abandon it, but rather should be an incentive to us to work on and on, even though victory be distant. I have often thought how much might be done by a Therapeutical Society. Through it the profession might gain a vast amount of information on the subject. It is of little satisfaction to a patient suffering with acute rheumatism, to tell him that Nature will effect a cure in five weeks, and therefore he must bear the pain: our duty, as practitioners of the healing art, is to find out what will do good—what is the best remedy to shorten the duration of the disease.

I have used repeatedly iodide of potassium and quinine in acute rheumatism, with great advantage, and quite endorse Dr. Nevins's statements. I find cardiac complications rare with this treatment, and recovery more speedy than by any other plan. I have not tried the do-nothing treatment—a course of practice as bad as that of our forefathers, who dosed and bled and starved their patients. I have no doubt that the hypodermic method, originated by Mr. C. Hunter, would be found useful, and perhaps the best eventually. I am, etc.,

THOMAS LANGSTON, L.R.C.P.Edin.

Broadway, Westminster, September 12th, 1866.

DR. RICORD, Member of the Academy of Medicine, etc., has been nominated Officer of Public Instruction.

PROFESSOR MATTEUCCI. The Academy of the Ten, a scientific society existing in Italy since the last century, has unanimously elected Professor Matteucci to be its president.

Medical News.

APPOINTMENTS.

INDIAN ARMY.

ADEY, Assistant-Surgeon A. W. G., to be Surgeon Bombay Army.
BAILLIE, Surgeon G., M.D., to be Surgeon-Major Madras Army.
BAILLIE, Surgeon H., M.D., to be Surgeon-Major Bengal Army.
BRUCE, Assistant-Surgeon L. S., to be Surgeon Bombay Army.
FLEMING, Surgeon J. B., M.D., to be Surgeon-Major Madras Army.
M'DONALD, Surgeon D., M.D., to be Surgeon-Major Bengal Army.
MACKENZIE, Surgeon D., to be Surgeon-Major Madras Army.
SHAW, Assistant-Surgeon H. T., to Surgeon Madras Army.
SYLVESTER, Surgeon C. J., to be Surgeon-Major Bombay Army.

ROYAL NAVY.

BEAMISH, Richard, Esq., Acting Assistant-Surgeon (additional), to the *Victory*.
CROWDY, Alfred S., Esq., Acting Assistant-Surgeon, to the *Royal Adelaide*.
WILSON, Thomas G., Esq., Surgeon, to the *Basilisk*.

VOLUNTEERS, (A.V.=Artillery Volunteers; R.V.=Rifle Volunteers):—

TAYLOR, F. A., Esq., to be Honorary Assistant-Surgeon 11th Hants R.V.

BIRTHS.

LATHAM. On September 14th, at Cambridge, the wife of *P. W. Latham, M.D., of a daughter.

MARRIAGE.

BAKER, Major Robert John, Madras Staff Corps, to Louisa Edith, second daughter of W. Harcourt Ranking, M.D., late of Norwich, at Oatocamund, India, on July 14.

DEATHS.

GILLARD. On September 6th, at Hovingham, near York, aged 40, Sarah, the wife of *Richard Gillard, Esq.
NIVEN. On September 12th, at Monkstown, County Dublin, Isabella, wife of William Niven, M.D., H.M.'s Indian Medical Service, Bombay.
*NIXON, Daniel, Esq., at Stony Stratford, aged 64, on August 19.

CHOLERA AT WIGAN. A sudden outburst of the prevailing epidemic has taken place at Wigan.

INSPECTOR-GENERAL JOSEPH SKEY, M.D., on the half-pay list, and late physician to the forces, died at Baker Street, Portman Square, on the 18th inst., in his 94th year. His commissions bore date as assistant-inspector or physician, July 18th, 1805; brevet deputy inspector, December 11th, 1823; deputy-inspector-general, October 26th, 1826; and inspector-general, February 15th, 1839. He was for many years stationed at Quebec.

MURDER OF A PHYSICIAN BY A LUNATIC. Dr. Greenup, formerly of Salisbury, for the last fourteen years superintendent of the Parramatta (New South Wales) Lunatic Asylum, holding also the offices of medical adviser to the government and examiner of Sydney University, has been stabbed by one of the patients in the asylum, and died in two days after much suffering. His last words were "No one is to blame for it." He fell a victim to his humane disposition, which led him to be too trustful even of men confined in the criminal division of the asylum. (*Sydney Morning Herald.*)

THE POISONOUS WATERS OF THE EAST END. An inquest has been held at Poplar on the body of John Davies. He drank some water from a pump, notwithstanding a man told him the water would poison him. Shortly afterwards he was seized with violent cramps, and on the next day he died from cholera. Some of the water from the pump was sent by order of the coroner to Dr. Letheby for analysation. The following is the professor's report. "The water contains

61.5 grains of saline matter per imperial gallon, besides 2.8 grains of organic matter, and much ammonia. The saline matter as well as the organic are chiefly derived from surface drainage, and the presence of ammonia indicates percolation from a sewer or cesspool. The water is quite unfit for drinking purposes, and from the nature of the pollution is very like to have occasioned choleraic disease, especially if drunk without previous boiling." The jury returned a verdict, that the diseased died from choleraic disease, occasioned by drinking polluted water drawn from a certain pump, and they recommended that the attention of the proper authorities should be drawn to the danger of leaving such a dangerous source of disease accessible to the public.

Biology. In his address to the Section of Biology at the recent meeting of the British Association, Professor Huxley said that he wished to consider for a short time the object of the science indicated by the new term Biology, and the scope of those persons who pursue it, and subsequently the position which had been given to its various branches in this Section of the Association. Suppose him to be provided with an egg and a bean, he would draw the attention of his listeners to their contents. Neither of them contains anything but an incomplete rudimentary foreshadowing of what they will produce. Imagine the egg incubated, or the seed placed in the ground. After a time, a being full of life and activity, and possessing even mental powers, will come from the egg; the chick will become a fowl. So, too, the bean will become a beanstalk. In the whole set of changes undergone there is a definite order and succession of forms, to which the name Development is applied. In studying each stage of this development, we only study a series of distinct *forms*. It is only form which is studied in development. The inquirer does not ask how or why these changes take place, but simply what they may be. When our chick or bean has arrived at maturity we have not a homogeneous mass. There are muscles and bones in the one and fibres and tissues in the other. The study of the form of the internal parts is called Anatomy, and it is anatomy whether on a small or a large scale. The size does not affect the nature of the study; it is anatomy whether we deal with parts one inch or one-thousandth of an inch in diameter. He would lay particular stress on this, because some persons had a confused notion on the matter; microscopic anatomy, or histology, is anatomy. In all this we deal with *form*. So, in considering the relation of being to being, we observe that the *form* of an oak is more like that of a beanstalk than it is like a man's; again, a man is more like a monkey than he is like a crocodile. This study is that of Taxonomy, Classification, Systematic Zoology and Botany. *Form* has still another study, that of Distribution, not only in space, but in time. The life on our earth is not a thing of yesterday, but goes back so far into past ages that the record breaks off ere we find its first commencement. Palæontology is the biology of the past, and a fossil animal differs only in this regard from a stuffed one, that it has been dead ages instead of days. We have, then, Development, Anatomy, Classification, and Distribution, all relating to form, constituting Morphology; its methods are Observation, Classification, and Registration. The facts concerning form are questions of force: every form is force visible; a form at rest is a balance of forces; a form undergoing change is the predominance of one over others. How has form come about? how does it commence? how does it end? The question *why* belongs to Physiology in its broader sense. In a narrow sense it has been used only in regard to the properties of individuals, as we say the Physiology of Man. But there is another physiology, dealing with the causes of life, the foundations of which as a science have been laid by Mr. Darwin. Such is a view of the relations of the various branches of biological science. Two things are wrapped up in it; Form and Cause. The study of physiology requires great preparation; over the door of the physiological department might well be written, "Let no one enter here who is not a themist and a physicist". If there were such a thing as scientific education in our schools, we might keep our Biological section well together in one room; but as it is there is no chance for this. The stick won't beat dog, dog won't bite pig, and so the old woman can't get home. The university won't recognise natural science, and hence the public school won't teach it to the boys, and consequently all men are not versed in all the subjects of it. Hence the Council have provided a department for the medical physiologists, another for the students of ethnology, as a matter of convenience. The division is not philosophical, but it is expedient. We give off buds like an animal of low organisation, but, unlike this animal, we retain the power of reabsorbing those buds. Dr. Humphry, of Cambridge, attempted to defend his university from the charge of indifference to science. He considered physiology the very highest and noblest of the sciences, and thought it was wet-blanketed by the Association. He wished that a separate Section might be formed for it. Dr. H. Bennett, of Edinburgh, agreed with Professor Huxley, but wished for two equal sections of Morphology and Physiology. Sir J. Lubbock observed that the success of the Physiological subsection of former years had been like that of the broom-seller, who made a few brooms and stole the rest; the physiologists had got a few legitimate papers, and had stolen the rest from the morphological department.

Medical Education and the Education of Druggists. In delivering the introductory address in the Chemical Section at the recent meeting of the British Association for the Advancement of Science, the President, Dr. Bence Jones, made the following remarks:—"My predecessor, Professor Miller, last year told you that 'some years will no doubt elapse before science is admitted to take equal rank, as a means of education, with the study of classical literature. Still, it is but a question of time. The practical instinct of the nation is becoming alive to the necessity of making certain portions of the training of our youth consist in the systematic study of the elementary parts of properly selected branches of science.' Although we may say with Mr. Gladstone, that time is on our side, and although we are beginning to ask how our present formula for education has arisen, and why it remains almost unchanged while all natural knowledge is advancing, and although an entire change in everything except the highest education has taken place, yet public opinion is affected so slowly, and the prejudices of our earliest years fix themselves so firmly in our minds, and the belief we inherit is so strong that an education far inferior to that which a Greek or a Roman youth say twenty centuries ago would have received is the only education fit to make an English gentleman, that I consider it is of no use, notwithstanding the power which this Association can bring to bear on the public, to occupy your time with the whole of this vast question. But there is an outlying portion of this subject which personally touches each one of us here present; and this, with much diffidence, I venture to bring before this section of the British Association. I allude to the present

state of education in natural knowledge of that portion of the community who may at any moment be asked to tell any of us here present what mechanical means should be used to lessen or increase the mechanical actions of the body, and what chemical substances should be taken to lessen or increase the different chemical actions within us when they rise or fall to such a degree as to constitute disease." Dr. Bence Jones, having described the present peculiar characteristics of medical education, proceeded to observe: "At present, so far from physicians possessing more knowledge of food and of medicine than any other class of persons in the community, the analytical and pharmaceutical chemists are rapidly increasing in knowledge, which will enable them not only to understand fully the nature and uses of food and medicine, but even to detect the first appearances of a multitude of chemical diseases. Their habits of investigation, and their knowledge of the nature of the forces acting in the body, will gradually lead them to become advisers in all questions regarding the health of the community; and from this they will, like M. Bouchardat in Paris, become almost, if not altogether, practitioners of medicine. No doubt chemists are very far from being medical practitioners at present; but remember that there is no limit to natural knowledge, and that each moment the chemical knowledge of things around us is progressing, and that chemists are becoming able better to answer every question that can arise regarding the air, water, food, drink, and medicine which by means of forces that exist in them act upon the forces within us, and give rise to the phenomena of health and of disease; while, as if to lessen the time that might be devoted to acquiring natural knowledge, the authorities who regulate medical education, only this last spring, have determined that, in addition to Latin, every medical man shall possess a competent knowledge of Greek, in order that the derivation of hard words may be obtained from the brain instead of a dictionary. In confirmation of my opinion of the direction in which the treatment of disease is progressing, I may just refer to the cattle-plague, which in 1745 was treated by Dr. Mortimer, at that time secretary of the Royal Society, and therefore one of the most scientific physicians in the country, with antimony and bleeding. In 1866, two chemists, Dr. Angus Smith, Ph.D., F.R.S., and Mr. Crookes, F.R.S., gave the only useful suggestion for combating the disease—namely, by the arrest or the destruction of the poison by chemical agents. There is yet another point of view in which chemists will see the harm that results from our present medical education. The use of Latin in our prescriptions requires that the pharmaceutists should learn at least sufficient Latin to read what we have written. Many errors have arisen, and will arise, from the dispenser being unable to give the directions rightly. To avoid such mistakes, a portion of the time that ought to be given to the attainment of the highest possible amount of chemical acquirement, and a perfect knowledge of the English language, or some foreign language wherein he might learn the discoveries in chemistry and the improvements in pharmacy of other countries, must be devoted to the learning of Latin, in which the physician writes his directions. All our druggists in England ought to be what they are in Germany and in France—chemists capable of any analysis that might be required of them, and able to satisfy themselves and the medical men that the substances they sell are what they profess to be—pure, unadulterated chemical compounds.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....Metropolitan Free, 2 P.M.—St. Mark's for Fistula and other Diseases of the Rectum, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TUESDAY. .... Guy's, 1½ P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.

WEDNESDAY... St. Mary's, 1 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.

THURSDAY.....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Great Northern, 2 P.M.—London Surgical Home, 2 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.

FRIDAY..... Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

SATURDAY..... St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1·30 P.M.—Charing Cross, 2 P.M.—Lock, Clinical Demonstration and Operations, 1 P.M.—Royal Free, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TO CORRESPONDENTS.

*** *All letters and communications for the* JOURNAL, *to be addressed to the* EDITOR, 37, *Great Queen St., Lincoln's Inn Fields, W.C.*

COMMUNICATIONS.—To prevent a not uncommon misconception, we beg to inform our correspondents that, as a rule, all communications which are not returned to their authors, are retained for publication.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

FAIR PLAY solicits the opinion of the Editor in the following case, in the answers to correspondents.

A. and B. are medical men practising in a country town. They are on friendly terms. A. has attended at The Hall for twenty years. B. is aware of it. A. at the present time is attending a member of the family, and his visits have been paid daily. He calls one morning; and, in conversation, the husband of the lady patient expresses a desire for a further opinion. A. suggests Dr. — of D—; and the husband agrees to telegraph to Dr. —; and, on receiving his answer, to send his carriage to the station to meet him, pick up A. on the way, and bring them up together. The same afternoon, between two and three o'clock, the husband goes to the town, inquires for B.'s residence, calls upon him, and requests him to attend his wife. B. goes, and takes the case; and the same evening, about six o'clock, A. receives a distant note from the husband, stating, "that his attendance will not be further required, as he has found it to be desirable to place his wife in other hands." A. takes no further notice of the case. B. continues his attendance, but does not call upon A., or offer any explanation by letter or otherwise afterwards.

The question is: Is B.'s conduct, knowing, as he did, that they were A.'s patients, and that "A." was in immediate attendance upon the case, professionally correct or otherwise? Is B., by acting thus, guilty of a breach of professional etiquette or not?

[Our correspondent will admit the right of a patient, or a patient's friends, to change his or her medical attendant. This being granted, and the correctness of A.'s narrative being assumed, if the lady's husband in the case described thought proper to substitute B. for A., as her medical attendant, and if B. was distinctly informed that A. was no longer in charge of the case, we cannot see that B. was guilty of unprofessional conduct. It would, however, have been an act of courtesy on B.'s part to communicate with A., and satisfy him that the patient had come under his (B.'s) care through the mere desire of her friends. EDITOR.]

COMMUNICATIONS have been received from:—Dr. FREDERICK J. BROWN; Mr. R. GILLARD; Dr. G. H. PHILIPSON; Dr. EDWYN ANDREW; Dr. WHITTON; Dr. WOAKES; Dr. G. B. MEAD; Mr. H. J. ALFORD; Dr. EADE; Dr. WARDELL; Dr. J. S. WARTER; and Dr. JAMES RUSSELL.

BOOKS RECEIVED.

1. On Vitality. By the Rev. H. H. Higgins, M.A. Liverpool: 1866.
2. Lady Nurses for the Sick Poor in the London Workhouses. London: 1866.
3. Report of the City of Glasgow Fever Hospital. By Dr. J. B. Russell. Glasgow: 1866.

THE

Jacksonian Prize Essay

FOR 1865.

ON DISEASED CONDITIONS OF THE KNEE-JOINT

WHICH REQUIRE AMPUTATION OF THE LIMB, AND THOSE CONDITIONS WHICH ARE FAVOURABLE FOR EXCISION OF THE JOINT; WITH AN EXPLANATION OF THE RELATIVE ADVANTAGES OF BOTH OPERATIONS, AS FAR AS CAN BE ASCERTAINED BY CASES PROPERLY AUTHENTICATED.

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Section II.—Morbid Conditions of the Knee-Joint.

Affections of the Synovial Membrane.

It seems not to be within the scope of this essay to treat systematically of all the various morbid conditions connected with the knee-joint, but rather to single out for observation those more serious lesions which require the formidable procedure either of amputation through the thigh or excision of the joint. It is, however, impossible to perform this task without noticing some of those diseased conditions which, whilst in themselves not requiring either amputation or excision, yet may progressively lead on to such a thorough disintegration of joint-material as to necessitate either the one or the other of these modes of relief.

Observing the order of frequency in which the different tissues of the knee-joint become involved in disease, it will be necessary to consider first of all those morbid conditions which take their origin in the synovial membrane; nor, when we consider the structure and functions of this membrane in the knee-joint, its extent and exposed position, is it a matter of surprise that it should be peculiarly obnoxious to disease.

Acute Synovitis arises from a variety of causes, foremost amongst which may be mentioned violence to the joint, rheumatic poison, gonorrhœa, pyæmia; or it may arise spontaneously, without any known cause. However different may be these causes, yet the local condition to which they all give rise is nearly identical, and the course of the disease much the same. The advent of the attack is marked by great pain, heat, and swelling of the whole joint from the distension of the synovial sac with effusion. This swelling is principally found in front of the thigh under the quadriceps, on either side of the patella, and sometimes in the popliteal space, although I have never seen the latter; the knee assuming a semiflexed position, thereby giving the largest possible capacity to the synovial sac.* The constitutional symptoms are also well marked. The flushed and anxious countenance, dry skin, furred tongue, and rapid pulse, all point to a severe inflammatory process going on in a most important part of the body. If this state of things be allowed to progress, suppuration will commence; the skin becomes involved; shortly the matter points and bursts, opening the joint-cavity; profuse suppuration continues and increases; and pain and exhaustion soon destroy the patient. The pathological changes which take place in the synovial tissue itself during this period are well marked. The first effect of inflammation is increased vascularity of the subsynovial tissue, accompanied by increased secretion of synovia into the joint. There seems to be no evidence of an arrest of secretion in this earliest stage. The experiments of M. Richet go to prove that this is not the case; and he asserts that, having opened the joints of dogs, he observed hour by hour the secretion of synovia taking place. The increased vascularity of the membrane is particularly marked in its vascular processes (ligamenta mucosum et alaria). At a later period, shreds of lymph are found floating in the secreted fluid; and sometimes, if the effusion be very rapid, it is tinged with blood. As the disease progresses, the inner surface of the membrane is covered with a substance resembling granulations, giving rise to villous or fringed processes; and at the same time it becomes thickened externally, and a deposit of yellow serum takes place beyond it. The fluid effused into the joint becomes turbid; pus is formed, at first in small quantities; but in time the fluid becomes pure pus. At this period, and rarely before, the cartilages become involved; they lose their polish, and spots of ulceration commence. Sometimes these ulcers are large, with defined sharp edges; sometimes they present a worm-eaten appearance. Soon the bone is laid bare; the absorption of cartilage progresses more rapidly, until frequently the entire surfaces of the femur and tibia are denuded. It is astonishing how soon after the first advent of inflammation destruction of cartilages sometimes commences. Barwell quotes a case in which he examined the knee-joint of a patient who died on the fourth day of the attack, when an ulcer of the size of a sixpence was found on the inner condyle of the femur. The osseous structure becomes involved, and caries sets in; abscesses form all around the joints; the ligaments become softened and relaxed; and nothing short of the removal of the disease by a capital operation can rescue the patient. In this statement, as in others of a like character, I must not be understood to preclude the possibility of cure. In acute suppuration of the knee-joint, especially after injury, free incisions into the joint, to evacuate the pus, will give a very fair chance of anchylosis. This practice is, I fancy, fallen into too much disuse in the present day.

Subacute Synovitis. This affection is of all others the most common to the knee-joint. It is less intense, and accompanied by far less serious constitutional derangements, and of course with far less serious consequences, than the acute form. It is occasioned by general causes or local injury, and commonly yields rapidly to appropriate treatment. It commences with pain in the joint, and swelling soon comes on, bulging out the synovial sac; the joint assuming the semiflexed position. If unchecked, this disease either runs into the chronic variety, becoming then much more troublesome to cure, or else,

* A cast of a case of effusion into the knee-joint accompanied the essay.

especially in strumous subjects, gradually spreads to the other tissues of the joint, involving cartilage and bone, and eventually destroying the entire joint.

Chronic Synovitis. This form of disease is, perhaps, more difficult than either of the others correctly to diagnose; but it is of the utmost importance that the surgeon should form an exact estimate of the peculiar changes which may be slowly going on within the joint. Chronic synovitis, pure and simple, may be the result of either of the previous forms of synovial inflammation, or it may originate without any previous cause. If the latter be the case, it should arouse suspicion as to whether, as is often the case, it is not connected with a constitutional habit of body; it may be rheumatic, syphilitic,† or scrofulous. It may be one of a series of attacks of inflammation, each one leaving a joint, previously damaged by disease, in a worse condition than before. In any case, swelling from gradually secreted synovia, and a remarkable absence of pain or tenderness, are the prominent symptoms This absence of pain, as Price has well pointed out (Price on the *Knee-joint*, p. 16), is very deceptive, and likely to mislead the surgeon as to the severity of the case with which he is dealing. I have myself seen remarkable instances of this fact—cases where there has been an almost total absence of pain, and yet I have found the entire apparatus of the joint destroyed, and the ends of the femur and tibia extensively diseased. Considering this disease apart from all constitutional diathesis, its great danger arises when it recurs constantly. Once let a knee be subjected to a few attacks of chronic inflammation, and in all probability there will be a constant recurrence of the disease. The synovial membrane becomes over vascular and thickened, and granulations are developed upon it. The effused fluid becomes fibrinous; false membranes are formed, which rapidly become organised. The subsynovial tissue is thickened; the cartilages, and subsequently the bones themselves, become involved.

Gelatiniform Degeneration of Synovial Membrane. By some authors this disease is named strumous or scrofulous synovitis. Without denying that struma may be a predisposing cause to this peculiar pathological condition, and that the two are frequently found associated, yet I believe it is the experience of most surgeons that gelatiniform degeneration of the knee-joint may exist without any strumous diathesis in the patient; and Sir B. Brodie himself states, in many of the illustrative cases which he gives, that the patients were in other respects in good health. I am more inclined to look upon this peculiar disease as one distinct from strumous synovitis, which should rather be classed with those cases of chronic inflammatory conditions of the synovial membrane which we have been just considering. Brodie makes two statements which go very much to strengthen this opinion. First, he states that, although the disease progresses slowly, and remains for a long time in an indolent state, yet ultimately it has always terminated in the *destruction of the joint;* and, again, he goes on to say: "It is a remarkable circumstance, that this affection of the synovial membrane is rarely met with, *except in the knee.* I have never known an instance of it in the hip or shoulder." (Brodie, *On the Diseases of the Joints*, chap. iii, sec. 1.) Now, in neither case can we say this of that synovitis which is connected with the strumous diathesis.

I know of no better description of this disease than that given by Brodie himself, and which is quoted, or very closely followed, by all writers on the subject. He says that the synovial membrane "loses its natural organisation, and becomes converted into a thick pulpy substance, of a light brown, and sometimes of a reddish brown colour, intersected by white membranous lines. As the disease advances, it involves all the parts of which the joint is composed, producing ulceration of cartilages, caries of the bones, wasting of the ligaments, and abscesses in different places." (*Op. cit.*) Brodie classes this peculiar deposit with that of tubercle of the lungs, scirrhus of the breast, or the medullary sarcoma of the testicle. Barwell, however, who treats of the disease as strumous synovitis, considers that the pulpy substance is but a further development of those granulations which appear on the surface of synovial membrane as one of the results of chronic inflammation, contending that "the only real difference consists in the degree of development which the granulation undergoes." (Barwell, p. 106.) In addition, however, to the reasons above stated for considering this a distinct disease, there are others to be deduced, which, I think, satisfactorily prove this to be the case. Unlike that form of chronic synovitis which degenerates into or arises from strumous disease, this gelatiniform degeneration is more frequently to be found amongst adults. The swelling, which is the first symptom, is of a peculiar character. It does not convey the sense of fluctuation to the touch, which the ordinary effusions of synovial inflammation do; it is a swelling rather of a doughy, semi-elastic character. Nor does it assume the same form. It is more general and uniform; the bulging of serous effusion is absent; and the whole joint assumes a regular, globular shape. A difficult point of diagnosis may here arise. The successive layers of organised lymph deposited on the synovial membrane, and on the tissues surrounding the joint, by repeated attacks of chronic synovitis, may nearly obliterate the joint-cavity, and give to it very much the same shape and feel as that above described. The history of the case, if carefully collected, will, however, generally enable the surgeon to decide.

Another point of importance, which will assist in diagnosis, is the presence of pain. In my remarks on chronic synovitis, I particularly called attention to the frequent *absence* of pain. In pulpy degeneration, the presence of pain, not the jumping intermittent pain of diseased cartilage, but a constant, dull, heavy, gnawing pain, is the rule. Sir W. Fergusson has also noticed an important point; namely, that the elasticity resulting from the great thickening of the synovial membrane is such that, after pressing the bones together, they resume their former position. One other point, which I do not remember to have seen noticed, but which, I am sure, is characteristic of this disease, is this: that whereas, in chronic synovitis, the knee assumes the semiflexed position, owing, as before stated, to the distension of the synovial sac, and, if neglected, becomes stiffened in that position, in pulpy degeneration this is seldom or never

† The accompanying cast not only showed the distension of the synovial membrane from fluid, but was taken from a case in hospital for inherited syphilis, the patient having interstitial corneitis in both eyes and peg-top teeth. Both knees were affected. A very similar case is reported in the *Ophthalmic Hospital Reports*, vol. iv, page 299.

the case; and in many instances, even when the disease is in an advanced stage, there is considerable mobility about the joint.

The progress of this disease towards complete destruction of the joint is analogous to that before described as arising from acute or chronic inflammation. The cartilages become overlaid with the diseased tissue, soon begin to ulcerate, and finally altogether disappear. Pus is rapidly generated in the joint. The denuded bone soon becomes involved in the disease; sinuses penetrate the periarticular tissue, and lay open the joint; and the constitutional symptoms which accompany these processes compel the surgeon to have recourse to removal of the disease by operative procedure.*

Rheumatic Synovitis. Acute rheumatism is a disease which calls more especially for the physician's treatment. Its local manifestation in the knee-joint is, however, familiar to surgeons, and partakes more or less of those forms of acute or chronic synovitis which have already been considered. It is of rare occurrence for it to run on to total disintegration of the joint; but, as such instances do occur, it is right that we should notice the condition. At the commencement of the attack, a large quantity of synovia is secreted. This shortly becomes milky, and shreds of lymph are found floating on it. The synovial membrane becomes red and thickened, and eventually granular. The cartilages ulcerate, and undergo fibrous degeneration. The tissues round the joint are thickened by infiltration. At an advanced stage, crepitus can often be detected on moving the tibia on the femur. Sometimes, in gouty cases, the fluid in the joint contains gritty matter, consisting of urate of soda.

Traumatic Synovitis will be referred to when considering wounds and injuries of the joint.

Suppuration in the Knee-joint. This condition has been so frequently referred to as one of the results—the most fatal result, perhaps—of the various inflammations of synovial membrane, that I think it right at this point to refer to it more in detail. It is a matter of extreme difficulty to say whether the effusion in a joint be simple synovia, or whether it be pus. In fact, the mere touch cannot decide the question. The occurrence of a rigor, increased tenderness in the part, constant *throbbing* pain, a typhoid condition in the patient, all these, especially the first, will lead one gravely to suspect the advent of suppuration in the joint-cavity. If we have reason to think that pyæmic poisoning affects the patient, we can have little difficulty in concluding that pus has been secreted in the joint. The first advent of pus into the joint is a matter of some curiosity. It has been thought that, in the lesser inflammations, pus is never formed; and that, if the inflammatory process be severe enough to produce it, it is seldom absorbed. Dr. R. Volkmann (Langenbeck's *Archiv für Klinische Chirurgie*, vol. i, part ii, p. 408: Berlin, 1861), however, has stated as the result of his researches, that the thick lining of pavement epithelium on the inner surface of the capsular ligament, under the influence of catarrhal inflammation, secretes pus-cells; and he thus accounts for the turbidity of the effused fluid which is often found in synovial inflammation. He moreover asserts that this pus may disappear by disintegration of the pus-cells and absorption. If the deeper parenchymatous tissues be affected, then a severe form of inflammation is produced, and the secreted pus maintains a pyogenic state in the synovial membrane. The cartilages are very soon affected by ulceration; and the bone, denuded of its cartilages, in turn becomes diseased. If the pus be not evacuated by the surgeon, it will soon ulcerate through the synovial membrane, and, burrowing in various directions, open externally. In a case where Mr. Holt, of the Westminster Hospital, amputated a thigh, the pus had burst through the synovial membrane round the tendon of the popliteus muscle, and, finding its way beneath the expansion over it to the inner side of the tibia, pointed at the oblique line. I am not aware that this pathological condition has ever before been noticed; and I am indebted to Mr. Heath, of the Westminster Hospital, for having directed my atttention to it in the accompanying preparation of the knee-joint.

Diseases of the Articular Cartilage.

It is almost certain that disease never commences in the articular cartilage. Originating either in the synovial membrane or in the osseous structures, disease is communicated to the cartilages. It was the generally received notion—one propounded and supported by Sir B. Brodie—that active changes took place in the cartilages of joints by the intervention of vessels permeating their substance. The entire absence both of vessels and nerves has, however, been demonstrated; and this fact has led many into the error of supposing that inflammation cannot take place in articular cartilages. Virchow (*Archiv*) was the first to demonstrate the fact, that changes in cartilage were inflammatory. Goodsir and Redfern demonstrated the changes which took place in the cell-growths; and Barwell has entered minutely into the question in a paper, "On the Nutrition and Inflammation of Articular Cartilages". (*Med.-Chir. Rev.*, October 1859.) He divides ulceration of cartilage into inflammatory and degenerative; the latter being again divided into fatty and granular.

Inflammation of Cartilage consists in the rapid generation of cells from those previously existing. If the inflammation be acute, the hyaline substance is absorbed, and an ulcer results; the cells set free falling into the joint, and multiplying as pus-cells. If it be less active, the hyaline substance is converted into fibre.

In *Fatty Degeneration*, the corpuscles are filled with oil; and the hyaline substance becomes fibrous.

In *Granular Degeneration*, the hyaline substance again becomes fibrous, and the corpuscles present opaque spots on them, and ultimately shrivel up and form scales on the free edges.

In certain *Chronic conditions of Inflammation*, the cartilage-cells become *fibre*-cells, and form a sort of coarse areolar tissue. This tissue, meeting with the granulations on the synovial membrane, forms connections with it, and gives rise to false ankylosis. Mr. Aston Key, who asserted (*Med.-Chir. Trans.*) that cartilage became disintegrated by its contact with the fringed vascular processes of the synovial membrane, was evidently misled by these appearances. It is a condition most frequently found when the

* In the last edition of Sir Benjamin Brodie's works, I find the following modification of his views respecting this disease. "I formerly had been led to regard the disease as one which does not admit of a cure, and I still see no reason to doubt the correctness of this opinion respecting it in its more advanced stages. My later experience, however, leads me to think more favourably of it, if it be attended to at an earlier period."

disease commences in the synovial membrane. When, however, it arises in the osseous structure, as shown in the accompanying preparation of a knee-joint excised by Mr. Wood of King's College, the following process takes place. A portion of bone becomes inflamed, and over that spot degeneration and separation from the bone takes place, owing to the nutritive supply being cut off; the portion of cartilage being sometimes thrust into the joint-cavity. All round this spot inflammation is set up and eventually ulceration, and thus in a short time the whole joint becomes affected. The pain and starting of the limb which accompany ulcerations of the cartilage of the knee-joint, were at one time referred to the cartilage itself, but are now understood to arise from the exposure of the bony structure by the removal of the cartilage. Sir B. Brodie writes that he is "inclined to the opinion that the increased sensibility in these cases is in the bony plate beneath the cartilage rather than in the cartilage itself; and that the presence of severe pains, with involuntary startings of the limb, is always to be regarded as a sign of the bone partaking in the disease." We may be pretty sure that simple degeneration or ulceration of cartilage will in itself give little or no indication of its presence. When active symptoms show themselves, extensive mischief has already been done in the joints. If the disease have commenced in the bone, and involved the cartilages, we may expect severe symptoms rapidly to supervene; a condition which will be further noticed when treating of the diseased conditions of the osseous structures entering into the joint.

[*To be continued.*]

Statistics of Ireland. According to the quarterly return of the Registrar-General, the population of Ireland has decreased by 27,000 during three months of this year. The births registered during the quarter were 38,816, and the deaths 24,763; but the number of emigrants was 41,124, of which 24,331 were males. The births registered in the Dublin district during the week ending September 15th last year, were 189. The deaths registered were 181. Fifty-five deaths from cholera were registered, being three more than the number registered during the preceding week; in each of the six preceding weeks, the number of deaths registered from cholera was 2, 5, 13, 15, 41, and 52. Twelve deaths were referred to diarrhœa.

Death in the Mine. In the ten years ending December 1865, 849,615,952 tons of coal were raised from the mines of Great Britain. The number of coal-miners in 1861 was 282,473. There were 9,916 deaths by colliery accidents in the ten years: one-fifth of them from fire-damp explosions; two-fifths from falls of roof and coal; less than a fifth from shaft accidents; more than a fifth from miscellaneous causes in mines and at the surface. During five years (1856-60), 381,067,047 tons of coal were raised, and there were 5,089 deaths from accidents; in the next five years (1861-65), 468,548,905 tons of coal were raised, and if the deaths had increased in the like proportion they would have been 6,257, but they were only 4,827, a reduction of 22.9 per cent. in five years, or at the rate of 4.58 per cent. per annum in the ratio of deaths to the coal raised. Whatever may have been the cause, it is the fact that the reduction in the number of deaths to the quantity of coal raised has been greater since the passing of the Duplicate Shaft Act.

Addresses and Papers

READ AT

THE THIRTY-FOURTH ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION.

[*Held in CHESTER, AUGUST 7th, 8th, 9th, and 10th*, 1866.]

THE RESULTS ATTENDING THE REMOVAL OF THE FIRST GROWTH OF CANCER.

By John Birkett, Esq., Surgeon to Guy's Hospital.

In consultation with gentlemen practising in the provinces, I have been frequently told that they regard the operation of the removal of a breast affected with a growth of cancer to be useless. Some, indeed, have advanced the very decided opinion, that such an operation is attended with the worst results, and that in their experience the proceeding had rather hastened the final catastrophe, without mitigating the sufferings of their patient. These opinions prevail very generally. Doubtless, they are founded upon experience; but an experience of a very limited kind, and of a nature to produce a very strong impression upon the memory.

Taking advantage, then, of the opportunity which an assembly of this kind offers for the discussion of the subject, I propose to relate the results attending the removal of the first growth of cancer from patients who have been, all of them, under my own personal observation for longer or shorter periods.

I propose, therefore, in this communication to state, as concisely as possible, the results which have followed the operation of excision of the entire mammary gland, or of a part of it, when involved with a cancerous growth. And I am obliged to do this without taking into consideration many collateral circumstances of very great importance; such as the condition of the integuments, of the axillary lymphatic glands, the duration of the growth, the progress made by the disease in each individual case, the variety of the disease, and other points. The above, singly or collectively, exert much influence on the result; but it would occupy too much time to enter upon these important details at this meeting.

I trust, however, to be able to give a satisfactory answer to the question, What advantage does a patient obtain by submitting to the removal of a cancerous tumour?

The facts upon which to base a reply to this inquiry are derived from the investigation of a hundred and fifty cases carefully recorded by myself; and, although I have not always performed the operation, I have seen the patient and examined the growth after its removal. A majority of the patients are dead; for it should be borne in mind that this collection of cases was commenced eighteen years since, and that not a little difficulty arises in being able to follow out patients who survive several years.

Also, it must be stated that I have not made any selection of the cases with the view to uphold or support any particular statement. The sufferers who succumbed to the disease were placed in the order in which death occurred, and therefore some allowance should be made in those cases in which death ensued

very rapidly after the development of the disease, appearing on the tables in greater numbers than those which survived the same thing many years.

The above consideration, as well as others, render what are termed statistical tables, and deductions therefrom by means of averages, most fallacious guides to treatment.

Table A is arranged to show the length of time during which 150 patients were free from any indications of the local recurrence of the disease after the removal of the first growth.

A.—*Table showing the Length of Time during which 150 Patients were Free from Indications of the Local Recurrence of the Disease after operation.*

	Cases.
Before the expiration of the first year	87
Between expiration of first year and close of second.....	15
Between second and third.....	7
,, third and fourth.....	7
,, fifth and sixth	5
,, sixth and seventh	2
,, seventh and eighth	1
,, eighth and ninth	3
,, ninth and tenth	1
,, tenth and eleventh.....	3
,, fourteen and fifteenth	1
,, fifteenth and sixteenth	1
Sixteen years	2
Patients died free from local disease in part first affected (see table).....	15
	150

Before the expiration of the first year, eighty-seven patients showed signs of a new development of the growth, either in the portion of the mammary gland not removed, the integuments in the neighbourhood of the cicatrix, in that structure itself, or in the axillary lymphatic glands.

After the expiration of the first year, and before the conclusion of the second, fifteen patients showed that a cancerous growth was again developed in one or other of the regions above mentioned.

Now, this large proportion of the cases in which recurrence occurred, might be taken as a significant fact to demonstrate that the cases submitted to operation were badly selected; that, indeed, an operation was scarcely justifiable. But, in many of the cases, the operation was undertaken in the hope of removing a source of great local pain and mental distress; of alleviating the misery and to abate the annoyance attending an ulcerated and sloughing surface, and at the earnest solicitation of the sufferer.

In some, I confess, little, if any, advantages were gained. In others, although life was not prolonged by many months, the existence of the individual was rendered more tolerable, since the attendant circumstances before described were sometimes absent. Life was decidedly prolonged in a few cases, in which it was rapidly ebbing in consequence of repeated hæmorrhages and deeply sloughing masses.

Further, we may be allowed to suggest that many of the cases in this category might have been operated upon at a much earlier period after the discovery of the first growth, and with every probability of a happier result. But, in hospital cases, and a large majority were of that class, it too often happens that patients apply to such institutions as a last resource only.

We may now turn to a somewhat brighter picture. To be free from such a disease as cancer for periods of time extending between three and sixteen years, is a fact surely sufficient to justify almost any means to accomplish such a desirable end. The risk to life attending the operation is not great, and now much of the horror of such a proceeding is mitigated by the employment of anæsthetics.

In the wards of a hospital, even where the chances against the recovery of the patient are greater than in private practice, I calculate the death-rate at only seven per cent. During the last seventeen years, two hundred patients have been operated upon by my colleagues and myself in Guy's Hospital. Either the whole or a portion of the breast-gland was removed on account of a carcinomatous growth. All of these recovered from the effects of the operation, with the exception of fourteen, who survived it between three and thirty-six days only. It must be admitted that the operation was more or less the exciting cause of the disease which terminated life. These fatal diseases were erysipelas, followed by bronchitis; inflammation of the pleura, terminating in effusion; pyæmia; hæmoptysis; and vomiting. In fact, the too common causes of fatal complications after operations upon the poorer classes, inhabitants of large cities.

But in private cases the mortality is so trifling that, admitting the risk to which every person submits who undergoes any operation, I am inclined to calculate it at not more than three or four per cent. I have lost only one patient, of forty-one cases operated upon for cancer.

To proceed with the remaining cases. Of the patients, thirty-three in number, who survived the operation without any local recurrence of the cancer for periods varying between two and sixteen years, assuredly many of them must have died of the complaint within those periods; and all of them would certainly have been compelled to endure the mental anguish, if not the local suffering, accompanying the existence of this terrible malady, assuming that they had survived equal periods.

Lastly, fifteen of the patients died without showing external signs of recurrence of cancer in the region first effected.

B.—*Cases in which the Cancer did not Re-appear in the part first affected with that growth.*

Case.	Survived operation.	Cause of Death.	Condition of local disease at operation.
1	6 months	Hepatic disease	Integuments infiltrated
2	10 months	Thoracic disease	In same condition
3	11 months	Hepatic disease	As above
4	13 months	Carcinoma in calvaria	Mammary gland only infiltrated
5	15 months	Disease of ovary	As above
6	2 years	Cerebral disease	Integuments infiltrated
7	2 yrs. and 2 mos.	Hepatic disease	Integuments infiltrated and ulcerated
8	3 years	Thoracic disease	Mammary gland infiltrated only
9	4 yrs. and 3 mos.	Cerebral disease	Same as above
10	6 years	Thoracic disease	Integuments infiltrated
11	6 years	Cerebral disease	Integuments infiltrated and ulcerated
12	6 yrs. and 6 mos.	Exhaustion	Mammary gland infiltrated
13	6 yrs. and 8 mos.	Thoracic disease	Integuments infiltrated
14	10 yrs. and 6 mos.	Cachexia	Integuments ulcerated
15	11 years	Cachexia	Mammary gland infiltrated

The Table B shows the length of time each individual survived the operation. This was between six months, the shortest time, and eleven years, the longest. In another column is stated the cause of death in each case, which was the development of cancerous growths in the viscera of either the cranium, the thorax, or abdomen, as determined by well marked indications during life or by *post mortem* examinations.

I have introduced, on the same table, as brief a

description as possible of the condition of the local disease at the time of the operation; and it should be noted that it had made considerable progress in some of them. The integuments were infiltrated with cancer; in some ulceration of the surface existed. Under these conditions, we are justified in assuming that some of the patients would speedily have fallen victims to the ravages of the complaint, and that all must have endured more or less of the suffering accompanying its progressive stages.

By the removal of the growth, these fifteen patients were exempt from the misery inseparable from the activity of the local disease.

Let us next inquire if the life of individuals afflicted with cancer of the breast is prolonged by the removal of the part first involved by the disease.

c.—*Table to show the Number of Years 150 Patients survived the Discovery of the Disease after the Removal of the First Growth.*

Under 1 year	8	Above 10 years	2
Above 1 „	24	„ 11 „	2
„ 2 years	38	„ 12 „	1
„ 3 „	17	„ 13 „	1
„ 4 „	21	„ 14 „	2
„ 5 „	7	„ 15 „	1
„ 6 „	5	About 23 „	1
„ 7 „	10	„ 29 „	1
„ 8 „	4	„ 32 „	1
„ 9 „	4		

I have arranged Table c to show the number of years one hundred and fifty patients survived the discovery of the disease after the removal of the first growth. Rather more than one-half died before the expiration of the fourth year, or in the ratio of fifty-eight per cent.; the majority dying before the completion of the third year.

Thirty-three died before the expiration of the seventh year, or in the ratio of twenty-two per cent.

Eighteen died before the conclusion of the tenth year, or in the ratio of twelve per cent.

Twelve survived above ten years, or in the ratio of eight per cent. One person lived about thirty years after the discovery of the disease.

In order to form some comparison between cases subjected to the above treatment, and those in which the disease was allowed to pursue its natural course, with the exception of using local palliatives and constitutional measures, I calculated the average duration of life of a hundred patients.

Fourteen of these patients died within the first year after the observation of the disease; three survived its discovery above ten years, two of them having lingered under its slow progress about twenty-six years.

The average duration of life I believe to be about three and a half years.

Of the cases, then, which have fallen under my own observation, it is quite certain that the longest survivors have been those from whom the first growth was removed.

Whether the duration of life was really essentially due to the removal of the first growth, I would not venture to assert dogmatically; for there are many collateral circumstances which require to be taken into consideration for which the time is insufficient upon the present occasion.

In conclusion, I trust that I have demonstrated to my sceptical professional brethren that a certain proportion of cancer patients can receive benefit by submitting to the removal of the first growth of the disease; and that the benefit derived from the operation is two-fold; viz., 1, prolongation of life; 2, exemption from the disease for a considerable period of time in many instances.

Illustrations
OF
HOSPITAL PRACTICE:
METROPOLITAN AND PROVINCIAL.

CHESTER GENERAL INFIRMARY.

TWO CASES OF OVARIOTOMY.

For the following notes of the two patients upon whom Mr. Spencer Wells performed ovariotomy on August 10th, during the Chester meeting of the Association, we are indebted to Mr. Karkeek, House-Surgeon to the Infirmary.

Case I. *Non-adherent Cyst, never Tapped: Ovariotomy: Recovery.* On August 9th, 1866, Mr. Weaver, Surgeon to the Chester Infirmary, requested Mr. Spencer Wells to see an unmarried barmaid, 22 years of age, one of a healthy family, and who was still engaged in her occupation, although she was as large as a woman in the last month of pregnancy. About six years ago, she had had fainting fits, and then had pain in the *left* iliac region and over the *right* side of the pubes, with sensation of bearing down and irritation of the bladder. Even then she felt her stays too tight; but no tumour had been discovered until two years ago. Since then there had been gradual increase. Some pain and numbness of the right leg came on, with pain and swelling of the breasts at the catamenial periods; and for the past twelve months nausea and dyspnœa had both been very troublesome, and there had been frequent attacks of tympanitis. She had been mercurialised, and taken quantities of purgatives and diuretics, but had not been tapped. Emaciation was commencing, but her aspect was healthy and cheerful. The catamenia were regular, and were not expected for a fortnight. Mr. Wells's diagnosis was that an ovarian cyst, nearly unilocular, was free from adhesions, and he said it might be emptied and removed by a small incision. Mr. Weaver put the relative dangers and advantages of tapping or ovariotomy fully before the patient and her friends; and the result was that she was admitted to the Chester Infirmary next morning, in order that Mr. Wells might operate in the afternoon.

Ovariotomy was performed at three o'clock, in the presence of the President and about one hundred and twenty members of the Association. Dr. H. Simpson of Manchester having administered chloroform in an adjoining ward, the patient was carried to the table, and Mr. Wells made an incision midway between the umbilicus and symphysis pubis, four inches long, through the skin, but hardly opening the peritoneum for three inches. A non-adherent cyst was exposed, tapped, emptied, and withdrawn, without any difficulty. A pedicle of the breadth and thickness of two fingers was secured between three and four inches from the left side of the uterus in a small clamp, and the cyst was cut away. The right ovary and uterus were healthy. There was scarcely any blood lost. The wound was closed by deep superficial silk sutures. As there was some prolapse of pedicle behind the clamp, Mr. Wells applied a second clamp behind the first, and cut away the first, with the redundant portion of pedicle, before applying lint, strapping, and bandage.

There is scarcely anything to record in the after-treatment, as recovery was unchecked. Two small opiates were given during the first night, one the

next day, and one on the seventh day, when there was some pain and sickness after catamenial discharge. The bowels acted spontaneously on the fifteenth day. The clamp was removed on the sixteenth day. The stitches had all been removed on the fourth day. The temperature never exceeded 101°, the pulse 116, or the respiration 28. The patient was discharged on the twenty-first day, and has been seen since in excellent health and rapidly gaining flesh.

Case II. *Multilocular Ovarian Cyst: Four Tappings: Suppuration of Cyst: Ovariotomy: Recovery.* This patient completed her sixtieth year within a month after the operation at Chester. She was married nineteen years ago, when forty years of age, and had never been pregnant. Her husband died a year ago. She has worked as a washerwoman and charwoman. She had not been ill, and had not noticed any increase in size, until between four and five years ago, when she began to get large, and consulted Mr. Walsh at Brixton, who asked Mr. Spencer Wells to see her. He tapped her in April 1863, and removed thirteen pints of fluid. She was much relieved, and earned her living for nearly two years after this, when Mr. Bullen, of the Lambeth Infirmary, tapped her in March 1865, removing fifteen pints of fluid. In March 1866, Mr. Wells tapped for the third time, and removed twelve pints of clear fluid. A moveable multilocular cyst was felt, after the largest cyst was empty. She was feverish after this tapping, and fluid accumulated more rapidly than before. She also lost flesh, and became unable to earn her living. On the 8th of July, Dr. Junker tapped for the fourth time, and removed eleven pints of fluid, which contained a great deal of pus. She became very anxious to have the tumour removed, and most willingly accepted the offer of a bed in the Chester Infirmary, where she was admitted early in August, and was put upon a liberal diet, preparatory to the operation, which Mr. Wells performed on the 10th, assisted, as in the former case, by Messrs. Brittain, Weaver, and Karkeek. Chloroform was administered by Dr. H. Simpson of Manchester.

Mr. Wells commenced the operation by an incision five inches long midway between the umbilicus and symphysis pubis. Finding a cyst adhering intimately, he opened it, and pressed out the contents before attempting to separate the adhesions which protected the parietal cavity from the entrance of fluid. The fluid contained a great deal of pus. When the cyst was quite empty, Mr. Wells broke down the adhesions and withdrew the freed cyst, separating from its left side and back part a small piece of omentum and a coil of intestine. A pedicle as broad as three fingers was secured about two inches from the left side of the uterus, in a small clamp, which was kept outside the abdomen, at the lower angle of the wound. There was scarcely any bleeding. One mesenteric vessel was tied, and the ends of the ligature were cut off short. The right ovary was healthy. The wound was closed by silk sutures, which were carried through the whole thickness of the abdominal wall.

This patient passed a restless night. Forty minims of laudanum were given by injection. She vomited six times, and urine was scanty; but the pulse was only 88, and temperature 100.4°. The second night was a good one, with only one opiate. The third was much disturbed by a cough which came on in the afternoon. Pulse 100; respiration 36; temperature 101.4°. A drop of prussic acid, with ten drops of chloric ether and a sixth of a grain of morphia, were given in syrup and water, as a cough mixture, frequently, and with much relief. On the fourth evening, the pulse was still 100; but the respirations had fallen to 30, and the temperature to 101°. The expectorated mucus was slightly streaked with blood. Next day, the cough was easier, and the stitches were removed. On the sixth day, the highest range of pulse and respiration was noted—namely, 120 and 40; but the temperature was only 100.2°. The temperature rose till the tenth day, when the highest point—102°—was reached. The pulse was then 112, and respirations 36. The prussic acid was discontinued, and some tincture of squill substituted in the cough mixture; but the cough continued troublesome till the thirteenth day. The clamp was removed on the fourteenth day, and the bowels acted twice. Next day, the pulse was 88, respirations 32, temperature 99.6°. A grain of quinine was given three times a day; there was then a steady improvement, and the patient was discharged on the twenty-eighth day after operation.

[We have received a report of the clinical remarks made by Mr. Spencer Wells upon the above cases, and shall publish them in our next number.]

TAUNTON AND SOMERSET HOSPITAL.

REPORT OF A CASE OF AMPUTATION OF THE HIP-JOINT: RECOVERY.

By Henry J. Alford, M.B.Lond., Surgeon to the Hospital.

Thomas Hancock, aged 42, a labourer residing at Batheaston, was admitted into the hospital under my care on June 2nd, 1866.

He was a married man, and had hitherto been strong and healthy. There was nothing in his family history to point to any hereditary taint. About two years ago, he first perceived a swelling, of about the size and shape of an egg, in the upper part of the left popliteal space. It grew very slowly at first, and caused him no pain or inconvenience until twelve months had elapsed, by which time it had reached the size of a man's fist. He then felt pain by night, though not by day. He continued his work until September 24th, 1865, when he became an in-patient of the Taunton Hospital, under my care. Iodine was applied, and iodide of potassium given. The tumour, however, slowly increased in size; the thigh being, on October 3rd, eighteen inches in circumference; and on the 21st of the same month it was eighteen and a quarter inches. On November 3rd, he left at his own request, promising to return in a few weeks. He did not, however, make his appearance until June 2nd, 1866, having been an inmate of the Wellington Workhouse during a portion of the interim.

On admission, he was found to have an enormous swelling of the left thigh, chiefly at the posterior part. It ended abruptly above, somewhere about four inches below the level of the trochanter major, and inferiorly five inches below the level of the lower margin of the patella. Anteriorly, the boundaries of the tumour were by no means well defined, either above or below. The movement of the hip-joint was perfect, and there was some movement of the knee; but it seemed to be retarded more by the size of the tumour than by any disease of the joint itself. The patella was tilted forwards in a peculiar manner; and, owing to the size of the tumour posteriorly, the anterior aspect of the thigh had a somewhat concave appearance. The superficial veins were well marked, especially on the outer side of the limb. The skin, particularly posteriorly, was red and brawny; and in some places it had given way, and small circular unhealthy-looking ulcers were found. The length of the limb, from the antero-superior

spine of the ilium to the lower margin of the patella, was 20 inches. The circumference of the thigh just above the tumour was 19 inches; at the lower third of the thigh, 27½ inches; at the upper margin of the tumour, 21 inches; at the patella, 28 inches; and at the lower margin of the tumour, 19 inches. The length of the tumour behind was 16 inches. The leg and foot were very much enlarged from œdema, which diminished on the application of a bandage and keeping the limb raised. The patient looked pale, emaciated, and cachectic, and evidently suffered great pain. He could hardly be recognised as the same man as was under treatment last October.

On June 7th, 1866, a consultation was held; and it was the unanimous opinion of my colleagues that amputation at the hip-joint gave him the best, if not the only, chance of recovery.

Operation. This was delayed until June 12th, in order that a Lister's aorta-compressor might be obtained from London. The precaution of bandaging and raising the limb prior to operating was taken, in order to drain as much blood as possible out of it. He was administered a little brandy, and then put under the influence of chloroform, which was very easily and rapidly done. The aorta-compressor was then applied. I made a long anterior and short posterior flap; the joint being opened, and the limb disarticulated, as soon as the anterior flap was completed. The femoral artery was at once ligatured; scarcely any arterial blood was lost. Seven ligatures were applied in all, which controlled all hæmorrhage. Twelve silver wire sutures were then applied; and, the stump being covered with strips of wet lint, he was removed to his bed. He was ordered thirty minims of liquor opii sedativus, beef-tea, and brandy. His pulse, respiration, and temperature, from June 11th to 29th, are shown in the subjoined table.

Day.	Hour.	Pulse.	Respiration.	Temperature.
June 11	7.30 P.M.	110	15	101.2
„ 12	9 A.M.	98	16	99.2
„ —	12 30 P.M.	94	20	97.2
„ —	8 P.M.	112	20	99.8
„ 13	8 A.M.	98	22	99
„ —	8 P.M.	108	26	100.6
„ 14	9 A.M.	120	28	101
„ —	8 P.M.	124	32	101.2
„ 15	11 A.M.	114	22	99.6
„ —	8.30 P.M.	108	24	101.8
„ 16	9.30 A.M.	112	22	101.4
„ —	8 P.M.	104	24	99.2
„ 17	9.30 A.M.	102	23	99.2
„ —	8.30 P.M.	98	24	99
„ 18	9 A.M.	102	20	99.2
„ —	9.30 P.M.	104	20	99.4
„ 19	9.30 A.M.	100	20	98
„ —	9 P.M.	104	22	99.8
„ 20	9.30 A.M.	110	20	98.4
„ —	9 P.M.	110	20	99
„ 21	9 A.M.	108	20	98.6
„ —	8.30 P.M.	120	24	100.8
„ 22	10 A.M.	119	18	98.4
„ —	9 P.M.	110	18	99.2
„ 23	10 A.M.	106	16	98.6
„ 24	10 A.M.	110	24	100
„ 25	9 A.M.	104	20	98.4
„ 26	10 A.M.	104	20	98.4
„ 27	10 A.M.	106	20	98.4
„ 28	10 A.M.	110	20	98.4
„ 29	10 A.M.	98	18	98

8 P.M. He was slightly sick, and was ordered ice, champagne, and Liebig's extractum carnis; and also a draught containing tincture of opium, aromatic spirit of ammonia, and chloroform. The tongue was moist and clean.

June 13th. He had passed a comfortable night. No hæmorrhage nor oozing. He took his food and wine. Tongue moist. He passed urine freely. He was ordered to repeat the draught at night.

June 14th. The bandage and lint were removed. The stump looked well. He had sherry instead of champagne, and chicken for his dinner.

June 17th. He took food and slept well; was in no pain; no bad symptom. I removed some sutures.

June 18th. I removed the rest of the sutures, and applied strapping and wet lint. The stump was looking very healthy.

June 23rd. He ate well, and was gaining flesh and strength rapidly.

June 25th. I removed one of the ligatures. He had stout for dinner, as well as sherry.

July 3rd. Two more ligatures were removed. All the outer and lower part of the wound was firmly united.

July 5th. I removed the fifth ligature.

July 8th. All the stump was healed, except at the upper and inner portion, where the ligature on the femoral still remained. He sat up in bed for a good part of the day.

July 14th. The ligature in the femoral came away.

July 12th. I removed the last ligature. He put on his clothes and sat up every day.

July 23rd. He went into the garden daily, but was to remain in the hospital for some time longer, so as to entirely regain his strength, which he was rapidly doing.

Remarks. I publish this case, as it adds one more to the list of recoveries after amputation of the hip-joint for disease; and also to bear testimony to the great value of Lister's aorta-compressor in an operation of this kind. Hardly a drop of arterial blood was lost, and no ill effects arose in any way from the application of the instrument. Thus one of the great dangers which used formerly to be dreaded in this operation—viz., hæmorrhage—is entirely removed.

Charge of Fraud against a Medical Assistant. At the Marlborough Street Police Court, last week, W. A. Hill, a medical assistant, was brought before Mr. Knox charged with offering himself to Mr. Saul, surgeon, of Charlotte Street, Fitzroy Square, pretending that he had served in a capacity in which he had not actually so served. Mr. Saul in November last advertised for an assistant, and in answer received a letter from the prisoner. The prisoner gave him the names of Mr. Capper and Mr. Newington as references. Mr. Saul wrote to them, and in answer received letters speaking in the highest terms of the prisoner; but the letters were written by the prisoner himself. Mr. Saul engaged the prisoner, and the prisoner was not more than two hours in Mr. Saul's service when his conduct became most extraordinary. Mr. Saul, having kept a watch on him, noticed that the stock of spirits of wine in the surgery gradually decreased, and at twelve o'clock at night the prisoner was found to be quite drunk. An attempt was made to eject him from the house, and in doing so he assaulted a lad in Mr. Saul's service, and he was brought to this court and fined 20s. Mr. Knox said: You will escape conviction simply by a nicety in the Act of Parliament. Luckily for you the period of six months mentioned in the Act has expired, and therefore my power of acting, I am sorry to say, is gone. You get into a situation by means of a false character—a part of your duty being to mix drugs—and you then get intoxicated. You are a nice person to be a medical assistant. I shall discharge you, but most reluctantly.

Transactions of Branches.

SOUTH-EASTERN BRANCH.

ON SOME FORMS OF CARDIAC DISEASE.

By John Southey Warter, M.D.

[*Read June 14th*, 1866.]

The subject of cardiac disease, about which I purpose to speak a few words this afternoon, is one of those which we meet with so constantly, that you may perhaps wonder at my venturing to bring such a common subject before your consideration. But we must remember that, because a disease is common, it does not necessarily follow that none of its symptoms should be overlooked; and it is for this reason that I have ventured to put together the few remarks following on this subject.

I purpose first to speak of basic cardiac murmurs heard to the left of the sternum, for the most part occurring during the course of acute rheumatism; and then, if time permit, I shall give the results, as far as physical signs are concerned, of several cases of adherent pericardium which have fallen under my notice.

Every one knows that in acute rheumatism, especially in the young, the heart should be auscultated daily, in order to detect any abnormal sound which may occur in the course of this disease; but auscultation, as commonly employed, fails to detect the murmurs of which I am about to speak. In the general way, the stethoscope is placed over the heart's actual apex; and if nothing abnormal is there heard, it is moved up to the centre of the sternum at the level of the third ribs; nothing wrong being heard at this spot, the heart is pronounced normal, and the physician goes away perfectly satisfied. Another auscultator, however, perchance by accident, places his stethoscope to the left of the sternum at the level of the second or third ribs, and to his surprise hears a creaking leathery systolic murmur, the second sound of the heart being either clear, or apparently changed from its healthy note to a decided crumple. He finds the area of this murmur limited—perhaps lost half an inch from its loudest spot; and in vain he seeks at the proper cardiac base, in the track of the aorta, and at the right and left apex of the heart, for some other abnormal sound; all elsewhere is natural, and at this limited spot only is the murmur heard.

It is of this class of murmurs, then, that I am about to speak; and about them there are several peculiarities.

1. They always occur to the left of the sternum, and are not usually propagated in the aortic track. (They may generally be heard at some spot in an imaginary vertical oval four inches long by one and a half wide, placed just to the left of the sternum, with its top in the centre of the first intercostal interspace.)

2. They are peculiar in character, being generally rough, creaking, or leathery, and not at all unlike exocardial sounds.

3. They always accompany the heart's systole; but the diastolic sound is often not clear, but of a crumpling or creaking nature.

4. (And perhaps this may account for their being so often overlooked.) Their extent is very limited; for often three-quarters of an inch from their spot of greatest intensity they cease to be heard.

Now the points of interest with regard to these murmurs seem to be two: 1, in what part do they originate; and 2, what is their cause.

As a general rule, says Dr. Markham, in his excellent book on *Diseases of the Heart*, a murmur heard loudest at the apex proper must be ascribed to the left side of the heart; and in like manner, a murmur heard loudest over the lower part of the sternum must be attributed to the right side. Again, as a rule, murmurs heard loudest about the centre of the sternum, and passing upwards a little to the right of it, belong to the aorta; while those heard to the left of the sternum about the second intercostal space originate in the pulmonary artery. He also adds in another place, "I am inclined to think that one of the characteristics of a systolic murmur of the pulmonary artery, is the very limited space of the thoracic walls over which the murmur is audible." Let us now apply these tests to the point under consideration, and see to what conclusion we are driven as the result.

There is no murmur in the cases to which I allude, either at the heart's apex, the ensiform cartilage, in the axilla, or over the lower part of the two ventricles. Hence, I think, we may exclude from consideration disease of the mitral and tricuspid orifices, and murmurs arising within the ventricles, which are generally heard at these points.

Again, at the centre of the sternum at the level of the third ribs, and upwards in the aortic track, the sounds of the heart are normal and the second sound is clear, neither is there any murmur heard down the right of the sternum. Thus, then, these murmur differ greatly in character from those usually generated in the aorta.

It has been suggested, however, by some, that many murmurs of this class are really generated in the aorta, and then conducted in other directions by the state of the lungs. This seems rational at first sight; but then, in many of these cases, one day the murmur is heard, the next it is gone, and perhaps the day after it reappears again; and it requires considerable imagination to believe that the lungs in this one spot just about the aorta, have such a power of varying in density and in being able to conduct sounds, when all our knowledge of their properties elsewhere goes entirely against such a supposition.

By the process of exclusion, we have now arrived at the pulmonary artery, and this, according to the teaching of the present day, must be the part in which the sounds originate. Another fact in support of this theory is that, in addition to there being a murmur with the first sound of the heart in these cases, the second sound is often heard to be abnormal at the left and normal at the right side of the sternum, which could hardly be the case if the murmur were situated in the aorta and conducted to the left side of the sternum through the walls of the pulmonary artery, as suggested by Dr. Walshe. In spite of all these arguments, however, owing to mixed cases which I have observed where these murmurs are heard to the right as well as to the left of the sternum, and owing to the exceeding rarity of disease of the pulmonary artery, I am inclined to believe that the point of origin of most of these bruits is at or about the aortic valves; though why the sounds heard in the aortic track should be normal under these circumstances, I am at a loss to determine. That some few of these murmurs do have their origin in the pulmonary artery, I think there can be no doubt; but I suspect they are certainly of much rarer occurrence than those which are generated at the aortic flood-gates.

Next, as to the cause of the abnormal murmurs to which I am referring; as a preliminary, let me state that certainly the majority of them are not caused by

stethoscopic pressure; for they still exist, however lightly the instrument may be placed on the chest, and when every care is taken to avoid such a fallacy.

One of the first sounds of incipient pericarditis is often a leathery creak accompanying the heart's systole at or about the second left cartilage. This can, however, be generally differentiated from endocardial murmurs, by the friction varying in quantity and quality even during the short period its sounds are being listened to; or by its becoming more diffused, or dulness to percussion taking its place, in the course of a few days or hours, as the case may be. As, then, the harsh variety of murmur that I allude to remains often unchanged in extent and character for three, four, or even many days, I think we may fairly put it down as an endocardial and not an exocardial one.

It may, perhaps, be interesting to give short notes of a case in which both the harsh murmurs now treated of and exocardial sounds existed together, though the case was not a very typical one. It was that of a woman, aged 29, suffering from a second attack of acute rheumatism, who had an old systolic murmur at the heart's apex. The note of the auscultation states that on February 1st the end of the first sound of the heart at the junction of the third left rib with the sternum was accompanied by a rough systolic murmur, and the second sound was rough and crumpling; at the midsternal base and in the aortic track, the cardiac sounds were normal. On February 3rd, it is stated, the end of the first, and the second sound were more crumpling, and were heard loudest over the second left cartilage. These murmurs then remained for several days loudest just below the second left rib, close to the sternum; and the auscultation then altered a little, for, in the next note, the systole is only reported to be a little rough and the second sound sharp, at the second intercostal interspace. Four days afterwards, a limited pericardial friction-sound was superadded about the heart's proper base; but the old second sound, at the second left cartilage, had again regained its crumpling character with even increased intensity, and was perfectly distinct from the superadded pericardial sound. Two days from this, the friction-sound had vanished; and in seven days more, the note of the auscultation states that there was more of a rough systolic murmur again at the second left cartilage, and that the second sound of the heart there was rough and crumpling. Now, in this case, I think the pericardial friction-sound coming on and then vanishing, the old rough murmur remaining distinct close to it, proves that the murmur could not be exocardial; for we can hardly imagine two distinct spots of pericarditis going on at the same time, only about an inch apart, and yet not involving the small space of healthy tissue enclosed between them.

Again, these murmurs may be supposed to arise from vegetations or swollen valves; but here we are met with the objections that, in the first place, as regards the aorta, these murmurs may be present where the aortic valves are normal; and secondly, as regards the pulmonary artery, that any disease of this vessel is a pathological curiosity, and hence unlikely to give rise to murmurs which are so commonly met with.

The next supposition that we must take up is the so-called "hæmic" origin of murmurs. Are these murmurs caused by abnormal states of the blood, or by some temporary atonic condition of the vessels carrying it? A case has lately fallen under my notice, which proves at any rate that harsh murmurs may be present to the left of the sternum in chlorosis, apparently arising from blood-vibrations, no sign of real cardiac mischief being present.

The case was that of E. H., aged 16, suffering from chlorosis and some œdema of the legs. Cardiac auscultation disclosed a loud superficial friction-like systolic murmur, heard loudest about the third left rib half an inch to the left of the sternum; the second sound was scarcely heard, but did not seem to be abnormal in character. There was no murmur in the track of the aorta; but a soft systolic murmur was audible at the heart's apex.

Another instance of hæmic murmur is, I think, worthy of being mentioned in this place. The case was that of a woman suffering from a cirrhotic liver and enlarged spleen, who had, besides an apex murmur, the loudest superficial friction-like murmur under the top of the sternum and to the left of this point that I ever heard; indeed, so much did it resemble friction, that the majority of auscultators who listened to it thought it must be exocardial. In this case, we afterwards had an opportunity of examining the chest; but nothing could be found in the heart itself, or in its surroundings, sufficient to explain the sounds heard during life. Now, certainly, this latter instance conclusively proves, that a harsh friction-like murmur can arise precisely similar in character to those I have been describing, without any sufficient morbid change being discovered after death to account for its having arisen; in fact, it must have been of that variety styled "functional" rather than organic. Looking, then, at the frequency with which these harsh friction-like murmurs are met with without any cardiac symptoms in other diseases as well as in acute rheumatism, seeing how changeable and varying they are both in their character and time of duration, and seeing that no evil result, as from embolism, follows their sudden disappearance, I think we cannot but conclude that they must arise, in the majority of cases, from some functional disturbance, rather than from any serious organic lesion.

The conclusion having been arrived at that many of these murmurs are simply functional ones, the next question that arises is, Can they all be classed under this head? To this I answer, Certainly not; and I propose now to relate short notes of a case that is full of interest to us in many ways, and which also, it seems to me, decides the question definitely, that all murmurs to the left of the sternum are not of hæmic origin. I may also state that, in this case, owing to the direction in which the murmur was heard, I consider it must have been one of those rare instances where the seat of lesion was situated in the pulmonary artery.

The case was that of a woman who was suffering from a second attack of acute rheumatism, and had evidently an old regurgitant mitral murmur, with some cardiac dilatation and hypertrophy, and possibly an adherent pericardium. The notes of the physical examination run thus. On November 28th, the impulse of the heart was short, sharp, and forcible. On auscultation, the systole was found to be short and accompanied with a metallic ring all over the præcordial region; and, at a circumscribed spot about the junction of the third left costal cartilage with the sternum, a rough, leathery, creaking, systolic murmur was to be heard. On December 2nd, four days afterwards, the systole of the heart was still heard to be short, sharp, ringing, and forcible, all over, but the creaking murmur had vanished. On December 4th, the systole is said (though less loud than at first) to be rough and friction-like at the second left intercostal space, about half an inch from the sternum, and the second sound is said to be crumpling; all elsewhere in the cardiac region, even in the aortic track, the systole was heard to be ringing. For the next seven days, the auscultation remained much the

same; and the next note is on December 14th, thirteen days from the first auscultation. It is then stated, that about the third left rib, half an inch from the sternum, in addition to the rough, creaking, leathery systole, a faint diastolic murmur was to be heard. This murmur could be traced downwards in a straight line for about two inches; and, also starting from the same point, it descended in a curved line across the sternum in the direction of the right nipple. All this time the patient was in bed; but on the next day, as she was sitting up, I auscultated her standing. To my astonishment, all that could be heard over the præcordial region was the old ringing metallic systole, and no murmur at the heart's base anywhere or to the right or left of the sternum. The next morning, I auscultated her in bed after a night's rest, and now the diastolic murmur had reappeared in much about the same spot where it was before. Wondering whether position made this difference, I auscultated on the next day standing up, and no diastolic murmur was to be heard. Then I made her lie down on the bed, but still no murmur was detectable, probably from the heart's action being excited. Finally, next morning, after a night's rest, and while she was still in bed, I again listened to her chest, and found, as I expected, that the diastolic murmur was again to be heard in its old spot to the left of the sternum.

Now, surely the study of such cases as this ought to teach us many points, a few of which may be shortly stated. Firstly: that all murmurs heard to the left of the sternum are not functional; for I think it will be allowed that a long hæmic blowing diastolic murmur at the base of the heart is an impossibility. Again, it ought to teach us that a murmur which may point to a serious lesion can be lost one day, and heard on the next, as on December 2nd in this case; showing us the value of constant auscultation in all cases of acute cardiac mischief. Thirdly, and lastly, it teaches us that position, and probably the amount of rapidity and force with which a heart is acting, may so influence cardiac murmurs as to cause them to be heard or lost when we least expect it; for surely, according to most experience, diastolic basic murmurs ought to be heard loudest when the patient assumes the erect posture. My own idea as to the explanation of this case is, that the pulmonary valves were either swollen or had vegetations on them; and that when the heart was acting quietly, as we know it does when a patient is at rest, the blood was not forced back with sufficient impetus by the stored-up elasticity of the pulmonary artery to cause their perfect closure. When, however, the heart acted more forcibly, as after the patient had been sitting up, the pulmonary artery, on the principle of reaction, forced the blood back with sufficient impetus to hold the valves together, in spite of any slight irregularity which existed on their surface.

In the remarks which I have made on this subject, I do not profess to have put forward any new views; my only object having been to call attention to the more careful examination of the region to the left and upper part of the sternum, as I feel sure that many a valvular lesion is overlooked at its commencement, from this spot not having been carefully auscultated.

I now pass on to speak of those cases of adherent pericardium that have fallen under my notice; and of these I subjoin a table of eight, which are all I can just now lay my hand upon. All these patients had general pericarditis while under observation; and the final records of them were taken when all symptoms of that disease had vanished, and when they were just about to resume their daily occupations.

The points observed in these cases are collated under four heads: 1. The amount of visible impulse, and whether any abnormal sinking in of the intercostal spaces took place during the heart's action. 2. The amount of impulse that could be felt, and the point of the chest where the heart's apex was felt to be beating; 3. The amount of cardiac dulness; and 4. Any abnormality detected in the sounds of the heart by the employment of ordinary auscultation.

Visible impulse and movement of intercostal spaces.	Tangible impulse and point of apex-beat.	Area of cardiac dulness.	Auscultation.*
Visible impulse slight, if any; no sinking in of intercostal spaces.	Tangible impulse not extended; apex-beat a little too much to the left.	Slightly extended.	Substernal systole loud at level of 3rd ribs and 2nd sound sharp; a doubtful apex systolic murmur.
Visible impulse extended; intercostal spaces sink in during the heart's systole.	Tangible impulse diffused not very heaving; apex-beat between 5th and 6th ribs an inch to the left of the nipple.	Extended upwards and transversely 3X3 in.	Sounds at base normal, except second sound a little unnatural at P.C.; a loud apex systolic murmur.
No abnormal sinking in of intercostal interspaces.	Tangible impulse diffused.	Extended upwards not much transversely.	At P.C. a loud diastolic murmur, less loud at A.C.; a loud apex systolic murmur.
No visible impulse; no sinking in of intercostal interspaces.	No impulse felt; apex not detectable.	Extended upwards and towards sternum.	Substernal systolic murmur at the level of the 3rd ribs; 2nd sound a little long at A.C., normal at P.C.
No visible impulse; no sinking in of intercostal interspaces.	Feeble, not much extended; apex-beat too high and too much to the left.	Extended vertical 3½ in. transverse?	Sounds very feeble at base, systole almost double, and second sound sharp; pause *nil*, or next to *nil;* (sounds as if the heart started from the second sound); a loud apex systolic murmur.
Visible impulse faint; no sinking in of intercostal interspaces.	Impulse not extended; apex only felt beating feebly just under the nipple between the 4th and 5th ribs 4 inches from the sternum.	Extended vertical 4 in. transverse?	Systole feeble all over; second sound rather loud and distinct, loudest at P.C.; apex systole prolonged, and rather double.
No visible impulse; no sinking in of intercostal interspaces.	No impulse felt; apex-beat not detected.	Extended in all directions, but most transversely.	Action very feeble and irregular, but no murmur; systole seems composed of four sounds, and then the diastole follows.
No visible impulse; no sinking in of intercostal interspaces.	No impulse felt; apex not detected.	Extended vertical 2½ in., transverse about 3 in.	In the third intercostal space close to the sternum the first sound is a little long, and the second sound is accentuated and liquid; at the apex there is a faint systolic murmur, and the second sound is not natural.

Now, in proceeding to analyse this table, under the first head—*visible impulse and movement of intercostal spaces*—we find that in four cases no impulse was visible; in two, it was faintly noticed; in one, it was seen over an extended space; and in one, no note is given of this point. Then, as to the *sinking in of the intercostal spaces*, this only occurred in one case, the subject being a male. (I notice this, as the

* In this table, P.C. is used to signify the second left or pulmonary cartilage; and in like manner A.C. as an abreviation of the second right or aortic cartilage.

development of the mammæ in the female interferes considerably with any observations of this kind, and may account for these movements not being observed in the weaker sex.) Under the second head—*tangible impulse and point of apex beat*—we find that the impulse was diffused in two cases, feeble and not much extended in one case, and not extended or not felt in the other five. As to the apex-beat, there is no mention of it in one case; in three it could not be felt; while in the other four it was displaced to the left, and in two of these beat in a higher spot than its normal situation. Under the third head—*area of cardiac dulness*—we find that extended dulness to percussion existed in all eight cases; in all it occurred upwards; and probably in all also transversely, but this point could not in many cases be ascertained well, because of the size of the mammæ. Under the fourth head—*auscultation*—we find that in four the systole at the base of the heart was unnatural, and that in seven out of eight there was some change in the diastolic sound, either at the aortic or pulmonary cartilages; in seven also out of the eight cases recorded, there was some abnormality of the systole of the heart heard at the heart's apex.

Can we now, from the study of these cases, fix upon any signs by which we can diagnose an adherent pericardium? I fear not with any degree of certainty. Valvular disease and hypertrophy, etc., of the heart give rise to so many signs in common with an adherent pericardium, that one hardly knows to which to ascribe any abnormality that is detected in any given case. Besides, it must be remembered that most cases come under our notice years after the lesion has occurred, and not directly after, as in these instances. Hence, to argue alike for the two, without taking other things into consideration, must involve a fallacy. Still I think their study gives us some hints that ought not to be neglected. In all, for instance, the dulness was extended, and in all extended upwards, as well as transversely. Coupled with this, the visible impulse was only very slight, if any, in half of the cases; and the tangible impulse was only slightly if at all diffused in rather less than that number. In half of the cases, the apex was displaced to the left; and in a quarter it was also displaced upwards; and finally, in all there was considerable evidence of endocardial michief; the mitral valve, as usual, being the one chiefly affected. Should we, then, meet with such a correlation of symptoms in any case, we may, I think, make a guess at an adherent pericardium, not entirely without grounds for such a conclusion. For my part, I am most inclined to attach importance to the combination: increased vertical and transverse dulness; comparative feebleness of impulse, even if extended; apex displaced to the left, and especially upwards; and signs of considerable endocardial mischief. Of course, if we have reason to suspect that the pericardium has been adherent some time, we must add to these signs those also of hypertrophy of the heart.

I regret, in conclusion, that in most of these cases no special note of the condition of the pulse was taken, as this, perhaps, might have added one more sign, even if a slight one, for the better detection of the morbid state which we have been considering.

Preparations for Cholera. A French prefect wrote to one of the mayors of his department, advising him, as the cholera had broken out in the district, to take all the necessary precautions. After some time, the mayor wrote to say that he had taken all the proper steps; and upon the prefect sending to see that they were effectual, he found that the only preparation the mayor made consisted in having a large number of graves dug in the churchyard.

Progress of Medical Science.

SURGERY.

Reduction of Dislocations of the Shoulder. Professor Dummreicher has had several occasions of proving the efficacy of Schinzinger's method of reducing dislocations of the shoulder. Its simplicity and the small amount of force required for its execution are its chief recommendations as compared with other methods. An assistant having fixed the shoulder by crossing his hands over it, the operator takes hold of the upper arm and rotates it outwards to such an extent, that its inner surface is brought round in front, also pressing the elbow against the trunk as much as possible. A second assistant having placed his forefinger on the inner side of the head of the bone, pressing it somewhat outwards, the operator now presses the humerus against the acetabulum, rotating it slowly inwards, and the head of the bone slips into its cavity with a loud noise. In three cases which had recently occurred in his practice, Professor Dummreicher, the reduction, performed without anæsthetics, was effected by the exertion of very little force, and without inducing any pain. Professors Roser and Bardeleben have objected to this method, that the strong rotation outwards might easily, in the case of adhesions existing, give rise to fracture of the humerus. There might certainly be some danger of such an occurrence if this rotation were performed in a very old dislocation, unless the adhesions had first been loosened by traction. In the discussion which followed, Professor Von Pitha directed attention to Richet's method, which is of easy accomplishment by the exertion of little force, providing the muscles can be kept in a relaxed condition, and the patient's attention so occupied that he does not offer any resistance. The hand is passed into the axilla, and an endeavour is made to surround the dislocated head by the fingers, which can be easily done unless the patient offers resistance. Indeed, the whole of the head need not be surrounded, for if the fingers can be planted into its larger circumference, and slight traction be made on the head, the reduction may be accomplished. The force employed is so very slight, that if the head is seized even by the left hand, it may be reduced, and neither preparations nor assistants are required. It is only necessary that the arm should be kept abducted in an easy position. This method succeeds even in very muscular subjects. As to Schinzinger's method, Von Pitha recommends that it should be confined to recent dislocations; for, employing external rotation in a case of old dislocation, but to a less extent than here recommended, a cracking was produced, not from fracture of the bone, but from rupture of the tendon of the triceps. Dr. Dummreicher quite agreed that this plan must be resorted to only with great prudence for old dislocations. With respect to fractures occurring during reduction of old dislocations, he is opinion that these are often the consequence of periostitis, to which repeated attempts at reduction have given rise. Such cases have repeatedly occurred at his Klinik. Professor Von Pitha added that Richet's method was especially indicated in cases in which fracture complicated the dislocation. (*Brit. and For. Med.-Chir. Rev.*)

Fracture of Thyroid and Cricoid Cartilages. At the Pathological Society of New York, Dr. Hamilton presented a specimen of fracture of the thyroid and cricoid cartilages, taken from a man who had

received a violent blow across the neck, and who had died in two or three hours after the receipt of the injury, under symptoms of severe dyspnœa. The *post mortem* examination revealed extensive infiltration of blood under the mucous membrane of the larynx and trachea. The larynx was nearly closed by infiltration of blood and serum, just below the right ventricle, and there was similar effusion below the glottis. Tracheotomy, which might, perhaps, have saved life, was not resorted to. The patient died of suffocation. The cases of fracture of both the thyroid and cricoid cartilages are not very numerous.

MEDICINE.

Hypodermic Injection of Morphia. At a meeting of the Academy, Dr. Clark of New York related two cases which he had recently observed, illustrating the good and ill effects of the hypodermic injection of morphia. In the first case, the patient was apparently moribund, almost pulseless, frequent alvine evacuations, livid, etc., presenting the appearances of poisoning; and it was, on examination, discovered that the patient had, about a year ago, been advised by a medical practitioner to use aconite-root. She had, however, neglected to follow his precautionary advice of stopping the medicine when certain symptoms would occur, and the result was cumulative poisoning. Stimulants and the hypodermic use of morphia appeared to be the only means which would promise hope, and were consequently resorted to. Fifteen drops of Magendie's solution were injected. In about a quarter of an hour, the urgent symptoms commenced to be relieved; the pulse became stronger; the alvine discharges ceased; she became more lifelike, and went into a sleep for two hours. She then awoke, when the symptoms returned. Another injection of the same quantity was practised, upon which the symptoms again subsided; she again fell into a sound sleep, and the next day was perfectly recovered.

The second case was that of a woman who was brought to Bellevue Hospital with symptoms of incipient tetanus. She had been delivered with forceps some days before—the operation having resulted in laceration of the uterus and vagina. Her jaws were firmly closed, and rigid. Hypodermic injections of morphia were resorted to, at intervals of two to two and a half hours; but the opiate treatment was followed by but slight effect, no considerable amelioration taking place. Soon after the last injection, she became suddenly and profoundly narcotised, and died in spite of all that could be done. The *post mortem* examination showed the vagina and uterus lacerated, with some pus in the pelvic cavity, but no general peritonitis. It was also discovered that, in the last injection, the instrument had passed into a small vein. This probably accounts for the suddenness and profundity of the narcotism following.

Pulsations of the Aorta. Pulsation of the abdominal aorta, sensible to the patient, often attended with uneasiness, and sometimes with positive pain, constitute a group of symptoms which must be familiar to the practical physician as a source of doubt and difficulty in diagnosis, and of much anxiety in regard to prognosis. This condition, Dr. Lyons observes (*Medical Press and Circular*), is common to the male and female, occurs in middle life, is liable to be confounded with aneurism, and denotes, in his experience, a condition of the aortic tube in which there is present much irritation of its coats, with a tendency to atheromatous deposit, temporary dilatation of the vessel in a more or less limited portion of its extent, and a liability, if the morbid state be not checked, to the ultimate formation of some form of true or false aneurism. While in this condition, sudden exertion or local injury by blows, crushing weights, etc., or over-distension of the vessel, readily leads to rupture of the internal and middle coats, and so conduces to the occurrence of false aneurism in any of its forms. Absolute rest, therefore, in the horizontal position, so as to remove the distensile force of the superincumbent column of blood, is a necessary part of the process of cure. The diagnosis between this state of partial dilatation and temporary irritation of the aorta and any of the forms of actual aneurism is to be based on the condition of the vessel as determined by the most careful digital exploration (after the bowels have been well evacuated); by the absence of bruit except on pressure; by the mobility of the aorta and the very elongated fusiform shape it assumes; by the absence of true diastolic throb; and, lastly, by the effect of horizontal rest in decidedly diminishing, not alone the pain, distress, and suffering experienced by the patient, but in sensibly reducing the force and volume of the aortic pulsation. The great care in diagnosis and prognosis is demanded by cases like those under consideration is obvious. An aneurism overlooked will lead to all the misery and appalling fatality of sudden, unexpected, and unprovided-for death. An aneurism assumed when it does not exist leads to unnecessary alarm, and ultimately recoils on the reputation of the practitioner concerned. Amongst the singular instances of abdominal pulsations, the source of some doubt and much anxiety, with which he has met, Dr. Lyons instanced the case of a very powerful pulsation sensible to a patient low down and far to the right in the right hypochondriac region. On applying the stethoscope in this situation a distinct double sound was audible. The phenomena were traceable to an aggravated form of temporarily enlarged and highly congested liver, which touched the heart on the left side and the parietes of the abdomen on the other, and, like the balk of timber conveying the ticking of a watch from one end to the other, transmitted the cardiac sounds and impulse in full intensity. Under treatment, the liver returned to its normal volume, and the pulsation and sounds ceased in the right hypochondriac.

Chlorate of Quinia. This newly discovered salt, which the profession owes to Dr. Lyons, continues to be employed in his clinique and in his private practice, we are informed, with most satisfactory results. In cases of scarlatina, typhus, all low pyrexial states, local inflammations, etc., the use of this drug is indicated; and, so far as opportunities have yet been afforded for testing its efficacy, the results are reported to be highly favourable. From its chemical constitution, and the large amount of available oxygen which is thrown into the system when this medicine is ordered, according to the formula recently furnished, in solution with percholoric acid, valuable therapeutic effects may be anticipated *à priori*. The tonic alkaloid conveyed into the economy at the same time is a very important substitute for the potash in the ordinary salt hitherto employed (chlorate of potash). Dr. Lyons awaits an opportunity of testing the value of the chlorate of quinia in that malady in which, above all others, chlorate of potash has attained, according to Trousseau and Pidoux, its most important and indisputable triumph—namely, gangrenous stomatitis. Meanwhile, he invites the co-operation of his professional brethren in testing the value of this hitherto unused salt. (*Medical Press and Circular.*)

We are requested to remind members of the Association that the Annual Subscriptions became due on the 1st of January. They can be paid either to the Secretaries of the Branches; or to the General Secretary, T. Watkin Williams, Esq., 13, Newhall Street, Birmingham.

British Medical Journal.

SATURDAY, SEPTEMBER 29TH, 1866.

THE INTERNATIONAL SANITARY CONFERENCE.

HAVING cleared the way by a reference to the notices of the Asiatic cholera—some of them singularly clear and graphic—that have been gleaned from the medical literature of the three centuries ending in 1816, let us now glance, with the Sanitary Commission, at the memorable outbreak in 1817. The scene of operation is changed. Previously, the disease had expended its strength chiefly in the Madras Presidency; and only once do we hear of its spreading, in an epidemic form, from Ganjam in Orissa northwards to Calcutta. After twenty-five years of comparative quiescence, it suddenly begins to make a stir, not at Jessore, in the neighbourhood of Calcutta, as is commonly stated, but at Nuddea and Kishnagur, on the Hooghly, near the end of May, and at Mymensing, on the Brahmaputra (about two hundred miles north-east of Calcutta), early in June. Patna, on the Ganges, about three hundred miles in the opposite direction, was attacked in July, all the intermediate towns and villages escaping for a time; Jessore not till the middle of August; and Calcutta in the first week of September. In all these places the mortality was very great, and the consternation of all classes was so intense as almost to baffle description. From a threefold centre, if we may so speak—for it seemed to arise from three *foci*, and not from one—it gradually spread in all directions; from Nuddea over the Gangetic delta; from Mymensing eastward over the province of Silhet, southward to Dacca, and thence along the left bank of the Brahmaputra to Chittagong; and finally from Patna both down and up the Ganges, reaching Bundelkund early in November, and working frightful havoc in the central division of the army, encamped, under the personal command of the Marquis of Hastings, on the banks of the Sind. By easy stages it proceeded hence in a south-westerly direction to Bombay, which it did not reach till August 1818; and southwards from Lower Bengal to Madras, where it arrived in the following October. Now, then, for the first time in its history, we see this scourge of India becoming steadily aggressive, spreading step by step over the whole Peninsula, from which it has never, during these forty-eight years, been entirely absent, while its epidemic outbreaks have been frequent and severe, and from which, as a centre, it has radiated in all directions. The Commission, therefore, unanimously and without hesitation conclude, that "*the Asiatic cholera, which on several occasions has overrun the world, has its origin in India, which is its birthplace, and where it exists permanently in an endemic state.*"

The Commission next inquired whether, beyond the limits of India, the cholera now exists anywhere endemically. Here it is necessary to draw a distinction between the countries bordering upon Hindustan and European countries. As regards the former group, including Indo-China, China proper, the Indian Archipelago, Affghanistan, Beloochistan, Persia, and the south-eastern shores of the Arabian peninsula, while *very probable*, it is not conclusively proved, that the frequently recurring epidemics of which they have been the theatre during the last fifty years have been imported from India. The case of Persia is so peculiar, that the Commission have thought it right to make special mention of it in a note added on the 14th of June. It appears that in *eleven* years (1851 to 1862), Persia suffered from cholera epidemics during *nine*—viz., 1851, 52, 53, 55, 56, 57, 58, 60, and 61. Of these nine, *one* (that of 1851) seems to have been imported by Bassorah and other points in the Turkish province of Bagdad; but, as regards the other *eight*, it existed in Persia before its invasion of the Ottoman territory. This, however, does not, in the opinion of the Conference, prove the cholera to be endemic in Persia; because, from 1862 to 1865, there was an interval of three years and a half without any outbreak.

As regards European countries, again, the Caucasian provinces, Asiatic Turkey, the whole north of Africa, and the two Americas, there seems to be no doubt that "*the aggressive Asiatic cholera has never developed itself spontaneously in any of them.*" And, though the long duration in some places (*e.g.*, St. Petersburg) of the epidemic of 1847, and of the secondary outbreaks to which it gave rise, would seem to indicate the possibility of its becoming acclimatised in Europe, such an event must be regarded as very problematical, seeing it has not been proved even as regards the countries adjoining Hindustan.

The Conference, having next examined the question, whether there exists in the Hedjaz (in Arabia) an original source of cholera, either permanent or periodic, conclude, from the silence both of Niebuhr and Burckhardt as to its existence, though they speak explicitly of the diseases prevailing before 1821; and also from the fact that the epidemics in 1831, 35, 46, 47, 48, 59, and the following years till the great

epidemic of 1865, were *always* coincident with the arrival of the pilgrims, "*that the Asiatic cholera does not appear to have originated in the Hedjaz, but that it seems hitherto to have been always imported from without.*"

Next arose the important question, "Whether the cholera is endemic in every part of India, or only in certain districts (*régions*) which it might be possible to circumscribe?" From a careful consideration of the facts adduced, the following distinctions seem to be established. The cholera is *endemic*, with a tendency from time to time to become epidemic, generally in Bengal, but more especially in Calcutta, and, with less intensity, in Cawnpore and Allahabad and their environs; also at Arcot, in the Madras Presidency, and at Bombay. It is *epidemic every, or almost every, year*, with more or less violence, at Madras, Conjeveram, Pooreeor Juggernath, Tripetty, Mahadio, Trivellore, and other places where there are great assemblages of Hindu pilgrims. It is *epidemic at uncertain intervals*, but generally not longer than four or five years, in the North-West Provinces of Hindustan, also in every part of the presidencies of Madras and Bombay, and in Pegu.

It follows, then, that cholera is *endemic* only in a comparatively limited portion of India, above all in the Gangetic valley; and that all the other parts of this vast country appear to be, as regards cholera, in much the same condition as extra-Indian countries; *i. e.*, that the disease only appears accidentally as an epidemic, under conditions more or less appreciable. The want, however, of positive data as to the precise spots of the Gangetic valley and the delta of the Brahmaputra, where this endemic character is observed, deprives this distinction of much of its value. It would not even suffice to know precisely the places where the cholera *now* prevails permanently; but also those where it has never been absent since the careful observation of it was commenced; those where it has disappeared, and reappeared after an interval; and those where its endemic character is comparatively new. Still further, is it quite certain that it is endemic only in the specified districts, and not also in some of those places of pilgrimage where it yearly assumes an epidemic character? It would also be very important to know whether the principal epidemics that have prevailed in India since 1817 have originated in an endemic focus, or in consequence of departures (*provenances parties*) from such a focus. Lastly, what places or regions have hitherto proved refractory to the propagation of cholera?

It may be possible, with the help of such information as has not yet been forthcoming, but which the Indian records may be able to furnish, to establish that there exists in India but a small number of endemic foci, principally in the valley of the Ganges, whence have spread those epidemics which have ravaged first that country and then the world.

We have before us an able paper drawn up, in answer to queries issued by the French Government, by Dr. John Murray, the distinguished Inspector-General of Hospitals in the Upper Provinces, and dated "Simla, 15th May, 1866"; but the many interesting and important facts which it contains do not materially affect the conclusion arrived at by the Commission.

If, in the issue we have just been considering, the Indian Medical Department was placed on its trial, in the next the Commission flies at higher game, and places at its bar the Indian Government itself. The question for discussion and decision is as follows, "Do we know the causes by the concurrence of which the cholera arises spontaneously in India, and the circumstances which cause it to assume the epidemic form?"

The oozy alluvium of the deltas of the Ganges and Brahmaputra, exhaling, under a burning sun, the products of animal and vegetable decomposition; the Hindu custom of casting into the rivers multitudes of half-burned corpses; and the alleged neglect and consequent decay, since the end of last century, and especially since 1817, of the great hydraulic works executed by the ancient lords of the country; are all passed in review as possible clues to the solution of the problem thus clearly propounded. Dr. Goodeve, whom his colleagues justly consider a high authority, quickly disposes of the two first hypotheses, to the satisfaction of the Commission, by a reference to the delta of the Irawaddy in the immediately adjoining country of Burmah, which, though placed in exactly the same circumstances, exhibits no such cholera-producing peculiarities as that of the Ganges; and by the simple statement that the practice of committing the dead to the Ganges has existed from time immemorial, while the permanent prevalence of cholera on its banks is a fact of recent occurrence.

Then, as to the alleged neglect and decay of the canals for irrigation, Dr. Goodeve showed that the charge is entirely contradicted by facts. In the first place, these canals had ceased to work long before the commencement of English rule in India; and next, they existed chiefly in the Carnatic, in the south of the peninsula, and not in the delta of the Ganges and Brahmaputra, where, in fact, such works not only have never been executed, but are quite inapplicable. Much more likely to be productive of good are those hygienic measures which, having reference to the mode of life of the populations, engage the special attention of the permanent sanitary commissions in the three presidencies. He showed further, from an article in the *Edinburgh Review* for January 1864, based on official returns, that the canals in the Carnatic and Delhi had fallen into a state of complete inefficiency in the middle of last century, and that the latter had been restored and

greatly extended by works commenced in 1808 and finished in 1822. And if, absorbed by frequent wars and political complications, they have carried out more slowly than is desirable the great works which have been projected and commenced in every province, the Government of India can point to the Eastern Jumna Canal, 150 miles in length, and with 500 miles of drains, which irrigate 58,287 acres; the Western Jumna Canal, 445 miles long, which has clothed with fertility and life a previously sterile and depopulated region; above all, the gigantic and exclusively British work of the great canal of the Ganges; and in the Madras Presidency, the Godavery Canal—undertakings which have contributed enormously to the health, the wealth, and the comfort of the native population. In consequence of these representations, of which they acknowledged the conclusiveness, the Commission unanimously found that, while the endemic character of the cholera in certain places must depend on some inherent peculiarity in these places, it cannot be attributed to any of the causes which have commonly been adduced in explanation of it.

At last we breathe more freely! "Perfidious Albion" is acquitted—and, let us say it, handsomely acquitted—of having caused the cholera, and the wholesale devastation which has followed in its train, not only in India, but throughout the world.

EVERY one who has read the report of the charge last week brought against Dr. Part will rejoice at the verdict of the jury, that Mr. Golding died of natural causes. The charge of suspected poisoning was clearly occasioned by the anger and disappointment of those with whom Mr. Golding had lived before his death. There was not the slightest ground for any charge of the kind against Dr. Part. One fact, however, turned up in the inquiry, which will have surprised most people, and which we think requires, in a medico-jurisprudential point of view, some attention. We must hope that we shall have a full explanation of the fact to which we allude from professors who deal especially with matters of this kind. Mr. Rodgers, it appears, found in the stomach of Mr. Golding both morphia and arsenic—mere traces of them, it is true, but still enough to swear by. He also found a trace of arsenic in the intestines, but none of it in the liver. He was perfectly satisfied, from the absence of arsenic in the liver, that the arsenic had nothing to do with the cause of death. He suggested that the arsenic might have entered the stomach with the food, and stated his belief that the deceased died of bronchitis. Now, medico-legal chemists—we say it with the greatest respect—are not infallible; and, as may be well remembered in a very serious case of suspected poisoning, even arsenic was found in a fluid where no arsenic really existed, except what was introduced into it by the copper wire of the operator himself. We must say this finding of traces of poison cannot be regarded as satisfactory, unless corroborated by more than one capable witness. In so delicate an affair as this, where a chance of error besets the operator in so many directions, and where the life or reputation of an individual may depend upon a shade of colour, it seems to us not satisfactory that the testing should be left solely in the hands of one operator. Happily, in the present case, no ill results have ensued from the finding of these traces. But the discovery of a trace of arsenic in a person's stomach might, under certain circumstances, cause a suspected person to be unjustly convicted of murder. We, therefore, should like competent persons to tell us, first, Is it sure and positive that traces of arsenic may be infallibly detected, *without chance of error*, in the way followed by Mr. Rodgers? And is it a fact that arsenic not unfrequently finds its way into our stomachs, carried there with food cooked in tin pots, etc.? Is this a common occurrence? Mr. Rodgers, we believe, admits that he never before found arsenic in the stomach of a person where there was not suspicion of poisoning, or where it had not been taken as medicine; and it is probable that no other chemist has done so. Here, then, is a new fact, if such it be, in jurisprudence. How will it act in future cases of suspected poisoning? Will not the accused say, "Why, arsenic may be found in the stomach of any one, taken with food, and derived from the pots or pans in which it was cooked"? The presence of arsenic in the stomach, therefore, is no longer a ground for suspicion even of the crime of poisoning, unless it be also found in the liver. But, if the arsenic may get from cookery pots and pans into the stomach, why may it not from the same source find its way into the liver? The pots may have for many days yielded up a quantum of arsenic to the food, and so as to have at last impregnated the system of the man. Reflections of this kind may possibly bring to the memory of some of our readers the case of Madame Lafarge, who narrowly escaped the guillotine, and was sent to prison for life for the murder (as asserted) of her husband. In her case, a mere trace of arsenic was found by Orfila; and we well remember the words of the well known expert chemist who was employed on the side of the accused. "I could," he said to the President of the Court, "get more arsenic out of the old chair you are sitting on, than has been found in the body of that man."

THE Report of the second annual meeting of the Edinburgh University Club tells of its continued prosperity. It has only been in existence two years, and numbers two hundred and sixty-eight members. During the past year, thirty-eight new members

have joined; none have resigned; one member, Dr. D. King of Eltham, has died. Of the total number, one hundred and thirty-four reside in London or its neighbourhood, while one hundred and thirty-four reside in the provinces of England, in Scotland, or abroad. The Council have elected the following noblemen and gentlemen as honorary members. The Duke of Argyll; T. Graham, F.R.S.; Sir F. Grant; The Right Hon. John Inglis; Dr. C. Mackay, LL.D.; the Rev. Norman McLeod, D.D.; Professor Masson; the Right Hon. James Moncrieff; Sir Roderick I. Murchison, Bart., K.C.B., F.R.S.; Dr. Sharpey, Sec. R.S. The majority of the members are still medical graduates; but this circumstance is due to the greater facilities for making the existence of the club known to them than to graduates of other Faculties. During the late session of Parliament, the Council of the Club exerted themselves to obtain a member of Parliament for the University of Edinburgh.

"Nothing," says the Report, "seemed more preposterous than that, in a redistribution of seats, as proposed by the late Government in their Reform Bill, Ireland should have three university seats, and Scotland only one; or that Trinity College, Dublin, should retain two members, while Edinburgh University had only one-fourth of a member, so to speak. The constituency of Edinburgh University, in 1863, was 2300; of Glasgow, 950; of Aberdeen, 502; and of St. Andrews, 377. That of Edinburgh, indeed, might be easily doubled, if not trebled, by the registration of other graduates; but taking the number as it stands, Edinburgh has more than all the three others by a large difference. It follows that, setting aside its higher position in present and old reputation, and its metropolitan claim, Edinburgh University has a right, by the mere amount of its constituency, to a member for itself, and ought not to be reduced to a level with Glasgow, Aberdeen, and St. Andrews, as proposed by the late Government."

Dr. Hibbert Taylor offers, in a pamphlet, to the profession, the address which he delivered at Chester at the meeting of the British Medical Association on the subject of "Medical Missions, in their Foreign and Home Aspects."

Dr. Liharzik of Vienna, Dr. J. Weidinger of Neubau (a suburb of Vienna), and Dr. Friese, Emeritus Professor of Zcology in the Vienna University, have died of cholera.

Dr. von Dietl, who was last year unaccountably removed from his professorship in the University of Cracow, has been chosen burgomaster of that city.

M. Le Sauvage has left to the University of Caen 6000 *francs* for founding an annual prize in descriptive, general, and comparative anatomy, and physiology. It is open to students of the second and third year, and will consist of a medal, or, if the essays be not of sufficient merit, "encouragement" in the shape of books.

Association Intelligence.

COMMITTEE OF COUNCIL: NOTICE OF MEETING.

The Committee of Council will meet at the Queen's Hotel, Birmingham, on Thursday, the 4th day of October, 1866, at 3 o'clock P.M. *precisely.*

To receive the resignation of the Editor of the Journal, and to devise what steps shall be taken relative thereto; and other very important business.

T. Watkin Williams, *General Secretary.*

13, Newhall Street, Birmingham, September 6th, 1866.

SHROPSHIRE ETHICAL BRANCH.

The next annual meeting of the above Branch will be held at the Raven Hotel, Shrewsbury, on Monday, October 1st, at 1 P.M.

Dinner at 3.30 P.M. Dr. W. Slyman, of Newtown, in the chair.

Members intending to read papers, or to be present at the dinner, are requested to communicate with the Honorary Secretaries without delay.

Jukes Styrap, L.K.Q.C.P. } *Hon.*
Edwyn Andrew, M.D. } *Secs.*

Shrewsbury, September 11th, 1866.

SOUTH MIDLAND BRANCH.

The autumnal meeting of the South Midland Branch will be held at the Corn Exchange, Leighton Buzzard on Wednesday, October 17th; E. Lawford, Esq., President, in the Chair.

Gentlemen intending to read papers or cases are requested to send their titles to Dr. Bryan, Northampton, before October 4th.

J. M. Bryan, M.D., Northampton. } *Hon.*
G. P. Goldsmith, Bedford. } *Secs.*

September 21st, 1866.

SOUTH EASTERN BRANCH: EAST SURREY DISTRICT MEDICAL MEETINGS.

The next meeting is appointed to be held at the White Hart Inn, Reigate, on Thursday, October 11th, at 4 P.M.; Dr. Holman in the chair.

Papers are promised by Mr. Sargent, "Report of Cases"; by Dr. Anstie, "On the Sphygmograph"; by Dr. Down, of Earlswood; and by Mr. Napper.

Dinner will be provided at 6 P.M.

Henry T. Lanchester, M.D., *Hon. Sec.*

Croydon, September 26th, 1866.

Strong Drinks as Cure for Fever. The famous "Albert Nyanza" Baker thus describes his experience of alcohol whilst suffering under African fever. "I found an extraordinary change in my health from the time that I commenced drinking the potato-whiskey. Every day I drank hot toddy. I became strong; and from that time to the present day my fever left me, occurring only once or twice during the first six months, and then quitting me entirely. Not having tasted either wine or spirits for nearly two years, the sudden change from total abstinence to a moderate allowance of stimulant produced a marvellous effect."

EXCISION OF PART OF THE SPINAL ACCESSORY NERVE.

Mr. Campbell De Morgan describes a Case of Excision of a part of the Spinal Accessory Nerve, for Spasmodic Wry Neck.

A healthy man, aged 32, was crushed by a heavy ladder, in October 1860, but no particular injury appeared to have been done, and he does not seem to have noticed anything until December, when he became affected with twitchings in the neck. These spasmodic attacks became powerful and continuous, so as to unfit him for work. On January 29th, 1861, he was admitted into the Middlesex Hospital. There was an anxious worn look in the countenance, and occasional spasm of the facial muscles. The eyes were constantly twitched towards the right. The head was spasmodically drawn to the right side, and the right shoulder was at the same time raised towards it. There was with this a movement of rotation of the head, the chin being turned towards the point of the right shoulder, with the face looking directly over it. The spasms were at times so violent as to draw the chin behind the line of the shoulder. The sterno-mastoïd and trapezius muscles were thrown into strong relief during the more violent spasms. The right shoulder was always on a higher level than the left, and this gave an appearance of distortion to the body, but the spine was quite straight. The great pain which the patient suffered and the spasmodic contractions were due, probably, to the antagonistic action of several muscles, the splenius, and the inferior oblique and the greater posterior rectus, dragging the face round in opposition to the actions of the trapezius and sterno-cleido-mastoïd. There was no affection of the muscles of mastication.

By a very strong effort, and aided by the pressure of his hands, he could nearly, but not quite, bring the head into its natural position; but this was in a few seconds followed by more severe spasms. Any attempt by others to restore the head to its position by external force gave rise to such violent muscular action in the neck as to make it insupportable. When the paroxysms were severe he suffered very great pain, and he was never altogether free from discomfort.

During sleep the head was sometimes, though rarely, quiet, and lay in a natural position; but generally it was twisted round, and at times the spasms came on so as to awaken him. Some times he was altogether prevented from sleeping by them. There was no appearance of disease or injury about the spine; the examination would bring on more powerful action, and thus produce pain; but the same would occur if any part of the right side of the neck were handled. He complained of pain down the back; but there was no particular tenderness in any part of it. His general health was impaired by the constant pain and loss of rest.

The most careful examination failed to reveal any special point of irritation which might by reflex action give rise to these spasms. For many months he was subjected to treatment, but with no benefit. The sterno-cleido-mastoïd muscle was then divided. The extreme tension and spasm were at once markedly relaxed, but by no means entirely overcome. The muscle united quickly, and the spasms recurred with as much violence as before. The man's health was giving way under the constant pain and irritation, so that division of the external branch of the spinal accessory and the removal of a part of the nerve seemed alone to promise the desired effect, and this operation was performed in February 1862.

An incision two inches long was made along the posterior border of the muscle, the centre of the incision corresponding to about the centre of its edge. The fascia being slit up to the same extent, the trapezial branch of the nerve was sought for as it emerges from the sterno-cleido-mastoïd to cross the posterior triangle of the neck. It would be found generally a little above the centre of the incision. When found, the nerve was traced through the fibres of the muscle, the fibres being cut through much as is done in an ordinary anatomical dissection, until the common trunk above the division into the trapezial and sterno-mastoid branches was reached, and here a piece about a quarter of an inch in length was cut out. As the operation was, of course, done under chloroform, no effect was observable when the nerve was divided, the muscles were already thoroughly relaxed from its influence. On his recovery from the effects of the chloroform the trapezius and sterno-cleido-mastoid were found to be completely paralysed, and although there was still an occasional and slight convulsive movement of rotation of the head, it lay on the pillow in almost a natural position. There was no tendency whatever to undue action of the corresponding muscles on the opposite side. The respiration was not in any way affected, nor did he experience any peculiar sensation. All he did feel was relief from the extreme tension of the neck. The countenance was more tranquil than it had been for months. The wound healed without any trouble; and the man recovered.

He was discharged in May 1862, having been in the hospital upwards of sixteen months. On leaving the hospital he went down to the country, where he was soon able to resume his work.

In January 1865, Mr. De Morgan examined his condition. He was looking healthy, the countenance was tranquil, the face turned directly forward with the forehead and chin in a perpendicular line. Occasionally and for a few seconds there was a trifling twitch of the head. Any sudden touch or excitement would bring this on. The right arm hung listlessly against the side. The body was a little deflected from the perpendicular. The right sterno-cleido-mastoïd muscle was completely wasted, except at its upper and posterior part; here for about the breadth of half an inch, and extending from behind the mastoid process to the middle of the posterior border of the muscle, it was nearly as large as on the opposite side. Towards its lower end this band of fibres, which contracted strongly on his moving his head, tapered off to a point. The trapezius was wasted: a lamina not thicker than a shilling, and quite flaccid, could be felt in the neck. No contraction could be discovered in any part on his moving his head or shoulders. The rhomboid muscles could be seen in action below its dorsal part. These muscles were apparently larger than natural. On the opposite side the trapezius was largely developed. The right arm and forearm were as powerfully developed as the left. His respiration was natural. No alteration of sensibility was to be discovered in the neck and back.

Mr. De Morgan believes this to be the only instance of resection, in man, of the trunk of the external branch of the spinal accessory, and it is consequently interesting in a physiological as well as in a surgical point of view.

The fact of the upper and posterior part of the sterno-cleido-mastoïd muscle retaining its activity may be accounted for by the existence of some twigs given off from the nerve to the muscle before its division into its two main branches.

In a surgical point of view, the case is of interest

as one of unusual severity and involving a large class of muscles. The pathology of wry neck from muscular action is but imperfectly understood. Mr. De Morgan believes that the complaint is due to an irritation of the nerves in every instance in which inflammation or some disease of the muscles themselves has not preceded it. He doubts much whether, as is often alleged to be the case, it is ever caused by paralysis of the muscles of the opposite side.

THE CHOLERA.

From the daily "cholera" return for Sunday and Monday last, we find that there is once more a marked decrease in the deaths as compared with those on the previous day. Since the outbreak of the pestilence it has been remarked that there have always been fewer deaths on these days than on any other in the week—a fact for which no reasonable explanation has yet been given. The deaths in the last seven days were:—Cholera: Tuesday, 19; Wednesday, 28; Thursday, 20; Friday, 26; Saturday, 26; and Sunday and Monday, 43, or 21½ for each day. Diarrhœa: 27, 11, 9, 13, 17, and 12, or 6 for each of the two last days.

The good derived from house-to-house visitation in the metropolis is palpable. None can tell to what extent the epidemic has been checked by this means; but assuredly, if we have cured little, we have prevented much cholera. During the past two months, on the Thames, from London Bridge to Woolwich, a regular ship-to-ship visitation has been, and is still, going on. Above 400 vessels are visited daily, and medicines given in all cases of diarrhœa. The above number of vessels represents at least 1,800 persons of both sexes and all ages. In the epidemics of 1849 and of 1854 respectively, 250 cases of cholera were received by the *Dreadnought* authorities. During the present epidemic, 73 cases have been entered on the books of the *Belleisle* hospital-ship. What has been in this way effected shows a glaring sanitary defect in the governance of our own port of London. The arrangements of the Board of Health enjoin that the medical officer in each district is to be deemed responsible for the supervision of that portion of the river flowing through such district, and to inspect all floating habitations moored thereon. But such an arrangement is utterly impossible of performance when an epidemic is raging. The Thames is ruled by a Conservancy Board, and no interference with the administrative management of that great highway for commerce is permitted to the authorities of the parishes through which it flows. This body have an inspector of nuisances, whose exertions are confined to preventing the Thames being used as a convenient dustbin by its floating denizens; and his work has no reference whatever to the sanitary condition of the shipping. The Conservators are, as a body, rightly endowed by the legislature with great powers, having charge of most important commercial interests. In due support of those interests, it is right that they should possess and use the power to appoint a medical staff of their own. Among our many sanitary sins of omission, few at present are more patent than the non-existence of a medical officer of health for the port of London.

In Glasgow, we learn from the *Daily Herald*, the sanitary inspection of the city by the citizens themselves, which was approved of by a public meeting in the City Hall a few weeks ago, has now become an all but accomplished fact. The meeting in the City Hall resulted in the appointment of an influential committee to see to the carrying out of the proposed object. That committee divided the city into nine sections, and then appointed a separate committee for each of these sections. An appeal was made by the clergymen to the male members of their congregations to act as visitors; first, to inform the authorities if anything of the nature of a nuisance was observed within the tour of their inspection outside the houses; and, secondly, to call upon the occupants in the character of friends as well as of fellow-citizens, and to use every kind of influence to remove the domestic causes of epidemic disease, and especially to secure attention to personal cleanliness. It was explained that, while it would be entirely optional to the occupant of a house to admit the visitors or not, and would be also optional to him to adopt or not any advice they might give, it would also be their duty where they detected a nuisance in any private house, which was not removed upon their pointing it out to the occupant, to report this to the authorities who had the legal power to deal with it. About 3000 persons volunteered their services, a considerable number being working men. Every house in the city, with but one or two exceptions, has nominally been taken charge of; but it is feared that many of the visitors have had too large a district given them. It is thought that two or three hours a week is as much time, and the inspection of twenty to twenty-five houses (such being visited twice a week more or less thoroughly, according to the state they appear to be in), is as great a labour as can reasonably be asked from visitors. In no case is it proposed to send visitors into any place where cholera is already known to exist, the medical staff being quite prepared in such case to supplant the non-official district visitors. The alacrity with which the clergy entered into the scheme, the harmony with which they have met and deliberated together, and the labour and pains they have bestowed upon it, are beyond all praise. Dr. Gairdner has literally been the mainspring of the movement, attending all the meetings of the several committees, and giving most invaluable information and advice. Dr. M'Gill and the other medical officers of the city have also rendered most efficient assistance.

The *Wiener Med. Wochenschr.* says (21st September) that, although the cholera is becoming milder and the cases less numerous, there are still more than 100 fresh cases and 50 deaths daily in Vienna and the suburbs. Throughout Lower Austria, the epidemic is diminishing. Up to September 7th, in 264 localities in Lower Austria with a population of 174,000, there were 12,590 cases of cholera, of which 6624 recovered, 4327 died, and 1939 remained under treatment.

The week ending September 8th was marked by a decided subsidence of this disease in all parts of the United States. It had prevailed with the greatest severity in some of the western cities, as Cincinnati, St. Louis, Chicago, and Memphis, but the reports had dwindled down to but a few cases daily, and scarcely any deaths. But very few cases were reported in New York and Brooklyn. The cities of Boston, Baltimore, and Washington seemed to be remarkably exempt from the disease; and indeed south of Philadelphia only a few cases were reported from Richmond and New Orleans—the other southern cities being almost entirely exempt from the disease. In Philadelphia the epidemic did not attain much power. The total number of deaths there to July 28th was 33. The following had been the mortality since that time:—week ending August 4th, 47; August 11th, 52; August 18th, 56; August 25th, 91; September 1st, 58. The sexes, etc., of the deceased were as follows:—Male 157, female 178; adult 283, children 52.

COD-LIVER OIL.

Messrs. J. and A. Bedford of Leadenhall Street have just issued a little work in which they describe, under the name of "Crystal Cod-Liver Oleine", a very fine specimen of cod-liver oil of which they announce a new importation, and which they are desirous of introducing to the notice of the medical profession. They disclaim for it any special curative virtues over other first-rate specimens of the oil; but assert that it has certain peculiarly advantageous properties.

"1. In the first place the oil is a pure oleine: it is more purely oleine than specimens specially prepared in this country. Thus we offer for the first time, *on an extensive scale*, a pure oleine derived from the liver of the cod.

"2. The oil being expressed and refined from the fresh liver of the fish, there is in it no trace of decomposing organic matter, nor of volatile product of decomposition; hence it is free from fishy or other disagreeable odour. The sense of smell of the most delicate person would not be affected by it in the least degree.

"3. The oil is entirely free from rancidity, and consequently from those fatty acids to which we have directed attention as common to inferior specimens of cod-liver oil. It is less liable, therefore, to produce symptoms of indigestion—viz., heartburn, nausea, eructation, irritability of the bowels, or diarrhœa.

"4. The oil is almost tasteless, and with many, if not all, it is considered quite tasteless; it drinks as blandly as new milk, and leaves no unpleasant flavour behind."

A specimen which has been forwarded to us is a clear oily fluid, having—to our senses—only a slight and not disagreeable amount of the smell and taste of cod-liver oil.

VEGETABLE CHARCOAL.

The antiseptic properties of vegetable charcoal have led to its internal use in dyspepsia, in which it has been found to be productive in many cases of much relief. Mr. Bragg of Wigmore Street is well known as the manufacturer of charcoal of a very pure quality, which he supplies both in the form of powder and of biscuits. The biscuits we have found to be, although rather unsightly, pleasant to the taste. The charcoal in powder is perfectly free from grittiness, and may be readily taken mixed with water.

Elephantiasis of the Clitoris. Dr. Lyman reported, at a recent meeting of the Chicago Medical Society, a specimen of elephantiasis of the clitoris, removed by Dr. McClure. The patient was a woman, aged about 25, mother of several children, and had suffered with constitutional syphilis. The clitoris commenced to enlarge about three years previously. It formed a pendulous, bifid tumour, dangling between the thighs, and reaching half way to the knees. Its surface was nodulated, and ulcerated at several points, exuding a most offensive discharge. The tumour was easily removed by amputation after the application of a whip-cord ligature around its pedicle. The stump cicatrised in eight days after the operation. Microscopical examination showed fibrous and connective tissue as the principal elements of the mass.

Reports of Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, June 26th, 1866.

James Alderson, M.D., F.R.S., President, in the Chair.

REMARKS ON CHRONIC ALBUMINURIA, ORIGINATING DURING THE CONVALESCENCE FROM SCARLET FEVER AND OTHER ERUPTIVE DISEASES. BY HERMANN WEBER, M.D., F.R.C.P.

These remarks did not refer to the well-known and easily recognised acute scarlatinal dropsy or desquamative nephritis of scarlet fever, but to a chronic form of albuminuria originating occasionally at a much later period, when recovery had apparently been established already for several weeks. The author related three cases of scarlet fever, unattended with albumen in the urine or any other symptoms of renal complication during the first four weeks from the commencement. The subjects of the cases appeared quite well at the end of about a month, when they returned to their usual mode of living; but about three or four weeks later the general health became disturbed (loss of appetite and strength, headache, glandular swellings, boils, anæmia, and occasional sickness), and the urine, as soon as the patients came under treatment, was found highly albuminous. Perfect recovery took place in one case; while in another the general health became much improved, but a slight degree of albuminuria has remained; and in the third case death occurred seven years after the commencement from broncho-pneumonia, with uræmic symptoms, the *post mortem* examination exhibiting waxy degeneration (amyloid) of the kidneys. The author maintained that the connexion between the scarlet fever and the renal disease in this class of cases was not the same as in the acute scarlatinal dropsy: while the latter might be considered as a part of the scarlet fever process, the former, originating at a much later period, was probably only so far connected with the scarlet fever as through it a greater susceptibility to the development of chronic renal disease was effected, in the same way as there resulted a tendency to other chronic affections, like glandular swellings, and eruption of boils. The author believed that the same tendency might be caused also by other acute diseases, especially those of exanthematous nature, and gave two cases in which chronic albuminuria took its origin in persons who had lately recovered from erysipelas of the head and typhoid fever respectively, in both of which cases, during the febrile state and during the convalescence, the urine had been quite free from albumen. He referred also to a similar case occurring after typhus fever, and described by Dr. Johnson in his work on *Diseases of the Kidneys*. (London, 1852, p. 408.) The author was inclined to infer from such cases that amongst the many cases of Bright's disease the origin of which is uncertain, a not inconsiderable proportion may have been developed during the later stages of convalescence from exanthematous diseases; that, therefore, as urged already by Dr. Johnson with regard to fever, particular care ought to be taken during these stages with regard to diet, clothing, habitation, avoidance of over-exertion and exposure to cold and damp air. Dr. Weber further pointed out that the insidiousness of the commencement of this chronic albuminuria, as in four cases out of the five related, anasarca and admixture of blood

with the urine were altogether absent. Lassitude, loss of strength, anorexia, swelling of the lymphatic glands, and eruptions of boils, being the principal symptoms, ought, therefore, always to lead to an examination of the urine the more so as by an early discovery of the renal disease the chance of a perfect cure was much increased, as seen in two of the five cases reported.

The treatment consisted in attention to skin and diet; in the administration of iron with acidulated acetate of ammonia, and occasional doses of elaterium to relieve the kidneys, and in the use of the hot vapour bath or the warm wet sheet.

ON THE DETECTION OF LUNG-TISSUE IN THE EXPECTORATION OF PERSONS AFFECTED WITH PHTHISIS. BY SAMUEL FENWICK, M.D.

The author stated that he had included in his paper the results obtained from the examination by the microscope of the expectoration of one hundred real or suspected cases of phthisis. The plan hitherto recommended of searching for pulmonary tissue in sputum had been to spread it on a flat surface, and to pick out of it with needles any portions that might appear likely to contain elastic fibre. He had, on the contrary, been in the habit of liquefying the expectoration by boiling it with a solution of pure soda, and then placing the fluid in a conical-shaped glass, when every particle of elastic tissue fell to the bottom, and could be removed and placed under the microscope, as in the examination of urinary deposits. In this way he had easily found one hundredth part of a grain of pulmonary structure after it had been mixed in bronchial mucus; and he calculated that one-thousandth to one six-thousandth part of a grain might be detected in any expectoration that may contain it.

In thirteen out of twenty-three cases in which tubercle was suspected to be in the first stage, lung-tissue was found in the sputum. In seven of the twenty-three cases, there was no physical sign of tubercle, but its existence in the lung was suspected from general symptoms only; and in the expectoration from these there was no pulmonary tissue. In sixteen cases there were stethoscopic signs leading to the belief that tubercle was present; and in thirteen of them elastic fibre was found in the mucus coughed up.

There were twenty-four cases in which auscultation and percussion indicated softening of tubercle in the lungs, and in all pulmonary tissue was present in the sputa. In fifteen the physical signs were of a doubtful nature, and seven of these presented microscopic evidence of ulceration of the lungs.

In thirty-five cases the stethoscope indicated cavities, and in all these there were fragments of lung-tissue in the expectoration. In two cases the author had diagnosed enlarged bronchial tubes, and in neither of them was there any appearance of elastic fibre in the sputum. In sixty-nine cases he counted the numbers and size of the fragments of lung expelled. In one specimen, coughed up in twelve hours, eight hundred fragments were found; and often fifty or sixty fragments were detected, where, from the stethoscopic signs alone, no great destruction of lung could have been anticipated.

The proportion of bronchial tubes the author found to be least in the stage of softening, and greatest where the stethoscope indicated cavities. The greatest proportion of fragments of single air-cells was found in the first stage, and the largest proportion of large fragments of lung where cavities existed.

The author concluded his paper by giving a number of practical directions as to the best method of conducting the examination of the expectoration, in order to find with quickness and certainty any pulmonary tissue that may be present.

HYDATID OF THE LIVER, TREATED SUCCESSFULLY BY THE INJECTION OF THE EXTRACT OF MALE FERN INTO THE CYST. BY F. W. PAVY, M.D., F.R.S.

Harriet V., a woman of pretty healthy appearance, aged 21, was admitted into Mary ward, under the care of Dr. PAVY, Oct. 4th, 1865. When three years old she was squeezed against a wall by a cart-wheel, which struck her somewhere on the right side of the chest. No rib was fractured, and she soon recovered from the accident. About six years ago the patient noticed a slight swelling in her right side, which has since continued gradually increasing in size.

On examination, a large deep-seated tumour was to be noticed occupying the right hypochondriac region, and extending considerably beyond, both above and below. Its boundary could be clearly defined inferiorly. It caused a considerable bulging of the ribs on the right side, and the right mammary gland was raised about three quarters of an inch above the level of the left. Fluctuation was apparent. Dulness extended as high as the lower border of the second rib on the right side.

The case was diagnosed to be one of hydatid tumour of the liver. The relationship that is agreed upon by helminthologists to exist between the hydatid and the tænia, and the known effect of the extract of male fern upon the latter, suggested to the author the treatment adopted. The extract is not miscible with alcohol or water, but it was ascertained that a liquid sufficiently thin for passing through a fine cannula was to be obtained by admixture with a little potash.

Nov. 6th. A fine trocar and cannula were introduced into the tumour by Mr. Durham, and about four ounces of a limpid colourless fluid allowed to escape, in order to diminish the tension of the cyst. A liquid consisting of half a drachm (by measure) of the purified semi-fluid extract of male fern, half a drachm of liquor potassæ, and six drachms of water, was then injected into the sac, care being taken throughout to prevent the entrance of air. The fluid removed was examined, and found to be non-albuminous, charged with a large quantity of the chloride of sodium, and to contain hooklets of the echinococcus. At the introduction of the trocar the patient complained of experiencing a considerable amount of pain, which she referred to the lower part of the abdomen. Some febrile excitement, vomiting, and purging followed, but there was no evidence of peritonitis.

Nov. 10th. On percussion, it was found that dulness did not extend so high in the chest on the right side by one rib as previous to the operation.

Nov. 16th. The patient was allowed to get up.

Nov. 20th. The tumour was found to be much diminished in size. It was much softer, did not extend so low down in the abdomen, and was much less distinctly circumscribed. The chest was resonant on percussion as low as the space between the fourth and fifth ribs.

Nov. 29th. The circumference over the most projecting part of the tumour before the operation was 34¼ inches: to-day it was 31¾ inches: showing a reduction of 2½ inches. The tumour was very soft, and its lower border not so defined as formerly. The patient, being well, was allowed to leave the hospital.

A fortnight and again a month afterwards she was seen, and found to be progressing satisfactorily.

May 10th, 1866. Since she was last seen the patient had suffered from an attack of rheumatic fever with heart-complication, and bronchitis. She

had been in no way troubled with her side, and her circumference now was thirty inches. No swelling was perceptible to the eye, but a hardness remained in the hypochondriac region.

The inference to be drawn from the result in this case was, that the injection of the extract of male fern caused an immediate destruction of the life of the hydatid without the production of suppuration, and that a rapid absorption of the fluid element of the cyst afterwards took place.

Correspondence.

ON THE THEORY OF CHOLERA, AND THE TREATMENT.

LETTER FROM GEORGE BODINGTON, L.R.C.P.E.

SIR,—I certainly could say more on the subject of cholera treatment, if permitted, and especially of a practical character; and, after the earnest appeal made to the profession by Dr. Handfield Jones, feel almost encouraged to "make an effort".

The late Dr. Samuel Parr, when a boy, was employed as a compounder of medicines in his father's apothecary's shop; but Sam, like Cardinal Wolsey, "was a scholar from his cradle, and a ripe and good one too", and would be for ever criticising the ungrammatical construction of the Latinity of the prescriptions. The old man, wearied with Sam's importunities, at last petulantly exclaimed, "Damn the Latin of the prescription, Sam; make the mixture." Are we not in like fashion rather wearying of these eternal squabbles on cholera theories, and eagerly desirous of passing upon them the sentence of condemnation, and ready to exclaim, "Make the mixture"? So far as our theoretical inferences are founded on facts, we cannot help reverting to them on such a subject; but then we should be sure of our facts.

There would seem to be two great principles affecting life, which are disturbed and deranged by this cholera invasion. The one is the subject of animal mechanics; that is, mechanics modified by vital actions. The hydraulic system of the circulation is here intended to be considered. The other is the chemical principle, as modified by life, and usually termed organic chemistry.

And, first, the heart, with its appendages the blood-vessels, is essentially a hydraulic machine, with vital modifications. The fulness and rotundity of the vessels are maintained by a certain amount of fluid—the blood; and if, by some sudden change induced by disease or by any means, one-half or two-thirds of this fluid be suddenly abstracted, then the vessels cannot maintain their rotundity; the mechanism gives way; they become flattened; or, as we say, they collapse. This much would appear to be quite intelligible on the simplest mechanical principles. The facts are obvious. More or less suddenly, the morbid invasion of cholera causes the discharge of the serous portion of the blood, which I on a former occasion termed the "vehicle of the circulation", inasmuch as the more vital elements of that fluid cannot be circulated in the absence of that vehicle, and all the facts of the case prove that they cannot. Moreover, the white or colourless portion—the serum—is the cause of the complexion; and so soon as it is withdrawn, we have the dark complexion, which is just what the *crassamentum* would give, the serum being withdrawn. We have then collapse of the vessels and the dark complexion accounted for on the simplest mechanical principles and altered physical arrangements. Now, to my mind it is easy to understand, these things being allowed so far—why we have a suppressed pulse and a suppressed respiration—why, in truth, vital actions of all kinds are nearly brought to a standstill, and too often quite extinguished. As to what blood there may be remaining after death being found on the right side of the heart, and not on the aortic side, that I presume to be accounted for on the ground that the pulmonary is the primary part of the circulation, the aortic the secondary. In case of death from cholera, the blood remaining would necessarily be found in the primary rather than in the secondary portion of the machine. The last effort would be made, and would fail there. I will not pretend to say what part *spasm* may perform in producing such result. To me there appear to be other causes sufficient to account for it. If there be spasm of the pulmonary arteries, that would be consequent and the effect of collapse, not the cause of it. The pulmonary capillaries may refuse, or be incapable of circulating the mere thick elements of the blood, the serum having been withdrawn; but that is the effect, not the cause, of cholera collapse. The sudden and large abstraction of blood, whether white or coloured, is productive of violent muscular convulsions or spasms, as is seen every day in the slaughter of animals by the butcher. There may be spasm; but it would appear physically impossible, on simply mechanical principles, that the elaborate and finely extended pulmonary circulating system should be capable of completing its function when presented with only thick and almost solid blood. The practical question is, How is the serous hæmorrhage to be stayed, or the fluid restored? By patience and perseverance, and the expectant method in part, restraining the flow by acid astringents in moderate doses, and by repeated draughts of easily digestible nourishing drinks, such as thin gruel, barley-water, etc.; moderate quantities of stimulants, diluted, and not given in excess, but apportioned in accordance with the amount of vitality left in the system.

According to all analogy, there should be no *heroic* doses of medicines of any kind in this disease, nor any large quantities of stimulants or nourishment, but only such as the reduced, collapsed, and low vitality of the stomach can bear. Just as we treat a man who has been without food for several days: we restore him by cautious and gradual steps, and so avoid the danger of killing him outright. In cholera collapse, the vitality of the stomach is as much reduced as is the power of the heart and the respiratory organs. I am venturing to speak of the treatment of cholera in the stage of collapse.

The indications appear to be, to check the serous discharge, to restore it to the system, to allay nervous irritability along the course of the alimentary canal, and to gently stimulate the vital organs into renewed action. Whey or milk have the closest resemblance to the serum of the blood, as they come directly from the blood through the udder of the cow. The diluted sulphuric acid can be given either in whey or in milk and water. The object is to restrain the further flow of serum from the blood, and to restore that which has been lost; by the absorption of whey or the serous portion of milk. This may be aided by a little sherry and water, or weak brandy and water, given at frequent intervals. When whey or milk cannot be obtained, thin cool oatmeal-gruel, with a little salt, may be substituted. By these means, fluidity may be again given to the blood; and that means the restoration of the circulation, and, of course, of all the functions of life which had been held in suspense. When this can be done by absorption through the natural channels, the result

may fairly be expected to be favourable. I cannot say I have much faith in any method by transfusion or injection into the vessels: there seems to be an impracticability in the general adoption of such a course, irrespectively of the uncertainty of its action. To allay nervous excitement, my plan is to give from ten to twenty drops of liquor opii sedativus in a little sherry and water, once or twice in the space of twenty-four hours. This medicine and the morphines have a tendency to produce syncope in many constitutions, unless combined with a moderate amount of stimulus. With this precaution, they are much preferable to laudanum as sedatives. In cholera collapse, there is coldness of the surface; but I cannot but deprecate the smothering and parboiling system. Patience and a moderate amount of blanketing are best. When the disease prevailed so fatally at Bilston many years since, some of the patients who underwent the heating and smothering system, and apparently died under it, on being "laid out" in a cold chamber, with the windows open all night, were found to have rallied in the morning, although coffins had been ordered for them, preparatory to a hasty funeral. This was a most serious and important fact, not to be lost sight of, for very obvious reasons.

As to the chemical nature of the cholera poison, judging *à priori* and from analogy, it appertains to alkalinity. It flourishes amongst corrupting matters, animal or vegetable. There are facts indicative of its non-presence as an epidemic in neighbourhoods where sulphurous acid gases are constantly prevalent in the atmosphere. It has been ascertained by an eminent chemist, that the blood of animals affected by Rinderpest is unhealthily alkaline. The diseases cholera and Rinderpest, if not identically the same, bear a strong resemblance to each other, and would seem to be due to a common malaria, modified as to the symptoms by two distinct classes of animal life.

Assuming the poison to be an alkaloid of some kind, then the absorption into the system of a mineral acid would be the antidote and neutraliser, so far as such can be applied by medical art. It has been assumed that the rice-water evacuations contain the poison which is eliminated by those discharges; but chemical examination and research has failed to discover in them any poisonous quality whatever; and it may be fair to infer that they are the mere effect and result of the operation of the poison within the system, and are not eliminative in any respect. Therefore the practice would be sound to conserve that serum, and to transmit with it and through it, into the system, a chemically counteractive agent; and a mineral acid fulfils both these indications, astringing and conserving the serum, and, travelling with it into the system, accomplishes the other object.

It is thought by some that the poison operates through the nervous system, effecting its deadly purposes by some untoward electric or magnetic influences, disturbing the nervous currents in such a way as to work the destructive changes which take place in the blood. If this theory were true, it would appear that, as far as the nervous affection was concerned, the practical object would be to allay the excitement by sedatives judiciously administered, to reach the whole course of nervous expansion along the alimentary canal. I have never advocated the "opium and brandy treatment", nor do I consider it as well calculated to effect the object of allaying nervous excitement. I should rely on the more direct sedatives, such as the liquor opii sedativus or the morphines, given in moderate doses, with the sole object of soothing nervous irritation.

My objection to chalk as an astringent is, that it is an alkaline earth, and may possibly, *pro tanto*, enter into an alliance with the enemy; *ergo*, I would not employ it; and, moreover, it is in antagonism with the sulphuric acid.

I must now conclude abruptly, fearing I have already occupied too much of your valuable columns.

I am, etc., G. Bodington.

August 15th, 1866.

THE MEDICAL PROVIDENT SOCIETY.

Letter from A. B. Steele, Esq.

Sir,—The letter of Dr. Stephens on this subject is, I think, worthy of special attention.

To all that Dr. Stephens has to say in favour of affording "mutual help and comfort when sickness and disease attack those dependent on their daily labour for their daily bread," I give my most cordial assent, reminding him at the same time that this commendable principle is fully recognised in the Benevolent Fund of the Association, originated many years ago by the late Mr. Newnham, and in behalf of which, a few years before his death, he made a powerful appeal to his fellow-associates—an appeal which has scarcely, I fear, made so lasting an impression upon our feelings of benevolence as he perhaps anticipated.

I likewise concur in the sentiment, that to "assure against sickness is no more disgraceful . . . than to assure one's life, or to assure against accident or fire." "The principle," adds Dr. Stephens, "is the same." Precisely so; and it is on this very ground that much of my objection rests. *Non quo sed quomodo* is the point at issue between us. As in life-assurance, so in assurance against sickness, whilst a sound and successful company is a great boon, an unsuccessful undertaking of that nature ultimately involves serious disappointment and loss.

For the successful working of any such scheme, it is essential that there should be a wide field for operation, ample financial resources in the way of paid up capital and profitable investments, together with commercial experience and ability in the management. Without these, no system of assurance in sickness, commensurate with the position and wants of professional men, could be safely organised. (It is absurd to call a mere fixed allowance of £2 a week assurance against sickness applicable to medical practitioners.) These requirements can scarcely be found within the limits of a medical corporation, perhaps not even in the profession at large. They must be sought for in the commercial section of the community.

If the British Medical Association contemplated the establishment of a life or fire assurance, I suspect that the most sanguine would scarcely expect it to succeed; and for the same reason, and I believe even with greater certainty, the attempt to carry out assurance against sickness would sooner or later terminate in disastrous failure; for the contingencies and difficulties in detail are greater and more complicated in this than in the other ordinary forms of assurance, which probably is the reason why, in this age of commercial enterprise, no public company of repute has adopted it.

In appealing to the experience of other societies, Dr. Stephens has unconsciously given an illustrati[on] of one of the chief difficulties to be anticipate[d] organising such a scheme as that which we a[re] cussing. The history of the Sussex Medical [Aid] Society shows clearly that, whatever m[ay be] merits of these societies, they are not su[ited] the profession in any significant numbe[r]

ciety in question has existed for nine years; it has the countenance of "some of the leading medical men of the county"; and yet not more than twenty-seven have been tempted to join it, out of a medical population of probably from two to three hundred. The want of sympathy with the movement in Sussex can scarcely be attributed to my having "touched the pride of the profession", but is, no doubt, just what would happen elsewhere under similar circumstances.

I do hope that, on reflection, Dr. Stephens will see that, while he vastly over-estimates my humble influence, he is doing but scant justice to the judgment and common sense of his fellow-associates in supposing that they would reject a proposition at the mere dictation of an individual, or that they would accept his *veto*, unless, indeed, his arguments carried conviction to their own minds.

I am, etc., A. B. STEELE.

Liverpool, September 1866.

Medical News.

APOTHECARIES' HALL. On September 20th, 1866, the following Licentiates were admitted:—

Green, Frederick King, Stoke Newington
Smith, Robert Harman, St. Andrew's Road, S.E.

At the same Court, the following passed the first examination:—

De Morgan, Edward, Guy's Hospital
Orton, John, Sydenham College, Birmingham

APPOINTMENTS.

*SIMPSON, Henry, M.D.Lond., elected Physician to the Manchester Royal Infirmary.

ARMY.

BARRY, Staff-Surgeon D. P., to be Surgeon-Major, having completed twenty years' full-pay service.
CLIFFORD, Surgeon J. J., M.D., 9th Lancers, to be Surgeon-Major, having completed twenty years' full-pay service.
HARDING, Surgeon W. T., 19th Foot, to be Staff-Surgeon, *vice* E. L. Hiffernan.
HIFFERNAN, Staff-Surgeon E. L., to be Surgeon 19th Foot, *vice* W. T. Harding.
HOME, Staff-Surgeon A. D., C.B., to be Surgeon-Major, for ability and zeal during the late operations in New Zealand.
LAPSLEY, Staff-Surgeon W., to be Surgeon-Major, having completed twenty years' full-pay service.
LYONS, Staff-Assistant-Surgeon P. P., M.B., to be Assistant-Surgeon Rifle Brigade, *vice* R. J. B. Cunynghame, M.D.
MACKINNON, Surgeon W. A., C.B., 67th Foot, to be Surgeon-Major, for ability and zeal during the late operations in New Zealand.
REYNOLDS, Surgeon F., Military Train, to be Surgeon-Major, having completed twenty years' full-pay service.
SMITH, Surgeon A., M.D., Royal Artillery, to be Surgeon-Major, having completed twenty years' full-pay service.
TARRANT, Staff-Surgeon T., M.D., to be Surgeon Cape Mounted Riflemen, *vice* J. K. Leet, M.D.
TITTERTON, Staff-Assistant-Surgeon H., M.D., to be Staff-Surgeon, *vice* T. Tarrant, M.D.

ROYAL NAVY.

BABINGTON, A. W. W., Esq., Surgeon, to be Staff-Surgeon.
BENNETT, W. R., M.D., Assistant-Surgeon, to be Surgeon.
BROWNING, Benjamin, Esq., Surgeon (additional), to the *Victory*, in lieu of an Assistant-Surgeon.
BURTON, Matthew, M.D., Staff-Surgeon, to the *Zealous*.
CROWDY, Alfred S., Esq., Acting Assistant-Surgeon, to the *Zealous*.
FERGUSON, R., M.D., Assistant-Surgeon, to be Surgeon.
M'CARTHY, Dennis, Esq., Acting Assistant-Surgeon (additional), to the *Fisgard*, for service in the Woolwich Marine Infirmary.
REID, J. W. (*b*), M.D., Surgeon, to be Staff-Surgeon.
[illegible]DINGS, W. G., Esq., Assistant-Surgeon, to be Surgeon.
[illegible]PSON, John, Esq., Assistant-Surgeon, to the *Zealous*.
[illegible]E, J. A., Esq., Assistant-Surgeon, to be Surgeon.

[illegible]EERS, (A.V.=Artillery Volunteers; R.V.=[illegible]Volunteers):—
[illegible] M'Leod, Esq., to be Assistant-Surgeon 2nd New-[illegible]e A.V.
[illegible].D., to be Honorary Assistant-Surgeon 2nd Fife-

DEATH.

CRIBB. On September 20th, at Bishops Stortford, aged 67, Henry Cribb, Esq., Surgeon.

BEQUEST. Mr. W. U. Crocker, late of Blackheath, has left by will £100 to the Bath United Hospital.

DEATH IN THE STREET. On the 23rd instant, as Dr. E. Warren, residing at Sidmouth, South Devon, was proceeding to church, he fell, and in a few moments expired. He was 64 years of age. The cause of death was disease of the heart.

ALLEGED ILL-TREATMENT OF A LUNATIC. One of the attendants at the Surrey County Lunatic Asylum is charged with ill-treating one of the patients in that institution. The case was based upon the evidence of three painters, who were at work in one of the wards; and who state that the lunatic was knocked down, beaten, and ill-treated. The matter is adjourned.

THE SOCIAL SCIENCE ASSOCIATION. The Earl of Shaftesbury, the President, has consented to take the chair at the dinner, on October 9th. All the arrangements for the meeting are progressing satisfactorily, except one. The single exception is, that not enough funds for the expenses have yet been provided. The total sum required is only £2,500, of which £1,700 has been subscribed. (*Manchester Guardian.*)

HOSPITAL FOR CONSUMPTION, BROMPTON. At the Quarterly Court of Governors, on Thursday week, the following legacies were announced:—Miss A. Bailey, £500; Mrs. Sheldon, £100; Mr. W. H. Powell, half of residue; W. C. Grove, Esq., £100; Mrs. Story, £500; R. Churchward, Esq., £100; Mrs. H. Wilson, £100. This source of income afforded a means of making up the difference between the annual subscriptions and the year's expenses, the amount of the latter being still about double that of the former. The Bishop of Lichfield was elected a vice-president of the hospital.

THE MEDICAL SCHOOLS. In London the inaugural addresses will be delivered as follows. King's College, Sir William Fergusson; Guy's, Sir Lawrence Peel (president); Charing Cross, Mr. R. Barwell, F.R.C.S.; London, Dr. Head; St. George's, Dr. J. W. Ogle; University, Professor Ringer, M.D.; Westminster, Dr. Fincham; Middlesex, Mr. Hulke; St. Thomas's, Dr. Barker; St. Bartholomew's, Mr. Savory; St. Mary's, Mr. Haynes Walton. The following are the arrangements at some of the provincial schools. Manchester Royal School of Medicine, Dr. Browne; Liverpool Royal School, Mr. Reginald Harrison; Leeds School of Medicine, Mr. Samuel Hey; Queen's College, Birmingham, Mr. David Nelson; Sheffield School of Medicine, Dr. Aveling; College of Medicine, Newcastle-on-Tyne, Dr. C. J. Gibb.

ASYLUM FOR IDIOTS. We believe that to Dr. Seguin, of New York, belongs the high credit of first undertaking the education and training of idiots. This was several years previous to 1839, when Dr. Guggenbühl began to study Cretinism; and when the latter opened his School on the Abenberg, in 1842, simultaneously with that of M. Saegart at Berlin, Dr. Seguin had been for several years actively engaged in conducting a school for idiots, and had already published as many as four successive pamphlets on their treatment and education. In 1846, Dr. Kern established a school at Leipzic; soon after, another was opened at Bath, in England; and in 1848, Sir M. Peto devoted his own elegant mansion, Essex Hall, Colchester, to the same noble purpose. Scotland opened her first institution in 1852; and in June, 1853, was laid by Prince Albert the corner-stone of the school of Earlswood,

Surrey. Nearly all the nations of Europe have since followed these examples. In 1842 the first movement was set on foot for improving the condition of idiots in the United States. Massachusetts men made the first move; but the Legislature of New York was the first public body that undertook to legislate on the subject. Dr. Backus, of Rochester, introduced a bill to the Senate, at Albany, on the 13th of January, 1846, for the purchase of a site and the erection of suitable buildings for an asylum for idiots; which was not, however, carried out till 1854, when the New York State School for Idiots was permanently established at Syracuse, and Dr. H. B. Wilbur chosen superintendent. In the meantime, October, 1846, the State of Massachusetts opened her experimental school for idiots, under the charge of Dr. S. G. Howe, which has been in successful operation ever since. Dr. Wilbur had already opened his private institution at Barre in the preceding July. In July, 1851, his school was transferred to Albany, under the patronage of the State of New York; which finally became the present State Institution. In 1852, a private school was opened by Mr. Richards, at Germantown, which soon after was transferred to Media, where it became the "Pennsylvania Training-School for Idiots." Connecticut and Ohio opened their institutions respectively in 1855 and 1857; Kentucky in 1860; and Illinois in 1865. Thus the United States has eight of these schools, in which nearly one thousand children are constantly in training. This is only a beginning; all the Western and Southern States will probably soon possess similar establishments; and sooner or later, they must be supplied to all our large cities. (*New York Medical Record.*)

Nursing Children in France. The French Government is beginning to learn how it comes to pass that people in the middle and upper middle classes in France seldom rear large families. The custom in France among those classes is to put their young children out to nurse in the country, where the air is supposed to be better than in the towns. In all the principal cities there are Bureaux des Nourrices, under the especial superintendence of the police, at which countrywomen desirous of devoting themselves to the nurture of other people's children register themselves. Speculators, whose trade it is to act as middlemen between these professional nurses and parents, bring the former to Paris in omnibuses chartered for the purpose, provide them with nurslings whose parents have applied for nurses at the various *bureaux* there, and reconvey them back to their homes. Startling evidence has been laid before the Academy of Medicine of the horrors that take place in these vehicles on the return journey. The nurses swap the children away with each other, or sublet them, "I have seen," said M. Chevalier, addressing the Academy, "one woman undertake to nurse seven infants, who had neither milk herself, nor the means of procuring cow's milk." Badly fed and badly cared for, the mortality among the wretched children is frightful. Out of 20,000 babies who are annually sent out of Paris *en nourrice*, not more than 5,000 survive; 15,000 die of cold, hunger, and neglect. There are two communes of the Eure-et-Loire especially notorious for the mortality among the infants sent to them; and nurses from that quarter are much sought after by the keepers of houses of ill-fame, and by women of loose life, who find that species of infanticide as certain and far less dangerous than drowning or strangulation. We are now told, however, the French police have taken the matter in hand; and it is probable that the evil will be abated. (*Pall Mall Gazette.*)

OPERATION DAYS AT THE HOSPITALS.

Monday.....Metropolitan Free, 2 P.M.—St. Mark's for Fistula and other Diseases of the Rectum, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

Tuesday. .... Guy's, 1½ P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.

Wednesday... St. Mary's, 1 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.

Thursday.....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Great Northern, 2 P.M.—London Surgical Home, 2 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.

Friday. ..... Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

Saturday..... St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1·30 P.M.—Charing Cross, 2 P.M.—Lock, Clinical Demonstration and Operations, 1 P.M.—Royal Free, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

Wednesday. Obstetrical Society of London. 7 P.M., Council Meeting. 8 P.M., Dr. W. S. Playfair, "On the Mechanism and Management of Delivery in Cases of Double Monstrosity"; Dr. Routh, "On a New Mode of Treating Epithelial Cancer of the Cervix Uteri and its Cavity."

TO CORRESPONDENTS.

*** *All letters and communications for the* Journal, *to be addressed to the* Editor, 37, *Great Queen St., Lincoln's Inn Fields, W.C.*

Communications.—To prevent a not uncommon misconception, we beg to inform our correspondents that, as a rule, all communications which are not returned to their authors, are retained for publication.

Correspondents, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

COMMUNICATIONS have been received from:—Mr. Jonathan Hutchinson; Justitia; The Secretary of the Westminster Hospital School of Medicine; Dr. G. Bodington; Mr. John Birkett; Mr. W. P. Swain; Dr. J. R. Wardell; Mr. T. Spencer Wells; Mr. H. Cribb; Dr. Lanchester; Dr. Greenhill; Mr. C. Leonard; Mr. H. C. B. Steele; and The Honorary Secretaries of the Obstetrical Society.

BOOKS RECEIVED.

1. Brief Sanitary Notes from Practical Experience, more especially in Reference to Cholera. By Assistant-Surgeon J. J. Pope. London: 1866.
2. On the Successes and Failures of Medicine. President's Address. By A. T. H. Waters, M.D. London: 1866.

ADVERTISEMENTS.

Periodicals for Sale.—A Member of the British Medical Association is desirous of disposing of the undermentioned volumes and numbers of British and Foreign Periodicals, at the prices annexed:—

Medico-Chirurgical Review, edited by the late Dr. James Johnson, 1825 to 1847, 43 half-yearly volumes, strongly half-bound, £3.

British and Foreign Medical Review, edited by the late Sir John Forbes, 1841, 1842, 1843, 1844, 4 yearly volumes, strongly half-bound; also, unbound, the entire numbers for 1845, those for January and April 1846, and the General Index to the entire series, £1.

British and Foreign Medico-Chirurgical Review, for 1849, 1850, 1851, 1852, and 1853, complete but not bound; also the numbers for April and October 1854, and January, April, and October 1855, £

London Medical Gazette, 1849 and 1850, 3 volumes; M... Times, vol. xix, 1849; and Edinburgh Journal of Medical ... 1826-27, 3 volumes, 10s.

American Journal of Medical Science, 1841, 1842, 18... volumes, half-bound; also, unbound (wanting October 1... tober 1855), the numbers from 1850 to 1855, both inclu...

Apply to "Member," care of Mr. Honeyman, 37... Street, Lincoln's Inn Fields, W.C.

General Medical Council, 32,

Soho Square, London, W., September 1866.

REGISTRATION AT THE COMMENCEMENT OF PROFESSIONAL STUDY.

Notice is hereby given, that Regulations for the Registration of Medical Students have been sent to all the recognised Schools of Medicine in England. Students commencing their studies are directed to apply to the Registrar for England, according to the Form with which they will be supplied on application to the several Qualifying Bodies, or at the Schools of Medicine and Hospitals.

University of Edinburgh.

—The SESSION will COMMENCE THURSDAY, FIRST NOVEMBER, 1866.

Full details as to Classes, Examinations, Degrees, etc., in the Faculties of Arts, Divinity, Law, and Medicine, together with a List of the General Council, will be found in the "EDINBURGH UNIVERSITY CALENDAR," 1866-7, published by Messrs. Maclachlan & Stewart, South Bridge, Edinburgh. Price 2s. 6d.; per post, 2s. 9d.

By order of the Senatus,

September, 1866. ALEXR. SMITH, Secretary of the University.

Evening Demonstrations with

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A FIFTH COURSE of OPHTHALMOSCOPIC DEMONSTRATIONS will commence on FRIDAY, OCTOBER 12th, 1866, at half-past Seven in the Evening, under the Superintendence of Mr. Streatfeild and Mr. Hutchinson, and will be continued weekly at the same hour until Christmas.

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Candidates who have not yet sent in their applications for this Appointment are requested to forward their names to the Secretary of the Medical School on or before the 6th of October.

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Institutes of Medicine—Professor Ogilvie, M.D. 4 p.m. £3 3s.
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Practice of Medicine—Professor Macrobin, M.D. 3 p.m. £3 3s.
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Zoology, with Comparative Anatomy—Professor Nicol, F.G.S. 2 p.m. £3 3s.
Medical Logic and Medical Jurisprudence—Professor Ogston, M.D 9 a.m. £3 3s.

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Zoology, with Comparative Anatomy—Professor Nicol. 11 a.m. £3 3s.
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THE

Jacksonian Prize Essay

FOR 1865.

ON DISEASED CONDITIONS OF THE KNEE-JOINT

WHICH REQUIRE AMPUTATION OF THE LIMB, AND THOSE CONDITIONS WHICH ARE FAVOURABLE FOR EXCISION OF THE JOINT; WITH AN EXPLANATION OF THE RELATIVE ADVANTAGES OF BOTH OPERATIONS, AS FAR AS CAN BE ASCERTAINED BY CASES PROPERLY AUTHENTICATED.

BY

WILLIAM PAUL SWAIN, M.R.C.S.,

SURGEON TO THE ROYAL ALBERT HOSPITAL, DEVONPORT, ETC.

Section II.—Morbid Conditions of the Knee-Joint. (*Continued.*)

Diseased Conditions of the Bones forming the Knee-Joint.

Acute Inflammation may attack the articular extremities of the femur or tibia, and may either involve their entire substance, or be confined to a small locality. It may arise in previously healthy tissue, or supervene on old and long standing disease. If acute inflammation attack the entire spongy portion of either of the bones, the symptoms are most urgent, and the results most disastrous. The disease commences with severe rigors, rapid pulse, hot dry skin and furred tongue, intense pain in the parts, with great swelling and hardness. Soon the swelling begins to soften, and suppuration takes place. Delirium sets in at an early period, and coma rapidly supervenes. The periosteum is found separated from the bone by a large deposit of pus; and the bone itself is soft, and infiltrated with pus. The muscular attachments are separated. The symptoms are so rapid, that it is difficult to determine at what exact period the joint becomes affected. That it is very soon involved and destroyed, there can be no doubt. Stromeyer states that he has frequently seen it arise in a joint affected with chronic inflammation, in which some accident had given rise to this frightful disease.

"The capsule of the joint is destroyed, the soft parts in the neighbourhood gangrenous; the ligaments, muscles, and cartilages have all detached from the bone; and the large cavity thus left is filled with brown putrid pus." (*Handbuch der Chirurgie,* 1en Band, s. 477.)

Dr. Klose gives seven cases occurring in young persons, where the lower epiphysis of the femur was separated during the course of this disease. Happily, so urgent a form of disease is of rare occurrence; but that, when it does happen, it requires the prompt and decided interference of the surgeon, there can be but one opinion. Acute inflammation may be limited to a portion of the cancellous structure. It may arise from direct violence, exposure to cold, etc. If it take place in the centre of the bone, it may result only in a circumscribed necrosis, which becomes surrounded by a vascular membrane, and remains harmless for a very long period. In case this local lesion takes place near the joint, a process of *elimination* may be set up, terminating eventually in the discharge of the necrosed portion of the bone into the joint, with all the usual accompaniments of suppuration and fistulous openings.

Chronic Inflammation. Under this heading it appears to me convenient to class all hyperæmic conditions of the spongy textures of the bones entering into the joints which produce thickening of the bone or effusion of serum, and eventually may lead to suppuration and granular degeneration. Like the analogous disease in the synovial membrane, this chronic inflammation may assume different phases when under the influence of various constitutional disturbances. Thus syphilis, although it rarely attacks the joint-ends, and rheumatism, may each give to chronic inflammation its own peculiar tinge; whilst the strumous habit of body produces a condition of the parts so frequently met with, as almost to tempt one to place it apart from chronic inflammations, and assign to it a specific origin and place. Thus Barwell (*On Diseases of the Joints*) treats only of "Strumous Articular Osteitis", whilst Price (*On the Knee-Joint*) devotes considerable space to the consideration of "Tuberculous Disease" of the joint-ends. Bryant writes:

"I cannot for one moment doubt that the majority of cases which are described by surgeons as strumous or scrofulous disease of a joint, and of the articular extremities of the bones, depend upon a chronic inflammation in the bone." (*Diseases and Injuries of the Joints,* p. 72.)

I find that Price quotes this passage, but does not seem to me in any way to controvert it. In fact, Barwell, in his chapter on "Strumous Articular Osteitis", really admits that the disease to which he has given this name is simply a modification of chronic inflammation of the bone. Having pointed out that hyperæmia may arise in the joint-ends of young children, without inflammation being either present or following, owing to the nutritive activity of ossifying cartilage, he goes on to say:

"It is, however, certain that, in a given number of cases, the congestion predisposes to inflammation, and the merely passive is followed by an active condition. Thus inflammation may be set up in an epiphysal end which was previously in an abnormal state; and such, in the great number of cases, is the mode in which the disease now under consideration (strumous articular osteitis) commences." (Barwell, *Diseases of the Joints,* p. 224.)

In chronic inflammation, there is increased vascularity, not of the bone itself, but of the membrane lining the cancelli. On making a section of a bone thus affected, the entire surface presents an uniform dark purple hue, or, it may be, a mottled appearance. The plates of the cancelli become thickened; and an effusion of serum of a pinkish colour takes pla into their cavities. As the disease progresses, serous effusion is followed by diffuse suppur and at this stage the cut surface of the b sents a dirty yellow aspect. The lining of the cancelli now begins to granulate; walls become carious, and eventually ar absorbed, their place being occupied b

mass, surrounded by the external shell of bone. During this period, the periosteum becomes thicker than usual, and, in the early stage of the disease, deposits new bone around the joint-end. Soon, however, pus is formed between it and the bone; it separates from the bone, sometimes dragging away with it flakes of osseous tissue, and leaving the surface rough and of a worm-eaten appearance. These cavities are filled with pus; the outer shell of bone is softened and broken down, and communications established with the interior. The articular cartilages, in the earlier periods of this disease, are intact; but, as it approaches the articular lamella, they become affected with fatty degeneration, are detached from the bone, and thrown into the joint-cavity. The synovial membrane soon participates; and if, as sometimes happens, a necrosed portion of bone be shed into the joint, violent suppuration and total disorganisation rapidly follow. The commencement of the disease is more insidious: there is a slight limping, hardly noticed; little or no swelling at first, and, if any, situated on one side of the bone only; very slight tenderness. Soon the enlargement of the joint by effusion takes place, and painful startings of the limb occur at night. Spasmodic contraction of the flexor muscles takes place; and the hamstring tendons draw the tibia upwards against the femur, causing acute agony, until, at a more advanced period, dislocation of the tibia backwards is the result.* Profuse suppuration is set up in the periarticular tissues; sinuses run in all directions; and pain, purulent discharge, hectic, and night-sweats reduce the patient to the last extremity.

In strumous children, this inflammatory condition of the knee-joint is very common, commencing frequently after scarlet-fever or measles.† Amongst the lower classes, who have neither the discernment to detect the early inroads of disease, nor the means successfully to combat it when it is discovered, we unfortunately constantly meet with knee-joints entirely destroyed; and the surgeon is frequently obliged to have recourse to some operative procedure, in order to save his little patient's life. It is to this particular class of disease that Price has alluded in his section on "Tuberculous Disease of the Articular Ends of the Tibia and Femur". He writes:

"Morbid deposits of true tuberculous material in the cancellous structure of the expanded ends of bone is, so far as my own experience goes, an affection of *common occurrence.*"

Price's extended study of knee-joint disease, and the intelligence he brought to bear upon the subject, demand extreme deference to any opinions he may have enunciated; but I cannot help feeling that in this matter he was mistaken. I have never seen a case of pure tuberculous deposit in a joint-end; and I believe that the "gelatinous material" which Price describes as "*in every respect* analogous to pulmonary tubercle," is nothing more than the granulations filling the cancelli which I have before described. The hyperæmic condition dependent upon ossification of cartilage becomes exaggerated occasionally, in strumous subjects, into an inflammation; and the weakened constitution is unable to arrest the mischief once set a-going. It is not needful here to describe the various symptoms attending the progress of this long and wearisome disease. We have to do only with the symptoms and treatment of its last and most fatal condition, and to this we shall recur in the proper place. In a case the particulars of which are given below, a cast of the joint being also sent in, I had lately occasion to amputate a knee-joint presenting all the features of so-called strumous osteitis. I regret that this preparation, together with another (the excised ends of a femur and tibia), has been lost; but it presented an admirable example of general inflammation of the articular end of the femur, with entire destruction of the joint-apparatus. I looked in vain for any deposit of tuberculous matter; but the microscopic appearance of the bone indicated profuse granular deposit, with absorption of the osseous walls of the canaliculi. In adults, the more usual course is to find this disease circumscribed to a spot in the centre of the bone, surrounded by condensed tissue. If the inflammation be more severe, necrosis of the bone takes the place of caries; and the necrosed portion is, as before remarked, sometimes extruded into the joint.

Case. Margaret Bolt, aged 6, admitted under the care of the author, August 4th, 1864, with strumous disease of the knee-joint. One year and a half previously, the left knee-joint began to enlarge. In four or five months afterwards, an abscess formed and burst, leaving sinuses. Since then, wounds in various parts of the body had kept up a continuous drain.

On admission, she was seen to be a pale, badly nourished, strumous child, in a very cachectic state. There were two open wounds over the left elbow-joint. The bones of the third finger of the left hand were necrosed and destroyed. There was a wound on the back of the left hand, and four wounds on the right leg. The left leg was permanently bent upon the thigh at right angles; the knee-joint was greatly enlarged; and above and below were sinuses leading down to bare bone. On the left leg were several wounds.

Oct. 8th. Since admission, the child had improved in health. The third finger of the left hand had been amputated, and most of the wounds had healed. The left knee remained in the same condition. At a consultation of surgeons, it was determined to amputate the left thigh. Accordingly, to-day, the child being under the influence of chloroform, the author amputated the left thigh in the lower third by antero-posterior flaps. Several vessels were ligatured. Five silver wire sutures were inserted. The stump was dressed with wet lint only.

Oct. 16th. Since the operation, the patient had been very quiet. A morphia draught was given. She slept at snatches during the night. Her expression was natural; skin cool; pulse 160, feeble; tongue moist, slightly furred, with enlarged papillæ. Last evening, she was sick after the chloroform, and had no appetite. She took some bread and butter and tea for breakfast this morning. There was no oozing from the stump. The dressing was not removed today.

October 17th. She slept very fairly. Face flushed;

* A cast, showing partial dislocation of the tibia and enlargement e end of the femur, accompanied the essay.
o coloured drawings illustrating this disease accompanied . The first was from a specimen in the Westminster Hos- he left knee-joint. A vertical section having been made outer condyle, patella, and tibia, showed the cancellous d with cheesy matter and a large cavity produced by the of cancellous structure in the condyle. The second paration in the same museum, showing scrofulous ght knee. A vertical section of the inner condyle llous structure to be filled with cheesy matter.

skin hot; pulse 130, very feeble; tongue furred, with enlarged papillæ, red at the edges. The patient slept at intervals, and started up screaming. The bowels had not been open since the operation. There was a discharge of offensive sero-sanguineous matter from the wound. The thigh and left labium were much swollen, red, and very painful. She was ordered to have sponges, wrung out of hot water, applied to the thigh; and water-dressing, soaked in Condy's solution, to the stump. She took three ounces of wine, milk, and strong beef-tea as much as she could make use of; and was ordered—

℞ Ammoniæ sesquicarb. gr. i; æther. chlor. ℥v; tinct. cinchonæ comp. ʒss. M. Fiat haustus 4tis horis sumendus.

Oct. 18th. She slept at intervals during the night. Expression anxious; face pallid; skin hot; pulse irregular, so quick and feeble as to render it hard to count accurately; bowels not acting; tongue furred. She took her wine and beef-tea. The edges of the wound were distended; there was free and very offensive sero-sanguineous discharge. The thigh was much swollen, but less so than the previous day; the redness had subsided. She was ordered to have a senna draught immediately.

Oct. 20th. She slept well, without a morphia draught. Skin cool; pulse 130, very feeble; bowels acting. There was less swelling of the thigh.

Oct. 21st. The silver wire sutures, owing to tension of the flaps, were cutting through; accordingly, they were removed to-day. The flaps separated in consequence, and a large quantity of offensive purulent discharge made its escape.

Oct. 23rd. The expression was more natural. She slept well. Skin cool; pulse 140; tongue moist, slightly furred; bowels acting. The outer third of the flap was opened abroad, and suppurating freely. The inner third of the extent of the wound was uniting. The wound was looking more healthy. The suppuration was healthier. She took her wine, milk, and beef-tea; and, in addition, had two eggs a day.

Oct. 26th. She slept much. Skin very perspiring; face rather pallid; pulse 120, stronger; tongue moist, clean. The stump was granulating very healthily; the discharge was less, and more healthy. She took her food and wine.

Oct. 31st. Her expression was natural; skin cool; bowels acting. The wound was closing in; the granulations were healthy; and the discharge was greatly decreased. Two ligatures had come away. Pulse 120. She was in better health. The wound was dressed with two crown-pieces of strapping.

Nov. 9th. The wound had healed, except in the track of the ligature of the femoral artrry, which still remains open. The remaining ligatures had escaped. She was much improved in health, and took a drachm of syrup of superphosphate of iron three times a day.

Nov. 19th. The ligature had not yet escaped. There was some considerable swelling and hardness, with great tenderness of the glands in the groin—possibly from irritation of the ligature.

Nov. 20th. The last ligature had made its escape.

Nov. 26th. An abscess had formed and burst in the thigh, at the upper margin of the wound. There was free discharge from the openings. The glands in and below the groin were enlarged and painful. A poultice was applied to the wound and over the hardness in the groin. She was taking bark and ammonia again.

Nov. 30th. The abscess had healed up, and the sinus was healed.

This patient has since died.

Tumours involving the Articular Extremities.

These may be either innocent or malignant. If the former, the joint is interfered with simply mechanically; if the latter, the disease of course extends to the tissues of the entire joint, and destroys it. The innocent tumours consist of exostoses, or of cartilaginous growths. These tumours frequently set up repeated attacks of synovitis in the joint, leaving the synovial membrane thickened and dilated; so that, if the removal of the exostosis be attempted, the joint is very likely to be laid open, and serious mischief ensue. The most usual form of malignant disease is the medullary, which is stated never to begin as a primary disease on the synovial membrane, nor upon the cartilaginous structures. When the entire joint else has been destroyed by this disease, the cartilage has been found intact. (Virchow, *Cell. Pathol.*, Lect. xix.) Cysts sometimes occupy the articular ends of the bones. Mr. Stanley amputated a thigh on account of the existence of a cyst in the condyles of the femur, involving also the tibia.

Diseases arising in Tissues around the Knee-Joint.

We have seen how frequently all the periarticular tissues become involved when disease commences within the joint. It does, however, sometimes happen, that the mischief commences externally to the joint, which becomes secondarily affected. Sometimes, particularly in rheumatic or syphilitic cases, thick layers of fibrous material are deposited in and around the ligaments of the joint, forming a very firm ankylosis. The muscular tissue sometimes undergoes degeneration after the limb has been long confined in a splint for fracture of the thigh, and effusion of blood and serum may take place into the joint, and affect the cartilages and synovial membrane. (Holmes's *System of Surgery*, vol. iii, p. 763.) The areolar tissue may become inflamed, and acute abscesses form in close proximity to the joint. In delicate children, this sometimes takes place, and is very apt to involve the joint, bursting into the synovial cavity, and setting up acute suppuration. Erysipelatous inflammation, too, may involve the joint in the surrounding destruction of tissue.

The various Bursæ around the joint may become diseased. The one under the tendon of the quadriceps sometimes involves the joint in mischief. Henry Smith, in a note to Price's essay (*On the Knee-Joint*, p. 40), quotes a case which occurred at King's College Hospital, where a seton having been passed through this bursa, violent inflammation ensued, and destruction of the joint took place. The bursa beneath the inner head of the gastrocnemius sometimes communicates with the synovial membrane of the joint, and inflammation arising in this bursa may be communicated to the joint-cavity.

Wounds and Injuries of the Knee-Joint.

The knee-joint, from its exposed position, is peculiarly liable to wounds and various injuries. If a wound opening the joint be inflicted, its gravity will, of course, depend very much on the character of the incision and the instrument with which it is made. If it be a small puncture-wound, especially if it be made in an oblique direction and with a sharp instrument, appropriate treatment will generally avoid much damage. If, however, the w

be lacerated, contused, and extensive, the inflammatory condition set up within the joint-cavity is of a most severe character. The inflammation is attended with a great deal of constitutional disturbance and excruciating pain. The entire joint becomes enormously swollen, hot, and painful. Profuse suppuration soon sets in; the cartilages disappear; the joint-ends of the bones are involved; and all the periarticular tissues sympathise with the derangement, dislocation of the tibia outwards and backwards sometimes taking place. Free incision into the joint, as pointed out by Gay (*Med. Times and Gazette*, vol. xxiv, p. 546), perfect rest, and the continuous application of ice, as advocated by Hilton (*Lectures on Rest and Pain*, Lec. xviii), may do much to save the limb; but at best the joint must remain a damaged one; and it is too frequently the case, that the removal of the joint or of the limb becomes a necessity. It will depend much on the constitution and habits of the patient, whether the extreme measure will be required; and, although the joint may be disorganised as a result of a wound, the surgeon should wait to the utmost before he operates, insomuch as there is such a great chance of ankylosis occurring, if the general condition have previously been good. Two cases of disorganisation of this joint, as the result of wounds, have been lately under the care of Mr. Henry Smith at King's College Hospital, illustrating this. In the one, the patient was a healthy young man; and, although the joint was so disorganised that amputation was urgently pressed upon him, he would not consent, and ultimately bony ankylosis took place. In the other, a drunken middle-aged woman had her joint disorganised from a wound. Her habits, and the circumstance of her having suffered from delirium tremens, induced Mr. Henry Smith to amputate. In this case, even although every vestige of cartilage was gone, Mr. Henry Smith thought ankylosis would have occurred, had the woman's condition and habits allowed him to wait longer.

The various Dislocations and Fractures involving the knee-joint set up more or less serious disturbance. The most serious accident of this kind that can happen, although it is rarely met with, is compound dislocation. It is universally agreed that amputation is in this case the only chance of saving the patient. The lower end of the femur may sustain a fracture running into the joint; and it is possible that this injury may give rise to inflammation and suppuration, with entire destruction of the joint, of such a character as to necessitate its removal. Price draws particular attention to an accident which seems to have escaped the attention of most surgeons; viz., separation of the lower epiphysis of the femur from direct violence. Mr. Canton twice excised the joint for this accident, once successfully, and once with subsequent amputation. These cases will be again referred to.

Dislocation of the Tibia is frequently one of the results of long standing disease, where the ligaments are relaxed or destroyed, and the joint is extensively disorganised. As a general rule, the tibia is dislocated outwards and backwards, although Price quotes an extraordinary case in which it was dislocated forwards at right angles to the femur.* The biceps and popliteus muscles are the two muscles more immediately concerned, although, of course, all the hamstring tendons assist. We have before noticed how the pain produced by the pressure of the exposed bone-surfaces together is relieved when dislocation takes place. The resulting distortion to the limb, even although all other disease be arrested, is one which calls for, in many cases, surgical assistance of a nature that will be afterwards discussed.

Ankylosis of the Joint is a very frequent, and in many cases a very satisfactory, result of disease. It may be true or false. It is true, if there be osseous union between the opposed ends of the bone. The character of the bone thrown out varies with the constitutional conditions of the patient. Thus, in weak strumous habits of body, the bony material is scanty, and firm union does not take place. False ankylosis is that which connects the bones together simply by soft membranous tissue. Unfortunately, the position in which the bones become ankylosed is frequently such as to render the limb useless to its owner. Sometimes ankylosis partaking of the true and false character is found; and Price states his opinion that the fibrous tissue between the bones acts as a sort of matrix, in which bone is deposited. This point is well illustrated by a preparation in the Westminster Hospital, from a case of Mr. Heath's, which is narrated below; a coloured drawing from this specimen, accompanying the essay, being one of the unpublished illustrations of the late Mr. Price's essay, kindly given by his representatives for the purpose. The fact that in many cases, after excision, osseous union is delayed for a considerable period, and then takes the place of fibrous ankylosis, seems to bear out this opinion.

Mr. Heath's case was that of a boy aged 11½, who had had scarlet fever, with swelling of the knee, six years before he came under that gentleman's care in 1858. Three years after this, an abscess formed on the outer side of the left knee-joint, which was opened, and the boy was confined to bed for three months. A year before he came under Mr. Heath's care, another abscess burst on the inner side of the knee, and he was in a hospital for eight months. On admission under Mr. Heath, the knee was firmly fixed at a right angle, and was slightly swollen. There was an open sore on each side of the knee-joint, and one over the centre of it, which discharged freely. (Fig. 1.) The boy suffered pain at night,

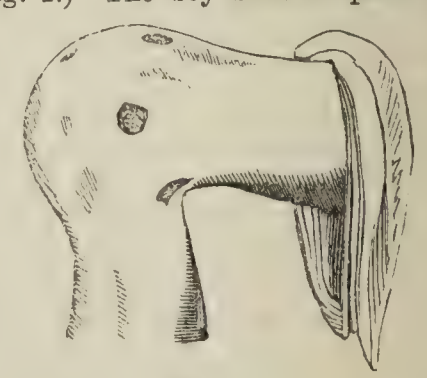


Fig. 1.

but was otherwise in good health. Mr. Heath excised the knee in a block on June 29th, 1858; and the boy made a good recovery. The portion of bone removed included the articular surfaces of the femur

* A coloured drawing accompanied the essay, made from a preparation in the Westminster Hospital Museum, showing a dislocation of the tibia backwards in a knee-joint affection, with ulceration of the ligaments and cartilages, the femur riding over the tibia three inches.

and tibia, and the patella, which was firmly fixed to the external condyle. (Fig. 2.) The bones showed



Fig. 2.

erosion of the articular cartilages where the bones were not already ankylosed, and also some remnants of thickened synovial membrane. (Fig. 3.) On ma-



Fig. 3.

ceration for a short time, it appeared that the ankylosis between the patella and the outer condyle, and also on the inner side between the femur and tibia, was only fibrous; but, on the outer side, bone had been developed, as was seen on section. A second slice of the femur, which was removed in order to allow the bones to come readily together, was found to have included the whole of the epiphysis. (*Lancet*, July 7th, 1860.)

I have thus, in a very cursory manner, passed in review the many diseases and injuries which affect the knee-joint. I have purposely, as each was noticed, refrained from considering the various modes of treatment which are employed, often successfully, to arrest it, and to effect a cure with the smallest possible injury to the mechanism of the joint. The diseases have been traced from their commencement, through their various stages, to that complete destruction of the tissues of the joint which not only precludes the possibility of cure, but which places the patient's life in such imminent danger as to call for the entire and immediate removal of the whole diseased mass.

Having thus described the diseased conditions of the knee-joint, it remains for me to endeavour to show under what circumstances it is best to have recourse to amputation of the thigh or excision of the joint for their relief.

[*To be continued.*]

American Army Medical Service. An Act of Congress, approved in July last, orders that the Medical Department of the Army shall hereafter consist of one surgeon-general; one assistant surgeon-general; one chief medical purveyor; four assistant medical purveyors; sixty surgeons, with the rank, pay, and emoluments of majors of cavalry; one hundred and fifty assistant-surgeons, with the rank, pay, and emoluments of first lieutenants of cavalry for the first three years' service, and with the rank, pay, and emoluments of captains of cavalry after three years' service. All the original vacancies in the grade of assistant-surgeons shall be filled by selection by examination.

Addresses and Papers

READ AT

THE THIRTY-FOURTH ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION.

[*Held in CHESTER, AUGUST 7th, 8th, 9th, and 10th, 1866.*]

CLINICAL REMARKS ON DIFFERENT MODES OF DEALING WITH THE PEDICLE IN OVARIOTOMY.

By T. Spencer Wells, F.R.C.S., Surgeon to Her Majesty's Household, etc.

[*Delivered at the General Infirmary, Chester, August 10th, 1866.**]

Mr. President and Gentlemen,—I am now about to perform ovariotomy before you in two very different cases. One patient is a young unmarried woman, who has a large non-adherent cyst which has never been tapped, and whom I saw yesterday for the first time in consultation with Mr. Weaver. The other patient is a widow, and only one month less than 60 years of age. She has suffered between four and five years under her disease, has been tapped four times, and is much broken down in general health after suppuration of the cyst which followed the third tapping. When first I saw her, she was naturally anxious to avoid a dangerous operation, and preferred tapping, by which she gained some two years of tolerable comfort. But latterly she has suffered so much, that she eagerly accepted the offer of a bed here kindly placed at my disposal by our President, Dr. Waters. In her case I know we shall find a suppurating and inflamed cyst, from the general symptoms, and from the fact that the fluid at the last tapping contained a great deal of pus. I am also pretty sure that there are extensive adhesions to the abdominal wall on the right side; and on the left side a coil of intestine, giving a distinctly circumscribed resonance on percussion, in all probability will have to be separated from the cyst. If I find more extensive attachments below the brim of the pelvis than I anticipate, I shall content myself with simply laying the cyst open and emptying it; doing little more, indeed, than tap, because an unusually serious proceeding in so old and emaciated a subject would be almost certainly fatal. But I trust that, beyond the adhesions to the abdominal wall and to the intestine, there will be no great difficulty to contend with. In the case of the young woman, I have ventured to assure her, and so has Mr. Weaver, that the operation will be extremely simple—probably little, if at all, more dangerous than a first tapping—because I am very confident that an unattached cyst will be exposed, emptied, and drawn out of the abdomen through a very small opening.

[The patients were successively introduced, having been previously placed under the influence of chloroform in an adjoining ward by Dr. H. Simpson of Manchester. The operations proved to be exactly what the operator had anticipated by the foregoing introductory observations. The cases have been fully detailed in our Hospital Reports. (See page 35

* About one hundred and twenty members of the Asso were present and witnessed the two operations which led remarks.

After the termination of the second operation, Mr. Wells added the following remarks.]

There are so many subjects, gentlemen, suggested by the two operations which you have just witnessed, and your time is so valuable, that I will only detain you by a few remarks upon the different modes of dealing with the pedicle. You saw that in both cases I used the clamp and fixed it, with the end of the pedicle it secured, outside the closed wound. I might have tied the pedicle, or its vessels only. And in either case I might have cut off the ends of the ligatures short, and closed the wound entirely; or I might have left the ends of the ligatures hanging out through an unclosed portion of the wound. Or I might have compressed the pedicle by a needle or wire, or applied the *écraseur*, or used the actual cautery, or that combination of compression or crushing by a clamp and searing by the actual cautery, for which we are indebted to Mr. Clay of Birmingham, and which has been adopted of late with much success by Mr. Baker Brown. But I preferred the clamp, because it is the method which in my practice has been the most successful of any. I have tried the others, and have sometimes been well pleased with the result. But in other cases I have been grievously disappointed, and have felt pretty certain that if I had been able to use the clamp the result would have been different. If a pedicle be small enough to be securely held in a clamp of moderate size, and long enough to permit of the clamp being fixed outside the closed wound without much pull on the uterus or broad ligament, I wish for no readier or more successful method. The objections to it are either groundless or trivial. It is said to be very painful; but I have seen a good deal of pull with very little pain, and much more severe pain in cases where the ligature was used than I ever saw in clamp cases. So with sickness: I have seen as much, or more, after the ligature or cautery, as I ever saw after the clamp. It is said to set up fœtid discharge and poison the wound or the patient; and so it does if proper care be not taken. But if the strangulated part of the pedicle which projects beyond the clamp be well saturated with perchloride of iron, as you saw me use it just now, the slough is tanned; it becomes as hard and dry as a piece of leather, and there is an end to that objection. It is said to cause suppuration about the wound; but this, again, I have seen quite as frequently, in proportion, after the ligature or cautery. I never saw more profuse suppuration of the stitches than in one case where I divided the pedicle with the *écraseur*, and closed the wound with platinum wire sutures. Then, after the wound is closed, it is said to lead to a re-opening each month, and an escape of some menstrual fluid. And this is true in some—perhaps in nearly a third—of the cases. But if the patient be prepared for it, it is not of the slightest consequence. The Fallopian tube contracts completely after a few months, and there is no further escape. The fact that it does escape sometimes is to my mind an argument in favour of the clamp; for if menstrual fluid can escape through the partially closed Fallopian tube fixed in the cicatrised wound, so it may escape if the tube be left within the peritoneal cavity, and the result may be a fatal hæmatocele. I have known this to occur in cases where the ligature was used and cut off short; and I believe it to be one of the strongest objections to this method, or any intraperitoneal method of dealing with the pedicle. As to any fancied impediment to the increase of the uterus in pregnancy, and to its contraction during labour, from the adhesion of the [illegible]e to the cicatrix, I can only say that nine of my [illegible]nts have had children after ovariotomy—two of [illegible]wo children—and there was no such complaint in any one case. One *real* objection to the clamp is that it may possibly pull on intestine, or a tense pedicle may strangulate intestine (and I have seen one such case). But this objection is of little weight if the use of the clamp be restricted to cases where the pedicle is so long that there is not much drag on the clamp. In such cases, I repeat, I desire no better method. But where we have a broad, thick, short pedicle, or a broad connection between uterus and cyst rather than a distinct pedicle, we want something better than the clamp. And we have the choice between wire or needle pressure, the ligature, the *écraseur*, and the combination of crushing and cauterisation, to which I have before alluded as an improvement due to Mr. Clay, for which he has certainly not received due credit.

I say nothing about acupressure or the wire compress, because I have never tried them. Sir James Simpson was successful in one case, and the plan is certainly worthy of trial.

The *ligature* of the pedicle can always be effected by transfixing it, and tying in two or more portions, before the cyst is cut away. Or a clamp may first be applied, the cyst cut away, and the pedicle then transfixed and tied below the clamp. But, if this be done, the clamp must be loosened before the ligatures are tightened, or the compressed tissues are so held that the knot cannot be tied so tight that it will not slip off as soon as the clamp is removed. If it be desired only to tie the vessels, it may be done by feeling the arteries, and carrying a ligature round them through the pedicle before the cyst is cut away; or, after the application of a clamp and removal of the cyst, holding the pedicle carefully with forceps as the clamp is loosened, and tying any vessel which bleeds. The great objection to this plan is, that there is often much loose cellular tissue, rich in small veins, which go on oozing after all the larger vessels have been tied. Whichever may be the plan preferred, the important question arises, Shall the ends of the ligatures be cut off, and the wound closed? or shall they be left hanging out through a part of the wound, purposely left open for their passage, and that of the slough they embrace when it separates? Dr. Clay of Manchester still advocates this latter practice. I have tried it, and with success in about a fifth of the cases only; and I shall not willingly adopt it again. In its favour, it may be said, that it is a method applicable in all cases; that it secures an outlet for serum from the peritoneal cavity; and that, after the separation of the ligature and slough, no foreign body is left within the patient. But it seems to me better to have a choice of methods, and adopt each in its appropriate case, than to strive after one method applicable to all cases. I think the ligature-threads act as a sort of seton in the peritoneal cavity, set up inflammation, and excite the formation of the serum for which they are said to provide the outlet. Then, if the patient recover (and I have very great doubt whether very many subjected to this plan do really recover), there is a great liability to ventral hernia. The cicatrix remains weak at the spot where the ligatures passed out, and it yields before the pressure outwards of the viscera. I have seen this in nearly every case where I followed this plan; but I do not remember more than two cases where it followed the clamp. Therefore, if we use one or more ligatures, I am inclined to cut off the ends short, and close up the wound completely. Wire has been used for this purpose; but it seems an irrational practice. Silk, if pure, is an animal substance; and experiment proves that it may be absorbed. Wire cannot be absorbed, and must be more or less of a mechanical irritant. I tried wire on one side and silk on the other side of a sheep on

which Professor Gamgee operated for me at the Albert Veterinary College, and the superiority of the silk was manifest. But what we have to look to is the effect on the tissues strangulated, rather than the material by which the strangulation is effected. If anything like what goes on outside the body when the clamp is used, or inside when the wound is left open for ligatures, were to go on when the wound is closed, it is difficult to understand how any patient could possibly survive the process. She would almost infallibly be poisoned by absorption of the fœtid products of the decomposing stump. But a very different series of changes must go on when the wound is closed and access of air is shut off. At any rate, experience proves that patients do survive the process; and *post mortem* examination has shown that ligature and pedicle have been coated by a sort of capsule of lymph. In my own hands, this practice has been much less successful than the clamp; and, even when patients have recovered, some of them have long remained in a state of semi-invalidism, very different from the robust health which is the rule after successful clamp-cases. This plan is that always followed by Dr. Tyler Smith. It was originated in 1821, by Dr. Nathan Smith of Baltimore, who used *leather* ligatures. Dr. Rogers of New York, in 1830, also cut off his ligatures "close to the knot, and left them to absorption." If I use the ligature, I feel disposed to cut off the ends whenever the patient is in pretty good condition, and sthenic peritonitis with effusion of lymph may be expected; but if low diffuse peritonitis and effusion of serum may be feared, then I suspect it would be better to leave the ends of the ligatures, and secure a drain through the wound for the serum. But we should still search for a better method than the ligature.

The *écraseur* I used once, and successfully. But I have not ventured on it again; for, if it should prove untrustworthy, and internal bleeding occur in any case, one's self-reproach would be very painful.

The *cautery* alone would almost certainly fail to stop such large vessels as are frequently met with in a pedicle. So might the *écraseur* alone, or the crushing which precedes division by the *écraseur*. But the combination of crushing and the cautery is certainly efficacious in a considerable proportion of cases. Mr. Clay of Birmingham, as I said just now, introduced the practice, and carried it out by his "adhesive clam" and hot irons. I wrote to him at the time, that, if it answered for adhesions and omentum, it ought to answer for the pedicle. And I might have tried it; but my first trial on a piece of omentum was unsuccessful, and I did not repeat it. But latterly Mr. Baker Brown has published so many cases in which he has successfully secured the pedicle on Mr. Clay's principle of combining pressure with the cautery, that I have tried it in five cases. Three of the patients recovered, and two died. In three, the cautery was alone sufficient to stop all bleeding. Two of these patients recovered, and one died. In two others, on opening the clamp, considerable vessels bled, and ligatures had to be applied. One of them recovered, and the other died. I shew you here Mr. Clay's "clam", and the instrument as modified by Mr. Brown. It will be for further experience to determine whether, in cases of short pedicle, the ligature with the ends cut off short, or the *écraseur*, or the combination of crushing and cauterisation, is the more successful practice. For a long pedicle, I still prefer the clamp. It has been used before you in two cases, and you will hear the result. I feel very hopeful that it will be favourable in both cases; for Dr. Waters, as well as the surgeons, Messrs. Brittain and Weaver, to whom you are indebted for the opportunity of witnessing this operation, still new in many of our hospitals, have done everything in their power to insure success—have placed separate rooms at the disposal of the house-surgeon, Mr. Karkeek, who will add his earnest and hearty endeavours in a good cause; and, with such pure air to assist us as we sadly want in smoky London, and which comes here direct from the Welsh hills which you see from the windows, I trust the attempt to save the lives of the two women will prove creditable to surgery.

[Erratum. In last week's number, page 353, column 1, line 49, for "*parietal cavity*", read "*peritoneal cavity*".]

Transactions of Branches.

SOUTH-EASTERN BRANCH.

CASES IN THE PRACTICE OF MEDICINE.

By John Richard Wardell, M.D., M.R.C.P., Physician to the Tunbridge Wells Infirmary.

[*Read June 14th*, 1866.]

Being aware that the general business of this our annual meeting must necessarily consume much of the short time at our disposal, and as other gentlemen will read communications, I shall not trespass upon your patience by reading a prolix paper. I have therefore selected three examples of disease from my case-book, which are of a practical character, and the chief features of which I shall detail as concisely as possible. The first of these is one of very uncommon description; it is that of

Acute Peritonitis and Displacement of the Cæcum. J. E., aged 37, a muscular, well made man, who was employed as a driver of railway wagons, in the construction of the Brighton and Tunbridge Wells Railway, was admitted into the Infirmary on Saturday evening, April 8th, 1865. On admission, he was in a state of great prostration. The abdomen was distended; and he complained, as he expressed himself, of much pain in the bowels. He had been under the care of Mr. Wallis at Hartfield; and that gentleman believed that from some cause there was obstruction in the bowels. Purgatives had been given without effect; and the bowels had not been moved since the previous Wednesday. He reported that sickness and vomiting had followed the administration of the purgatives; but from the man's account the ejected matters had been merely of the ordinary bilious character.

I saw him for the first time on Monday morning, April 10th. He then lay on his back, with his knees slightly elevated, in a state of great prostration; the features were sharp and sunken; the surface bedewed with a clammy sweat; the extremities were of low temperature; the breathing thoracic; the pulse was small, compressible, and 130; the tongue was moist, and he complained of thirst. The physical signs of the thorax, so far as could be ascertained from anterior examination, were normal. The abdomen was distended and tympanitic; and there was diffused tenderness on moderate pressure, but palpation discovered most pain at the left hypogastric and left iliac regions. A few red suspicious puncta were seen on the abdomen. He said he had been at work up to April 4th, but for some days prior to that date had felt "weary and weak." On the 3rd and 4th, he had pains in the limbs, shivering, and headache; ar[illegible] diarrhœa then came on, the stools being of ocl[illegible] colour. He attributed his illness to indulgen[illegible] bad porter. During the two nights of his re[illegible]

in the institution, he had at intervals been delirious, and attempted to get out of bed.

He was treated with opiates, injections, terebinthinate epithems, hot applications to the extremities, ammoniacal and ethereal stimulants, and wine and brandy. The pulse became smaller and more compressible; the facial collapse more pronounced; and he died at noon on the 11th, the mental faculties remaining clear to the last.

Sectio Cadaveris, twenty-seven hours after death. *Thorax.* The lungs were healthy. There were no pleural adhesions. The heart was normal, but filled with dark coagula. *Abdomen.* On opening the abdomen, the ileum lay in large inflated coils, which were injected and not so smooth and polished as in health. The serous effusion was inconsiderable. The stomach was thrust high up under the diaphragmatic arch. The left lobe of the liver was pushed towards the right side. The cæcum was very large, and lay in the *left hypochondrio-iliac region;* and it was united to the great omentum, colon, and ileum, by masses of organised and more recent lymph. On being removed, it seemed as large as a stomach; and on being cut open, contained a large quantity of pultaceous biliary matter. Its mucous lining was dark and vascular, imparting a stained port wine hue to the villous coat; and this staining extended for six inches into the ileum, when it gradually shaded off. At the colonic side, this colouring abruptly terminated. The ileo-cæcal valve was greatly dilated. When examined between the fingers, the cæcal parietes were very tender and readily lacerated. Superimposed on the mucous surface was a semiorganised deposit of lymph. The submucous areolar tissue was intensely injected. This part of the bowel had an indurated, coriacious feel, and the entire morbid appearances were those of long standing disease. There were no ulcerated patches in the lower third of the ileum, the solitary and agminate glands being quite healthy. The remainder of the digestive tube and all the other organs were normal.

This case presented features of great interest. Symptoms of a contradictory character were exemplified, which rendered the diagnosis difficult. That he was labouring under acute peritonitis was, from my first visit, indisputable. But was it from perforation, and that the complication of enteric fever? or was it inflammation of the peritoneum referrible to some other cause? Some dozen days before his death he had laboured under *malaise.* He had had rigors, muscular pains, and headache; also loose ochre-coloured stools; and there were three or four red lenticular spots, which I fancied became somewhat fainter under pressure. Again, he had been slightly delirious, and attempted to get out of bed—a symptom, I need hardly stop to observe, common in enteric fever. A review of all these facts threw much weight into the scale of the supposition of fever. But there were other circumstances which opposed this theory. He had been at work only seven days before; the spots were not such as to render their evidence conclusive; the diarrhœa had continued only for two days; constipation had followed; there was no gurgling in the right iliac fossa; his slight delirium might be referrible to symptomatic fever, and perforation of the intestines very rarely comes on in enteric fever at so early a date. Peacock mentions a case so soon as the eighth, and Louis one on the twelfth day; but, according to Tweedie, Jenner, Bristowe, and Murchison, this accident generally occurs after the second week—mostly much later. Again, in typhus and enteric fever, death does not, as the rule, occur so soon. In typhus, the critical day is on the fourteenth; in enteric fever, on the 22nd. The *post mortem* examination showed death by peritonitis, but not as the complication of fever; Peyer's patches being healthy. The displacement of the cæcum was such as I had never seen; and no statement elicited from the patient, threw any real light upon the disease. Copland says, when the cæcum is much enlarged or otherwise diseased it may also be *displaced.* Salzmann (*Plurium Pedis Musculorum Defectus,* 4to, 1734) and Annesley (*Diseases of India*) give instances in which its attachment to the internal iliac muscle had yielded so far that it had passed over the *left* side, and others in which it had descended into the middle of the pelvis.

Case ii. *Enteric Fever: Spontaneous Gangrene.* A. R., a young woman, aged 17, of light complexion, and volume of flesh not much reduced. The initiatory symptoms were ushered in with rigors, lumbar pains, and frontal headache on Oct. 3rd, 1865. She was attended by our House-Surgeon, Dr. Davey, during the first ten or twelve days of her illness; and at the expiration of that time, I first saw the patient with him. She was then lying on her back, and answered questions perfectly. There had been but little delirium, no diarrhœa, nor any notable degree of tympanitis. She did not complain on pressure at the right iliac fossa, nor was there any gurgling. Two rose-red lenticular spots, which faded on pressure, were seen at the epigastric region. Tongue brown and fissured in centre, moist at edges; and sordes on the lips. Bowels open once or twice during twenty-four hours. Pulse 130. The right foot and leg were inflamed and swollen, and boggy on manipulation. From knee to ankle, on the postero-lateral aspect, was a large reddish-brown configurated discoloration. The pulp of all the toes was black; the blackness shading off into claret-coloured margins. She had excessive pain when the limb was moved. Dr. Davey had, very properly, placed the limb in cotton-wool; had given her bark and ammonia; and had ordered port wine, brandy, and jellies and strong soups.

Oct. 24th. The skin broke about three inches above the ankle, when half a pint of chocolate-coloured sanguino-purulent matter escaped. A lotion with Condy's fluid and charcoal poultices were applied.

Nov. 1st. The leg presented a fearful aspect. A large open ragged cavity, from five to six inches long and three inches wide, had been produced, and the tibia and fibula were distinctly exposed; and from this cavity purulent matter was constantly poured. Pieces of pale muscular tissue hung from its margins in depending strips. Pulse 124, feeble.

Nov. 4th. A large slough came away.

Nov. 5th. She was much worse. The gangrenous discoloration had extended to the upper third of the thigh. The cavity was still wider and deeper. The heel of the left leg began to assume a gangrenous condition. The stimulants were increased in quantity, and nourishment was given at shorter intervals; but she gradually declined, and died Nov. 8th.

Spontaneous gangrene in fever is not common, and it is more rare in enteric than in typhus. When it comes on in this manner, the legs and feet are most prone to be affected, which is perhaps to be accounted for by their remoteness from the central organs of circulation. Murchison says three of these cases are given by Trousseau, and that Trousseau ascribes this condition to the obliteration of the arterial trunks. This conclusion is, however, not so certain, because scarcely any proofs have been given substantiative of Trousseau's assertion. I believe that general contamination of the blood and languor of the circulation are rather the conditions constituting this cause; because sloughing of the integuments,

the corneæ, and other parts, takes place, which are not supplied by the larger arterial branches. It begins by loss of temperature in the limbs, with pain and aching in the feet and toes. Huss, Jenner, Lyons, and Murchison, give examples of this complication in typhus.

Case III. *Apoplexy: Softening of Cerebral Tissue.* I was hastily summoned at noon on December 13th, 1865, to a lady who was reported to be in a fit. This lady had previously been under my care, was married, 58 years of age, and had had one child. She was a person of florid complexion, muscular, and well built. She had had two paralytic seizures during the previous two years. From a prior knowledge of her case, I felt convinced that for a long time organic changes had been going on in the head. The pupils were often contracted; she frequently complained of frontal pain; her memory had latterly become defective; she forgot the names of persons and things; she would ask the same question in repetition, stop in conversation for the needed words, and forget the terminal syllable of compound words. Her natural disposition had altered, little trifles rendered her irritable, and her nearest friends had marked this change in her character. The appetite had at times been capricious; the bowels were apt to be confined; and she was liable to attacks of biliousness, which generally succumbed to the ordinary treatment. Her pulse was always regular, but felt jarring under the finger. She had travelled much on the Continent; and when journeying from place to place she always fancied her health improved.

On my arrival, she had been placed in a chair, and at the first moment recognised me. She had taken her breakfast as usual, and was seized in the grounds adjacent to the house whither she had gone for a walk. There was when I saw her great strabismus; the thumb of the right hand was spasmodically contracted upon the palm. The left angle of the mouth was drawn up; and the left cheek contracted. The right arm had dropped by the side, and the right leg was powerless. She was treated by diffusible stimulants, cathartics, and counterirritation. Calomel, croton-oil, terebinthinate injections, and sinapisms, were employed. The head was cool. A blister was applied to the vertex, which produced considerable vesication.

Soon after I saw her, she passed into coma. She lay on her back, with eyes closed, breathing heavily, and never again became conscious. The bowels were freely opened. On the following day, Dr. Jenner saw her with me. This gentleman concurred with the opinion I had given that she would not recover. Dr. Jenner suggested a continuance of the stimulant and counterirritant treatment. I had not bled her. I believed that it was a case of breaking up of the cerebral tissues; and, if so, blood-letting would be of no avail. Dr. Jenner thought that, if she had been bled, she would have sunk rapidly. On the morning of the 15th, she opened her eyes and attempted to articulate, but could do so only imperfectly. She continued to lose ground. She had stimulant and nutritive enemata. The breathing became more stertorous; the legs were becoming colder, and the pulse was intermittent. She took a few teaspoonfuls of soup, but there was so little power of deglutition that these attempts were discontinued. On the 16th, the end was approaching. The breathing became still more stertorous; the bronchi were surcharged with mucus; the countenance assumed a venoid, leaden hue; the surface became bedewed with a clammy sweat; the sphincters relaxed; and she gradually sank at 5 P.M.—seventy-six hours after the time of seizure.

Being requested to examine the body, I made the autopsy seventy hours after death.

Thorax. The left lung was adherent by old bands of adhesion; the parenchyma was normal. The right lung was dark and congested; and, on section being made into its substance, much dark fluid gore followed the knife. The right ventricle of the heart was throughout its extent firmly grown to the pericardium, and it was with difficulty that it could be detached. The intervening concretion was whitish grey, albuminoid, and like some of the non-vascular white textures. Both ventricles were of natural thickness, did not feel soft, and were but a shade paler than normal. *Abdomen.* All the organs, the renal excepted, were healthy. The capsules of both kidneys stripped off with morbid facility. Both kidneys were slightly granular, dark, and somewhat congested. The pyramids were not frayed out. There was no deposit of fat in the pelvis or calyces. The cortical substance was of normal thickness. *Head.* On the removal of the calvaria, it was found adherent to the dura mater. The encephalic mass was red and injected. The convolutions and sulci of both hemispheres were large and deep. There was no subarachnoid effusion; but six drachms of reddish serum were obtained from the lateral ventricles. The centrum ovale majus exhibited numerous bloody puncta. The base of the brain was vascular; no depositions of lymph. A large black clot, of the size of a prune, was found in the left corpus striatum; and it was enveloped in an exceedingly delicate transparent membrane. The white substance in the neighbourhood of the clot broke down readily under pressure; in some parts it was semi-diffluent. The optic thalami were soft; the velum interpositum and choroid plexus vascular.

Microscopical Examination. Heart. The fibres of both ventricles were not broken, nor cloven. Numerous shining dots, with shady margins—oil-molecules—lay scattered, and also in contact with the inner surface of the sarcolemma. *Kidneys.* The cortical substance of both organs showed resplendent granules. *Brain.* The cerebral substance in the vicinity of the clot was broken up; there was abundance of the *débris* of broken-down cells. Resplendent molecules were interspersed, and orange-coloured pigment was apparent. Two small arterial twigs were distinctly seen to have undergone the fatty change.

As usual, the lesion was on one side of the brain; the hemiplegia on the opposite side of the body. The marked rigidity of the voluntary muscles on the right side was an indication of softening. The inspection confirmed the diagnosis. Blood-letting could have been of no service in this case; it could not have arrested the arterial decay. The fatty waste was the remote cause of fatal lesion. The destruction of brain-tissue was from the supply of nutrient—arterial blood—being cut off; the effusion, and pressure, and death, from arterial degeneration and arterial rupture. Though I do not hold with that sweeping abandonment of the lancet which is the fashion of the time, and which the servile, who are always ready to travel in a groove, blindly follow, as all axiomatic rules in physic are bad; but, in cerebral softening, blood-letting can only be harmful; and when there is sanguineous effusion, it in the majority of instances hastens the fatal issue. I may briefly remark, that the hæmorrhagic clot is found most frequently in the corpora striata. Physiologists at one time asserted that the disruption of the corpus striatum was *always* followed by paralysis of the arm, and hæmorrhage into the optic thalamus by paralysis of the leg; but the accumulation of facts has disproved these statements. I ascertained

that this lady had had but one attack of acute rheumatism during her life, which was at the age of eighteen; and then it doubtless was when the pericardial adhesion took place. If so, the heart for the long period of thirty-eight years had, over a large extent of its surface, been morbidly adherent; yet its functions had been efficiently performed.

In conclusion, I would for a moment remark, that I believe, from cases which I can call to mind, that brain-change of this kind is often a very slow process. I know instances in which ten or a dozen years elapsed after the exemplification of mental peculiarity. It is more common in advanced than middle life. It may depend upon some idiosyncrasy not cognisable. I feel certain that it is more or less hereditary; and doubtless the organ may be so worked as to induce this, the condition of a premature decay.

Rebiews and Notices.

CLINICAL SURGERY IN INDIA. By J. FAYRER, M.D., F.R.C.S., and F.R.S.Edin., Surgeon Bengal Army; Professor of Surgery in the Calcutta Medical College; etc. Pp. 774. London: 1866.

THIS volume consists of, first, an excellent address on Surgery in Bengal, which was delivered by Dr. FAYRER at the annual meeting of the Bengal Branch of the British Medical Association in 1865; and secondly, of a series of reports of and comments on numerous interesting cases which have fallen within the author's experience.

In the address referred to, Dr. Fayrer, *inter alia*, gives the statistics of operations performed during the last six months of 1863 in one hundred and eighty stations in the Bengal Presidency. Some points in these statistics are very interesting. Thus, in regard to amputations, the following results are obtained.

	Cases.	Deaths.	Per ct.
Bengal	30	3	10
Calcutta	22	11	50
North-West and Central Provinces	40	6	15
Punjab	22	6	27

Again, of lithotomy, we find that there were in

	Cases.	Deaths.	Per ct.
Bengal	43	4	9.3
Calcutta	25	4	16
North-West and Central Provinces	330	25	7.6
Punjab	224	31	13.8

Lithotrity was performed once in the North-Western and Central Division; the patient died. Two hundred and eighty-five tumours are reported as having been removed (one hundred and thirteen in Calcutta) without any deaths. This apparently does not include scrotal tumours, of which a separate return is given, showing that forty-five were removed in Bengal and Calcutta and one in the North-Western Provinces; two deaths only occurring, both in Calcutta patients.

The remarkable difference between the mortality of patients operated on in Calcutta and those operated on in the country stations is mainly attributed by Dr. Fayrer to the faulty construction of the Calcutta hospitals. All three of these institutions—the Chandney Hospital, the General Hospital, and the Medical College Hospital—are very defective in the essentials of hospital construction. One great defect in them is the intercommunication of the wards, whereby "the miasm of the patients at one end must be blown, according to the prevailing winds, down to the patients at the other (*viresque acquirit eundo*)." In the stations, the hospitals, however defective, have the advantage of country air and freedom from city miasmata; and the patients operated on in them are more vigorous and healthy than those in Calcutta.

"However far it may be true that the healthy simple-living native in the Mofussil is peculiarly tolerant of surgical operation and injuries, and capable of the most marvellous recoveries from severe and dangerous wounds, I must demur to the extension of this theory to the inhabitants of large cities, and of Calcutta in particular. In fact, so far from being favourable subjects for surgical operations, I regard them as quite the reverse; and feel assured that, to the surgeon who has had the opportunity of treating serious wounds or operations in the rustic native, the difference must be as remarkable as it is discouraging. When I say that I do not believe the hospitals of Calcutta can record three successful cases of amputation of the thigh in as many years, I am not so much reflecting on the hygiene of the hospitals as on the locality, and on the subjects who are admitted into the hospitals for treatment." (Pp. 29-30.)

One of the most common causes of mortality after operations in India is pyæmia; and, in speaking of this, Dr. Fayrer comments especially on the mortality after amputations from pyæmia arising from bone-disease. In two years, he has performed thirty-two amputations in the Medical College Hospital; viz., at the hip-joint, 1; of thigh, 3; of leg, 10; at ankle-joint (Syme's), 4; at shoulder-joint, 5; of arm, 5; of forearm, 4. Among these, there were 15 deaths. "Of the deaths, 9 resulted from pyæmia, the consequence of osteo-myelitis; and 3 from pyæmia not dependent on bone-disease."

This disease—osteomyelitis, or acute suppuration in bone occurring after operation—is specially described and commented on by Dr. Fayrer; who gives to the French surgeons, especially M. Jules Roux, the credit of having most thoroughly investigated it. It has, he says, been little noticed in India; but it has long forced itself on his attention as one of the most frequent sources of purulent infection and consequent mortality.

Having described the disease, he speaks of treatment; of which the preventive is the most important. It consists in free ventilation, good food, and segregation of patients. In internal remedies, he has no faith: tincture of sesquichloride of iron, port wine, quinine, and the sulphites, have been given; but he cannot ascribe to them any curative effect.

"Beyond supporting the strength, removing the source of the toxæmia by amputation or excision of the bone, and the administration of the preparations of iron with stimulants, I know of no hope or chance of saving life; and when the lungs or liver have become affected, the chance is indeed small." (P. 51.)

Dr. Fayrer's remarks on osteomyelitis shew that he has studied the subject deeply, and should be carefully perused by all surgeons who desire to have a full acquaintance with this subject.

A case of Popliteal Aneurism is related, in which the femoral artery was tied on July 13th on the upper third of Scarpa's triangle. On July 18th, there being no apparent diminution of the tumour,

two punctures were made in it with a fine needle. From these, dark-coloured blood escaped by drops during several days, with relief to the patient; and on July 23rd, the whole contents of the sac were discharged through an ulcerated opening in the site of the punctures. Two days afterwards, arterial hæmorrhage to the amount of two pounds and a half suddenly occurred; which was arrested by ligature of the common femoral artery. After this, there was some discharge of pus and fœtid blood from the cavity; this gradually ceased; and, when seen on August 22nd, the man was perfectly convalescent, there being only a slight purulent discharge from the aneurismal cavity.

A case is related as illustrating, "in a remarkable manner, the amount of injury that may be inflicted on the head, complicated with loss of bone and the substance of the cerebrum itself, without loss of life or detriment to the functions of the brain." The patient was a boy aged 12, on whose head a heavy branch of a tree had fallen. When seen, he was unconscious; and the symptoms of compression increasing, Dr. Fayrer exposed and removed a portion of depressed bone in the parietal region, two inches long and one inch and a quarter broad. The dura mater had been wounded by a spiculum of bone; and a portion of brain-substance of the size of a filbert escaped. Immediately after the removal of the depressed bone, the patient became sensible. He was treated by rest, low diet for a time, cold applications to the head, and saline purgatives. In a few days, the pulsations of the brain ceased to be observable; he made a steady progress towards recovery; and, in less than a month from the date of the injury, was "nearly as stout and strong as ever, eating and sleeping well, and in the full possession of all his mental faculties."

Two cases of Cæsarean section are next related; both of which ended fatally. In one, the fœtus was malformed; the limbs being very defective, and the head imperfect. It lived twelve hours. In the second case, there were twins; a circumstance which Dr. Smith, Professor of Midwifery in the Calcutta College, comments on as having been rarely, if ever, reported in cases of hysterotomy.

Dr. Fayrer next gives, with remarks on the operation, some cases of Perineal Section. He recommends, in cases where the stricture is old and hard and complicated with sinuses, that the closure of the perineal wound should be retarded rather than hastened; and that the urine should be drawn off through the artificial orifice while the anterior part of the urethra is being rendered pervious by the use of the proper instruments.

Severe injury of the mouth arising from the abuse of mercury by native practitioners, is frequently met with in India. Dr. Fayrer relates a case of Atresia Oris, on which he operated, with ultimate success.

Two cases of removal of Fibro-cystic Disease of the Mamma are next given. The operation was followed in each case by speedy restoration of the health of the patient; but Dr. Fayrer forbears giving any opinion as to the probability of the recurrence of the disease.

In a case of Abscess of Head of the Tibia, a great portion of the cancellated structure of the bone being carious and containing much pus, Dr. Fayrer performed the operation of trephining; the ultimate result being the perfect recovery of the patient.

A chapter on the Radical Cure of Inguinal Hernia comes next. Dr. Fayrer followed for some time Wutzer's method; but now employs a modification of it, which is thus described.

"The instruments with which I operate are very simple—two plugs of wood, silk ligatures, and a curved needle; one plug of wood about six inches long, rounded and compressed at the end and lengthways, and about the circumference of a man's thumb. This may be made of wood, ivory, or bone. Any wood will do, though, perhaps, ebony is the best. At one end it is pierced obliquely, and threaded with two strong ligatures made of the strongest ligature silk. These, before being used, should be waxed. The needle is made of strong steel, curved, and inserted into a firm handle, with an eye at the point, through which the ligatures in the plug have to be passed. The curve of the needle amounts to about half a circle. In addition to these, a small blade or plug of hard wood or ivory, about an inch and a half long, three-quarters of an inch in diameter, and rounded, is required to tie the ligatures firmly over, when the plug has been inserted into the inguinal canal.

"The mode of operating is as follows. The patient is prepared by having the bowels opened the night before. The pubes and scrotum are shaved, and the bladder emptied just before the operation, which may be performed under chloroform if the patient dreads the pain. The forefinger of the left hand is then introduced within the external abdominal ring, pushing before it an invagination of the scrotum. Having introduced it as far into the canal as possible, the needle is threaded with one of the silk ligatures, and, being held in the operator's right hand, is gradually insinuated along the palmar aspect of the left forefinger until it reaches the extremity of the invagination; it is then thrust boldly through the tissues lying over the finger, and emerges about one inch and a half internally to the anterior superior spine of the ilium. The needle is then unthreaded and withdrawn. Again, threaded with the second ligature, the process is repeated, taking care to pass the needle through the tissue, not quite at the same point in the canal as the first, but bringing the ligatures out at the same aperture in the integument. This is easily effected, by drawing the yielding integument over the point of the needle, until it merges at the original point of exit. The needle is again withdrawn, and now the plug is insinuated into the canal whence the finger has just been withdrawn, and is tied tightly in the canal by the two ligatures being firmly knotted over the small pieces of wood provided for the purpose. The plug, it is to be observed, should be well oiled, and introduced as the finger is withdrawn. Until recently, I was in the habit of using various sized plugs, fitted to the size of the abdominal ring in each particular case; but I now find that to be unnecessary, and use only one size of plug. Its object is to support the invagination at the upper extremity of the inguinal canal, and not to exert any lateral pressure. It is to be understood, however, that the canal is to be sufficiently occluded to prevent any descent of the hernia by the side of the plug.

"The subsequent treatment is equally simple. When free suppuration makes its appearance, either by the side of the plug or round the ligatures, the plug should be withdrawn. The invagination is then supported by a pad, after sponging away the discharge and dressing the wound with simple dressing, and a spine bandage. The patient should be kept carefully in the recumbent posture. The bowels seldom act for several days after the operation, but

the patient should be warned against straining if they should do so. An opiate is desirable after the operation to tranquillise the patient, and also to prevent any tendency in the bowels to act. It frequently happens that there is retention of urine. This is relieved by fomentation, or, if necessary, by the catheter. Abdominal tenderness requires hot fomentations; and if any indication of peritonitis present itself, frequent and full doses of opium will be needed, but this in my experience is very rare.

"In ordinary cases, the wounds, scrotal and abdominal, heal rapidly, and all that is needed is careful dressing to prevent descent of the hernia. The patient should not walk until the wounds have healed, and then only with a well-fitting pad and bandage. When the wounds have thoroughly healed, the patient may take exercise with a well fitting truss, which should not be left off for three or four months, when cicatrisation may be presumed to be completed." (Pp. 262-6.)

A table is given, shewing the result of 38 cases operated on in this way. Of these, 24 were cured; 6 were relieved; and the operation failed in 8. The first operation by this method was performed in April 1862; and it is now always practised by Dr. Fayrer and his colleague Professor Partridge.

The next two subjects of which Dr. Fayrer speaks are, Reproduction and Repair of Bone in Necrosis and after Loss of Substance from Accident or Operation; and Shortening of the Leg from Interstitial Absorption of the Neck of the Femur, the Result of Bruise on the Hip.

Elephantiasis of the Scrotum, which is, as is well known, very frequent in Bengal, is next described. A short account is given of 28 cases operated on between July 1859 and May 1862. Of these patients, 4 were Mahomedans, in all of whom the operation was successful; and 24 were Hindus, of whom 6 died —5 from pyæmia and 1 from shock. The largest tumours observed were, one weighing sixty-five pounds, after the removal of which the patient died from shock and slight hæmorrhage; and one weighing seventy-five pounds and three-quarters, the removal of which was followed by recovery.

Under the term Nævoid Elephantiasis, Dr. Fayrer describes a scrotal tumour removed by him, of a different character from those generally met with. The patient was a Bengali lad aged 16.

"The tumour was about the size of a cocoa-nut, and of a nodular appearance on the surface, though very soft and delicate when compressed between the thumb and forefinger, a sense of fluctuation of fluid being apparent immediately under the surface. It conveyed the impression of being a cellular structure distended with blood or serum. The prepuce partook of the same pathological condition, though to a less extent, and did not present the nodular appearance, though it was somewhat irregular on the surface.

"The integument over the inguinal canal on either side, and also in the groins, presented a swollen varicose appearance, and communicated a sensation of fluctuation on pressure, as though under it there lay a number of large and tortuous vessels distended with fluid. These varied in fulness, according to the position of the patient, becoming more distended when he stood up. On puncturing the scrotum with a grooved needle, a quantity of pale pink fluid jetted out, as though from an artery, or streamed down the surface of the scrotum. This fluid, when collected, rapidly formed a pale but firm coagulum; its specific gravity before coagulation was 1020. About sixteen ounces were collected in a few minutes from three or four punctures, but the oozing was easily arrested by pressure. The loss of it seemed to affect him much as the abstraction of so much blood would have done.

"On puncturing the groins with a grooved needle, a similar fluid exuded. From the scrotal puncture it jetted out with the force of arterial hæmorrhage, owing to the powerful contraction of the dartos.

"On compressing the tumour firmly, it was evident that there was a solid substratum of tissue like that of scrotal elephantiasis. Its growth had been similar to that of the ordinary scrotal tumour, and attended with periodic attacks of intermittent fever." (Pp. 352-4.)

Dr. Fayrer removed the growth successfully. On examination, it was found that the nævoid structure was confined to the superficial part of the growth; the deeper portion having the ordinary character of elephantiasis.

"The tissue subjacent to the epidermis was dilated into numerous interlacing and intercommunicating sinuses and cells..... The microscopic structure of the growth was precisely that of the ordinary examples of elephantiasis; the chief distinction between the two forms of the disease being the cellular arrangement."

Numerous other matters of surgical interest, which have appeared to Dr. Fayrer to deserve some special notice from him, are treated of in the book; and, we believe, in such a manner as to be profitable to those who read Dr. Fayrer's remarks. The author has shewn himself to be an observant and painstaking surgeon; and we thank him for having, in the volume before us, laid before the profession some of the results of his experience.

On the Function of Articulate Speech, and on its Connection with the Mind and the Bodily Organs; illustrated by a Reference to Recent Observation on Certain Diseased States of the Brain. By W. T. Gairdner, M.D., Professor of Practice of Physic in the University of Glasgow. Pp. 39. Glasgow: 1866.

Case of Aphasia, or Speechlessness, of Cerebral Origin, without Distinct Paralysis, and fatal with Epileptic Convulsions. By W. T. Gairdner, M.D. Pp. 15. Glasgow: 1866.

These two essays were read by Dr. Gairdner, the first before the Philosophical Society of Glasgow, and the second before the Medico-Chirurgical Society of the same city. They are now printed together in one pamphlet; and form together an important contribution to the literature of a subject on which much attention is being bestowed in the present day. Prefixed is a curious specimen of attempts at handwriting made by an aphasic patient whose case is described by Dr. Gairdner.

American Medical Association. The Prize Essay Committee of the American Medical Association request that all communications to be submitted to them be sent to their chairman before the 15th of March next, accompanied by a sealed envelope containing the name and address of the authors. The Association offers two prizes, of one hundred dollars each, for the two best essays on any subject connected with the medical sciences.

We are requested to remind members of the Association that the Annual Subscriptions became due on the 1st of January. They can be paid either to the Secretaries of the Branches; or to the General Secretary, T. Watkin Williams, Esq., 13, Newhall Street, Birmingham.

British Medical Journal.

SATURDAY, OCTOBER 6TH, 1866.

MEDICAL ETHICS.

A HOMŒOPATHIC review tells of a case in which a homœopath and a medical man were brought into contact, not (as we think) professionally, and yet to the discomfiture of the medical man. The case is one which may occur again; and, as it involves a point of medical ethics of some importance, it is well that we should bring it before our brethren that they may exercise their judgment upon it.

The following is the case as told by a homœopathic journal. An accident occurred to an excursion train. One of the sufferers, a Mrs. ——, who had an insurance-ticket, called in Mr. C., a homœopathic practitioner; and her husband sent a notice of her accident to the assurance office. Several days afterwards, Mr. E., the local medical officer to the assurance company, called to see her and report on her case to the office; but Mrs. —— declined to see him, except in the presence of Mr. C., her homœopathic medical adviser.

Mr. E. hereupon writes to Mr. C. to explain why he wants to see Mrs. ——; assures him that he has no idea of in any way interfering with the case; but merely wishes to be enabled to answer the proper questions of the assurance society; and adds that he must decline to see Mrs. —— in the presence of Mr. C. Further correspondence ensues, in which Mr. E. tells Mr. C. that his reason for declining to meet him is simply and solely because he (Mr. C.) is a homœopathic practitioner. To this, Mr. C. (naturally enough, we must confess) replies that he declines to give Mr. E. a note authorising him to visit Mrs. —— in his (Mr. C.'s) absence. And he adds that, although medical men of the town where he dwells refuse to meet him professionally, there are plenty of others out of it who will readily do so.

"When I have cases requiring another opinion, I am happy to say that, although the medical men of this town cut themselves off from professional intercourse with me, that I nevertheless have the honour and privilege of calling to my aid equally as eminent men in the profession as any in this town—such as Dr. Sharp of Rugby, formerly Senior Surgeon of Bradford Infirmary; John Hitchman, Esq., Surgeon to the Leamington Hospital; Edward W. Thomas, Esq., late Surgeon to the Wolverhampton Infirmary; besides many others; and if I require the opinion of a London surgeon or physician, not practising homœopathy, there are several of the leading men who are liberal enough to meet me, and who are too independent to submit to the trammels of the Medical Inquisition."

It is unfortunate, we may observe incidentally, that Mr. C. has omitted to give the names of the London surgeons or physicians who are thus ready to meet him in consultation.

However, the end of the tale is this. Eventually the agent of the assurance company called on the patient with Mr. E. The patient refused to see them unless in company with Mr. C. The agent then said that, unless she would see Mr. E. the company would not pay the money. Thereupon Mr. C. explained that the patient only refused to see Mr. E. in the absence of Mr. C.; that it was Mr. E. who declined to see the patient, unless upon terms which his patient would not accept. "The agent," we read, "then accompanied Mr. C. to the house, and saw the patient with him, subsequently paying the claim made upon the office. Mr. C. gained a well-merited victory."

Such is the comment made by the homœopathic journal; and certainly, as the tale is here told, there is no doubt that the homœopath got the best of it.

But what are the real merits of the case? How ought Mr. E. to have proceeded in this matter?

It seems to us, we must confess, that he was wrong in the course he took. The presence of Mr. C., in Mrs. ——'s room, when he (Mr. E.) was making his examination, could not in any sense be interpreted into a consultation, or into a meeting with a homœopathic practitioner. No member of our profession, we should hope, would refuse to meet in society a homœopathic practitioner. We are bound to treat all homœopaths as honest but misguided individuals, unless we know them not to be so. Now, in this case before us, it seems to us that the presence of Mr. C. could only be regarded as we should regard the presence of an old woman or a mamma during the visit of the doctor to her daughter. There was no kind of medical word to pass between them; nor, in fact, was there even necessity for them to exchange words. Simply, Mr. C. was to be in the room whilst Mr. E. made his examination. Mr. E. was receiving no report from Mr. C.; and he had nothing whatever to do with the patient's treatment nor the diagnosis of her disease. The presence, therefore, of Mr. C., at the request of Mrs. ——, should not, in our opinion, have led Mr. E. to decline visiting Mrs. ——. Mr. C. in the room there was, in a medical point of view, a totally indifferent person to Mr. E. Mrs. — has a perfect right to employ a homœopath if she pleases; and if she chooses to put herself in the hands of one —to cure her broken leg, for example—it really seems to us not unreasonable that she should be

allowed, if she pleases, to have the comfort of his presence when the medical agent of the railway, we will suppose, on which her leg was broken, comes to examine her and assess the injury done. The presence of Mr. C., on such an occasion, should, in our opinion, be no more objected to than the presence of the nurse; and for the reason, that Mr. E. would have to hold no kind of medical communication with him. Does not, in fact, the very issue of this case prove the mistake of Mr. E.'s original conclusion?

The homœopathic journal tells another tale of a somewhat similar kind, in which, if the report be true, the homœopath also beat the doctor.

"A poor patient," as the tale runs, "appeared to be dying under allopathic treatment, and sought homœopathic aid. He was in a club, from which he was entitled to 15*s.* a week. We signed the usual certificate, and told him to get it countersigned by the club surgeon. The club surgeon refused to countersign the certificate, because it was signed by a homœopath. We advised the man to go back and say to the surgeon that he was bound by the rules of the society to do so; and that, if he refused, the matter would be put into legal hands. The surgeon said he would sooner 'cut off his hand than sign the certificate.' A solicitor then threatened to sue the surgeon for the money withheld by his refusing the certificate. The surgeon demurred and blustered, but finally signed the document. The man recovered; and his club brethren so thoroughly appreciated the benefits he received, that they offered to cashier their surgeon and select us in his stead. This we declined with thanks."

Here, again, we think the surgeon was wrong. All that he certified to, by countersigning the certificate, was, that he knew the man to be ill. The signature of the paper by the homœopath could have no more affected him as a medical practitioner than if it had been the signature of the parson of the parish.

The homœopathic editor who tells this little episode, adds a few more lines, which certainly reveal a curious mental condition of the homœopathic mind. Out of good feeling to this selfsame allopath, being suddenly called in to one of his patients, he prescribed *allopathically*. He says:

"We had our revenge on this churlish allopath, nevertheless. One of his private patients was afterwards seized with a fit during his temporary absence from town, and hurriedly called us in, as the nearest doctor within reach. We prescribed *allopathically* for the patient, as the case belonged to the surgeon and the people were allopaths; and sent the prescriptions to his surgery, with a note, recommending him to go to the patient as soon as he returned, and explaining that, as the case was his, we had ordered for the patient that treatment which we assumed he would himself have wished. We had great pleasure in putting these 'burning coals' on his head."

We cannot help but ask, in reading this act of good nature, Where was the homœopath's conscience all the time? How could he bring himself to take a part in what he (from his point of view) must necessarily regard as a life-destroying business—viz., in prescribing drugs as we others do? We really do not understand the wit either of revenge of this kind, or the method of reasoning by which an avowed homœopath can arrive at the conclusion that he may laudably prescribe, as he calls it, allopathically. It seems to us that, in such a proceeding, the patient (who certainly is, at all events, somewhat concerned in the matter) is treated like a bale of inanimate goods—treated, not as an object to be relieved of sickness, but as a thing to afford business and a means of livelihood for the doctors. Clearly, at all events, we doctors view this matter from a very different point of view. From London to Constantinople, we will venture to affirm, the homœopath who tells the above tale will find no medical man complaisant enough to return the compliment to him—viz., to prescribe homœopathically for a homœopathic patient, should he be suddenly called in during the homœopath's temporary absence.

RAGS AND SMALL-POX.

Under instructions from the Privy Council, Dr. Bristowe has made inquiry into the influence of the rag trade in spreading infectious disease. The investigation was instituted in consequence of a representation that an epidemic of small-pox at Thetford in the previous year was occasioned by woman being employed in cutting up foreign rags in a paper mill. Foreign rags, Dr. Bristowe learnt, are imported into Great Britain from almost every country; they come hither even from Japan and the most remote states of South America, but chiefly from the continent of Europe. The bags containing them are not opened in the docks, but transmitted direct to the manufacturers. Home rags, before reaching the manufacturers, pass through the hands of the marine store dealers and collectors. Generally there is no process adopted by the trade for cleansing or disinfecting rags. Rags collected in country districts are, as a rule, cleaner than those collected in towns. Irish rags are generally very filthy, and many foreign rags (such as Italian, Spanish, Russian, and especially Egyptian) are often not only dirty, but most offensive in smell. On inquiry among the workpeople in London, at the rag merchants' warehouses and the marine-store dealers, Dr. Bristowe failed to obtain any evidence that infectious diseases have been brought to them through the agency of rags, or that any fear prevails among them on the subject. In various paper-mills, however (a minority of the whole number), he found the workpeople disposed to attribute infectious diseases to the rags; and the evidence he collected seems to show that small-pox and other infectious diseases are very rarely introduced into paper-mills by rags, but that their introduction is possible, and occasionally does take place. In the Thetford case, it was clearly shown that small-pox was introduced into the town in 1864 by foreign

rags cut up by women at a paper-mill there. The epidemic lasted six or seven months, and caused sixteen or seventeen deaths. Dr. Bristowe got no evidence whatever of the conveyance by rags of any other disease than small-pox. He doubts if our hospitals ever sell their infected rags; and he doubts whether it is not exceptional to sell distinctly infected articles even in the case of private households. The chief danger would seem to be incurred by the rag collectors and retail rag dealers. With the exception of a suggestion that care be taken that the workpeople engaged among rags have been vaccinated. Dr. Bristowe could only recommend that it might be made a misdemeanour knowingly to sell or buy rags which have been used about persons suffering from infectious disease without previous washing or otherwise disinfecting; but it would be a difficult matter to convict any one of the offence. The compulsory use of disinfectants would be attended with an amount of inconvenience and expense which the trade is not at the present time in a condition to bear. Mr. Simon, reviewing the report, considers that the rag trade does not play any considerable part in the distribution of contagious disease, but more than this cannot be maintained.

This Report will probably allay the anxiety of the Corporation of Waterford, who have lately adopted the following resolution.

"That, as considerable quantities of old clothes are imported from London and elsewhere, and transmitted to various parts of the country, and as much danger exists that contagious disease may thereby be propagated, a memorial be presented to Government praying that an Order in Council may be issued prohibiting the importation of such articles during the prevalence of cholera."

CASE OF ACCIDENTAL POISONING.

A PAINFUL case of accidental poisoning occurred at Wardley on September 9th. Mrs. Simkin, the deceased, had been attended by Mr. Spencer, a practitioner at Hallaton. On August 31st, she complained of pain in her back. On a subsequent day, she was taken seriously unwell at an archery meeting, had a fit, and complained of a pain in her head. From that attack she recovered; and on the Sunday she died was apparently in excellent health and spirits, but was still taking medicine. In the evening, she requested her husband to call at Mr. Spencer's for some medicine he was to send her. Mr. Simkin returned home about eight o'clock. The deceased asked for the medicine, and tore off the paper the bottle was wrapped in. She then opened the bottle and smelt the contents, but did not take any of it just then. On leaving that room to go to her own, she inquired for a glass from which to take the mixture. It is supposed she then took a dose and got into bed. She had not, however, been long in bed before she awoke her husband, and complained of being unwell. She exclaimed, "Oh, I feel so giddy," and commenced shuddering and screaming out. She complained also of pains in her legs, and said, "Don't let my legs go to sleep." Mr. Simkin called to a Miss Spurgeon, and when she got into the room the deceased was quite black in the face and convulsed, the body and legs kept jerking, and her limbs were rigid. The convulsions came on in fits, but she was stiff all the time. They gave deceased some brandy, but she could not take it, her teeth being firmly set. They also rubbed her limbs, and placed her legs in hot water, but she never rallied, and died in about twenty minutes from the time of being first seized. Mr. Spencer was sent for; and, on being told that Mrs. Simkin had said she wished she had never taken the medicine, observed that there could not have been anything in the mixture he had sent her calculated to hurt her. He then took up the bottle and drank some himself. A few minutes after he had drank it, he also became seriously ill, and had a fit of convulsions, twitching of the limbs, and stiffening of the joints. That, however, he attributed to the shock of hearing that Mrs. Simkin had died so suddenly. Mr. Simkin, however, suspected that there was something wrong with the medicine, and ordered it to be taken care of. He then sent for Mr. Bell, another medical gentleman, who at once attended Mr. Spencer, who gradually recovered.

At the inquest, Mr. Bell, surgeon, described the symptoms he found Mr. Spencer suffering from. He said:

"I found him sitting in an easy chair. His pulse was 120, and very weak. His tongue had a brown appearance, and the surface of his body was cold and flabby, and there was profuse perspiration. He was lying back perfectly helpless, and with his eyes shut. A fire was made up, and he became warmer. His pulse then went down to 112, and became stronger. About five o'clock, he called out to me and Mr. Simkin, and asked us to hold him. He then had convulsions, throwing himself back, and raising himself up. There was great rigidity of the muscles, and tetanic convulsions. He also got very black in the face, and had great difficulty in breathing. He likewise had twitching of the arms. That fit lasted about a minute; but he had similar symptoms, more or less severe, from the time I first saw him until I left at a quarter past seven in the morning. He appeared to have a pain in the stomach, and kept drawing himself up. There were frequent involuntary twitchings of the face, and hitching of the skin of the stomach and face. He was, however, never unconscious; neither was he sick while I was there, although he complained of feeling sick. When I went to see him again at eleven o'clock, he had vomited a little."

Dr. Alfred Taylor, having deposed to receiving bottles containing the contents of the stomach of Mrs. Simkin, and the medicine, said:

"The large bottle contained 1½ oz. of liquid, including sediment; and the small one, 2½ oz., also including sediment, making altogether 4 oz., or one-third of the total capacity of the large bottle, 12 oz.

The liquid was separated from the sediment. It tasted very bitter. A chemical analysis showed that the liquid contained, in a dissolved form, brucia and strychnine, in the proportion of 1.7 grain to an ounce; the brucia, from its greater solubility, being in larger proportion. The dry sediment obtained from the large bottle weighed 5.2 grains, and that from the small bottle weighed 3 grains, making 8.2 grains of undissolved matter from the two bottles. This sediment was tested, and found to be nearly pure strychnia. A quarter of a grain of the sediment produced tetanic convulsions in a rabbit in thirty minutes, and caused the death of the animal, with the usual symptoms of strychnia-poisoning, in ten minutes more. The sediment or undissolved residue from the two bottles was examined for bismuth, but none was found in it. He mentioned the fact, because he had seen from the prescription that it was stated to have contained bismuth. The liquid in the bottles contained much brucia, with some strychnia. On evaporation, 1.7 grains were obtained from an ounce of it. Hence, in the four ounces, there would be 6.8 grains dissolved. Hence, in the two bottles, the weight of dry sediment, principally strychnia, was 8.2 grains; the weight of brucia, strychnia, and other soluble matter, 6.8 grains; total grains in 4 ounces of mixture, 15 grains. Three tablespoonfuls, the dose marked on the large bottle, are equivalent to nearly two ounces; hence such a mixture would contain in a single dose, if it were shaken, a fatal dose of strychnia. Half a grain of strychnia has proved sufficient to destroy the life of a human adult in twenty minutes, and in the sediment alone there was enough to kill sixteen persons. The application of the usual tests to the stomach, duodenum, and œsophagus showed that strychnine was present. The largest proportion was found in the duodenum. Some powdery matter scraped from the surface of the œsophagus was, by the usual tests, found to be strychnine. From the appearance, the symptoms described, and the result of the analysis, I have no doubt whatever that the deceased died from strychnia, and not from natural causes. Old samples of bismuth might be mistaken for strychnine, as they are very much alike in appearance. Any human being taking a dose like the one alleged to have been taken by the deceased would certainly die from the effect. Generally, strychnine is only kept in very small quantities, while bismuth is kept in large bottles. All bottles containing drugs ought to be distinctly labelled. An experienced person ought to know the difference between bismuth and strychnine by the weight, the one being much heavier than the other."

The jury returned a verdict, that the "deceased died from strychnia, administered by Mr. Spencer with gross neglect." Mr. Spencer was admitted to bail. There appears to be no doubt that the strychnia had been mistaken for the bismuth bottle.

Some of the statements made in the last Report of the Inspectors of Prisons show that workhouses are not the only public establishments in which abuses exist.

"The Inspector found in Hertford Gaol a novel form of labour; namely, forced marching, in quick time, twenty miles a day, round a yard. The exhausting effect of this made itself very visible on men beyond the vigour of youth. In Manchester Gaol, a practice has been adopted of gagging women who have persisted in disturbing the prison by shouting and screaming. This is a mode of punishment unknown to the law. At Lewes, the chapel services, three in number, are described as occuping so much time as to make it impossible to exercise all the prisoners; there should be time made for mercy as well as for sacrifice. In a Scotch prison, the Inspector found prisoners employed in doing work for the governor. So inadequate for its purpose is Dover Town Gaol that, on some cases of small-pox occurring last year, it was found necessary to pardon and discharge thirty-four criminals, to save them from the contagion. At Tiverton, the weekly cost of food is stated to be as high as 3*s*. 6*d*. per prisoner; it is supplied by contract; but the contractor is, or was, the governor himself. At Colchester, the rate is returned as still higher—namely, 4*s*. 4*d*. Here, also, the gaoler himself supplies the food at this charge. The new prison dietary is declared by the surgeons to be not more than sufficient to maintain health and strength. The surgeon of Southwell House of Correction notices symptoms of general debility, and in one case a complete prostration of strength. On the inspection of Chester Castle, a prisoner complained that he had been discharged from Congleton Union in a coarse canvas suit, marked all over with the words 'Congleton Union'; and becoming in consequence an object of ridicule, he committed arson, in order to get into prison. He admitted that he had destroyed his own clothing in the union, but alleged that it was done by accident. It is mentioned that, in one or two prisons, earth-closets have been substituted for the ordinary water-closets, with great advantage in the condition of the air. The Inspectors state, in several instances, that alterations are being made in inadequate gaols to bring them into conformity with the new Act; and some of the smaller prisons might well be abandoned, and contracts made for the reception of the prisoners in neighbouring larger and well-appointed gaols. At Abingdon, the Inspector found four prisoners cleaning the front court, with nothing to prevent their escape, except the supervision of an officer, who would be almost powerless to prevent it."

An anonymous writer has written a pamphlet which he entitles "The Human Blight and Cattle-Blight, or an Explanation of the Cholera and Cattle-Plague." The author is not a doctor, he says; and, as he approves of people sticking to their own trade, would not have ventured to treat of the above subjects, had the doctors not confessed that they know nothing about it. As the professional knowledge fails, the anonymous writer concludes that non-professional knowledge may be able to explain the case. The reasoning is curious, and enables us to judge, without reading, the character of his argument, and the value of it.

In a late discussion at the Academy of Medicine, M. Velpeau speaks thus of the medical press. "I possibly do not consider the medical press to be everything in the world. I neither fear nor flatter it. A *savant*, in my opinion, adds nothing to his merit by being a journalist. Those who form the medical press are medical men, and I esteem them just according to their worth. I am too independent and too old to fear anything."

THE MEDICAL CLUB.

A PRELIMINARY meeting of the members of the above Club was held at the house of Mr. Propert, on Tuesday, October 2nd. Among those present were: Mr. Propert (in the Chair), Dr. Butler (Woolwich), Mr. Lawrence, Dr. Wilson Iles (Watford), Mr. Read and Dr. Chevallier (Ipswich), Mr. Whitfeld (Kensington), Dr. Webster (Northampton), Dr. McEwen (Chester), Dr. Weber, and Dr. Lory Marsh. A considerable increase in the number of members was announced, and a satisfactory report of the progress of the Club since the previous meeting was presented. A copy of the proposed Club rules was read; and considerable discussion ensued, especially with reference to the future designation of the Club. It was ultimately decided to adhere to the title of "The Medical Club" until the general meeting, at which it would be competent to substitute any other that might then be agreed upon. Amongst the names suggested were the following: "The Brodie", "The Sydenham", "The Hunterian", and "The Harveian". A letter was read from Sir William Fergusson, expressing the pleasure which he would have in presiding at a general meeting to be held in the Hanover Square Rooms on Thursday, November 8th, at 2 P.M., to take into consideration the best means to adopt to secure the successful carrying out of the Club.

THE CHOLERA.

THE Registrar-General states that the mortality in London exceeds the average for the week by 179; and by a singular coincidence the deaths from choleara are within two of that number, being 177. The deaths registered from diarrhœa were 67, which is probably rather below than above the number usual at this season of the year. During the last 13 weeks, 4714 persons have fallen victims to cholera, and 2298 to diarrhœa. The Registrar-General says that "the cholera-matter (cholrine) is now diffused very equally all over London." In Liverpool, the fatality from cholera was steadily declining; the deaths in the last four weeks from that disease being respectively 225, 145, 182, and 159. In Dublin, on the contrary, the number of fatal cases was increasing, the cholera deaths for the last four weeks being 52, 55, 65, and 98. In Manchester and Salford the pestilence had appeared, 14 out of 248 deaths there being attributed to cholera. In Vienna the epidemic is raging with increased violence, the deaths for the four weeks ending with the 22nd September being 64, 107, 201, and 274.

The "blue mist" was observed at Greenwich during five days of the past week.

The unaccountable decrease in the number of deaths from cholera which has been observed as invariably happening on Sundays and Mondays, again appears in the return issued last night. The following are the numbers for the last seven days:—Cholera—Tuesday, 30; Wednesday, 27; Thursday, 26; Friday, 17; Saturday, 32; Sunday and Monday, 34, or 17 each. Diarrhœa—16, 8, 7, 7, 15, and 17, or 8½ each.

Association Intelligence.

SOUTH EASTERN BRANCH: EAST SURREY DISTRICT MEDICAL MEETINGS.

THE next meeting is appointed to be held at the White Hart Inn, Reigate, on Thursday, October 11th, at 4 P.M.; Dr. Holman in the chair.

Papers are promised by Mr. Sargent, "Report of Cases"; by Dr. Anstie, "On the Sphygmograph"; by Dr. Down, of Earlswood; and by Mr. Napper.

Dinner will be provided at 6 P.M.

HENRY T. LANCHESTER, M.D., *Hon. Sec.*

Croydon, September 26th, 1866.

SOUTH MIDLAND BRANCH.

THE autumnal meeting of the South Midland Branch will be held at the Corn Exchange, Leighton Buzzard on Wednesday, October 17th; E. Lawford, Esq., President, in the Chair.

Gentlemen intending to read papers or cases are requested to send their titles to Dr. Bryan, Northampton, before October 4th.

J. M. BRYAN, M.D., Northampton. } *Hon.*
G. P. GOLDSMITH, Bedford. } *Secs.*

September 21st, 1866.

SHROPSHIRE SCIENTIFIC BRANCH.

THE annual meeting of the above Branch will be held in Shrewsbury, in the present month.

Gentlemen having papers to read, are requested to communicate their intentions to the Secretary, on or before October 15th.

SAMUEL WOOD, *Honorary Secretary.*

Shrewsbury, October 2nd, 1866.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT MEETING.

THE first meeting for the tenth session, 1866-7, was held at St. Bartholomew's Hospital, Rochester, on September 28th, 1866; J. D. BURNS, M.D., in the Chair. Twenty-one members and visitors were present.

New Members. William Bell, Esq., F.R.C.S., of Rochester; Thomas Blatherwick, Esq. (Army), Rochester; and William Monckton, Esq.—were duly elected members, subject to the rules of the Association; and Mr. John Zachariah Laurence was elected a member of the District.

Next Meeting. William Hoar, Esq., F.R.C.S., was chosen Chairman of the meeting to be held at Maidstone in October.

Election of Officers of the District. Dr. Adam Martin and Dr. F. J. Brown were re-elected Treasurer and Honorary Secretary respectively.

Communications. The following papers, etc., were read.

1. Case of Chorea, fatal by Heart and Brain Complications. By S. Monckton, M.D.
2. The Acquired Blood-relationship of the Wife to her Husband, and conversely in a less degree. By F. J. Brown, M.D.

Dinner. The members and visitors adjourned to dinner at the Bull Hotel.

Introductory Lectures.

KING'S COLLEGE.

Sir William Fergusson, Bart., F.R.S., delivered the introductory lecture. He said that another year dawned upon the medical schools of London, and they in that college hailed the advent of it with the customary congratulations. They were delighted to see familiar faces and friends; they welcomed those who appeared for the first time, and rejoiced that they had been spared once again to begin that work of love and labour in which most of them had spent so many years of their lives. On the part of their much-loved principal, and for his own colleagues, he bade the students a hearty welcome. In early days, whilst engaged there, and zealously advocating to the best of his ability the claims of medicine as a profession, he felt that he was but a struggler on the great ocean on which he had entered a few years before. Now that his fitful, heaving struggle was working to an end, he could say with all his heart and soul that with his experience of life and of his profession, had he to begin the world again he should a second time select medicine, and buckle to his task as cheerily as he did when he was a lad of eighteen, without special prospect, and without a hope but that engendered by a firm determination to do his duty, and a belief that straightforward industry would meet with a fair reward. Now, after years of labour, with almost every ambitious hope of life fulfilled, and amongst those hopes he might mention as not the least that of being a professor of King's College, he was there with an experience which time and occasion could alone bring, in some degree, to maturity. To those who, like himself, had spent a lifetime in such matters, addresses of this sort must be monotonous, but it must be kept in mind that they were intended for the beginning of a generation; and as each year had its own fledgling, the oft-told tale was a novelty to the beginner which it lacked to those who had already been years at their work. The influence of the medical profession extended over the whole human race, over every animal subservient to man's use and pleasure; and from the lowest grade of man in savage life to the sovereign ruler over millions in the highest state of civilisation it was held in the highest respect. Although preeminently of a peaceful character, the sinews of man would be paralysed without its peaceful assistance. To what, it might be asked, was all this to be attributed? The answer was simple. Medicine had charge of the health of the living man, and there was no gift which the Almighty had bestowed on man which was equal to that of health. Without that the greatest intellects must be enfeebled; and, even with his superior mental endowment over animals, health must be placed as the prominent blessing of his life. When, therefore, they reflected upon the meaning of health, they were more fully impressed with the magnitude and grandeur of the objects and aims of medicine. They often admired, and not without good reason, the composition and mechanism of a door lock, of Babbage's calculator, of a watch, of a sewing machine, of a steam-engine, of the numberless contrivances of man's ingenuity. Yet how all these fell short of the mechanism of a man's body itself. In a watch or a steam-engine they could appreciate the design and mechanism developed by the head and hands of man; they could recognise and appreciate the physical power of a lever or of a spring of water or of steam; even the mysterious electric current could be contracted, guided and brought to marvellous uses. They knew the agencies which could originate and cause this current to encircle the globe. They knew that all these wondrous developments of man's ingenuity were the gift of the Divine Creator, and that of all His creatures man alone has been endowed with intellect sufficient to develope and appreciate such marvels. And when they reflected that those marvels came from the intelligence of man, that that intelligence was associated with life, and particularly with the vigour of life, they must be awe-stricken with the marvellous mechanism of the human frame, and more particularly with the motive element which inhabited it, which prompted and swayed its diversified movements, aye, which swayed thought itself; and with this awe they must feel gratified that the profession of medicine had chiefly to deal with the health of this marvel of God's creation. The precious things in this world were usually guarded most carefully by the highest intelligence. The soul of man they deemed imperishable and most precious. Such a thought was the highest sign of civilisation, it was the grand distinction between heathen and Christian, and they delighted to cultivate that intelligence which guarded the soul, and told them how best during life they might provide for this immortal part of man. The lecturer pointed out that it was impossible that medical men could be expected to be thoroughly versed in all departments of science. It might be said that there were 20,000 professional men in England to 20,000,000 of people. The people did not expect these 20,000 professional men to be high-class philosophers, but they did expect them to be well-educated gentlemen, and that their education should be such as would best suit them in their calling. Sir William next pointed out that in addition to the incitement of duty and the prospect of worldly success there were in the study of medicine attractions which were scarcely excelled, if at all equalled, in the study of any other profession. Much valuable advice was given by the lecturer in reference to the student's attendance in the museum, the anatomical theatre, and at the bedside of patients; and he spoke in high terms of the grandeur and dignity of the profession. It was not so much for them to become men of science as to be able to take a useful place in the social system so as to enable them to earn their daily bread. Let them by all means acquire all the science they could; indeed without science they could never learn their profession. At the same time the art of their profession required as much attention as the science of it, for without the art the science would be useless. He enforced upon the students the duty of making the most of their opportunities. They were entering upon a field of inquiry which would prepare them for a life of usefulness, the maintenance of the masterwork of God, one which would lead their thoughts instinctively from the things of time to those of eternity. Let them start, then, on their great and good mission, and they would all pray that God's blessing might rest upon their labours.

GUY'S HOSPITAL.

The address was delivered by the President, Sir Lawrence Peel. After an explanation of his reasons for addressing his hearers, he said he had little to offer that was new, and he did not aim at novelty, nor did he desire to make a sensational address. He must generalise in his observations, and the hearer must apply and appropriate the lesson. The first piece of knowledge he should exhort them to try for was self-knowledge; from that might grow knowledge

of men. They must look onward. They would find God there in some nook or recess if they looked long and well—the kingdom of God was within men's reach. Work and pray would be his advice to them. They would be tempted to expense, to idleness, and, if to idleness, to all springing from that bad root.

The medical profession stood deservedly high, and it could be injured only by itself. The way to support it was to feed its springs. The medical schools of London were its springs—their food was knowledge. The students were offered the food; they must take it, chew it, and digest it. To qualify themselves for their profession they should be good men, learned men, and liberal-minded gentlemen. For models they need not go far, for the walls of that hospital included many such. They should regard the dignity of their profession with a jealous care. It rested on services to mankind, the justifying cause of dignified position. To the honour of medical men were entrusted the keys of the skeleton closets in many houses, and the deposit was rarely abused. By virtue, learning, and manners united they maintained an influence which would be lost without that union. There was a time, however, when this profession, now so honoured, was the butt of ridicule. Satirists, in essays, dramas, and novels, delighted to level at it their shafts of ridicule, and the world clapped their hands and laughed. Why? It might be useful to seek for the cause. The weaknesses which then were ridiculed were not limited to this profession only. The world partook of them. A superstitious reverence for old times and opinions, for the practice of the ancients, a pedantic adherence to routine, and a determination to confess no error, and, consequently, to oppose all new discoveries, lost them for a time the respect of thinking people; and, as the lives of men were at stake, bitter was the derision when those weak points were exposed. Infidelity was at one time imputed to medical men; against them the charge was hushed, but it was renewed against men of science, many of them distinguished alike by their profound science and by the simplicity, purity, unselfishness, and labour of their lives. He could not conscientiously invite them to the pursuit of science if he thought that pursuit really hurtful to them in the all-important point of their salvation, but he thought that all knowledge led ultimately to light, and light to God. The sin of infidelity could not be imputed to bodies aggregate, it must reside in conscience and the individual, it must depend on corrupt motive, and should not be confounded with error. Each link must be in harmony, and religion and science could never clash. Men might misunderstand or disregard signals, but properly directed trains of thought never clashed. Collision implied blunder, while science was essentially a progressive thing; and religion was essentially a progressive thing. The sincere inquirer into science wanted to land on some dependency of the Kingdom of God. The charge rested on gross assumptions, most if not all of which charity forbade. Let them put themselves implicitly into the hands of God and ask for light. Charity forbade them to condemn on assumption, or to suppose a man irreligious simply because he was on conviction not a follower of that religion which they believed to be alone a revelation from God. He hoped never to see the time when the mind that obeyed well was more prized "than that which thinks and feels", when a habit would be more valued than a power, when a pail of water taken from a spring would be prized above the spring which filled it. These broadcast imputations of sin by reason of divergence of opinion proceeded from ignorance of man. That Being who fixed by "immutable decrees seed time and harvest in his purposes" saw closer than they. A man was walking in a garden with the gardener. A fig tree stood there clothed with many broad leaves. The visitor looked on with

> "A restless, oblique eye,
> That looks for evil like a treacherous spy,"

and said, "It bears no fruit." "Stand under the tree," said the gardener, and look into it." So the man stood under the tree and looked into it, and he said, "I see none." "Look closer," said the gardener. "I see one," said the man, "two, three, many; nay, I thought they were only leaves." "Yes," replied the gardener, "many are mistaken in many things, but God sees closer than we." A man was walking on a road and he met a carriage full of travellers, strangers to the country, stopping where the road diverged into two. "Which is the road to Gods-hill?" cried the driver hastily. "Both lead to it," said the man slowly, "but few folks believe me; they all take it there's but one way." Now, this Gods-hill of which he spoke was in the Isle of Wight, but there was another God's-hill, and if men climbed it they got a better view of the country than they in the low lands; they saw many branching streams flowing into the sea; many roads leading to one city, and that city set on the hill. Man was not a mere receiving animal to hold effusions of grace; he was not a mere electric chain sunk in a sea to carry messages from above. He was an intelligent, acting power, self-exerting, put in motion, or aided in motion, by God; not a reservoir, but a river fed from God and flowing to God. Doing less than a man might do would be defrauding God. The student who meant to do as little as he could meant to practise on the credulity of dupes. Work should be proportioned to their strength. Exact tasks could not be allotted, for there must be relaxation. Let them give time to study. Let them avoid all that detracted from that fair allowance. Let them choose pleasures suited to their age, strength, and means, and make no laws for their companions. The world was a great partnership, God had so worked it. Ignorance made ligatures which cut into the flesh; it was the parent of prejudice, and by its obstruction to improvements was as fatal as a pestilence. Molière had touched the matter freely in *Le Malade Imaginaire;* the promising son would not even listen to the new discovery of the circulation of the blood. In *Gil Blas* and in *Don Quixote* the same vein of irony was opened. Selden, in his *Table Talk,* hinted why simple medicines were at a discount. They were unpopular because simple and plain, and one saw it daily exemplified. In Barataria this was the golden rule—*Difficilissimum saluberrimum.* Proscribe what was, and prescribe what was not, at hand; if they ordered what was cheap, men would think cheaply of them. A return to nature had sent old recipes, spring physic, and spring diet, to Coventry. The reformation had spread. The doctor and governor of Barataria quoted very learned opinions for his theories, but students now were to be congratulated that they were born in the age of reason. The lecturer proceeded to give some excellent advice to the students. They were not to be in a hurry to come out, like a miss in her teens, but should endeavour to lay good foundations; for they did not want men, like the Irish students in *Gil Blas,* to be foaming at the mouth with theses and arguments. Nothing would stick long by them which was not in a measure worked into them by themselves, nor do them much good unless it was based on principles. They did not think much of a case-lawyer; let them not, then, be case-physicians, but saturate their minds with principles. Let them pick up all the knowledge they could, for a German story said that even a rusty horseshoe might buy some cherries. In conclusion,

he expressed a hope that the professors in the school would show the young men about them that they were students still, that theirs was apt philosophy that never rested, which was never attained, which was never perfect, that its law was progress, that a point which yesterday was invisible was its goal to-day, and might be its starting point to-morrow.

WESTMINSTER HOSPITAL.

The Introductory Lecture was delivered by Dr. Fincham. The lecturer addressed himself more particularly to the new pupils. He first alluded to the higher standard of general education now insisted upon as preliminary to their special professional studies. "Do not," he said, "be discouraged by the apparent multiplicity of subjects to which you will have to direct your attention. To some, I know, this seems at first almost overwhelming, and they feel tempted to sit down in a sort of despair; but this is as unnecessary as it is wrong. There is nothing so especially abstruse in the studies with which you will be occupied but that a young man of average abilities and a fair school education can perfectly master them, if he only will to do so. I say a fair school education; and I trust that the regulations of the Medical Council compelling all students to pass a preliminary examination in ordinary school subjects before they begin their specific medical career, will have the effect of sending up to the schools pupils who really are fit to begin their professional studies. This has not always been the case, unfortunately, in times past; and I am sure that all who have had to do with medical teaching have formerly very often lamented a sad want of common intellectual training in many of those who have entered our schools. Some, indeed, were deficient in the very rudiments of education: it was a hard matter for them to write a piece of decent English, and their spelling was not always in accordance with the received rules of orthography. But it was even worse than this. They did not seem to have the least idea of learning, much less of teaching themselves. Habits of memory, application, reflection, analysis—all were unknown to them; and, instead of learning their profession, they spent most of their time in learning how to learn, if even they achieved this. But all this is, I trust, a thing of the past. Already the standard of preliminary education is sufficiently high to keep away from the ranks of medical students those who are manifestly unfit for any liberal profession; and, by the resolutions of the Medical Council at their last session, this standard will be gradually raised still higher. And this, I believe, will be found a positive boon and advantage, not only to the profession generally, the tone and position of which will be unquestionably raised, but also to many young men who, were it not that this preliminary education is insisted upon, might have entered a profession for which they never, perhaps, could properly qualify themselves, and which, therefore, must be practised under terrible disadvantages. Many a young man whose education has been neglected, or who, from some cause or other, has an inaptitude for intellectual pursuits, has cursed the day on which he entered one of those professions for the right study and practice of which a considerable amount of intellectual training is necessary. Such an one might have made a capital farmer, or a first-rate colonist; but a doctor or a lawyer he never should have been."

The lecturer then proceeded to give a rapid sketch of the various sciences to which the student would have to give his attention, showing how they all bore upon the great object of his studies—the cure of disease, and the alleviation of suffering. He pointed out the unreasonableness of thinking it possible to amend derangements of the structures or functions of the human body without a previous knowledge of them as they are in health: in other words, without being masters of anatomy and physiology. He urged, too, the study of chemistry: first, for its bearing on physiology; secondly, for its direct help in the diagnosis and treatment of disease; and lastly, in its connexion with forensic medicine. The study of medicine and surgery themselves was next considered, and the necessity of attending systematic lectures on these subjects insisted upon, as introductions to the most important point the student must direct his attention to—viz., clinical teaching and study. He showed how essential was this last, and how impossible it was to become a good physician or surgeon without it; just as, without dissections, it was impossible to become a good anatomist.

Having thus touched upon the various subjects which occupy the student both in the lecture-room and the hospital, the lecturer next alluded to his duties and occupations when at home. He advised those who took notes of lectures (a most useful practice), to write out these notes on their return home, with such additions as memory could supply. As to reading, he would leave it to the various lecturers to advise what works should be read. He would rather remind them that, just as there was all the difference between hanging about the wards and clinical study, so there was all the difference between looking at a book and mastering its contents. One of the greatest thinkers of the last century in this country, Bishop Butler, thus spoke of that shallow desultory mode of reading which was, Dr. Fincham believed, one of the great evils of the present day: "The great numbers of books and papers of amusement which, of one kind or another, daily come in one's way, have in part occasioned, and most perfectly fall in with and humour, this idle way of reading and considering things. By this means, time, even in solitude, is happily got rid of, without the pain of attention; neither is any part of it more put to the account of idleness, one can scarce forbear saying is spent with less thought, than great part of that which is spent in reading." "Do not, then," said Dr. Fincham, "read in this desultory mode, allowing ideas to pass through your minds, but making no effort to realise them and make them your own; and do not delude yourselves by supposing that, because the work you have before you is a solid one, you therefore are well and solidly engaged in reading. You may skim a solid book just as readily as you may skim a novel, and with just the same amount of waste of time and injury to your mental powers. Far better would it be for you to read now and then, positively for amusement, some good work of fiction, than habitually to read even the deepest work without making an effort to master its contents. Read, then, a few books, but read them well. Bear in mind the old proverb, *Cave hominem unius libri*. It expresses exactly what I want you to realise—that a man who has mastered a few books thoroughly is infinitely superior to one who has read hundreds carelessly; that he is infinitely more to be feared as an intellectual antagonist, because he has acquired active habits of thought, instead of being content with receiving passive impressions of subjects which have merely flitted before his mental gaze, but have left no abiding stamp behind them."

The lecturer then went on to speak of the important subject of recreation in the following terms. "On this point, the first thing to bear in mind is, that habitual idleness is incompatible with the idea of recreation. For what does recreation mean? The word speaks for itself. It means a creation afresh—

a renewal. Unless, therefore, mind or body, or both, are more or less fatigued or worn, there can be no need of, no right to, recreation. The idle boy or man has exhausted nothing: there is nothing, therefore, which wants renewal. The industrious student, however, has a full right to recreation; nay, it is his duty from time to time to unstring the bow of mental effort, in the positive interest of his professional advancement. He will work all the better for good wholesome play, just as he will play all the better for his previous work." In continuation of this subject, the lecturer alluded to the many sources of amusement and instruction now to be found in the metropolis, and of which the student can avail himself without the slightest risk of deteriorating his moral character. He urged, also, the advantages of short excursions into the country, during the spring and summer months, on the Saturday half-holiday; but, above all, he insisted upon change of mental occupation as one of the best means of recreation. "Artizans," he said, "who have been using their muscles all day, are often by no means disinclined to some athletic sport in the evening, and really find a relief from it. So, too, the medical student, who has been working hard at his anatomy and chemistry, will be in no small degree refreshed by spending an hour or two occasionally on some totally different subject. In this way let him keep up his classical studies, or work at French or German. Let him read, too, instructive works—*e. g.*, on history, or the biographies of great and good men. All these will be of use to him, by enabling him to become the fit associate of educated persons; and also because they will help him to rise above a life of frivolity or of mere sensual gratification, by giving him an interest in something higher."

The lecturer, in conclusion, when contrasting the position of the medical profession with that of others, spoke encouragingly. "Of course," he said, "the practitioner of medicine will have to work; but so will every other professional man. But I do hope that in future years he will have less *drudgery* than has sometimes heretofore fallen to his lot. Thus I have great hopes that the position of parochial medical officers will be greatly improved, and that the just claims of military and naval surgeons will be no longer disregarded. Indeed, I feel sure that these changes *must* take place, if such posts are to be filled at all; for just in proportion as the standard of education, both preliminary and professional, of the medical practitioner, is raised, so will be his reluctance to accept underpaid and degrading appointments."

ST. BARTHOLOMEW'S HOSPITAL.

The Introductory Lecture at this hospital was delivered by Mr. W. S. Savory. After some prefatory remarks, he said that, whatever position medicine was entitled to hold amongst the sciences, this was certain, it was not an exact science. It was concerned with probable truths. The business of medical men was to minister to the cure of disease, to the repair of injury, and so to prolong life and to render it as useful and as agreeable as possible; to prevent or remove, or mitigate the ills that flesh was heir to. They were, therefore, immediately concerned with the nature and treatment of disease. But the nature of disease for the most part was often, during life, and sometimes after death, doubtful. The diagnosis of a particular case, or the determination of the disease which resulted, was very often only more or less probable. Indeed, it perhaps seldom happened that one could be absolutely certain beforehand beyond all doubt or question, of the nature of the disease which actually existed, although they might, in the great majority of cases, from the weight of probable evidence, make their diagnosis a moral certainty, and therefore amply sufficient for all practical purposes. So the treatment of disease was for the most part doubtful, for the remedies employed were in their action more or less uncertain. Some were very equivocal, others almost sure; but on the whole, when skilfully prescribed, it was highly probable that many of them would act in the way anticipated. He could not think less of medicine as a study because it was not an exact science. On the contrary, if it were, it would, for him at least, lose much of its present interest. They were very often told that medicine was, at the best, an uncertain science, obscure in its principles and doubtful in its practice. Difficult enough they knew it was; but was the reproach of its difficulties to fall on those who had to grapple with them? That it was uncertain must be granted, for they had to do with probabilities only, nay, sometimes it might be with mere conjecture. But who did not, every day of his life, depend upon probabilities and act upon conjecture? Probability was, as Butler said, the very guide of life. In medicine, as in the daily occurrences of life, probabilities varied from moral certainties to possible contingencies. It seemed hardly reasonable, when for disease or pain the aid of medicine was sought, to complain that the means employed for relief or cure were either uncertain in their action or somewhat doubtfully selected, that after all recovery could not be secured, but was by the aid of medicine only rendered highly or at least more probable than before. It seemed, he repeated, hardly reasonable to urge this objection when every day, and all day long, they staked their very lives, nay, what they cherished more and held dearer than their very lives, upon probabilities, when the most important interests in the world were fearlessly and confidently based upon probabilities. But it might be said that the question of probability was a wide one, from almost absolute certainty to the merest chance. In this respect he contended that the art of medicine in the hands of a skilful practitioner stood well. Moreover, while unfortunately it often happened that the prospect of being able to do much good was very doubtful, it fortunately but very seldom happened that they had run much risk of doing mischief. Amongst many considerations arising out of this it might be remarked that it was because medicine was not an exact science that the man of observation and experience in the practice of his art had so enormous an advantage over others, and why it was that he knew so much more than he could teach; for although he could not arrange his knowledge into aphorisms, or deduce general principles from his collections of facts, he could apply it with skill to the investigation and conduct of individual cases. He had learnt how to hit; he could only teach how to aim. Professional skill could not be transmitted from one to another. It could be gained only in one way and in one place, by work at the bed-side. Out of the nature of the science and art with which they had to do this at least arose, that it could never become a matter of mere venture. The relation between cause and effect was oftentimes so indefinite, the disturbing influences which intervened were so numerous and various, that each case became a study in itself. It had been said of injuries and of certain diseases, that they were especially interesting because no two cases were exactly alike, but this might be said most truly of all diseases. No two were ever precisely alike. Groups of diseases, like leaves on a tree, were connected closely by strong family features, but, like leaves, each individual case had peculiarities of its own which marked it from every other. Nature

seemed to avoid mere repetition in her modes of action as in her creations, and students would find, if they looked far enough, that diseases would vary as their patients' faces. There was, therefore, something to learn from every case, if they would only seek for it. They would not have done enough when they had determined its nature and treatment. They must look further still and see what else could be made out of it. When a man ceased to be a student of his profession the sooner he ceased to practise it the better. He did not mean for a moment to imply that the investigation and management of every case was equally difficult, still less that one's previous experience should go for little or nothing. On the contrary, in medicine, as well as anywhere, practice, and practice only, could make perfect. But what he would warn students against, no matter what their ability, accomplishments, or skill might be, was this, carelessness by the bedside of a patient. They should make it a rule to be broken as seldom as possible, for in spite of all their resolution it would be broken too often, to examine a case thoroughly, or to leave it alone entirely. Let them get into the habit of marking each case while actually before them as of paramount importance. Haste or hurry, or the suspicion of indifference, was an insult to the patient and an offence against the profession. They could never have an excuse for doing less than their very best. In conclusion, students were reminded of the obligations by which they were bound, and exhorted to render themselves worthy of the profession they had chosen.

CHARING-CROSS HOSPITAL.

Mr. Richard Barwell delivered the inaugural address. It had always appeared to him that the preacher who said that "All is vanity; there is no new thing under the sun", was speaking not as the wise king, but as the worn-out old debauchee whose many wives and concubines had been rather too much for him. The man who duly considered the meaning of this life as part of a vast mass of human existence and work, reaching back to eras before history began, would not be able to regard it as vain and empty, partly because in this present he had his sole grasp of eternity, partly because such man's life and labour were not his own merely, but a part of a great commonwealth. Having inherited the result of other men's labours, let him leave something worthy behind him. This idea might be carried out further; for whether man was originally descended from "several" monkeys, as Dr. Hunt asserted at Cambridge, might be doubtful, but it was quite certain that he was originally a very different creature from what he was now—according to Swift, "a forked radish with a head fantastically carved", the mean, skulking, thin-shanked creature, living in holes, woods, and caves, with bears and hyenas, whom he sometimes ate and who sometimes ate him. This latter event happened so unfortunately often that he contrived convenient and portable weapons of defence. From this act originated all our elaborate civilisation. Countless ages had passed in its development. All the oceans of the earth did not contain so many drops of water as lives had passed in preparing this present social state. The commencement of progress must have been very slow, but the impetus of improvement grew gradually more rapid, so that in the beginning of the historic period they found several peoples dwelling at the eastern parts of the Mediterranean and Black Sea possessed of singular and remarkable culture in such arts as poetry, sculpture, architecture, etc. After a number of centuries these nations, thoroughly corrupted, were overwhelmed in a deluge of new actions, so barbarous that the arts of their forerunners were lost and forgotten, or nearly so, until the fashion of studying the ancient writers again revived intellectual development in Europe. They must observe, however, that this pristine culture of Greeks and Romans, etc., and the subsequent progress of the renaissance period came to be measured and estimated by perfection in the arts. Science, that was to say the study and knowledge of nature's powers, did not exist even in the rudimentary form. Wild speculation and imaginative guesswork reigned in all departments of such study until Verulam, of whom our country may be justly proud, laid in his *Novum Organum* the foundation of scientific methods of inquiry. The present age was pre-eminently scientific, that peculiar logical and direct mode of thought characteristic of Bacon's method having diffused itself even among people whose vocation mixed them in no way with science. All the mechanical arts were embued with this same quality, so that the inventions of the age were not simply isolated chances, mere flukes of discovery, but were long chains of solved problems terminating in some valuable result. There had never been a time when the atmosphere of society was so genial to scientific pursuits; but while the age gave them this pre-eminence it also imposed on them heavy duties; for as thousands of lives had passed in preparing this condition for them, so must they not let their lives pass without increasing the store for others, not necessarily by discovery or invention, but at least by earnest love of truth and hatred and destruction of falsehood. The latter part of this doctrine was not so easy to practise as at first appeared. Medicine was not so much a science as a science of sciences, many of which were in an imperfect state; many of them, like electricity, chemistry, and certain parts of physiology, had been brought to the attention of the leisurely and pleasure-seeking portion of the public. There was in all lands, and certainly in England, a class of hangers-on of science whose occupation forbade them to pursue such knowledge, who loved to hear of the marvels of nature, and to believe that they knew something of all these things. From this class of people originated such a wave of pseudo science as had passed over them during the last twenty years, and was now declining. The fashion began very easily and harmlessly. Perhaps there might be an eminent lecturer whose diction was so simple that his hearers really thought they understood him. On his evenings the public lecture-room was crowded. He explained with extreme simplicity of language the most advanced theorems in dynamics and electricity, while a well-dressed audience took graceful notes, such as would astonish the lecturer. He accompanied his teachings with experiments that to perform truly required the most exact machines and hands as delicate as a Faraday's. They were repeated in the school-room with an old staylace or a lollipop. But soon such things got dull, for the details of science were apt to be slow. Mesmerism, clairvoyance, electro-biology, succeeded each other, and as each experimenter outbids his fellows in the marvellous, so public appetite was stimulated even to the swallowing of spiritualism and table-rapping. A mind greedy of the marvellous would scarcely be checked by anything, but the limits of absurdity had probably been reached with the idea that disembodied spirits should delight themselves in the company of two mountebanks, hid up in a cupboard and playing "Sally come up", or other graceless melodies on a vile guitar or a wheezy accordion. Mr. Barwell drew from all this a moral which he applied to medicine. It was a science of sciences; but the application of the science was an art. It was one thing to have at

their finger ends all possible learning about diseases, and another to perceive what was the matter with a patient; a third to prescribe in such a way as to counteract the disease; and it was a fourth thing to get fairly and properly paid for their work, and this was the most difficult of the four. He urged the cultivation of tact, although undoubtedly it sometimes offered temptation to insincerity, untruthfulness, and, in fact, to humbug. He concluded a most interesting lecture by stating that in consequence of certain changes in the hospital, the chair of anatomy had fallen to him, and he should do his best to fill it honourably.

Correspondence.

THE MEDICAL PROVIDENT SOCIETY.

LETTER FROM H. C. B. STEELE, ESQ.

SIR,—In 1846, at the solicitation of the late Mr. Daniell of Newport Pagnell, I subscribed to his Provident Fund from prudential motives. After subscribing five pounds, I requested the opinion of our late worthy and able associate, Mr. Newnham of Farnham, who, while writing most kindly as to Mr. Daniell's intentions, stated that, in his opinion, it was almost impossible that it should succeed. I was present when Mr. Daniell brought this project before the meeting at Derby, where it was decided by a large majority that it was undesirable that such an institution should be attached to the British Medical Association, as there was already one—the Medical Benevolent Fund. Shortly after this, the institution collapsed. I had certainly the consolation that, after paying useless expenses, a portion of my subscription was handed over to some charitable fund. What with life-assurance offices and provident societies, some connected with our profession—one, an excellent institution, in London; one in Sussex; if not now, there was one in Norfolk—I cannot see the necessity of this project being attached to the British Medical Association. The unfounded aspersions cast upon the motives of those who conscientiously oppose this connexion by Mr. Clay, and the uncalled for severe remarks by Dr. Stephens in his letter to the JOURNAL of last week, and his decidedly erroneous statements when he asserts that the *Association* gave birth to, and has acknowledged, the Provident Society, for the last thirty years—are an evidence to my mind of a great want of confidence both as to the success and importance of the project.

I am, etc., H. C. B. STEELE.

Stoke Ferry, Brandon, Norfolk, September 25th, 1866.

RECENT IMPROVEMENTS IN SURGERY.

LETTER FROM H. GREENWAY, ESQ.

SIR,—In the JOURNAL of the 15th inst., there appears a report of a paper on the above subject, read by Mr. W. P. Swain at the last annual meeting of the South-Western Branch of the British Medical Association on the 20th of June. He first drew the attention of the members to the suction-curette "introduced by Mr. Pridgin Teale, jun., of Leeds."

As there is no novelty in that instrument but can be found in the suction instrument I had previously invented, I deemed it my duty to communicate with Mr. Swain. I directed his attention to the correspondence on the subject of suction-curettes, which appeared in the JOURNAL last March, showing that the combination of tubes, described and figured by Mr. Teale, jun., in 1864 (*Royal London Ophthalmic Hospital Reports*, vol. iv, part 2), and named by him "suction-curette", is precisely similar to that which appears in an instrument designed by myself in 1860, for performing an operation within the eyeball, and described as applicable to other operations than the one named.

I fully admitted to Mr. Swain the credit due to Mr. Teale for having conceived the idea of removing soft cataracts by means of the instrument in question. Whether the operation of extraction by suction, which had become obsolete from the difficulty and danger attending the use of the suction instruments formerly employed, would have been successfully revived in 1864 but for the appearance of my invention, I must allow others to judge.

I beg to append a copy of Mr. Swain's reply.

I am, etc., HENRY GREENWAY.

Plymouth, September 29th, 1866.

"20, Ker Street, Devonport, Sept. 28th, 1866.

"My dear Sir,—I have carefully read over the correspondence in the BRITISH MEDICAL JOURNAL of March 3rd, 10th, and 24th, 1866, and I have no doubt that your claim to be the first inventor of a 'suction instrument' is substantiated. It is, however, quite plain that Mr. Teale was the first to apply this principle to the removal of soft cataracts, although you might yourself have contemplated the use of your instrument for such a purpose. I regret not having connected your name with my notice of suction instruments, and shall be glad, in the republication of my paper to supply the omission.

"Believe me to be yours very truly,

"W. P. SWAIN.

"H. Greenway, Esq.

"P.S.—You can publish this note if you think it needful."

A CANCER-CURER. A verdict of manslaughter has been returned at Oldbury, against a man named Chamberlain, herbalist, for having caused the death of a woman. She had been suffering from a tumour, which Chamberlain treated with ointment containing arsenic. The poison was absorbed into the system, and the woman died in consequence. She had been under treatment for eighteen months; but failing in obtaining relief, was advised to see Mr. Chamberlain. She shewed him the tumour in her shoulder. He told her it was a "cancer-tumour", and that he thought he could "cure it." He prescribed for the deceased, and gave her an ointment to be applied to the tumour; he cautioned her to use but "very little at the time", and to rub it "just on the top of the tumour"; he omitted to label the box to that effect. Instead, however, of adhering to the verbal instruction, it appeared that the deceased applied the ointment herself, twice or three times a day for a fortnight, when she became very ill, showing all the symptoms of having been poisoned. A *post mortem* examination of the body was made; and the heart, liver, and intestines, were analysed by Professor Taylor. Professor Taylor deposed that the ointment was a very potent compound of arsenic; and if applied frequently to the skin in a broken or diseased condition, the arsenic would most likely be absorbed into the blood, and cause symptoms of chronic poisoning and death. He was of opinion that her death had been caused by the absorption of arsenic. Witness went on to say that he had made an examination of the tumour, and found it was an encysted tumour. He found traces of arsenic in it. The stomach was reddened in streaks. It was quite well preserved. The liver also contained arsenic; and in his opinion it had been absorbed and diffused through the body of the deceased.

Medical News.

Royal College of Physicians of London. At a general meeting of the Fellows, held on Tuesday, October 2nd, the following members of the College were duly admitted Fellows of the same:—

Hicks, John Braxton, M.D.Lond., St. Thomas's Street
Latham, Peter Wallwork, M.D.Cantab., Cambridge

At the same meeting, the following gentlemen, having undergone the necessary examination, were duly admitted members of the College:—

Beigel, Hermann, M.D.Berlin, Finsbury Square
Lomas, William, M.D.St. Andrew's, Harley Street
Waring, Edward John, M.D.St. Andrew's, Talbot Villas, Westbourne Park

The following extra-Licentiate was also admitted a member of the College:—

Forbes, John, Addison Road, Kensington

Apothecaries' Hall. On September 27th, 1866, the following Licentiates were admitted:—

Baker, Benjamin, Framlingham, Suffolk
Beckett, Francis Mears, Hitchin, Herts
Davidson, Thomas, Forres, Morayshire

At the same Court, the following passed the first examination:—

Howard, James, Manchester School of Medicine
Rainbow, Frederic, St. Thomas's Hospital
Woods, George Arthur, Liverpool Royal Infirmary

APPOINTMENTS.

*Spencer, Alderman Lawrence, L.R.C.P.Ed., of Preston, has been put in the Commission of the Peace for the County Palatine of Lancaster.

Royal Navy.

Allison, Thos. D., M.D., Assistant-Surgeon, to the *Royal Adelaide*.
Bennett, William R., M.D., Surgeon (additional), to the *Duke of Wellington*.
Fulton, Thomas, M.D., Assistant-Surgeon, to the *Britannia*.
Lawrenson, George R., Esq., Assistant-Surgeon, to the *Duke of Wellington*.
O'Brien, William E., Esq., Surgeon, to the *Endymion*.
Ridings, William G., Esq., Surgeon (additional), to the *Formidable*, for the Royal Marines at Deal.
Shane, James A., Esq., Surgeon (additional), to the *Victoria*, in lieu of an Assistant-Surgeon.
Skene, James A., Esq., Surgeon, to the *Victoria*, in lieu of an Assistant-Surgeon.
Trimble, John, Esq., Assistant-Surgeon, to the *Endymion*.

Volunteers, (A.V.=Artillery Volunteers; R.V.=Rifle Volunteers):—

Wallis, F., Esq., to be Honorary Assistant-Surgeon 7th Cinque Ports A.V.

BIRTH.

Brand. On September 30th, at Penge, the wife of Samuel E. Brand, Esq., Surgeon, of a son.

MARRIAGE.

Goodwin, Robert Docksey, Esq., of Ashbourne, Derbyshire, to Elizabeth, second daughter of the late Rev. Benjamin Smith, B.A., of Drax, Yorkshire.

DEATHS.

Atkinson, A. R., M.D., late Bengal Medical Service, at Hounslow, aged 43, on September 25.
Husband. On October 1st, at 3, St. Leonard's Place, York, Anne, wife of *W. D. Husband, Esq.
Thompson, George Septimus, Esq., Surgeon, at Burnopfield, Gateshead-on-Tyne, aged 28, on September 15.

Charge of Ill-treating a Lunatic. Henry Burton, one of the attendants at the Surrey County Asylum, has been committed for trial for ill-treating a lunatic. Three of the other attendants were called for the defence; they deposed that the lunatic was very violent, and they contradicted the evidence of the painters, on which the accusation principally rested.

Health of London. Dr. Letheby states that the mortality in the City of London is much below the average of the corresponding periods of the last ten years.

Bequests. The late Mr. Worthington of Stilton has bequeathed £200 to the Huntingdon Infirmary. The late Mr. Richard Saunders has bequeathed £500 to the Earlswood Asylum for Idiots, and £100 to the Surrey Dispensary.

The Case of Dr. Juler. At Marylebone, an application was made to the magistrate which had reference to a recent prosecution. At the last sessions of the Central Criminal Court two young men were tried and sentenced for seven years' penal servitude for attempting to extort money from Dr. Juler, of Paddington. On Thursday Mr. Lewis produced sworn affidavits, setting forth that Dr. Juler had in the course of his examination committed perjury. Mr. Lewis asked for a warrant to be granted for his immediate apprehension. Mr. Mansfield granted the warrant, which was placed at once in the hands of two active detectives, who up to the present time have failed to apprehend the doctor. On Saturday Mr. Lewis attended again, and said he had come in consequence of information he had received that Dr. Juler would surrender, but the doctor not having done so they were going to offer a reward for his apprehension.

Pathological Society. The attention of members of the society is called to the following regulations adopted by the Council. 1. Members intending to exhibit specimens, should give notice to the Secretaries as early as may be convenient, and the specimen should be sent to the rooms before the meeting. 2. If a member fail to produce the specimen, it shall not be received without a fresh notice. 3. Members desiring to exhibit living specimens, must direct the patients to attend a quarter of an hour before the meeting, in order to give members an opportunity to examine them before going into the meeting-room. 4. Specimens exhibited at other societies, or the details of which have been already published, shall not be received. 5. The reports must be furnished to the Secretaries, for publication in the *Transactions* of the Society, immediately after the meeting at which the specimens have been exhibited. 6. The reports should be written in a form fit for printing.

A Charge of Misconduct on the part of authorities of St. Pancras Workhouse has been brought before the board of guardians. An idiotic boy who had strayed from home was found by the police and taken to St. Pancras Workhouse. The lad told his name, but could give no account of his residence. In the course of the same day a pauper named Fauld, employed as a sort of clerk by the master, sent another pauper named Poole out with the boy to several streets, which he did not recognise. At last the poor idiot pointed towards Tottenham Court Road, was taken to the end of a street, told to go home, and there left. The saddest part of the story is that the lad has not been heard of since. Poole said that the same course was usually adopted under similar circumstances; and he had within the last three months taken other lost children "home" in the same way. The guardians expressed the utmost indignation; a reward of £5 was ordered to be offered for the recovery of the boy; and the whole matter was referred to the house committee for further investigation.

The Social Science Congress commenced on the 3rd inst. its tenth anniversary at Manchester. The accession of Lord Stanley to office, and Lord

Brougham's plea of increased age and infirmities, prevented first one and then the other from assuming the office of president, and the honour, therefore fell upon the shoulders of the Earl of Shaftesbury. The noble earl's opening address touched upon a great variety of subjects affecting the moral, social, and physical well-being of the poorer classes. His lordship passed a high eulogium upon the half-time educational system, which is now extended to the Potteries, producing results so excellent, that on a recent visit to Staffordshire, which he said filled his heart with so much thankfulness that he "blessed God, the Legislature, the employers, the schoolmasters, and in his satisfaction everybody, for the glorious sight." A sad contrast was, however, presented to him by the brickfields, where "hundreds of little girls from eight to eleven years of age, half-naked, and besmeared with dirt, totter under prodigious burdens of clay, during many hours of toil, in these abodes of oppression." And their mental abasement was so profound that when, as the noble earl says, he spoke to them "they either remained aghast with astonishment, or ran away screaming as though some evil spirit had appeared to them."

Prevention of Venereal Diseases. The Government has decided upon putting into immediate execution the new Act of last session, for the better prevention of contagious diseases at certain naval and military stations, which takes effect from and after the 30th inst., at the port and garrison at Chatham, the arrangements for carrying out the Act being intrusted to the metropolitan police. The former Act (the 27th and 28th of Victoria, cap. 85) relating to the same subject will cease to operate from the date mentioned. In order to carry out the operations of the amended Act to their fullest extent, the Government has entered into an arrangement with the governors of St. Bartholomew's Hospital, Rochester, for fitting up a portion of that establishment for the reception of female patients belonging to the class who come under the operation of the Act. The governors of the hospital have agreed to appropriate forty beds in the hospital for the purposes required, the Government contributing to the funds of the hospital £40 per annum for each bed. Hitherto patients from Sheerness have been sent to the Rochester Hospital; but arrangements are being made for the conversion of one of the military buildings at Sheerness into a hospital for the reception of female patients. The seaport and garrison towns to which the Act applies are—Portsmouth, Chatham, Plymouth and Devonport, Woolwich, Sheerness, Aldershott, Windsor, Colchester, Shorncliffe, the Curragh, Cork, and Queenstown.

Gas Explosion. The Rochester (New York) *Democrat* states that an accident occurred in that city recently, at the house of Dr. Fleming, which, though not attended by fatal consequences, was only prevented being so by the merest chance. Pure oxygen gas, which is inhaled for the relief of lung-diseases, has usually been generated in a large iron retort over a spirit-lamp. The students undertook to use a small gas-stove; and the heat soon became so great, that the gas was evolved faster than it could pass into the gasometer, which caused an explosion, blowing out the bottom of the retort, and throwing the retort itself through the ceiling and into the parlour above, tearing up planks and plastering, and breaking to fragments a chair standing there, and doing other injury to the room. The furniture of the back office, where the explosion occurred, was broken to pieces, and the glass blown out of the window. A large quantity of bottles in a medicine-closet close by were completely demolished. Fortunately, no one was in the office at the time, or in the parlour above, although some members of the family had been in both places hardly an instant before the explosion took place. (*Med. and Surg. Reporter.*)

OPERATION DAYS AT THE HOSPITALS.

Monday.....Metropolitan Free, 2 P.M.—St. Mark's for Fistula and other Diseases of the Rectum, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

Tuesday. .... Guy's, 1½ P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.

Wednesday... St. Mary's, 1 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.

Thursday.....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Great Northern, 2 P.M.—London Surgical Home, 2 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.

Friday. ..... Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

Saturday..... St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1·30 P.M.—Charing Cross, 2 P.M.—Lock, Clinical Demonstration and Operations, 1 P.M.—Royal Free, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TO CORRESPONDENTS.

*** *All letters and communications for the* Journal, *to be addressed to the* Editor, 37, *Great Queen St., Lincoln's Inn Fields, W.C.*

Communications.—To prevent a not uncommon misconception, we beg to inform our correspondents that, as a rule, all communications which are not returned to their authors, are retained for publication.

Correspondents, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

The Publisher begs to intimate that orders for Journals sent by post must be accompanied by stamps for the amount. Price of each number is, by post, *sixpence.*

Mr. Eddowes.—The *Gazette Médicale* or *L'Union Médicale.*

The Medical Club.—Sir: I am glad to see that a Medical Club is about to be established in London. It is not a little remarkable that such an institution has not been established before; but I think none can for a moment doubt its desirableness: and one of the advantages which may be expected from it will be the more complete *fusion* of London and provincial practitioners, which the British Medical Journal has already done so much to accomplish. There is a good deal after all in a *name;* and I propose that the club be called the "Hunterian Club". Perhaps some of your readers may suggest a better.

I am, etc.,
Provincialis.

Nottingham, September 1866.

COMMUNICATIONS have been received from:—Mr. T. Spencer Wells; Dr. J. R. Wardell; Mr. Wm. P. Swain; Mr. James Paget; Mr. W. D. Husband; Dr. T. H. Bartleet; Mr. Thomas Nunneley; Dr. Samelson; Mr. C. Johnson; Dr. E. Andrew; Dr. Kelly; Dr. G. H. Philipson; Mr. S. Wood; Dr. Frederick J. Brown; Dr. Murray; Dr. Spencer; Mr. Stanger; Mr. E. Mackay; Dr. J. Stephens; Mr. H. Greenway; Mr. William Martin; Mr. Eddowes; Dr. Woakes; Mr. Stone; Mr. Erasmus Wilson; Dr. L. Marsh; Mr. R. H. B. Nicholson; Mr. William Copney; Dr. H. Jones; and Mr. H. Walton.

BOOKS RECEIVED.

1. Esperienze in Appoggio della Dottrina delle Fermentazioni Morbose. Memoria di Giovanni Polli. Milano: 1865.
2. Sulle Malattie da Fermento Morbifico e sul loro Trattamento. Memoria Seconda (Parte Clinica). Del Dottor Giovanni Polli. Milano: 1864.
3. The Arrest and Prevention of Cholera. By A. E. Sansom, M.B. London: 1866.
4. Acholic Diseases. By A. C. Macleod, L.K. & Q.C.P.I. London: 1866.
5. A Practical Treatise on Apoplexy. By W. B. Mushet, M.B. London: 1866.
6. The Harveian Oration, 1866. By G. E. Paget, M.D. Cambridge and London: 1866.
7. Suggestions in reference to the present Cholera Epidemic. By W. Sanderson, C.E. London: 1866.

The Medical Club.

—A Club is being formed in London for the convenience of Members of the Medical Profession and gentlemen engaged in the pursuit of those sciences allied to Medicine.

The following Terms of Admission are applicable only to Members joining during the present year—viz.: Residents within the London Postal District, five guineas entrance and three guineas annual subscription; those beyond the London Postal District, three guineas entrance and one guinea annual subscription. Entrances and Subscriptions to be paid to the Bankers of the Club, the London and Westminster, 1, St. James's Square, S.W.

JOHN PROPERT, Esq., Treasurer,
6, New Cavendish Street, W.
LORY MARSH, M.D., Honorary Secretary,
Royal United Service Institution, Whitehall Yard, S.W.

September, 1866.

Hastings Memorial Fund.—At

the recent meeting of the British Medical Association, held at Chester, it was resolved to raise a special fund to be called, in memory of Sir Charles Hastings, "The Hastings Memorial Fund," the produce of which shall be devoted to provide, and supplement with a sum of money, the "Hastings Medal," which shall be awarded for distinguished labours in medical science to any member of the profession in any country. Gentlemen desirous of contributing, whether members of the Association or not, are requested to forward their donations to the Treasurer, Dr. FALCONER, of Bath, or to the Secretary,

T. WATKIN WILLIAMS, General Secretary.

13, Newhall Street, Birmingham, August 20th, 1866.

Classical and Mathematical.—

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Addresses and Papers

READ AT

THE THIRTY-FOURTH ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION.

[Held in CHESTER, AUGUST 7th, 8th, 9th, and 10th, 1866.]

ON LICHEN PLANUS: THE LICHEN RUBER OF HEBRA.

By Erasmus Wilson, F.R.S.

Professor Hebra of Vienna has made the medical world acquainted with a peculiar form of papular eruption, which he has designated *lichen ruber*. This eruption is far from being infrequent in England; and we have, therefore, thought it desirable that our brethren of the profession should be informed as to its characters and treatment. We have for many years been familiar with the disease; but have forborne its description until the present time, when the opportunity is afforded us of performing a pleasant duty in corroborating the account of the disease given by our celebrated colleague.

Hebra has selected the word "ruber" as a specific denomination of the disease; but we have preferred to retain the term "planus", by which we had already distinguished it in the early notes of the cases which had fallen under our care, before we were made aware of our colleague's researches. The terms ruber, *red*, and planus, *flat* or *smooth*, may be taken to represent two of the most conspicuous of the characters of the eruption; but it has seemed to us, also, that the latter term will be likely to realise most strikingly the pathognomony of the eruption, either when seen accidentally and for the first time, or when sought for as a means of diagnosis from other forms of cutaneous disorder. Ruber, or redness, accompanies most of the forms of lichen, and the redness of the present variety is not especially remarkable; whereas, flatness and smoothness are characters which belong to this variety of lichenous eruption alone.

The papulæ of lichen planus or ruber have a dull red colour. They are slightly elevated; discrete; one or two lines in diameter; flattened, depressed, or umbilicated, and glazed on the summit; and marked in the centre by the aperture of a follicle and the outline of its epidermic plug. Sometimes, when the eruption is abundant, a small cluster of neighbouring papulæ are connected by an infiltrated base and form a patch of various size; at other times, the papulæ covering a large extent of surface, such as the entire length of the forearm, are connected in a similar manner, and the papulæ are sometimes so thickly clustered as to appear coherent.

At their first appearance, the papulæ are always discrete, and generally remain so during their entire course. They are, commonly, angular at their base, corresponding in outline with the area of the lines of motion of the skin, and they increase in numbers by successive eruptions, fresh pimples cropping up in the interspaces left between their predecessors. Even in the compound patches constituted by the thickening and infiltration of the skin upon which they are developed, the separate form of the papulæ may be easily traced. The papule never enlarges by its circumference, but retains its original breadth; the production of broad patches resulting from congestion and infiltration of the integuments at their base.

When the papule declines, it subsides in elevation; and at this period has somewhat of an annular character, its glazed and horny summit being depressed below the level of its circumference. The glazed summit is also remarkable for transparency and opalescence, and from the appearance, through the horny cuticle, of the aperture of a follicle surrounded by the annular outline of its epithelial lining. The total subsidence of the papule is followed by a deep brown stain; and where the eruption has been abundant, the skin is singularly speckled by these stains. In a few instances, another mode of decline is perceptible; namely, the dispersion of the papule and the production of a small red desquamating patch a few times larger than its base.

In the diffused form of the eruption, resulting from a congregated assemblage of papulæ, and their conversion into a single large patch by hyperæmia, infiltration, and thickening of the skin upon which they are produced, the skin undergoes a change of character; it is more or less pruriginous, and desquamates freely, like a patch of chronic eczema; but the pruritus is less in degree than occurs in the latter disease, and there is no exudation whatever.

Lichen planus is regional in its distribution, its more common sites being the front of the forearm just above the wrist, the abdomen, the loins, the hips, the back of the sacrum, the convexity of the knee, the lower extremity, the nape of the neck, the front of the chest, the front of the forearm, and sometimes the bend of the elbow and the axilla. In one instance, a lady, 56 years of age, and who had suffered from the disease for two months, the eruption appeared on the tongue, the buccal membrane, and the prolabium of the lower lip, in the form of round white spots, having the normal size of the papules on the skin, but without elevation. She complained of a feeling of roughness of the tongue without dryness or thirst; and the same sensation extended to the throat, making it probable that a similar state might exist, in some cases, in the alimentary canal, and be one of the causes of the marasmus described by Hebra.

Like other cutaneous affections, it offers certain varieties in its characters. Most commonly, and always at the beginning, it is discrete in eruption, *lichen planus discretus*; occasionally, it forms diffused patches of various extent, *lichen planus diffusus*, but in this instance is always accompanied by the discrete form in other parts, and by a scattering of isolated papules in the immediate neighbourhood of the conglomerate patches. In a few instances, and especially in the flexures of the elbows and hollows of the axillæ, we have found an annulate form of the eruption resulting from the growth of the margin and subsidence of the centre of the patch, *lichen planus annulatus*; and, in these cases, when a part of the circle disappears, the eruption has a marginate character, *lichen planus marginatus*. Generally, as already stated, lichen planus is remarkable for the absence of pruritus, its discovery by the patient resulting from its visible presence without any preceding irritation; but, in one instance, that of a highly nervous woman, we saw it begin with itching, and the subsequent pruritus was intense and almost maddening, *lichen planus pruriginosus*; but pruritus, nevertheless, must be regarded as an exceptional symptom.

Lichen planus is always associated with symptoms of constitutional derangement, generally referrible to the digestive and nutritive system, and accompanied with more or less of nervous irritability and

pain. But, as a whole, the numerous patients who have come under our notice affected with this complaint, with one exception, the nervous lady already alluded to, have not seemed much out of health, and are fairly represented by the cases which we append to this description. These cases are drawn, without selection, from patients immediately under our observation at the present time.

The peculiar glazed and horn-like epidermal layer which constitutes the summit of the flattened papule has been termed by Hebra a "scale"; but it can hardly be regarded as a scale, inasmuch as it is continuous with the surrounding epidermis and does not usually desquamate as a scale when the papule subsides; but when it is cast off as a scale, as occurs in the infiltrated patches, the connexion of its under surface with the epithelial lining of a follicle is also remarkable. Judging from Hebra's description, the disease is more deeply rooted in the constitution in Austria than it is in this country. With us it is mild but obstinate, and ultimately yields to treatment; it produces neither emaciation nor marasmus; does not attack the skin around the joints, occasioning rhagades and interfering with their motion; and we have never seen it on the hands or feet, or causing any interference with the growth of the nails.

Hebra describes lichen ruber as presenting three stages; the definition of the three stages being as follows.

1. Papulæ, millet-sized, red, discrete, covered with little scales, not excoriated, not clustered, not general, but limited to a part, chiefly to the limbs.

2. The infiltrated patch, caused by the contact of a great number of papulæ developed closely together, is of dull red colour, covered with greyish, moderately adherent scales, of the thinness of paper; the scales on removal exhibit dilated hair-follicles; no moisture; no bleeding from slight scratching; very superficial excoriation of the surface, proving the slightness of the pruritus.

However much this eruption may resemble other forms of cutaneous disease, it may always be distinguished by the character of the papulæ developed around the circumference of the infiltrated patch; and it may be seen that the patch does not owe its origin to the growth of the papulæ in circumference, but to their development in numbers.

3. As a consequence of the continued eruption of the papulæ, the skin is at last wholly reddened and thickened; and the epidermis, especially its horny layer, converted into thin, greyish-yellow, easily-stripped scales, without a trace of papulæ remaining. There is besides, degeneration of the nails, restricted movement of the joints, and rhagades. The general symptoms are, arrest of nutrition, emaciation, marasmus, and unfavourable issue, particularly after a duration of years.

Case I. A merchant of the city of London, aged 35, consulted us on March 8th, 1866, for an eruption of lichen planus which covered the whole of the abdomen, the loins and pelvic region of the back, the outside of the hips, and the front of the forearms. He stated that the eruption had existed four months; that his attention was first drawn to it by seeing it on the abdomen; that it was unattended with inconvenience of any kind; that there was a trifling itching when he became warmed by exercise, but not sufficient to induce scratching, and none which could disturb sleep.

The eruption presented the usual characters of lichen planus; namely, papulæ, slightly elevated, flattened or rather depressed, glazed on the summit, marked in the centre by the aperture of a follicle, discrete, smooth, and of a dull red colour; their size varying between one line and two lines in diameter. In three or four situations a cluster of papulæ had become blended by infiltration of the subjacent skin, and formed a patch of irregular outline a quarter of an inch in breadth; and one spot, of quadrangular figure, produced in this manner, measured half an inch in diameter. There were neither scales nor desquamation. The eruption had reached its present extent by the successive elevation of new papulæ developed in the interspaces of the old, and the papulæ showed no tendency to individual increase.

He has always enjoyed a good average state of health, is occupied in business every day from half-past nine until six, is regular in his habits, and has lately quitted the volunteer service on being married. His skin is swarthy; and he presents melasma oculi in a slight degree, an indication of disordered function of the digestive organs. Previously to the attack of lichen planus, he suffered from weight at the præcordia, nausea, and flatulent dyspepsia, and also from piles, but these symptoms disappeared on the occurrence of the eruption.

There being no general indications to be considered, we prescribed for him our ferro-arsenical mixture, at a dose equivalent to three minims of Fowler's solution, three times a day, with the use of a lotion of bichloride of mercury, two grains to the ounce, in emulsion of bitter almonds, night and morning; the skin being previously thoroughly washed with the juniper tar soap. On the 22nd of March, the eruption had subsided very considerably; and, as he had experienced no inconvenience from the internal medicine, we increased the dose of Fowler's solution to four minims. On the 14th of April following, the eruption was gone, leaving only brown stains, with which the surface was speckled over. The papulæ had subsided without desquamation; and in one place only was there a slight degree of desquamation of the cuticle.

Case II. A lady, aged 27, the wife of a clergyman, has been the subject of lichen planus for four months. The eruption began in December 1865, by the appearance of half a dozen pimples sprinkled on the front of the forearm, just above the wrist; and the pimples have increased in number until they are now accumulated pretty thickly on both forearms, the back of the neck, the upper part of the chest, the waist, and the legs, from the lower third of the thigh downwards. They have a dull red colour; are but little elevated; are flat and slightly depressed on the summit, glazed and opaline on the surface, and marked in the centre by the circular outline of the mouth of a follicle. In some situations, as on the back of the neck and front of the chest, the smooth, horny, flat, white, and shining summit is the most conspicuous character of the pimples, which are smaller in this situation than elsewhere. The redness is scarcely perceptible; and these white spots look like small spangles glittering on the skin. They are not scales, because they are continuous with an unbroken epidermis; but the corneous epidermis of which they consist is somewhat thicker than that of the surrounding integument.

On the waist, numerous small clusters of papules have become blended by the congestion and infiltration of their base; and this is especially remarkable in the groove produced by the pressure of the garter, the whole line of this groove being occupied by a chain of such blended clusters.

The front of the forearms is occupied by a diffused blotch of these papules, united by a red and infiltrated base. The blotch occupies the whole breadth of the forearm, and extends from the bend of the elbow nearly to the wrist. The blotch is slightly

raised, circumscribed, unevenly papular on the surface, and covered by small scales produced by the separation of the horny surface of the papules; while along the circumference of the blotch may be seen, here and there, a few scattered papulæ, marking the nature of the composition of the blotch. The blotch was formed originally by an accumulation and aggregation of distinct papulæ; and the infiltration and congestion which subsequently united the papules together, and blended them, was developed only six weeks back.

After a week of treatment, many of the papulæ had subsided to the level of the integument, while the horny plates were removed, and in their place there remained deep brown stains. At this period could be seen, on different parts of the surface, the chief characteristic features of the eruption: the papulæ, the diffused blotches, and the pigmentary spots; the papulæ, some red, some almost colourless, some marked by a thin, glassy, transparent surface, and others by a thicker, horny, polished plate, glistening, but smaller in dimensions.

The papular eruption was wholly unattended with pruritus; but the infiltrated and desquamating patch was moderately itchy, by no means so much so as chronic eczema squamosum, to which it bears considerable resemblance, but giving forth no ichorous discharge and a less abundance of scales.

The patient suffered much, at the beginning of the eruption, from general depression, both mental and physical, with neuralgia of the fifth pair of nerves; and, on the occasion of her visit to us, she complained of weakness and pains in the sockets of her eyes. Her complexion was muddy, her skin and conjunctiva pale, and the tongue pale and indented by the teeth. She had no disorder of the feet or hands, or of the nails.

Case III. A gentleman, a student of Oxford, aged 22, was attacked with an eruption of lichen planus in the beginning of February 1866, and came under our notice towards the end of March. The eruption began as a crop of flat, red, and glazed papulæ on the hips; it then showed itself on the front of the forearms, next on the abdomen, and thence spread over the entire trunk. On the hips and forearms, the eruption is discrete, intermingled with a few coherent patches a third of an inch in diameter. The abdomen has a very remarkable appearance, from being thickly studded over with small oblong coherent patches. The patches measure nearly an inch in length by a third or quarter of an inch in breadth, and are arranged in a transverse and oblique direction; while the intermediate spaces are sprinkled over with separate papulæ. The greater number of the patches are coated on the surface by a glazed epidermis; whilst a few are in a state of desquamation, the loosened scales being white, thin, and glistening. The skin between the patches is red, and marked with fine creases, dry and pulverulent; and the whole surface is remarkable for its parched, wrinkled, pulverulent, and scaly appearance.

The eruption appeared without itching, and has been free from pruritus throughout its entire course, excepting a slight degree of irritation when the body is heated by exercise, or on the change of raiment on retiring to bed; and the parts on which irritation is felt are those in a state of desquamation.

The eruption presents the characters assigned by Hebra to lichen ruber; it begins by scattered papules, and increases in extent by the development of fresh papulæ in the interspaces between those originally produced. Every here and there a few papules become coherent, and form patches but slightly raised, and of irregular figure; frequently their base is infiltrated, and the patch is cemented by a ground of redness. An extension of this process gives rise to diffused blotches of considerable extent, sometimes covering a large portion of a limb. The individual papules are flattened and glazed, slightly depressed in the centre, and marked by the aperture of a follicle; but the epidermis is continuous with that of the surrounding skin. There is no tendency to desquamation. When, however, a cluster of pimples or a number of patches are blended together by an infiltrated base, the glazed summit of the papules is apt to desquamate; and a succession of thin glistening white scales are produced in its place. The scales are much thinner than those of alphos, even when accumulated, as sometimes happens; they are purely epidermal, not composed in part of desiccated secretions like those of squamous eczema, and, unlike alphos, are more abundant on the centre of the patch than at the circumference. And the eruption, in its diffused form, though resembling in some respects chronic eczema and alphos, is unlike both, but more like the latter than the former, and might be mistaken for an erythematous alphos.

Our patient is of nervous temperament and feeble constitution; he had a little eczema from dentition in infancy, but has been free from all cutaneous ailment since, until the present attack, and of late years has been gaining in health and strength. Four months before the present attack of eruption, he was suffering from debility, and, a few weeks later, became the subject of epistaxis, which lasted for several days. At present he is moderately well; his functions are properly performed; he can apply himself to his studies without feeling them irksome; but he is a little weak. He has no affection of the hands, feet, or nails.

Case IV. A lady, aged 57, has been the subject of lichen planus for six years; the eruption being situated on the front of the wrists, in the flexure of the elbows, in the axillæ, and in a marginate form around the whole circumference of the perinæum, vulva, and anus.

On the front of the wrists there are a few scattered papulæ; while, in the other regions, the papulæ have assumed a centrifugal and marginate character, forming rings of irregular figure, inclosing an area of sound skin, upon which the papulæ have subsided and disappeared. The most remarkable character of the eruption in this long-standing case is the thickness and hardness and whiteness of the parchment-like epidermic layer of the papules. On the wrists, the white opaque epidermic plate is surrounded by a border of redness. In the flexure of the forearms, it forms nearly continuous rings, with very little redness. Around the perinæum and in the groins, the thick white epidermic layer constitutes a band a quarter of an inch in breadth, feeling stiff and uneasy on sitting, as though a piece of dry parchment were inserted in the skin. The area of the rings in the flexure of the elbows and axillæ is thin and pale, from defective nutrition of the skin; while that of the perinæum is stained with brown pigment, and roughened by the concretion of a seborrhœal exudation. Very little pruritus has attended the eruption; and there is no affection of the hands, feet, or nails.

The patient refers her disorder to "change of life". About ten years back, she suffered severely from pruritus vaginæ; and, when the pruritus subsided, an eruption appeared upon the outer part of the vulva and in the groins, apparently an eczema. The lichen planus is a subsequent occurrence; and lately she has experienced a troublesome feeling of pruritus of the front of the chest.

Our *treatment* of lichen planus is illustrated in Cases I and II. The remedy which we have found

most successful—indeed, almost invariably so—is our ferro-arsenical mixture; and, as a local application, the bichloride of mercury in lotion, or the solution of the pentasulphuret of calcium. Hebra has found no remedy serviceable in lichen ruber, with the exception of arsenic.

CASE OF HERPETIC ERUPTION IN PART OF THE DISTRIBUTION OF THE SECOND DIVISION OF THE RIGHT FIFTH CEREBRAL NERVE.

By James Paget, F.R.S.

A wish expressed by the editor of the Journal for the publication of cases of this kind induces me to offer the following. I attended the patient in consultation with Mr. Tayloe of Clapham.

A gentleman, between 25 and 30 years old, in good general health, was twice exposed to severe cold on October 22nd, and in the evening had a slight shivering, and some pain as of neuralgia in the right side of his face. Next day, he felt pretty well; but the neuralgic pain was severe, and gradually increased. Morphia was taken for its relief.

On October 25th, the right side of the face was much swollen; and there appeared on the right side of the upper lip and of the nose, and on the right cheek, a copious herpetic eruption. At the same time, numerous small white blisters appeared on the right half of the roof of the mouth and the adjacent part of the gum and cheek. The pain at this time was very severe; it reached "from the lip to the eye", and was attended with twitching of some of the muscles of the face. The patient's general health was not greatly disturbed.

The eruption, after passing through the usual stages of herpes, began to fade about November 5th, leaving thick dark scabs, like those of declining confluent variola. On the hard palate, in the place of a scab, was a thick layer like a diphtheritic membrane. The crust and the membrane cleared off in about a week, leaving the surface of the skin dusky red and deeply scarred and pitted. The swelling of the skin and of the mucous membrane, which had coincided with the eruption, gradually with it disappeared.

On November 18th, twenty-six days from the commencement of the disease, one of the bicuspid molars of the right side of the upper jaw fell out; on the next day, another; and in a few days later, the canine and both incisors. They all appeared to have been sound till the time of their death and separation. The loss of the teeth exposed a corresponding dead portion of the alveolar border of the jaw, which separated and was removed on December 5th. It included the sockets of all the teeth that had been lost. After this, all the structures that had been diseased healed, and no harm remained, except some disfigurement by the scars.

In the case just related, the herpetic eruption was arranged in exact coincidence with the surface-distribution of the infraorbital, anterior dental, and anterior palatine branches of the right superior maxillary nerve (second division of the right fifth cerebral nerve). It agreed with all the cases that I have seen of unilateral herpes arranged on the plan of branches of the fifth cerebral nerve, in that the eruption was preceded by extremely severe pain like that of tic. It equally resembled those cases, and was unlike the herpes zona or shingles, which is arranged according to the distribution of spinal nerves, in that the eruption was followed by well-marked pitted scars. It is, so far as I know, unique in having necrosis as a consequence of the intense inflammation of the palate and gum.

To the wish of the editor, with which I have thus complied, I would add another: that some good observer would collect and study all the cases in which the plan or process of organic disease is manifestly determined, as in these cases of herpes, by disease or injury of cerebro-spinal nerves or nervous centres. Much as the subject has been argued, a work of this kind seems greatly needed. To some, the facts that healthy nutrition may go on in parts whose nerves are all divided, and that organisms and textures void of nerves are nourished as well or as ill as any others, seem enough to prove that nerves have nothing to do with the matter. To others, half pathology is "nervous."

Well-collected cases might settle this difference, and determine what is the true range of the influence of disturbances of cerebro-spinal nerve-force upon organic processes. It is certain that nutrition may go on in a total privation of nerve-force, such as we suppose in a part completely separated from nerve-centres by division of its nerves; but a question not fully answered is, in what degrees and manners nutrition may be affected by disturbances of nerve-force.

The best collection of cases useful for the inquiry is in the admirable work on *Gunshot and other Injuries of Nerves* by Dr. Mitchell and his colleagues in the Military Hospital of Philadelphia. And for a contribution, however small, I add this case.

A gentleman, after many years' marriage, became subject to herpes of the glans after every sexual intercourse with his wife. He suspected her, and for several days lived apart from her. Then, one night, he had a seminal emission during sleep; and on the following morning found the usual herpes; the result, I suppose, of an excited unsound nerve-force.

Royal College of Surgeons. From the last annual report of the receipts and expenditure of the College in the year from Midsummer Day 1865, to Midsummer Day 1866, and which has only just been published, it appears that the former amounted to £10,993 : 7 : 7, and the latter to £12,641 : 1 : 4, showing an excess of expenditure of £1,647 : 13 : 9. The income of the College is derived principally from the fees paid on admission to the membership, which amounted during the past year to the sum of £8197 : 15. The fellowship examinations produced £210. The midwifery and dental diplomas yielded £134 : 8. The election of old members into the fellowship is still remunerative, having produced £189. The judicious investment of some of the college capital in the purchase of freehold property is shown in the return of £809 : 18 : 9 for rent, to which there will be some addition next year. The College does not appear to have much funded property, as the dividends on investments in Government securities only produced £1233 : 17. In the disbursements, which amounted to £12,641 : 1 : 4, it appears that the largest item was in fees to council and examiners, which is put down at £3610 : 5 : 6. The salaries and wages appear next in numerical amount as £3101 : 14 : 10. The government and parochial authorities are large recipients of the college cash, as upwards of eleven hundred pounds was paid in the year for diploma stamps, taxes, and rates. The pensions appear to be on the increase, as £498 : 12 is put down against £307 : 13 of last year. The publication of the *Calendar* is not a remunerative affair, costing £148 : 7 : 3 and producing only £8 : 18 : 4, thus showing a loss of £139 : 8 : 11. Nearly £200 has been distributed by the council in prizes and lectures for the members of the College.

Original Communications.

THE THEORY OF CHOLERA COLLAPSE.

By Edward Woakes, M.D.Lond., F.L.S.,
Luton.

To Dr. Johnson we are undoubtedly indebted for much painstaking and skilful research into the disease now so prevalent amongst us, though, if we mistake not, there are many medical men to whose minds the arguments he has advanced on the subject of cholera will fail to carry conviction. While confessing ourselves amongst this number, we cannot too highly express, though attempting a somewhat diverse elucidation of the subject, our respect for the authority and position of Dr. Johnson, whose candid reasoning and gentlemanly discussion of this topic are of themselves almost sufficient to disarm criticism. At any rate, they encourage the belief that he is prepared to deal fairly with any opponent of his views who may meet him in the liberal spirit he has himself displayed in this matter.

According to Dr. Johnson, whose published treatises on cholera may be regarded as embodying the most recent knowledge of the disease, the central pathological phenomenon of cholera collapse consists in the fact that, after death, the tissue of the lungs contains "less than the usual amount of *blood* and *air*"; indicating a most decided stasis of blood behind the pulmonary capillaries. Respecting the cause of this, he says, "The blood which is sent into the pulmonary artery is in great part arrested in *the minute branches of the artery* before it reaches the capillaries of the lungs"; and, again, "the blood thus poisoned (by the *materies morbi* of cholera) excites *contraction* of the muscular walls of the minute pulmonary artery, the *effect of which is to diminish, and in fatal cases entirely to arrest* the flow of blood through the lungs." In support of these views, Dr. Johnson brings forward arguments from pathology and physiology, and opposed to what he seems to consider the only other alternative—viz., that of simple mechanical obstruction to the onward passage of the blood in consequence of the separation of its solid and fluid constituents. While regarding this latter theory as altogether beside the mark, we contend that these two views are not the only ones open for the acceptance or rejection of pathologists.

Dr. Johnson proceeds to argue that this spasm of the minute pulmonary arteries is akin to that constituting cramps in the limbs, both being due to the same cause. "The blood", he says, "contains a poison whose irritant action upon the muscular tissue is shown by the painful cramps which it occasions." Quite a legitimate inference this from the standpoint to which we are alluding; though, before accepting it, we are met by this difficulty. Presuming that the poison has produced the same contracted effect on the small arteries supplying the muscles, and that therefore the capillary system of the muscles are as empty of blood as those of the lung are stated to be, it is difficult to understand in what way the poison in question is brought into such intimate contact with the muscular fibres (now that the capillary system is in abeyance) as to produce in them the violent contractions known as cramp. Why, also, should there not be spasms of other muscular fibres equally exposed to the influence of the poison; as, *e.g.*, those of the finer bronchial tubes, or of the epiglottis? And if it be answered, that the arteries conveying blood to these organs are in the same state of tonic spasm as are the pulmonary arteries, how is it that the heart itself should escape the effects of spasm? which, if there be any relation between the amount of a cause and the degree of resulting effect, should, one would think, be most violently convulsed, inasmuch as the whole poison contained in the blood passes through it, as long as the circulation continues.

But the theory of spasm of the smaller pulmonary arteries being the main pathological condition of cholera, involves another difficulty. Dr. Johnson says he is prepared to show that "the thickening of the blood is a *consequence* and not a *cause* of the arrest of blood in the pulmonary arteries." If so, then every case of cholera collapse should be sudden and complete, coinciding with the setting in of spasm of the pulmonary arteries; and so, no doubt, the collapse is sometimes thus suddenly fatal, though rarely. And, again, the collapse should invariably precede the access of rice-water evacuations; these latter being the direct consequence of the separation of the solid from the fluid constituents of the blood, which separation ("or thickening") is a consequence of the "arrest of blood in the pulmonary arteries." But the instances in which rice-water evacuations precede the symptoms of collapse are so numerous as to constitute the rule; so that we are bound to look for some other solution of a phenomenon which obtains in the majority of cases, than that which can only explain the peculiarities of the exceptional ones. Here, too, though we question Dr. Johnson's conclusion, that the "thickening of the blood is a consequence of its arrest in the pulmonary arteries," we by no means accept his alternative; viz., that it is the cause of its thickening. In fact, we think it is neither the one nor the other. Perhaps, the weakest point in Dr. Johnson's argument is, that it appears to explain the exceptional cases better than it does the general ones.

Before passing from Dr. Johnson's views, we cannot do better, for the sake of clearly understanding them, than to quote his own summary of the chain of events in cholera collapse and their mutual relationship; viz.,

"Arrest of blood in the pulmonary arteries } causes { Defective respiration and diminished absorption.

Defective respiration and diminished absorption } cause { Increased thickness and density of blood."

Now, it appears to us that the links of the chain, as here given, are not only misplaced, but that the dependence stated to exist between them is also erroneous.

While admitting the frequent, though by no means constant, occurrence in collapse of an anæmic state of the lungs, we cannot dissociate this from the corresponding indications of the arrest of the capillary circulation in other parts of the system; as, *e.g.*, in the skin, indicated by the pale hue and clammy feel, as well as by the shrinking of the features; and in the brain by the drowsy torpor so often present (a condition similar to that of sleep shown by Durham to depend on brain anæmia). We have then to deal with the cause of this general abnegation of the capillary circulation in the circumstances now under consideration. Here it will be advantageous to recall the conditions under which the capillary circulation takes place in the normal state of the system.

These depend, as every tyro in physiology knows, on the mutual affinities existing between the blood on the one hand, and the particular tissue through which it has to pass, and whose nutrition it mediates, on the other. "The conditions necessary for the energetic flow of blood through the capillaries, are nothing else than the active performance of those

nutritive and other operations to which they are subservient." (Dr. Carpenter's *Physiology*.) The force of the heart's action, therefore, does little else in the case of the capillary vessels than to keep up the supply of blood; being altogether inadequate to propel the blood through them. There must be, then, the quality to give and take mutually present in the blood contained in the capillaries and the parts it has to supply, or this portion of the circulation will not go on. But we are now treating of a disease in which perhaps the most marked feature is the change that takes place in the constitution of the blood itself. A change distinctly recognisable during life, and of such a nature as completely to destroy the physical conditions of that fluid, so that the mechanical conditions under which it remains in its proper channels, and mediates the nutrition of the various parts of the system, are destroyed. This effect is in its extreme degree, coincident with the collapse, and is due, as we believe, to the immediate action of the cholera-poison upon the blood. Not so, says Dr. Johnson, but rather the poison in the blood induces spasm of the pulmonary capillaries which, by preventing aëration of the blood, is the cause of its degeneration. Now, as neither of these views can be actually put to the proof, their rejection or acceptance will rest on the greater degree of consistency which either offers in explaining the phenomena of the disease.

The first link in the chain of morbid phenomena, as we view it, is the disintegration of the blood, in such a way that it fails to fulfil the conditions necessary for maintaining the circulation.

The known hygroscopic affinities of the cholera germ suggest the idea that the form in which the poison is introduced into the blood is that of a cell, which being brought into immediate contact with the blood-corpuscles, a fresh osmotic relationship is established between the two sets of cells, by means of which the dialystic powers of the blood discs are for the time lost, and with them the ability to mediate the nutrition of the system. Nor will the possibility of such a state of things be questioned by any one who has watched the extraordinary effect which organic cells produce on one another when brought within the range of each other's attraction. This theory which assumes that the effect of the cholera-poison on the blood is physical rather than chemical, renders intelligible the rapid restoration of the blood when the influence of the cholera-poison is withdrawn from it through the evacuations—for, with the exception of the removal from the blood of its watery and saline constituents, its organic chemistry, though disturbed, is not destroyed.

It is only necessary, therefore, that the depreciated corpuscles should regain their wonted constitution in order that the processes of nutrition thus kept in abeyance during collapse may be re-established. But whether this view of the *modus operandi* of the cholera-poison be or be not correct in no wise affects the main argument; viz., that the primary influence it produces on the blood is to negative the physical adaptability for nourishing the frame inherent to a healthy state of this fluid.

The succeeding stage of the process comprises the much debated one of the capillary circulation. Neither the pulmonary nor the systemic capillary circulation is in active operation. With Dr. Carpenter's words just quoted before us, we need surely seek for no other explanation of the fact. The blood, being rendered incapable of conveying nutrition to the tissues, is excluded from the capillaries through which this nutrition is conveyed. The condition requisite for maintaining the capillary circulation being destroyed, it is not unnatural that the circulation itself should cease. Thus it will be seen that, though we insist on the morbid state of the blood as the first step in the series, we do not make the second step (the cessation of the capillary circulation) to depend simply upon the thickened state of the morbid blood, but to the temporary destruction in it of the ability to furnish nutriment to the tissues, and the consequent loss of those affinities between the blood and the tissues which are the essential condition of the capillary circulation.

But the term nutrition has a very extensive application, and must be considered to include such an interchange of elements as in health suffices not only to supply pabulum to the part, but to remove from it the *débris* arising from the wear of the tissues. Consequently there is, on the suspension of this interchange, another set of phenomena, the tissues become charged with effete matter. This would constitute another stage in the disease. Thus, the muscles retain those elements in their antepenultimate condition of decay, which, if the change were complete, would pass off as the constituents of urine and bile by their respective emunctories. In consequence of this, there is stored up in the substance of the muscle many highly irritating matters, which, by their presence, give rise to the cramps of cholera.

It is important here to recall the circumstance that there is a comparative absence of carbonic acid in the blood of cholera patients; nor is any carbonic acid found in the respired air during the stage of collapse. These facts are intelligible when it is recognised that none of the carbon-yielding elements resulting from the decay of the muscles are returned to the blood, owing to the suspension of the capillary circulation. We simply call attention to these circumstances in passing, as we shall return to them shortly in referring to the state of the respiration in collapse. Now, it will be easy to understand why there should be a suspension of urine and bile in cholera; for the elements from which the solid constituents of these excretions are elaborated do not, as just shown, leave the tissues in which they are generated to enter the blood; much less can they be eliminated through the kidney or liver, which, in fact, they do not reach.

A correspondent states, in the JOURNAL (p. 647), that he attributes the absence of bile and urine "to a constricted condition of the biliary and renal ducts, attributable to the action of the poison on their musculo-contractile structures." And it appears to us that he is as much warranted in maintaining this view of the case, as is Dr. Johnson in his; but it has this fatal objection. If the bile, for example, were retained by closure of the ducts, we have a condition similar to what actually occurs in some forms of liver disease, where, however, the obstruction is mechanical, rather than of the nature of spasm, and the immediate issue of which is jaundice. The bile, being formed by the liver, but unable, from the obstructed state of the ducts, to find its natural vent, enters the blood and gives rise to jaundice. The same would also occur in cholera if spasm of the ducts were the real cause of absence of bile from the excretions in cholera. But in collapse there is no bile found in the blood, neither is any expelled from the bowels; hence none is formed by the liver. The same line of argument applies to the kidney; for if urine were formed and not excreted, it would pass into the blood and give rise to the train of symptoms known as uræmia; but neither does this condition obtain in cholera collapse. We are left, then, to the conclusion, that neither bile nor urine is formed by their respective organs, owing to the suspension of the capillary circulation and the consequent non-return of the effete matters of the system to the blood, out of which these excretions are elaborated.

The absence of the capillary circulation to a more or less degree, then, loads the tissues, not the blood, with the *débris* of their own normal existence; a fact this of the highest importance in a therapeutic point of view.

Bringing this theory to bear on the *pulmonary phenomena of collapse*, we shall obtain, we think, a more complete explanation of these by it, than by any other hypothesis. We have stated that the chief condition for carrying on the capillary circulation consists in the reciprocal affinities existing between the blood and the organ or tissue through which the blood ramifies. Now, it is known that, in the lungs, oxygen from the air is exchanged for carbonic acid gas from the blood: not, as is sometimes supposed, that oxygen from the air unites with carbon from the blood to form carbonic acid, which is then expired; but, as Dr. Carpenter has well expressed it, "the blood comes to the lungs *charged with carbonic acid;* and that it gives out this ready formed, and receives oxygen in its stead." Now, carbonic acid is one of those materials derived from the decay of the tissues which we have already shown does not get into the blood during collapse; and as, in the progress of the disease, all the carbonic acid contained in the blood previous to the attack is carried off, and the new supply from the tissues is withheld, we at once perceive in what consists the reciprocity between the blood and the lungs, and how it comes to be lost. *As the vital fluid is unable to fulfil its part of the operations for the performance of which the pulmonary capillaries are provided, these latter refuse to convey the blood through them*—an explanation of the anæmic condition of the lungs in collapse which we may be excused for preferring to that of spasm of the pulmonary arteries. This, moreover, is a condition which the supply of no amount of pure air will remedy. Until the blood has carbonic acid furnished to it to give up in exchange for the oxygen of the air, none of the latter gas will enter the blood; and the processes dependent upon its presence there will in the meantime remain in abeyance. Dr. Sutton of the London Hospital has informed the writer that nitrous oxide has been inhaled by patients in collapse without producing any effect whatever on the system: a circumstance which is intelligible only on the supposition that this gas does not enter the circulation at all, but is expired exactly as it is inspired. This fact serves to confirm the theory now broached; the reason why the nitrous oxide is excluded being the same as that which prohibits the entrance of oxygen through the lungs—viz., the absence of carbonic acid in the blood to exchange for it, entailing a cessation of the circulation through the pulmonary capillaries. The water also, which usually finds an evaporating surface in the air-cells of the lungs, being carried off by the bowels, these organs are reduced to the same state of inactivity as are the liver and kidneys, and so but little air and less blood are found in them after death.

Dr. Johnson states, that "there is no direct relation between collapse and loss of fluid by the bowels;" and, except that both phenomena acknowledge the same cause—viz., the deranged physical state of the blood—we entirely agree with him. At the same time, we do not remember to have met with any satisfactory explanation of this symptom. In some aspects, it appears to resemble the anasarca produced by kidney or heart disease; and we can conceive of no reason why anasarca should not occur in cholera, except that the blood does not enter the capillaries of the integument. This arrest of the circulation, as it pertains to the pulmonary and hepatic capillaries especially, retains the blood in the veins of the intestinal track. The visceral veins thus become increasingly gorged with blood, of which the fluid portions are of a much less degree of density than usual. This serous fluid then passes outwards through the veins, obeying the same laws of osmosis as, under the opposite condition of health, cause the fluids to pass out of the stomach, through the veins of that organ, into the portal circulation.

Instead, therefore, of the rice-water evacuations being the result simply of an eliminative effort of Nature—though they may indirectly serve to carry off the poison—they are, on our theory, the direct necessity of the loss of the statical relations between the blood and its channels, induced in the former by the poison of cholera. Any attempt, therefore, to interfere with this purely physical condition by the administration of drugs, in the ordinary acceptation of the term, will be useless.

If the views now advocated be correct, cholera will be seen to be a disase in which the *dynamical conditions* of health are subverted; and, if the life of the body is lost, it is because the *physical conditions* on which vitality depends are too far deranged to allow of its continuance.

The order of events, as seen from our stand-point, is as follows.

Deranged physical condition of blood, its consequent inability to mediate the nutrition of textures, or to remain within its channels,	causes	Suspension of capillary circulation, both pulmonary and systemic. Watery evacuations.
Suspension of capillary circulation	causes	Retention of effete elements in the textures.
Retention of effete elements in the textures	causes	Cramps. Suspension of bile, urine, and respiration. Collapse.

Furthermore, in support of this view, we claim that it has an equal application to the ordinary and to the exceptional cases: *e. g.*, the suddenness and completeness of the collapse in some cases is due either to the concentration with which the poison attacks the patient, or his incapacity of resisting its disturbing influence upon the blood, or both of these together, inducing the physical change previously alluded to in the entire fluid, and the consequent abrupt and universal check of all the dynamical changes which are necessary for the continuance of vitality, the complete analogy of which, as regards the rapidly fatal issue, we see in typhus and scarlet fevers. Moreover, taking the altered physical state of the blood to be the starting-point in the disease, it shows how the watery evacuations may precede any indication of collapse, and may exist independently of any change in the respiration. Lastly, it explains what proportion of the morbid phenomena is due directly to the cholera poison, and what symptoms are simply indirectly referable to it. Thus we limit the action of the *materies morbi* to the disturbing effect upon the blood, its further capability for evil being exhausted when this is accomplished; the supposititious cell breaking up into countless nuclei, which pass out with the evacuations, to become in their turn the centres of fresh disease, should they by any mischance alight upon a suitable nidus for their development. Cholera, as a specific disease, may be said to end with the establishment of this altered state of the blood, and its severity to depend entirely upon the extent to which this has proceeded.

We shall close these remarks by one or two suggestions for treating the disease, deducible from the foregoing theory.

Believing that the evacuations, if not curative, are

simply the effects of other and therefore of more important lesions; and that the attempts to restrain them, if not harmful, are absolutely nugatory—we shall bestow no further attention upon them than to secure that they be immediately removed, and rendered innocuous by disinfectants. Manifestly, then, the primary indication is to restore to the blood those elements of decay which the temporary cessation of the capillary circulation has caused to accumulate in the tissues. This we take to be the salient point in the disease, and the one which more than any other tends, by its persistence, to prevent the recovery of the patient. For it is highly probable that the effect of the poison on the blood is, as far as it goes, immediate; and that no attempt to eliminate it can be nearly so efficacious or rapid as its own tendency to exhaust itself. Death, according to this theory, takes place, not in consequence of the altered state of the blood persisting throughout the disease, but in consequence of those stases which have occurred during the immediate operation of the poison, and the persistence of which, by withholding the essential conditions for continuing the circulation of the blood, prevents the possibility of its re-establishment. The wheels of life are clogged by refuse matter, though the machine itself remains unimpaired. How is this indication to be accomplished?

On this point, the experiments for injecting fluid into the veins, while raising our expectations with the promise of a brilliant success, only to baffle them by a corresponding degree of disappointment, are most instructive. They teach us that the machinery of the circulation remains intact; but they also show that something more than the crude injection of water, rendered sufficiently dense by some salt thrown in almost at haphazard, is requisite to supply the delicately balanced conditions for maintaining the continuous flow of the vital fluid.

If we mistake not, Dr. Richardson furnished the clue to the only successful method of restoring the capillary circulation, in an experiment he performed some years ago on the corpse of a drowned man—when, in order to recognise the body, which was bloated by a lengthened period of submersion, he placed it in a dense solution; and, according to the laws of osmosis, the water passed out of the body, allowing the tissues to return to their normal degree of distension. In the treatment of cholera collapse, we have to deal with an exactly opposite state of things to that which obtained in the above proceeding. The collapsed body being reduced to a state of semi-desiccation, we must place it in such circumstances as will permit of water passing by endosmosis through the skin of the patient. In this way the fluid will saturate the tissues, taking up from them the soluble *débris* which constitute the elements requisite for the performance of the functions of those organs whose operations are now in abeyance, and for the want of which effete elements, the capillaries remain empty. Passing still onwards by the irresistible osmotic force, the imbibed fluid will now hasten to join the thickened blood in the veins. These vessels will thus become gradually charged with a fluid medium differing vastly from any that can be injected into them from without the body, and rendered sufficiently dense by the very same constituents of the liquor sanguinis for the conveyance of which, in the normal state of things, the serum of the blood is the proper vehicle.

Now, it will be obvious that the attempt to introduce serum or water into the veins by the process of injection must fail in its purpose, because this cannot safely be charged with the elements required to restore the mutual attraction between the tissues and the now diluted and to some extent invigorated blood; for the former are not thereby relieved of their incubus, and the capillaries are no nearer acting than previously. Carbonic acid gas cannot thereby be added to the blood; and, until this occurs, there will be no opportunity afforded for restoring the pulmonary circulation. It is probable, indeed, that the first result of the successful induction of the endosmotic process we are discussing would be the conducting to the circulation of a solution of this gas, elaborated and dissolved in the natural laboratory of the animal system in a way peculiarly fitted for the important part it has to perform in the economy. This, passing directly to the right side of the heart, will at once enter the pulmonary artery; and, being now furnished with that condition of the blood requisite for the interchange of oxygen in the lungs, the pulmonary capillaries will hesitate no longer to admit it, and so the circulation through the lungs, and the consequent aëration of the blood, will recommence. This being accomplished, we shall not have long to wait for the reappearance of both bile and urine.

One practical point remains to be considered; viz., how is the end in view to be accomplished? By imitating, *cæteris paribus*, as closely as may be, the experiment of Dr. Richardson. We suggest the following plan, subject to any modification that experience may dictate.

The patient should be supported in the recumbent posture, upon a stage or shelf rendered sufficiently soft for him to lie upon for a considerable length of time. A bath sufficiently large and deep should be nearly filled with water at a temperature of 70°, in which about one pound of mustard is to be stirred. Into this tepid mustard bath, the entire body, with the exception of the head, is to be immersed, and in it the patient is to remain, passing his evacuations into the bath, until faintness, or the necessity of renewing the water, renders it necessary to remove him. He may then, by means of the framework on which he is lying, be raised above the water, without disturbing his prone position. During the process of replenishing and disinfecting the bath, the patient should be covered with warm blankets, and gentle friction applied to the limbs in the course of the venous circulation. As soon as possible the bath is to be repeated, the previous temperature being maintained throughout; the patient remaining in it until such time as indications of the subsidence of the collapse become manifest. The object of the mustard is simply to act as a stimulus to the absorbent powers of the skin, and also to prevent faintness.

During this proceeding, the patient is to drink freely of soda water, in order that, should it be retained by the stomach, carbonic acid may be conveyed to the blood through the veins of that organ.

Of the complications resulting from the reaction from collapse, involving as they do nothing peculiar to the theory of cholera now under consideration, they need no special discussion here.

This theory will afford an explanation of the futility of all mere drugs in a confirmed case of the disease; for, with the arrest of the capillary circulation, the operations of all the organs must cease also. The inutility of administering calomel—*e. g.*, to promote the secretion of bile—will be obvious from our point of view, unless it be contended that this drug is itself capable of being converted into bile.

If the theory now advanced be correct, we shall be reduced to the conclusion that any treatment of cholera, which may have proved successful, has been so in proportion as it has embodied more or less of the plan now advocated; though, as far as we are aware, its partial adoption has had no reference to the principles attempted to be set forth in this thesis.

Reviews and Notices.

A Handy-Book of Ophthalmic Surgery for the Use of Practitioners. By John Z. Laurence, F.R.C.S., M.B., Surgeon to the Ophthalmic Hospital, Southwark, etc.; and Robert C. Moon, House-Surgeon to the Ophthalmic Hospital, Southwark. With numerous Illustrations. Pp. 160. London: 1866.

The object which the authors of this book have had in view has been to furnish practitioners with an outline of the principles and practice of Ophthalmic Surgery, such as it now is. The work, therefore, contains an epitome of the most important contributions that have been made to ophthalmic surgery and science during recent years. In carrying out their plan, the authors have avoided elaborateness, and have for the most part confined themselves to giving, in as few words as could be consistent with clearness, a description of the symptoms essential to the recognition of disease, and of the details of operations. Questions of theory and hypothesis are left untouched.

The book is divided into seventeen chapters. In the first chapters, Messrs. Laurence and Moon describe the various Methods of Examining the Eye. Here we are directed first how to make the *objective* examination of the eye—by inspection, palpation, the strabismometer, ophthalmoscope, etc.; then instructions are given as to the *subjective* examination of the state of vision.

The second chapter contains General Remarks on Ophthalmic Operations. Here we have a description of an ingenious apparatus devised by Mr. Laurence for steadying the head, and termed the *cephalostat*. Of the use of chloroform in operations on the eye, the authors write as follows.

"The advisability of administering chloroform is determined to some extent by the wishes, but principally by the behaviour, of the patient. A good test of his ability to bear pain is the introduction of a speculum. Should he, spasmodically, resent its presence, chloroform should be given, supposing him to be a fit subject for its administration; but if he appear to bear the speculum well, and promise to remain perfectly still, many operations, such as those on the lids and muscles, may be done without it.

"The special dangers of chloroform in eye-operations have been greatly exaggerated. In no operation on the human body is perfect quietude of the parts more required than in the extraction of cataract. Yet it is just in this very operation that the most emphatic veto has been placed on chloroform. Expulsion of the vitreous humour, or introcular hæmorrhage caused by vomiting, have been said to be probable consequences of its administration. Preconceived opinion has been invoked in place of experience. We have now for upwards of three years administered chloroform in every kind of operation on the eye without one single bad result that could be attributed to the chloroform, even although in several cases its administration has been followed by vomiting. We have found it chiefly indicated in the very operation in which it has been specially forbidden—in the extraction of cataract. How often have we seen operators hurry through this procedure, glad 'to get it over', lest it should be marred by some movement of the patient! Professor Jacobson stated at the Heidelberg Congress of 1864, that in about 1,500 cases in which chloroform had been administered, in a period of five years, on no occasion had any signs of danger occurred; and that vomiting exerted no deleterious influence, if, as soon as its advent became apparent, the eye was properly protected by a cotton-wool compress; that, if the chloroform had been given to the full extent, no spasms of the ocular muscles or convulsions took place during the operation. Dr. Little has lately reported twenty flap-operations for cataract performed under chloroform by Mr. Thomas Windsor: 'In no case did chloroform appear to have any injurious influence' (*Ophthalmic Review*, vol. ii, p. 353). When chloroform is given, it is necessary that complete anæsthesia should be produced; otherwise the involuntary movements of the patient are more dangerous than his voluntary ones would have been: the latter may be anticipated and controlled; the former cannot." (P. 22.)

In the third chapter, Diseases of the Orbit are described; viz., periostitis, cellulitis, and tumours.

In the fourth chapter, the authors give an account of Diseases of the Eyelids; in the fifth, of Diseases of the Lacrymal Apparatus; and in the sixth, of Diseases of Muscles of the Eye—our knowledge of which, the authors observe, has been increased more rapidly than that of any other part of ophthalmic surgery, principally through the labours of Von Gräfe.

In the seventh chapter are described Injuries of the Eye and Orbit, including contusion and ecchymosis of the lids, incised and lacerated wounds, burns and scalds, foreign bodies imbedded in the cornea, blows on the eyeball, wounds of the cornea, and fistula corneæ.

The eighth chapter is devoted to Diseases of the Conjunctiva—conjunctivitis, xerophthalmia, chemosis, symblepharon, tumours, and pterygium. Inflammation of the conjunctiva is classified, according to the character of the secretion, under the following forms: 1. Aqueous conjunctivitis, with watery discharge; 2. Mucous conjunctivitis (catarrhal ophthalmia), with mucous and puriform discharge; 3. Purulent conjunctivitis, with purulent and generally profuse discharge; this presents three forms—(*a*) conjunctivitis purulenta neonatorum, (*b*) gonorrhœal ophthalmia, and (*c*) Egyptian ophthalmia; 4. Pustular or Phlyctenular Conjunctivitis; 5. Granular Conjunctivitis; 6. Diphtheritic Conjunctivitis.

In the ninth and tenth chapters, Diseases of the Sclerotic and of the Cornea are described; and in the eleventh, Diseases of the Iris and Ciliary Body. Of the treatment of iritis, the authors write as follows.

"The great point is to keep the pupil, from the very commencement of the disease, thoroughly dilated by atropine: the dictum, that the iris will not dilate when inflamed, is a tradition unfounded in fact, and mischievous in practice. In the acute stages of iritis, leeches or cupping to the temples, warm fomentations, etc., are indicated. Internally, we give the following.

℞ Potass. bicarb. ʒij; liq. opii sedativ. ʒss to ʒi; tr. belladonnæ ʒss; mist. camp. ʒvi. ʒj every fourth hour.

"Mercury is generally regarded as the *sine quâ non* in the treatment of iritis: we, however, do not give it; our cases, we find, get on as well without it. Turpentine (mxxx—ʒj) has also been found a valuable internal remedy in the treatment of iritis.

"In some cases we have found paracentesis of the anterior chamber remarkably efficacious. After all the acute symptoms have passed off, vision may remain seriously impaired from the affection of the vitreous or choroid; in these cases, we have seen extraordinary benefit from the administration of two to five grain doses of the iodide of potassium three times a day. We have often seen the improvement in vision and the illuminability of the fundus oculi proceed under this treatment quite *pari passu*. Some persons have a peculiar tendency to iritis; no sooner is one attack gone than another returns. Every succeeding attack of 'recurrent iritis' inflicts its damage; an accumulation of attacks may practically destroy the eye as an organ of vision. In such cases, iridectomy is the only measure that will permanently arrest the disease. This answers two ends: it checks the iritis, and gives the patient a new pupil. The improvement in vision in such cases is, however, frequently less than might have been expected: this may depend on vitreous or choroidal complications, which must be then treated on their own merits." (P. 74.)

In the twelfth chapter are described Diseases of the Crystalline Lens; viz., Cataract and Dislocation. In speaking of cataract, the authors describe and comment briefly on the operations recommended by Mooren, Waldau, Von Gräfe, and other modern ophthalmic surgeons. Of flap-operations, they prefer that of Mooren, in which a preliminary iridectomy is performed; chloroform having been first administered. Waldau's operation, as modified by Mr. Critchett, they prefer, "in proper cases, to all other methods of extraction." Von Gräfe's new operation, which was described in the JOURNAL for April 21st of this year, p. 410, is also noticed; and on the relative merits of these and the flap-operation, the following remarks are offered.

"Waldau's and Von Gräfe's operations have certain advantages and disadvantages, when compared with the old flap-operation. In this latter, we have a large gaping wound, with a flap which, turning like a door on its hinge, is liable to get displaced. The flap itself, both from its size and the structure of which it is made, is liable to lose its vitality. The contents of the globe are in a great measure deprived of their natural support. The iris is exposed to bruising and prolapse. The period of cure is tedious, and involves both much care and anxiety on the part of the surgeon. The new operations are nearly devoid of all the above disadvantages, but present others which we, however, consider of less import. The chief one is the risk of destructive inflammation consequent on the introduction of spoons and hooks into the eye. This objection will, however, we feel convinced, be gradually entirely, as it is already partially in Von Gräfe's operation, eliminated. Secondary needle-operations on opaque capsule are more frequently necessary after the new operations. We may here incidentally allude to a peculiar form of interruption to the light produced by persistent capsule after such operations. The capsule is not opaque, but is variously folded, and thus a kind of irregular astigmatism is produced. A final—not very important—objection has been made, that the increased size of the pupil deteriorates vision by leading to unusually large dispersion-circles." (P. 90.)

The authors describe, in the thirteenth chapter, Amaurosis and Amblyopia; and in the fourteenth, Glaucoma. Of iridectomy, they are led to believe, by their own experience, that the beneficial influence of the operation is inversely proportional to the duration of the disease. "In chronic glaucoma," they write, "we have never seen it remarkably successful." On the other hand, as they fairly point out, Donders and Von Gräfe are said to have met with success from iridectomy in many cases of chronic glaucoma. Of the *rationale* of iridectomy, they say:

"In this point of view, iridectomy is singularly weak. Whilst nearly every other operation, not only in ophthalmic, but in general surgery, has some tangible reason to exhibit for its performance, iridectomy stands almost alone in the utter insufficiency of the various far-fetched explanations that have from time to time been assigned for its assumed efficiency. We cannot help thinking that the greater part of the benefit of the operation results from the largeness of the corneal incision, necessarily preliminary to the actual excision of the iris, and the consequent completeness of the relief to the intraocular tension thus implied; that a limited paracentesis corneæ is as inferior to 'iridectomy' precisely in the same ratio as the temporary relief afforded by the mere puncture of an abscess is to the permanent relief given by a free incision." (P. 108.)

Regarding iridectomy as the remedy for glaucoma—the only remedy in acute cases—the authors admit, from their own experience, that some "subacute cases recover under general treatment, of which we regard belladonna and iodide of potassium internally, and atropine topically, as the most potent elements."

In the fifteenth chapter are described Diseases affecting the whole Eyeball, arranged under the following Sections: Ophthalmitis; Sympathetic Ophthalmia; Tumours; Hydrophthalmia; Entozoa; Staphyloma; and Neuralgia Oculi. The operation of Extirpation, and Adaptation of an Artificial Eye, are also described.

The sixteenth chapter is devoted to a description of the Physiology of Vision; and the seventeenth, to Optical Defects of Vision. These subjects Mr. Laurence is well known to have studied with much care; and his remarks on them, though condensed, are sufficiently full and reliable to be instructive.

We cordially recommend this book to the notice of our readers, as containing an excellent outline of modern ophthalmic surgery.

ON VITALITY. By the Rev. H. H. HIGGINS, M.A. Pp. 19. Liverpool: 1866.

IN this essay, which was read some time ago before the Liverpool Philosophical Society, Mr. HIGGINS argues against the idea which, he says, is entertained by some eminent physiologists, that vitality is not distinct from the action of known physical forces. He has evidently examined the subject carefully, and writes temperately on it. While holding that the phenomena which are generally regarded as vital cannot be explained by the action of mere physical forces, he allows that our ideas regarding the action of a vital force have necessarily undergone modification.

"It would be very interesting to trace the course of those discoveries in physiology which have led some eminent observers to class vitality with other known forces. It cannot be denied that a very large number of facts connected with the phenomena of life, formerly supposed to be attributable only to the

undefined agency of the vital principle, are now accounted for on principles which are purely scientific. For example, the constituents of some of the proximate elements of organic substances, such as starch, albumen, etc., were known long ago; but the power to combine these constituents so as to produce the proximate elements, was regarded as possessed by the vital principle alone, the working of which in the formation of the proximate elements could, it was thought, by no means be imitated in the laboratory. This is now known to be an error; the chemist by his science does that which before was considered to be the peculiar function of the vital principle. In these and many other instances, it has been proved that the aid of the vital principle has been unnecessarily invoked to account for results explicable on scientific grounds." (Pp. 15-16.)

British Medical Journal.

SATURDAY, OCTOBER 13TH, 1866.

THE CHOLERA AS IT APPEARED IN MALTA IN 1865.

A VOLUME of statistical, sanitary, and medical reports, recently issued by the Army Medical Department, contains a large amount of interesting material; but there is one paper of especial interest, on the late Cholera Epidemic in Malta.* The authors of this Report appear to have been actuated by the very laudable desire to give a clear and unbiassed statement of facts; and they have made a very serviceable contribution to the natural history of cholera. In the first place, there is a detailed statement, illustrated by maps, affording conclusive evidence as to the influence exerted by human intercourse in the diffusion of the disease throughout the Maltese islands. Passing over this part of the Report, we come to the consideration of facts which have a direct bearing upon the nature and treatment of the disease.

We are told that three varieties of diarrhœa were observed during the epidemic. There was first the ordinary summer diarrhœa, characterised by pains in the stomach, coated tongue, and numerous bilious stools. This form of diarrhœa was more common than ordinary, both among the military and the civil population. It was attributed in part to the irregular and drunken habits of the soldiers during the epidemic; and amongst the natives, it was supposed to be favoured by the large consumption of fruit by the poorer classes, who were enabled to purchase it at a very cheap rate, in consequence of the usual consumers amongst the better classes avoiding it during the epidemic. This form of diarrhœa was very tractable in its nature. The second form of diarrhœa was characterised by painless watery purging, often associated with vomiting of the same character, clean or white furred tongue, depression of the countenance, dark rim under the eyes, and exhaustion. It was found in every degree of intensity, and, when severe, was classed under "choleraic diarrhœa". "Although intractable, it evinced no tendency to pass beyond a certain point, or to assume a more malignant form." This form of diarrhœa was very frequent at the height, and during the decline of the epidemic. The third form of diarrhœa was an intensification of the second kind, and so completely intractable, that in sixty-one cases, where every possible attempt was made to check it, in none did it suceeed, but it was invariably followed by full development of cholera.

The authors declare in the most positive manner, that during no period of the epidemic was the "premonitory diarrhœa tending towards cholera, but easily checked," met with. "The second variety showed no tendency to pass beyond a certain point, if not stopped. Its severe form, the third variety, was clearly an early stage of cholera; and *it may be fairly questioned whether a single case was prevented developing itself into cholera by treatment directed towards the suppression of the intestinal flux.*"

Nowhere have we met with more conclusive evidence as to the inutility of the astringent treatment of choleraic diarrhœa than is contained in this clear statement of facts. We are positively assured by intelligent observers, who appear to be entirely free from prejudice, and who had the best possible opportunities for ascertaining the facts, that the diarrhœa which appeared to yield to treatment would have stopped without it, while that form of diarrhœa which tended to pass on into cholera continued its fatal course in spite of every available repressive means.

Now here we are bound to raise an important question, which does not appear to have occurred to the authors of this Report. They have shown that the astringent treatment of this form of diarrhœa was useless; but may it not have been worse than useless? If it be a fact, as our authors believe, that the symptoms of cholera are due to the presence of a material poison; and that, as they say, "the exit of the *materies morbi* is chiefly by the intestinal tract, commencing early in the disease, and extending apparently into convalescence"—is it not probable that the repressive action of opiates and astringents must be injurious by impeding the exit of the poison? That these means do not entirely and abruptly arrest the intestinal flux is no proof that they are inert. They may so far retard and check the expulsive efforts as materially to increase the risk which arises from the retention of the morbific agent within the system. There can be no greater mistake than to suppose that a medicine is necessarily inert when it fails to effect the particular object for which it was

* Report of the Cholera Epidemic of 1865 in the Maltese Islands. By Surgeon A. Leith Adams and Assistant-Surgeon R. H. Welch, 1st Battalion 22nd Regiment.

given. Opium may have no soporific effect in certain cases of delirium tremens, yet an over-dose may induce fatal syncope; so, in cases of choleraic diarrhœa, an indiscreet employment of opium, even when it does not entirely arrest the flux, may cause mischief by *retarding* the escape of the morbid secretions. The application of the break checks the speed of the train long before it brings it to a stop; and, when safety depends upon quick motion, an untimely check may be fatal.

In describing the symptomatology of the disease, particular attention is directed to symptoms of general constitutional disturbance, which, in a large proportion of cases, mark the period of invasion, precede the intestinal flux, and are probably associated with blood-contamination. Out of forty-two cases which were carefully noted, these symptoms existed clearly and unmistakeably in twenty-seven. The symptoms were, a dull and listless appearance of the countenance and eyes; a dark rim around the orbits; a loss of all activity; want of appetite; prostration; vertigo; cramps; increased perspiration and coldness of surface on the least exertion; thirst; and *malaise*. After this condition had existed during a period ranging from a few hours to two or three days, the diarrhœa ensued, and the disease was then said to be present. The symptoms of invasion, as here described, are identical with those which have been noted by Twining and other practitioners in India.

Then, with regard to the relation between the intestinal discharges and the state of collapse, we are told that "the extent of the collapse was in no way commensurate with the amount of discharges. *Invariably it was found that the more severe the disease the less was the quantity and the frequency of these ejections.*" And it was observed that when recovery took place, a quick convalescence marked the majority of the cases, though in some few it was prolonged.

The treatment of the disease was very unsatisfactory. We are told that "system after system failed"; but, so far as we can gather, no definite plan was carried out. The only remedies spoken of as being really useful are emetics; but stimulants appear to have been given in most cases; and the mortality amongst the military was as high as seventy-two per cent., while amongst the civil population the mortality was sixty-two per cent. With respect to the treatment in vogue amongst the civil practitioners, it is said to have been "of the mildest character, leaving the patient very much to his chance. Emetics were occasionally used, and also mercury; stimulants never; castor-oil treatment by a few." Now, it is not without interest to inquire whether the native population thus left to their chance, with the aid of this mild treatment, were not more fortunate than the well fed and well cared for, but probably over-dosed and over-stimulated British soldier. The statistics appear to give an affirmative answer to this question, and our present knowledge of the natural history of the disease points to the same conclusion. If the treatment do not coincide with the natural process of cure, the more the patient gets of it the less is his chance of recovery.

A brief account is given of the results obtained by the administration of strychnia in six cases during the stage of collapse. In one case, three doses of a quarter of a grain each within three-quarters of an hour induced the specific effects of the poison, and "death quickly followed, leaving no doubt as to the cause". In two cases, one and a half grain and one grain respectively brought the system within its influence with no beneficial results, the fatal termination was not retarded. In another case, one grain was administered during collapse without results, reaction ensued and with it tetanic spasm which caused death when the indications were of the most favourable kind. In one case only, the patient recovered, escaping both from the disease and the remedy; but it is not even suggested that the strychnia had any curative influence, and thenceforth the use of this dangerous agent was discontinued. It is evident from this report that in three cases the poison was absorbed during the stage of collapse, proving that the function of absorption, although lessened in the direct ratio of the arrest of the circulation, is not absolutely suspended during collapse. We trust that experiments of this kind will never again be repeated either in the British army or out of it.

Lastly, we learn that in three cases ice was applied to the spine. It had no influence on the course of the disease, which was fatal in every instance; and, in one case, in which congestive pneumonia succeeded, it was believed to have a deleterious effect.

Not the least among the many advantages which must inevitably flow from our present better knowledge of the nature of this terrible disease will be, that, henceforth mischievous and cruel experiments under the name of treatment will meet with the condemnation which they merit.

CHOLERA.

Dr. Yod publishes "A Simple Explanation of Cholera, and a Rational Mode of Treating it." His explanation is mainly a detail of the prominent symptoms of the disease. His treatment consists in restoring the fluid lost. And what fluid should be given?

"Brandy and water, says one; ginger and water, says another; neither, say I, but water. Water, the most general of solvents to wash away impurities; water, known only for negative properties; water, the fluid that an unvitiated nature will always crave for when thirsty; water, that God has given to the whole animal creation to wash both the interior and exterior of the body."

"Cholera is a blood-poison. Nature casts off the

poison principally through the bowels, which, on account of its virulence, it irritates dreadfully on its passage; and she uses the readily available fluids of the body to dilute the poison first, and wash it away afterwards. Our efforts should, therefore, be directed not to stop, but rather to encourage the evacuations, by the plentiful exhibition of the fluid most nearly allied to the serum of the blood—viz., water; and to allay the irritation in the bowels."

M. Cazalas has lately published an elaborate paper in *L'Union Médicale* on the question of the contagion of cholera. His summary is to this effect. Cholera is a specific disease, comprising cholerine and all accidents of a true choleraic nature. It does not originate only in India. It may arise anywhere. There is nothing to justify the theory of its constant importation from India. Cholera is neither contagious by direct contact, nor indirectly by the air. It is contracted by infection in choleraic foci, as intermittent fever is contracted in marshy districts. Quarantine is utterly useless; and so also is isolation of cholera-patients.

Dr. Steele of Montrose thus gives his experience of cholera, as learnt during the epidemic of 1832.

"Considerable opportunities of observing have led me to believe that contagion is not at any rate a powerful agent in the diffusion of cholera. I have never seen imported cholera spread widely; and, in my opinion, a few arrivals will never constitute the focus of a widely-radiating epidemic, unless there be existing in the locality some peculiar atmospheric condition favouring the propagation of the disease. What that condition is, I cannot tell. It remains concealed from the scrutiny of man."

He regrets that the Medical Officers of Health of the City of London have, in their instructions, recommended the speedy interment of the dead.

"It has not been proven that any evil emanates from the dead body, and facts are not wanting which tend to prove the reverse. In 1832 as in 1848-9, the dissecting-rooms were supplied with subjects dead of cholera; and to the best of my knowledge, Dr. Aitkin's statements concerning their innocuousness are as applicable to the former as to the latter epidemic. A girl very ill with cholera was seen by another practitioner and myself. When he called in the evening, he was asked whether, if death took place during the night, the funeral might not be deferred till daylight. She did, to all appearance, die about midnight. The body was dressed, removed from bed, and laid out in an adjoining room. About four in the morning, one of the attendants going into the room imagined there were still signs of life. The child was returned to bed, had external warmth assiduously applied, rallied, and eventually recovered.

"The practice to which I finally resorted in 1832, and which I would be disposed to still adopt if again called upon to treat cholera, is as follows. In the preliminary stage of choleraic diarrhœa, I ordered the patient to bed, and to be kept warm. I administered every two or three hours a pill containing opium, calomel, and ipecacuanha, with or without a little brandy. This, followed by a mild aperient, was generally all that was required. When the disease was farther advanced and collapse threatening, I found the mustard emetic very beneficial. Along with these means was conjoined sinapisms to the belly and external heat, with assiduous friction to the cramped limbs.

"When the stage of collapse is completely formed, nothing I have tried has done any good. Sometimes, however, patients do rally; and hence the necessity for caution during collapse in the use of diffusible stimulants."

The following is a sketch recently published by Dr. W. Budd, in reference to the prevention of cholera.

"Evidence renders it extremely probable, not to say certain, that the poison which causes cholera is the product of the disease itself, and is cast off from the body in the characteristic 'rice-water' discharges from the alimentary canal. These discharges contain the seed by which the malady is sown. They infect the bed of the patient, and the privy or drains. From these last the poison may exhale into the air, or percolate into the drinking water. The disease may, also, be communicated by the hands of nurses, or others, soiled with the discharges. To prevent the spread of cholera, receive all discharges into vessels charged with a solution of chloride of zinc or some other powerful disinfectant. Keep the hands of the attendants scrupulously clean. Let all tainted beds and tainted linen be immediately burnt. Let all water be boiled before drank. Where cholera has prevailed, or prevails, let privies and drains be disinfected daily. The latrines of all large establishments should be treated in the same way. The same principles to be applied to cholera in ships. Hospitals should be established for persons attacked by cholera. Daily house-to-house visitation in infected quarters."

ARMY MEDICAL SERVICE.

One of our contemporaries expresses surprise at an appointment lately made by the Army Medical Department. He thinks that a doctor who has practised medicine after the fashion of Dr. Hunter, the famed author of Letters on Consumption, of European and Transatlantic fame, cannot be held as sufficiently orthodox.

Now, for our own part, we have too long been acquainted with the doings of the Horse Guards to be surprised at anything there done *versus* the doctors. Rather, we are inclined to think that it would be a source of satisfaction to the Department to give the doctors a lesson. Besides, what right have the army doctors to complain? What business has the profession at large to interfere in a matter which concerns the Department only? Let us calmly argue the question.

If the Director-General choose to re-appoint into the army a medical officer who has already served, and is still desirous of serving, her Majesty, has he not full power to do so? If such gentleman, during his temporary retirement from public life, have been actively engaged in making himself specially well acquainted with a special means of curing special diseases—if he have, in fact, made himself in the interim a master of art in this way—ought not his return to his colours—his *revenant* to his original *moutons*—to be rather greeted with satisfaction? If the Director-General have not only the proof of com-

petency in the fact of previous service, but have also the certificate of a physician of high notoriety to back the re-appointment, who can reasonably blame the appointment? Suppose Dr. Hunter, in his valuable "Letters on the Nature, Causes, and Cure of Catarrh, Sore-Throat, Bronchitis, Asthma, and Consumption", in telling of the medical men who follow his method, speaks thus of one of them: "Another, an army surgeon of great ability and high attainments, has resigned his commission to establish himself in the same specialty at Edinburgh." Supposing this, can any reasonable person blame the Director-General for re-obtaining for Her Majesty's army the benefits of such "great ability and high attainments." We rather feel inclined to admire the courage which can raise itself above ordinary professional etiquette and its trammels, and accept the credentials of merit of so high an authority as the author of the Letters above mentioned. True, our medical brethren in the army may not see the thing exactly from this elevated point of view; but, then, what have their feelings to do with the matter? If the army medical head thinks it for the benefit of the soldier that a great inhaling and chest-disease-curing authority should blow his blessed vapours into the lungs of our soldiers, why should stupid etiquette or silly professional prejudices be allowed to come between the administrator and the recipient of the blessing? The Director-General who takes this view rises above the low horizon of vulgar professional jealousies. Besides, what right have officers in the army to hold opinions at all? How can they presume to talk of professional rules, etiquette, or dignity, and "all that sort of thing." This may do in civil life; but medical men in the army should remember what the captain told the middy who spoke of his "feelings" being hurt: "Just do me the favour to step up aloft, young gentleman, and send me word down when the stiff nor-wester has blown out your 'feelings'; we don't recognise that article in the service." The profession at large may look suspiciously at Dr. Hunter and his *protégés*; may refuse even to recognise their professional existence; to meet them in consultation; but what is all this to the Medical Department? The late Archbishop Whately, master of Mesmerism and chief of homœopaths, stigmatised this sort of stupid etiquette as a species of medical trades union. Why should not the Department take a like view with so learned a logician?

Army medical men may complain that, as they cannot choose their regimental medical partners, they ought to have a careful Darwinian theory of selection carried out for their benefit; but then they must learn that the Horse Guards does not understand this sort of thing. To hear is to obey; and how can he who occupies the exalted position of Director in general direct anything wrong in particular? Men high in authority are above the idle vapouring of those whom they govern; their word is law, and their will their reason. *Ut voleo, sic jubeo; stat pro ratione voluntas.* It is all very well for the profession at large to tell those who make valuable appointments of this kind, that they are guardians of the honour and dignity of the profession of medicine; but the profession forgets, and must be taught, that this sort of thing is not recognised in the Regimental Red-Book.

Such, we take it, from the fact of an appointment of the above nature having been made by the Director-General, is the view which his department takes of our professional dignity and value. Whether or no such an estimate of medicine can be said to be dignified, honourable, or scientific, we leave our brethren to answer. Whether those who patronise such views can be said or not to have right ideas of the honour, the dignity, and the science of medicine, we leave our brethren to decide.

[The following extract from the *Army and Navy Gazette* contains the details of the case to which we have alluded in the above remarks.

"Something to be Inquired into.

"*To the Editor of the Army and Navy Gazette.*

"Sir,—I heard some of the medical officers of my corps discussing something the other day which appeared to be the cause of much irritation to them, and I must say that they carry my sympathies with them. Some years ago, a medical officer retired from the service, and became connected professionally with a 'Doctor' whose letters had run in almost all the daily journals. His name appeared, moreover, as a witness on the occasion of a criminal trial; and there were other circumstances plainly pointing to the same fact—viz., a professional connexion between the doctor advertising his cures and the retired army medical officer. This month's *Army List*, they say, contains the name of the latter; he must, therefore, have returned to the service. Now, my medical friends represent that their standard of professional etiquette and honour would unquestionably have prevented them in civil life from holding any professional communication with the individual in question; and they cannot believe that Her Majesty's uniform ought to upset the established rules for guarding the *morale* of the profession to which they belong. "I am, sir, etc.,

"A Combatant Officer."]

At the Social Science Association, Lord Brougham spoke thus of the efforts of the association of which Mr. Hart and Dr. Anstie were the leaders.

"The formation of a society for the improvement of the infirmaries of London workhouses has had important consequences. The papers read at more than one of our congresses by Misses Twining, Cobbe, Elliot, and others, led to this society, and its recommendations have been received with great kindness, both by Mr. G. Hardy and his predecessor in office; so that the matter will be brought before Parliament, and must lead to the removal of the abuses so justly complained of."

An order, which has excited much indignation, has lately been issued by the Commander-in-chief in Canada. It is to the effect that, in future, all applicants for the post of surgeon or assistant-surgeon in the Volunteer Militia must be prepared to pass an examination before a Board of medical officers of the regular army. The *Canada Medical Journal* protests against this order as folly and impertinence. Is it likely that old established surgeons will subject themselves to such an examination? The candidates are, *primâ facie*, as well informed as the examiners. This is a very different thing from examining young men fresh from the schools at Netley.

"To compel a private practitioner, soliciting a commission in the volunteer service, to undergo an examination before either surgeons or assistant-surgeons of the regular service, is to stop all such applications, and leave the volunteer service without a medical staff; for, we assure the Government, the profession will not submit to any such examination."

Still the *Journal* admits that something should be done to prevent the admission of *quacks* into the service; and it makes a recommendation which, we fear, may be thought almost as objectionable as the Commander's order. It is this:

"That two Boards be formed, one at Montreal and one at Toronto, to be selected from the surgeons of the volunteer corps of these cities; and that to them should be submitted the names of applicants for surgeons or assistant-surgeons, with their qualifications. If the qualifications are all that is to be desired, the candidate named to be recommended for his commission."

German and French medical works are translated into English much more frequently than are English medical works into French or German, though, we believe, a knowledge of continental languages is much more common here than is a knowledge of English on the continent. The French seem to know very little of what goes on here. The Germans probably know more through their excellent Year-Books, Schmidt or Canstatt. But very few of our works are translated *in extenso*. It is, therefore, with something like the pleasure of novelty that we see the announcement of a translation of Mr. Spencer Wells's *Diseases of Ovaries*, by Küchenmeister, the well known helminthologist, who is now in large practice in Dresden, and a warm advocate for the extension of ovariotomy in Germany. His translation forms a handsome volume of 416 pages, and is published by Teubner of Leipzic. It is carefully done, and the translator has made some valuable additions by way of footnotes and tables.

Sir Baldwin Walker, at the Social Science meeting at Manchester, is reported to have made an observation which requires explanation. "As one," he said, "who had walked the hospitals of London for many years, he had found as great abuses in London hospitals as in any workhouses." Sir B. Walker, as he says so, has no doubt been for many years a walker in London hospitals; but, from his own account, he shows himself to have been a very inefficient walker of them. Why did he walk the London hospitals? Was it to study medicine as an amateur? Or as a "casual" visitor to glean sensational stories? Or was it as a philanthropist? In whatever character he trod the London boards, he was bound to have publicly declared and denounced any abuses he may have then met with. As great abuses, he asserts, he has found in London hospitals as exist any workhouses. Now, Sir B. Walker is bound, in justice to himself, in justice to the public, and in justice to the London hospitals, to declare what those abuses are, and which are the hospitals where he noted them. At present he has thrown out his charge of abuses against them all. He plainly injures the innocent hospitals (unless they be all guilty), and plainly also has made himself a *particeps criminis* in that he has concealed the story of the abuses which he discovered in them.

Mr. Crookes has reprinted in a handy form his Report to Her Majesty's Commissioners on the Application of Disinfectants in arresting the Spread of the Cattle-Plague.

At the Social Science Meeting, Lord Brougham, in his address, spoke thus of our late lamented President.

"Our latest loss is also a severe one, Sir C. Hastings, who, beside his relation to our worthy secretary, was one of our most eminent colleagues. His great position, his distinguished fame in the medical world, and his rare kindness and humanity in the exercise of his profession, are lost in the service he rendered the medical body by founding and conducting the British Medical Association, which has placed medical and surgical practitioners in their just position, and given rise to the most important provisions for the extinction of irregular and pernicious practice. But his labours in the investigation of physical science, and his foundation of the Natural History Society of Worcestershire, showed how little his studies were confined to the profession of which he was so distinguished an ornament."

The French journals give details of the funeral of Professor Rostan. Nearly every member of the Faculty of Medicine was present. MM. Bouchardat, Dubois, and Béclard, represented the Academy. All the leading members of the profession, as well as of the learned societies, of Paris attended.

We lately noticed the fact, that Professor Hebra of Vienna could get no tidings of his son, an officer in the army. Through a notice inserted in the journals, he has at length heard from a medical man in Dusseldorf, that his long lost son was wounded by the Prussians, and is still alive.

Introductory Lectures.

NEWCASTLE-ON-TYNE COLLEGE OF MEDICINE.

The Introductory Address was delivered on October 1st, by Dr. C. J. Gibb. After some remarks on the connection of the College with the University of Durham, and on the means and appliances provided in it for the purpose of furthering medical education, he said: I must address myself more particularly to you, with a view of impressing upon you the great responsibility attached to the position you have taken in the world, and also to offer to you some remarks which I trust may be useful to you in directing your future course, and in helping you forward in the difficult study you have chosen for your pursuit in life. The profession, gentlemen, on which you are about to enter, that of medicine, is truly a noble calling, and one which in its rude beginnings no doubt sprang out of a natural desire implanted in man as an instinct to relieve the pain and suffering of his fellow-citizens, and therefore almost as ancient as the creation of man, but, as a distinct profession, was founded by Hippocrates, the father of physic, more than two thousand years ago. Since that remote period, however, through succeeding generations up to the present time, the power of medical science and art, curative and preventive of disease, has, under the blessing of Divine Providence, been wonderfully extended by the intellect and persevering industry of man, and more remarkably so through the developments and applications of science during the last three hundred years. Pretended discoveries have not been awanting in our profession as well as in other sciences, and such I hold Dr. Hahnemann's absurd doctrine of homœopathy. I think Dr. Jones states plainly the real ground why the medical profession refuses to have anything to do with homœopathy or to meet its practitioners in consultation, and I have myself studied it in the Homœopathic Hospital at Vienna, and seen its powerlessness against disease. It would be much more honest of its professors to say—"We leave disease to the care of Nature, and content ourselves in watching the progress of her curative operations," than pretend to destroy disease by their globules. It is not that the doctrine of *similia similibus curantur* is the real obstacle; this, if it were all, might be held as many queer notions have been held in men's minds, and prove no hindrance to their cooperating with their fellows on matters of mutual concernment. But when a medical man believes that the weaker a medicine is made the sharper is its effects, or that bilionths of common salt, silica, or sulphur can exercise curative virtues, though we take in our food much larger quantities of the same substances every day, he puts it really out of the power of a man of ordinary calibre of mind to consult with him. We might as well call two engineers to act together in building a bridge, one of whom believed that the thinner and weaker the supporting structures were made, the greater would be their power of enduring strain. It is no intolerance or prejudice, but common honesty, that compels rational practitioners to decline meeting those who entertain these peculiar views. Were we to do so, we must feel that, according to our own principles, we were acting as charlatans. There is, of course, in our profession, much to learn; look for instance at the present plague, the cholera; remember how little was formerly known of it beyond the fact of its having come to us as a new disease from the jungles of India, its nature obscure, engendered we know not how; in doubt whether it is wafted by the winds, or conveyed by travellers or things to distant places, and lost entirely as to the most effectual means of arresting its progress, or saving the victims of its attack. We now know that, like all fevers and other zymotic diseases, it exists as a miasmatic poison, an invisible ferment in the water and in the air, and that it is most prolific and destructive when it gains a habit in the too often unwholesome or stagnant water reservoirs or springs of our towns. Thus introduced into the blood, it acts like yeast added to the prepared wort, regenerates itself indefinitely, and the strength and virulence of the poison increasing, kills first the weak and ailing, and eventually the strong. We now know that to refuse water to its thirsty victims, to shut out the fresh life-giving air, or to lock up the poison within the body by large doses of opium, and a host of similar drugs is wrong practice. Medical science is gradually mastering the details of its nature, and with that knowledge comes hope for its victims. There are three principal divisions of the course of education in which you are now engaged. The first comprehends the science of anatomy and physiology; the second, that of pathology, or the science of disease; and, in the third division, we find whatever relates to medical and surgical treatment. The professional education of the medical student, for whatever branch of the profession he is designed, is extended over a space of at least four years, and it is of great importance that he should so arrange his studies that no excessive or overpowering demand may be made upon his attention at any one period. There is no profession in which it is more essential that those engaged in it should cultivate the talent of observing, thinking, and reasoning for themselves, than it is in ours. The best part of a man's knowledge is that which he has acquired for himself, and which he can only to a limited extent communicate to others. The late Sir Benjamin Brodie, than whom no medical man stood higher in his profession, or could speak more authoritatively, remarks that he knows of no profession that is worthy of being pursued which does not require as much exertion, as much labour, as many sacrifices as that in which you are engaged, and knows of none in which he who has the necessary qualifications is more sure of being rewarded for his labours. If it be your ambition to obtain political rank, or to have that sort of reputation which a political life affords, you will be disappointed, for our profession has nothing to do with politics. It belongs to private life, and the only other association which it has is that of science. There are few departments of either physical or moral science with which it is not, in a greater less degree, connected; and there are some with which the connection is so intimate, that the study of them may be almost regarded as identical. You are to look, not to political rank, but to the rank of science. No other rank belonged to Newton or Cavendish, to Hunter or Davy; yet their names will live in distant ages, and they will be regarded as benefactors of the human race, when the greater number of their more noisy contemporaries, if remembered at all, are remembered without respect. There are some ways in life in which it is common for individuals to obtain unmerited advancement by the patronage of others. But you must be your own patrons. Your knowledge, your skill, your good characters, will constitute your fortunes. Your dearest friends will feel they are not justified in entrusting the lives and comfort of themselves and families to your care unless they have reason to believe that it is safe and prudent for them to do so. A good moral and re-

ligious character is not less necessary to your advancement in the medical profession than skill and knowledge. There is only one other subject to which, in concluding this address, I think it right to claim your attention. You have duties to perform among yourselves, one to another. There is no one among us who does not exercise an influence, to a greater or less extent, over those with whom he associates, while he is influenced by them in return. In whatever orbit a man moves he carries others with him. If the vicious have their followers, those who set a bright example of honour and integrity have their followers also. In like manner, industry in one leads to industry in another, and the mind which is imbued with the love of knowledge cannot fail to communicate some portion of that holy inspiration to the minds of others. These which are among the higher responsibilities of life have begun with you already. The course which you individually may pursue, does not concern yourselves alone. While you are making your own characters, you will hope to make the characters of others. Let this consideration be ever present to your thoughts. It will give you an increased interest in life. It will extend your sympathies with those around you, and it will afford you an additional stimulus to persevere in those honourable exertions for which you will, at no great distance of time, be rewarded by the respect of the world, and the esteem of your own profession.

LONDON HOSPITAL.

The Introductory Address at this hospital was delivered by Dr. E. Head. After giving the students a hearty welcome on that the eighty-second anniversary of the foundation of the hospital, he remarked that no grander institution, on the whole, existed in the metropolis; none that afforded more extensive, generous relief to patients; certainly none that afforded vaster opportunities for prosecuting his studies to the student. It might be supposed that medical schools, like similar institutions in arts and theology, had been in existence many generations. This, however, was not the case; eighty years since they were not in existence. Particular men gave special courses of lectures at one or two of the more prominent hospitals; but even this can hardly be dated back for more than a century. Of such lecturers might be mentioned Cheselden at St. Thomas's, Pott at Bartholomew's, and subsequently Benyard and another at their own hospital. These efforts were supplemented to a great extent by private schools, the most famous of which was that maintained by John Hunter, and his no less able but less famous brother. But this system, however good in such hands, was radically bad. It was private, self-appointed, desultory. It was impossible under it to supply the wants of the country, the army and navy, with a body of well-educated, efficient medical men. The London Hospital might be always proud that the commencement of a better, perhaps the best possible, system was made by one of her own body. They, as well as the profession at large, must always pronounce with reverence the name of Sir William Blizard. It was by the energy and assiduity of this celebrated surgeon that the first medical school was established, capable of giving the student a complete medical training, and that medical school the one in which they were then assembled. The example set by the London Hospital was speedily followed, and thus the London Hospital had the very great credit of inaugurating this beneficial revolution in the system of medical education. While speaking of their noble hospital, it was impossible to forget what a shocking exemplification had been given of the effectiveness of its organisation and resources by the manner in which they had met, and, by the blessing of God, retarded the westward progress of the dire cholera wave which had so lately broken over them. The important services undertaken by that institution at this fearful crisis were given with the utmost devotion; and he did not mention it now so much with the object of re-stating what was well known, as to express the gratification which he was sure the authorities of the hospital felt for the very generous assistance of the generous public, whose freewill offerings, visibly now as ever, maintained the correctness of the phrase "English generosity" throughout the world. [Dr. Head passed a high eulogium on the house-surgeon, the lady nurses, and others, who night and day had given their services to the sick and dying. He also referred in appropriate terms to the death of Dr. Ansell, lately carried off by an attack of cholera.] It might be hoped that the attack of cholera was fast wearing itself out; but they could not forget that its consequences would be long felt. How many children, a few weeks ago happy under the protection of their parents, were now orphans, thrown without friends on the world. Who, therefore, could estimate the wretchedness and misery which must accrue in this way from the cholera if nothing could permanently be done to prevent it? The only way truly to meet this evil was by the subsidiary aid of orphanages. These would be a very suitable supplement and appendage to the good work done in and by the London Hospital. A lady who had also long taken a kindly interest in their hospital was, as was well known, doing her utmost to provide such means of relief for the children of those who were so lately struck down in their midst. They all wished her success, and were surprised that she should have met a single impediment in the accomplishment of her benevolent work; for certainly most of the cholera orphans would of two things have to do one—they must obtain the privilege of an orphanage, or be compelled to enter the workhouse; and, surely, of all calamities, the calamity of being educated in a workhouse from infancy was the greatest that could afflict a child. Thenceforth the workhouse was the home. Thenceforth the child would be the naturalised, life-long pauper, ready and willing to return, and feeling no disgrace or degradation in returning, to the wretched home of childhood. Before passing from this subject, he mentioned that the Alexandra wing, the foundation stone of which was laid by the Prince of Wales, had been completed, and was to have been opened just when the cholera broke out. The House Committee threw open the wards at once; and the building, which was to have been opened with congratulatory speeches and in festal array, in the presence of the rank, wealth, and beauty of the metropolis, was inaugurated, perhaps more suitably, amidst the threatenings of the pestilence and the ceaseless groans of the sick and dying. The hospital contained four hundred and forty-five beds; whilst the number of the students was less than that of many other hospitals. To the council of the college this might be, on some accounts, matter of regret; but for the pupils it was matter rather for congratulation, from the very great advantages of affording to each individual student an almost unlimited field for observation, experience, and chemical practice. Let them think of the appointments in that large hospital which were conferred upon deserving students. A resident medical officer, whose advantages for obtaining practical knowledge no words could express; a medical and surgical registrar, three resident house-surgeons, were elected every six months; a resident accoucheur,

a resident assistant medical officer, two resident surgical dressing pupils, which, with additional dresserships and *post mortem* clerkships, all these made up such a goodly array of appointments, many surpassing in their value all college scholarships, and all within their grasp. When they compared the number of students with the number of appointments, he had no hesitation in saying that the London Hospital was most richly endowed, second to none in the metropolis. The lecturer next proceeded to show that science was one of the most important branches of the medical profession. The subject was, next to the knowledge of God, the highest that could be contemplated; for it concerned the highest knowledge of man, his relation to nature, and the various effects which this external world, its laws, its forces, its productions, had upon men.

SYDENHAM COLLEGE, BIRMINGHAM.

The winter session was opened on October 3rd, with an Inaugural Address by Dr. Foster. He said he should confine his observations to the scientific aspect of that branch of knowledge on whose study some present were about to enter, for whose progress all must feel anxious. The great object in the study of any science is to investigate the invariable laws to which all phenomena are subjected, and the perfection of a science is greatest when these laws are reduced to the smallest number. Sciences may be divided into sciences of observation and experimental sciences. In the first, the investigator simply studies the laws which govern phenomena, but makes no attempt to modify or control them; in the second, the investigator not only seeks to know the laws, but by experiment he acts upon the phenomena which he studies. Astronomy may be taken as an example of a science of the first class, chemistry of the second. Applying the foregoing remarks to medicine, the lecturer pointed out that the great object of medical science was to "preserve health and cure disease". The early history of medicine exhibited two rival schools, one characterised by the empirical administration of drugs, the other founded by Hippocrates, which now exists under the name of the expectant method, professing to watch the course of maladies, and only seeking to assist nature in her efforts to effect a cure. In this second school, we see the attempt to develope medicine as a science of observation. For generations physicians have been struggling to raise it to something more than this, and have been striving after some greater power over disease, than a simple knowledge of its course. Not satisfied with the office of merely aiding the tendencies of disease when favourable, they have ever thirsted for the means of modifying and controlling these tendencies when unfavourable. On this desire the empirical administration of drugs has been founded, and heroic remedies, panaceas, and specifics, are some of the many expressions of the ever-recurring reaction against expectancy. In the earlier phases of the evolution of medicine, attempts were made to solve only the second part of her problem, to cure disease; for men had not yet freed themselves from the notion that disease results from supernatural interference, and consequently were unable to appreciate the higher and nobler view, that every disordered state is the consequent of definite antecedent conditions, which, under the same circumstances, invariably produce the same results. To solve the first part of the problem, to preserve health, demands a knowledge of physiology. The second part, to cure disease, requires a knowledge of pathology and therapeutics. On these three branches of knowledge scientific medicine must be based. The complexity which characterises the phenomena of life accounts for the slow advance made in these sciences; the most complex of the three, therapeutics, must wait for the perfection of physiology and pathology before it can assume a scientific form. Metaphysical explanations have long been retained in the biological study on account of the difficulty in analysing its phenomena. This has been a great obstacle to progress; men are now recognising that the reference of obscure phenomena to vital action, or nature, is not to explain them; it is the reference of the obscure to the more obscure. Science always explains the more complex by the more simple. The difficulty of elevating medicine in the scientific scale was then pointed out, and the defects of the methods hitherto followed were contrasted with the systems now becoming known. The lecturer, after alluding to the superiority of the methods followed in chemistry, and the excellent model it afforded of what an experimental science should be, argued that medicine could only attain a scientific basis by rising from a science of observation to an experimental science.

MANCHESTER SCHOOL OF MEDICINE.

The Introductory Address was delivered on October 1st by Dr. Henry Browne. After commenting on the limits and sources of our knowledge as natural philosophers, as metaphysicians, and as rational and responsible beings, and observing that the sources of our knowledge—the external world, mental abstractions, and Divine revelation—cannot be opposed to each other, he said:—

One of our most agreeable and instructive writers, Dr. Chambers, worthily and ably represents the Vitalists. "It is the power of the individual life," he says, "to create its own individual form," and "morbid phenomena are always evidence of deficient vitality." All medicines and remedial measures are restorative and renewers of life; but, as external agencies may increase or diminish the two vital processes of "growing and moulting," curative agents may be classified as aiders and arresters of these processes. Nevertheless, there cannot be a superabundance of life or an excess of vital action. Or, as we might add, metaphysically we cannot live too fast; but, practically, we may spend too much or be too niggardly. Dr. Chambers's last lectures on the "Climate of Italy" afford one of the best illustrations of the old proverb, *in medio tutissimus ibis*. Not only from personal experience of dilapidation rebuilt, but from all available statistics, Dr. Chambers shows that the powers of the air in Italy cure our chronic disorders, whilst, at the same time, the death-rate in Italy is greater than ours, from the more than doubling of acute diseases, such as fevers and inflammations. At first sight we might be tempted to conclude, after the manner of Comte, that it would be a much better arrangement to reduce the sun-force of Italy, and to distribute the excess over England in November, and in Manchester pretty nearly uniformly throughout the year. For in disease our duty consists in ever putting things to rights, *per fas aut per nefas*, in accordance with the good old rule of *contraria contrariis medentur*. Instinct will not fail to teach us to use warmth in the cold stage of ague, to cool in the hot stage, and to keep the patient dry, if possible, in the last. If we interpret literally the authoritative statement that "the blood is the life," as the writer of the article on cholera in the *Medico-Chirurgical Review* proposes to do, in common with Haller, Hunter, and Hewson, we find that we may have too much blood or too little, and that it may be

too rich or too poor. So, if we keep rigidly to facts, with the positivists, without denying to any the pleasure of speculating about force and life, we find excess and deficiency everywhere, either in growth or decay, or in the phenomena which belong to maturity. Also, when we proceed to trace the external causes of what is wrong we find constant occasion to conclude that the neglect of the use is as bad as the abuse of the gifts of Providence—a piece of practical wisdom implied in the saying, "Fire is a good servant, but a bad master," and in the Scriptural demonstration of sin, by its working death by that which is good. That hitherto unattained, but much desired harbour of rest—a definite nosology—becomes almost sighted from this positive point of view. In our best medical works long descriptions are still entitled definitions; and it must be so till we secure a correct classification. Let us venture to indicate how a natural classification may be attained.

Taking Comte's view of the hierarchy of the sciences, we have diseases characterised chiefly—first, by what is mechanical; then by what is chemical; then by what we used to call vital (but we don't mind a change of name); and lastly, by physical and pneumatic phenomena, were the latter word in use in this its legitimate sense. The mechanical errors—displacements and fractures—belong to the surgeon. The chemical adulterations and dilutions as they occur in "growing and moulting," belong to the fluidist. The vital, or biological, belong to the physiologist or pathologist. And the moral and spiritual belong to the preacher and Divine truth. To be a little more minute. Passing by surgical cases without subdivision, we find that each one of the proximate principles of the fluids and solids may be in excess or defect; that there may be like excess or defect of cell growth; of the various tissues; and of psychical and mental phenomena. Diseases of genesis, or growth, include those general states characterised by excess or deficiency of the proximate principles of the body, and each consists of an *osis* or state of the particular principle. Albuminosis will be found to give precision to the old word scrofula; fibrinosis defines inflammation, without any theory, as a disease of growth characterised by an excess of fibrine; obesity might be named liposis; diabetes, glucosis (as it is); rickets, halosis; and dropsy, hydrosis. Diseases of cytogenesis follow, viz.:—those characterised by an excess or deficiency of cells, and include polyhæmia, and hypæmia, hæmorrhage, from error in place, eukæmia and pyogenesis, from error in kind. Diseases of morphosis, or of the forms thus built up of cells, are next in order, and include simple and complex tumours, meaning by complex tumours cancers, and thus defining most simply the greatest pathological puzzle. Diseases of metamorphosis follow naturally, and embrace the long list of diseases known by the presence of the products of wear and tear—diseases which have been made a special study, with original researches, by our colleague Dr. Roberts, whose fame in consequence is such that he has had to re-deliver some of his lectures before the College of Physicians. These diseases also include the different degenerations—the albuminoid and the fatty, till we come to somatic death and septic poisons, taking each product in the order of its less and less complete oxidation. So far diseases characterised by tangible changes of structure have been arranged. Were we to proceed, what are called functional phenomena admit of an equally simple classification. They are doubtless attended by structural changes, could we trace them, but they are characterised by as well marked signs as any that are physical. For example, not to mention all, we have chorea and tetanus, characterised by an excess of contractility; convulsions and epilepsy consisting of associated excessive muscular action; hyperæsthesia and pain—two altered kinds of sensation; and then hysteria, instinctive, intellectual, and moral insanity, where, as healers of the body, we must break off, for the question gradually merges into that of depravity and sin. Specific diseases would have to be separately treated, until their nature, and the poisons that produce them, are better known. They will then be spoken of with certainty under Toxicology, or fall naturally into their places with the rest in the rank and file. Quixotic as this attempt at classification may be thought, let it pass; and with it the reference to the active condition of modern medicine.

There still remains time for a few words on medical logic, or the instrument by which safety and progress may be ensured in connection with activity. Dr. Barclay has patented a break which, when roughly used, will bring up almost any train of reasoning so suddenly, indeed, as to risk the life of the driver. Let us use it to test the breaking force of really good arguments. Each argument consists essentially of four steps—two inductions and two deductions. The first induction consists in the collection and classification of instances, and must be distinguished from mere statistics. The first deduction consists in the happy suggestion of a theory by which all the apparently conflicting facts may be explained. This is generalisation. Then we have the second induction, or crucial experimentation, and the second deduction, *i.e.*, the application of the discovered law to the solution of difficulties, which is the crowning triumph of the whole. Many so-called arguments break down at starting, as, *e.g.*, all purely statistical calculations—where the purpose is to determine averages, not invariable consequents, *i.e.*, to determine what will happen to the greatest number, not what must happen to the individual. Dr. Gull's report of cases of rheumatic fever treated by mint water alone, *i.e.* (if it be not a bull), with taraxacum also, and often with brandy and opium, must be classed as statistical; for, though the cause of the comparatively brief sojourn of the patients in the hospital is suggested, it is not by any means proved. The cases were very much of one class, though not selected; and it may have been that a discovery that they were being made the subjects of experiment tended to hasten their departure. Mere numbers, without classification, are most uncertain. In 1864 Dr. Whitehead demonstrated by statistics that the rate of mortality in Manchester and other manufacturing towns was less than that of cathedral and country towns. But this by no means proved that manufacturing towns are favourable to longevity, because of the existence of an important disturbing cause, which Dr. Arthur Ransome and Mr. Royston were not slow to point out, viz.:—the considerable influx of healthy adults from the country into the one and not the other. In an essay published a short time ago by our colleague, Dr. Morgan, the same subject is taken up and amplified, and a high death-rate is associated with great "danger of deterioration of race," and special causes existing in large towns. Here possible causes are suggested, and future inquiry directed, which are the legitimate fruits of statistics. We have yet to try the suspected parties, in order to assign to each his special share in the crime. Then, when we proceed to classify, there is the ethical danger of only collecting favourable cases, a practice which is often as involuntary as table-turning. In Mr. Aspland's presidential address before the Manchester Statistical Society in 1863 proofs were given of this source of error, even in the statistics which formed

the basis of the Diseases Prevention Act. To be logical, all possible series should be collected, whether favourable or unfavourable, especially separating those in which a suspected cause is present or not; and then some hypothesis or theory has to be framed to hold all together. This is the second stage, or the first deduction, and differs wholly from reckless guessing, though often it is strikingly bold. Dr. Mayo, in his *Outlines of Medical Proof*, calls it the extemporaneous hypothesis, when, in the absence of some recognised law, the mind craves some intelligible ground of immediate action. He adds: "It is the faculty of thus extemporising, which perhaps, more than any other, distinguishes an able physician, provided it be combined with a just appreciation of the value of such hypothesis, and a readiness to abandon it in the presence of contravening facts. A capacity and readiness in executing this process is, indeed, sometimes a source of reproach to us, as practising a merely conjectural art, by those who are unable to distinguish the results of luck from those of sagacity; and sometimes physicians, with a false modesty, humour the imputation. Although in its immediate application conjectural, the power which I speak of demands an original talent, and is never successfully carried into practice, except by men of large acquired knowledge." Whenever a *vera causa* can be chosen, the need of this "bold guessing" is at an end, and we may proceed at once to test the applicability of the known law to the question in hand. This is the second induction, the *experimentum crucis*, or the method of "induction by exclusion"—a method, which Dr. Mayo argues, is for the most part impracticable in the complex questions of medicine. In chemistry, he says, crucial experiments may be made, but in medicine the attempt to attain too much may end in the distrust of reasoning altogether. A crucial experiment is, in fact, impracticable in complex questions when not analysed, but even in medicine it may surely be employed by those who, like expert rope-walkers, make sure each step. Dr. Barclay has not overlooked the difficulty, and explains it under the head of empirical laws, as distinguished from those which are absolute. An empirical law expresses only an imperfect knowledge of cause and effect. There are either more causes than one in action; or we are ignorant of some of the intermediate steps of causation; or both.

That this is the case in epidemics, in a very great measure, will be admitted by all; and in his criticisms of medical logic, Dr. Barclay has fixed upon epidemics as those diseases in the discussion of which the greatest number of mistakes has been made. Epidemics are confessedly the most complex of all diseases; but cannot the bundle of sticks be unbound, so that we may try our strength on each single stick at a time? Let us seek illustrations in the cattle-plague and in cholera. With reference to the first, we have not to travel one hundred miles from home, for the honour of our school is directly involved. The researches of our colleague, Mr. Stone, on the causes of mildew, being chiefly chemical, have admitted of the exactest tests, and have received public acknowledgment. How far can his use of chlorine, as a disinfectant of the cattle-plague, be fairly viewed as a crucial experiment? The phenomena of the cattle-plague have been most complex. During the hundred and twenty years that have elapsed since the last epidemic, almost all the ordinary and extraordinary conditions of decomposition must have existed again and again; and yet there has been no disease. Now that it is present, the healthiest cattle, in the cleanest shippons, have suffered; and the most sickly, in the dirtiest shippons, have escaped. Many have died where all known disinfectants have been tried; and, close by, many have escaped, though nothing has been done. In such conflicting circumstances, we are obliged provisionally to assume that the disease is due to a specific poison—to a something which is beyond either physical or chemical demonstration—the epidemic force, it might be called; or, most truly, "a pestilence that walketh in darkness." For, whether is the cause a poison, or a ferment, or an imponderable force, like electricity? The contagiousness of the disease, so far as it is made out to be contagious, seems to point to some *materies morbi*; but whether this is a chemical compound, gaseous or otherwise, or whether it consists in germinal living molecules, or whether there are cells or animalcules, remains unknown. As Dr. Lionel Beale says, we may talk of zymosis or fermentation, and we understand the fermentation of starch; but, as a term used to explain specific poisons, fermentation needs itself explaining. The apparent failure of antiseptics, as carbolic acid, and of disinfectants, as chloride of lime, might well be considered as crucial tests, demonstrating the non-existence of organic or oxidisable matter; but Mr. Stone doubted the completeness of the tests, and repeated the experiments, excluding the probable sources of error. Let chlorine be generated continuously, and in quantity equal to the infected matter, and the spread of the cattle-plague, he boldly affirmed, must be prevented, if due to any destructible *contagium*. The experiments were conducted on a large scale, as, on the 27th of February last, Mr. Stone was officially appointed by the Salford Hundred Cattle-Plague Committee to advise and direct the officers appointed to carry out the provisions of the Cattle Diseases Prevention Act. And the results have been most satisfactory, according to the repeated testimony of the magistrates of the Hundred. By the end of April, the disease may be said to have disappeared; whilst, according to the average duration of epidemics, and their parabolic-like rise and fall, we might have been even yet only hoping to see the end. The very exceptions have proved the rule. In one case, the chlorine had not been generated; in another, M'Dougal's powder had been used at the same time, and had prevented the action of the chlorine; and in another, a large obstructed and non-disinfected drain was discovered. But the cessation was, after all, due to natural causes, it may be said. No! for, as if to make a comparative experiment, the authorities in Garstang declined to use the chlorine, and here to this day the disease continues. Surely this is a chemical stamping out of the cattle-plague, and a demonstration that the spreading of the disease is due to some oxidisable or decomposable *materies morbi*. If so, the law should bear fruit, by a second act of deduction. Wherever we know, or suspect, the presence of any organic or animal poison, as in hospital gangrene, erysipelas, and puerperal fever, and in all contagious diseases, as typhoid, typhus, and scarlatina, let the products of the union of hydrochloric acid and chlorate of potash, viz., chlorine, chlorous acid, and oxygen, be fairly tried.

Shall we proceed to test by the same rules what amount of really good work has been done in the cholera-field? And, as Dr. Johnson has received a fair share of criticism, we need not scruple to single him out for illustration. It will be admitted that Dr. Johnson is no mere statistician. Everywhere he has sought out probable cause and effect, and he makes no selection of cases. Everywhere, too, he has proceeded step by step; and, before suggesting any new theory, has taken special pains to show the inconclusiveness of the old. For instance, the old theory of the collapse in the cold stage affirmed that

it was exhaustion from loss of the serous portion of the blood. The first inquiry, then, is, Does this theory explain the phenomena? To this there are three answers. 1. In *cholera sicca*, and cases approaching to it, there is most collapse and the least loss of serum. 2. The symptoms of collapse differ in a striking manner from those of exhaustion. And 3. Collapse is often relieved by bleeding in a way that fainting never is. Then Dr. Johnson throws down the gauntlet, and proposes a crucial test. He says: "I challenge the advocates (of the theory that the collapse is due to the loss of serum) to refer to a single case of recovery from collapse in which the intestinal discharges have not continued, in a greater or less degree, while the symptoms of collapse were passing off." This challenge remains unaccepted; for assuredly it is not met by Dr. Barlow's relation of the death of an eminent surgeon in 1849, who perished in collapse, though coupled with incessant diarrhœa. Dr. Johnson never questions the fact of death in spite of free evacuations, but asks for one case of recovery without evacuation. To have cleared the ground thus is no slight matter, for now very few confound collapse with syncope. It is asphyxia proper, or pulselessness, from obstruction in the smaller pulmonary arteries. This is admitted as a very general fact by all. How, then, do they become obstructed? By inspissated blood, by fibrinous plugs, or by spasm? The relief obtained by the injection of hot water into the veins appears to decide what answer should be given. Cold injections would almost equally dilute inspissated blood; neither hot water nor cold would remove plugs; but heat does relieve spasm. Still, Dr. Handfield Jones has brought forward cases which show that the systemic circulation is equally, if not more, arrested than the pulmonic; that the lungs are sometimes engorged; and that, when anæmic, their roots are sometimes empty, as well as the cavities of the heart also, in a great degree. These facts would be conclusive evidence against obstruction in the smaller branches of the pulmonary artery being an invariable antecedent and cause of collapse, were they not capable of explanation. It is the rule, however, for the anæmic lungs speedily to become engorged; and the empty heart may have been due to asthenia or exhaustion, which has been admitted as an occasional proximate cause of death. We may, then, still accept spasm as a sufficient explanation; and the interesting experiments of Hales and Mr. Blake demonstrate spasm to be a *vera causa*. That the spasm of the vesels is brought about by the vaso-motor nerves, Dr. Johnson recognises as a well known fact; but we must all admire his wisdom in stopping at the blood rather than the nerves, as chemical phenomena are so much more tangible than vital. The term poison Dr. Johnson advisedly used in the most general, *i. e.*, the most indefinite sense. He thinks ferment to be equally appropriate; and, as there is good reason to suspect the contagious character of the evacuations, no one would wish to lock them up in the bowels. This is, at least, legitimate provisional assumption; and, as to the use of castor-oil, that has as yet seemed the most feasible remedy; but, as to discovering a cure, Dr. Johnson expressly affirms that he has no hope. Instead, then, of deciding that the castor-oil treatment of cholera can only be submitted to statistical proof, may we not maintain that the investigation which has suggested its use has been carried out, step by step, as fully and as legitimately as the strictest rules of logic require? We know exactly where certainty ceases, and what supposed laws still require proof. But the exigencies of the case call for action, and we owe much to those who show so clearly the practical course most likely to be successful.

In conclusion—in science, as in politics, there are conservatives and progressists. Excess in either direction is dangerous. We need the union of the two. Conservatism in excess is retrogression or stagnation; progression in excess is precipitation and anarchy. Here also, then, let us seek the happy medium; and, in the harmony of all the voices of Nature, we shall find equal delight and reward.

Association Intelligence.

REPORT OF MEETING OF COMMITTEE OF COUNCIL:

Held at Birmingham, October 4th, 1866.

PRESENT—Dr. Sibson, F.R.S. (in the Chair); Mr. Bartleet; Mr. T. H. Bartleet; Dr. Bryan; Mr. Burrows; Mr. Clayton; Dr. Falconer; Mr. May; Dr. Richardson; Dr. Simpson; Mr. Heckstall Smith; Mr. Southam; Dr. Stewart; Professor Stokes, M.D.; Dr. Edward Waters; Dr. Wilkinson; and Mr. T. Watkin Williams (General Secretary).

Resolved—

1. That Dr. Markham's resignation be accepted with much regret; and that he be requested to continue the Editorship of the JOURNAL until the 1st of January 1867.

2. That a Subcommittee be appointed to decide what steps shall be taken relative to the appointment of an Editor of the JOURNAL, etc.

3. That Sir Dominic Corrigan, Bart., M.D., be requested to deliver the Address in Medicine at the next annual meeting.

4. That the annual meeting commence on Tuesday, the 6th of August 1867.

5. That the subject of the next Hastings Medal be for *original* research on some therapeutical agent.

6. That a sum of £25 be granted from the funds of the Association to a Committee to be appointed by, and under the direction of, Professor Hughes Bennett, M.D., to investigate the action of Mercury on Animals.

T. WATKIN WILLIAMS, *Gen. Sec.*

Birmingham, October 10th, 1866.

WEST SOMERSET BRANCH: INTERMEDIATE MEETING.

THIS meeting was held at Clarke's Castle Hotel, Taunton, on Wednesday, September 26th, at 5 P.M.

There were present:—H. Alford, Esq., S. Farrant, Esq., G. Gillett, Esq., W. M. Kelly, M.D., W. Liddon, M.B. (Taunton); F. W. Browne, Esq. (Ilminster); W. L. Winterbotham, M.B. (Bridgewater); and R. Nash, Esq. (Hatch Beauchamp).

After dinner, at which Mr. Alford presided, in the absence of the President, Mr. Burt, the following communications were made.

1. A Case of Dislocation of the Fourth Cervical Vertebra. By W. L. Winterbotham, M.B.

2. A Case of Excision of the Head of the Femur. By W. Liddon, M.B.

3. A Case of Congenital Imperforate Rectum. By W. Liddon, M.B.

The morbid preparations of the last two cases were shewn by Mr. Liddon. Dr. Kelly also shewed a diseased bladder and prostate.

SOUTH MIDLAND BRANCH.

The autumnal meeting of the South Midland Branch will be held at the Swan Hotel, Leighton Buzzard, on Wednesday, October 17th; E. Lawford, M.D., President, in the Chair.

Gentlemen intending to read papers or cases are requested to send their titles to Dr. Bryan, Northampton, before October 4th.

J. M. Bryan, M.D., Northampton. } *Hon.*
G. P. Goldsmith, Bedford. } *Secs.*

September 21st, 1866.

SOUTH EASTERN BRANCH: WEST KENT DISTRICT MEETINGS.

The next meeting is appointed to be held at the West Kent General Hospital, Maidstone, on Friday, October 26th, at 2.30 p.m. Frederick Fry, Esq., will take the chair, and will be pleased to see his numerous friends.

Dinner will be provided at the Star Hotel, at 4.45.

Papers have been promised by Dr. J. V. Bell, "Ague in connection with Gout"; by Dr. S. Monckton, "On Brain Disturbance in the course of Rheumatic Pericarditis".

Frederick J. Brown, M.D., *Hon. Sec.*

Rochester, October 9th, 1866.

SHROPSHIRE SCIENTIFIC BRANCH.

The annual meeting of the above Branch will be held in the Museum of the Natural History Society, Shrewsbury, on Wednesday, October 24, at 3 o'clock. The general business will be then transacted, and several interesting papers read, etc. Edward Burd, M.D., President; William Newman, M.D., St. Martin's, Stamford, Vice-President.

The members will dine together at the Raven Hotel at 5.30 p.m.

Samuel Wood, *Honorary Secretary.*

Shrewsbury, October 8th, 1866.

Correspondence.

FOWLER'S SOLUTION OF ARSENIC IN LUPUS.

Letter from Edwyn Andrew, M.D.

Sir,—Numerous professional engagements have prevented me replying to the remarks of my old fellow-student, Dr. Fox, on my case of lupus; which certainly tend to convey an impression not intended by myself.

I am not an advocate *generally* for large doses of arsenic, as I quite endorse the pertinent remarks of Mr. Hunt on the use of this drug; but to say that I blindly follow any one rule in the treatment of disease, instead of examining each case on its individual merits, would be to become a mere imitator instead of a scientific observer.

The excellent suggestions of Mr. Smith on arsenic in cancer induced me to mention my case at the Chester meeting. To more clearly state it. It was a deep lupoid ulcer reaching to the bone on the side of the nose, extending slightly to the forehead and into each lid at the inner commissure, being merely separated from the conjunctiva by a couple of lines of tissue.

The disease was of some years' duration, but had recently become more active; and its advance towards the eye caused her to seek my aid, and she stated she was always taking medicine and had had external applications innumerable; the latter, according to her opinion, being always injurious.

I wished particularly to prevent the disease passing into the orbit; and omitted purposely the use of caustics (of which I have had considerable experience, with the exception of carbolic acid), lest the little boundary should be destroyed; and determined to put the system under the influence of arsenic, which, if pathologically wrong, is very often empirically right.

One or two days after my note in August, the tarsi and conjunctivæ became irritated, and the dose of Fowler's solution was at once reduced to ten minims two or three times a day.

The word toleration used by Dr. Fox is scarcely happy—would not antagonistic be rather more correct. The moment the system decidedly shows arsenical influence, it will stand large doses no longer; and at this time I always reduce them greatly. If there were what is generally called tolerance, the non-susceptibility would continue.

My patient certainly took a very large quantity of arsenic, but not quite so much as Dr. Fox states; for, if he refer to my letter, he will see, "generally taken three times a day, after food"; and, therefore, it sometimes only amounted to two doses, as she was strictly ordered only to take it after solid food, and not after a mere cup of tea, which is often designated a meal.

With regard to the bad effects from the omission of large doses of arsenic after the exhibition for any length of time, my limited experience cannot quite contradict; but certainly I am disposed to such a conclusion; and Mr. Hunt, who has had more experience in arsenic than any other man, totally denies it. (See note to page 22 of his book.)

Most medical men are aware of the bad effects of arsenic if it is not watched; but I have never seen any such as long as the conjunctiva was white, the sleep good and refreshing, the bowels not irritable. Attend to these points strictly, and I do not think one will have to regret even large doses in certain cases.

Small doses are certainly to be preferred to large ones; but, at the same time, I believe that some exceptional cases are greatly benefited by large doses up to a certain point—*i.e.*, indication of the arsenical influence; after which the ordinary small doses may be continued.

Treatment, it is to be feared, is far more based upon empiricism than pathology. Would it were otherwise; as it would render medical science a much more practical one; and I certainly consider (in spite of Dr. Fox) arsenic one of the most valuable agents in the treatment of lupus, and will often cure it alone, without any external application whatever; as may be seen by reference to the cases of this disease treated by Mr. Hunt.

Caustics, undoubtedly, are most important in a great number of cases; but when there is a tendency to form a dry scab protective of the surface of the ulcer from the air, my advice would be not to use them, as the healing will then often take place underneath by the simple administration of arsenic.

In those cases where a liquid caustic or a solid one that can be suspended is desirable, I have found the atomiser most useful for the purpose, as the smallest portion may be thus diffused almost over any extent of surface.

To sum up. I do not think that either my experience, or even Dr. Fox's, is sufficiently great to lay down any law to the profession as to the treatment of lupus, which, I fear, in too many instances, is just as

intractable as it was in my student's day. I merely wish to add my mite; and repeat what I said in my first note, that in my practice certain cases have greatly benefited by large doses, and hitherto without any of the bad effects prophesied by Dr. Fox.

In conclusion, it would be most important if Dr. Fox, or any other physician, would inform us how to obtain the beneficial effects of arsenic in a shorter period of time; for the small doses and long courses recommended by Mr. Hunt, who, by the bye, strongly objects to the large doses, unfortunately wears out the patience of too many patients.

I have my own views of this subject, and hope to lay them before the profession at some future time when I can support the same by a sufficient number of facts. I am, etc.,

EDWYN ANDREW.

Castle Street, Shrewsbury, Sept. 26, 1866.

MANAGEMENT OF THE PEDICLE IN OVARIOTOMY.

LETTER FROM I. B. BROWN, ESQ.

SIR,—In your number of the 6th inst., you give a report of Mr. Spencer Wells's "Clinical Remarks on Different Modes of Dealing with the Pedicle in Ovariotomy." Allow me to make a few remarks on Mr. Wells's mode of dealing with certain facts. After describing his method of treating the pedicle in the two cases alluded to in his paper, he says: "I might have compressed the pedicle by a needle or wire, or applied the *écraseur*, or used the actual cautery, or that combination of compression or crushing by a clamp and searing by the actual cautery, for which we are indebted to Mr. Clay of Birmingham, and which has been adopted of late, with much success, by Mr. Baker Brown." A little further on, Mr. Wells alludes to the combination of crushing and cauterisation as "an improvement due to Mr. Clay, for which he has certainly not received due credit." And, again, Mr. Wells says, "Mr. Clay of Birmingham introduced the practice, and carried it out by his 'adhesive clam' and hot irons." What are the facts?

In the number of the *Medical Times and Gazette* for June 14th, 1862, there is described the operation of ovariotomy, as performed by Professor Clay, in which for the first time is mentioned the new instrument, which he called his "adhesion clam"; but not a word is said about the application of this clam to the pedicle. Dr. Dewes says, in his report of the case, "Mr. Clay had provided himself with an instrument, a species of clam, which he had invented for dividing the adhesions, had they proved too strong for separation by the hand alone." Then, to show how the pedicle was treated, the report goes on to say: "The pedicle, which was very long, was easily secured by a clamp, and the tumour cut away..... The pedicle, with the clamp on, was secured at the lower angle of the wound." In the number of the *Medical Times and Gazette* which followed the report of this case, Professor Clay, in consequence of numerous inquiries respecting it, described his "adhesion clam", with drawings of the instrument.

Now, sir, it is of little moment to me whether Mr. Spencer Wells chooses to ignore or to adopt a method of securing the pedicle which has been followed by most satisfactory results; but I cannot allow him so to place the matter before my medical brethren as to lead them to infer that I had nothing whatever to do with it except as a successful operator. I am quite as anxious as Mr. Wells can be to accord due credit to Mr. Clay; and I know Mr. Clay is quite satisfied with what I have said on former occasions in reference to the "adhesion clam." At the same time, I must claim for myself whatever credit is due for being the first to use a particular kind of clamp along with the actual cautery to the pedicle. This clamp has been described in the *Lancet*, and is similar to the clamp used in the spaying of sows. Allow me to refer your readers to the *Transactions of the Obstetrical Society* for 1865. At p. 28, they will observe a paper read before the Society, "On a New Method of Securing the Pedicle in Ovariotomy," by myself. I will quote briefly from that paper. "Having repeatedly used the actual cautery of late, employing Professor Clay's instruments, in burning adhesions off the omentum and elsewhere, Mr. Brown had been gradually led to the conclusion, that the actual cautery might be employed in treating the pedicle itself. Consequently, on December 28th, 1864, he tried it on a patient of Dr. Burchell of the Kingsland Road, a lady, 47 years of age, who had had three children, the youngest twenty-one years since. There were many adhesions, laterally and posteriorly, the bleeding from which was checked by the actual cautery; and finally, the pedicle, being secured by a clamp, was thoroughly seared by actual cautery and allowed to drop. The wound was then closed in the usual way, and it healed in a week; the patient being convalescent in a fortnight. Mr. Brown thought that, if this plan were found by repetition to be successful, it would very materially lessen the dangers of the operation, and consequently secure a greater number of recoveries."

Since the foregoing case, I have reported, within the last twelve months, in the *Lancet*, in the *Transactions of the Obstetrical Society of London*, and at the meeting of the British Medical Association at Chester, as reported in your JOURNAL, thirty-one successful cases. These go some way to prove that my plan of operating has, as was predicted of it, very materially lessened the dangers of the operation. But my experience has brought me to the conclusion that, in ovariotomy, success depends not more upon the nature of the instrument used than upon the mode of its application. I am, etc.,

I. B. BROWN.

24, Upper Harley Street, Cavendish Square, Oct. 10th, 1866.

REPRESENTATION OF THE PROFESSION IN PARLIAMENT.

LETTER FROM WILLIAM MARTIN, ESQ.

SIR,—On looking over the report of the discussion (at our Chester meeting) following Dr. Mackesy's motion regarding the representation of the medical profession in Parliament, I find that no notice was taken of some remarks I made—to the effect that our profession should have representatives, sitting as peers, in the Upper House. I adverted to the fact that lawyers sit in that House, being especially called thither in order to transact the legal business coming before that, the highest legal tribunal in the country; and that the clergy sit there, being especially called, as bishops, to attend to the spiritual and moral interests of the country; or, at any rate, that those may be presumed to be the legitimate functions performed by those bodies respectively. To this view, I conceive that it is not a sufficient objection to say that the admission of medical members into the Upper House is a practice unknown in our political constitution. It is only now that the subject of the public health is considered as meriting the earnest attention of Government and the Houses of Parliament. The next step probably will be, that it will be found advisable to have members of one of these Houses capable of giving the fullest information on all matters relating to the public health. I see

almost insuperable difficulties in the way of the most efficient medical health-advisers finding their way, by popular election, into the House of Commons; but I see no such difficulties in the way of their being admitted into the House of Peers. Once let the necessity of Parliament containing some advisers of the highest authority in sanitary, medico-legal matters, etc., be evident, and, in due course of time, all difficulties would be overcome; and it is for a body like the British Medical Association to point out this necessity. Difficulties would vanish in the course of time. For instance, medical peers might be called up for their lifetime. Should there ever be the will in the highest quarters, the way will be found. In the meantime, Dr. Mackesy's motion and the subsequent discussion will have done service in directing attention to a very important subject.

I am, etc., WILLIAM MARTIN.

ON WASHING OUT THE BLADDER IN CASES OF RETENTION OF URINE.

LETTER FROM W. F. MORGAN, ESQ.

SIR,—I have often been struck with the great benefit derived from washing out the bladder in certain cases of retention of urine; and, as the importance of that part of the treatment does not seem to be universally recognised, I have thought it not amiss to send you a short communication, bearing my humble testimony to its value, and urging its adoption wherever indicated.

Every medical man is familiar with examples of chronic cystitis; the urine ammoniacal and highly offensive, and loaded with pus and ropy mucus; and the patient gradually wearing out from local and constitutional suffering. The most typical one, probably, is in enlargement of the prostate, occasioning frequent desire and increasing difficulty of micturition, until, sooner or later, the catheter is required. The first time this instrument is used, it is not unlikely that the patient may be surprised at the amount of urine drawn off—fancying, from the frequent discharge of small quantities, and from the presence, perhaps, of the additional annoyance of stillicidium, that there could not be much accumulation. With regard to the latter, how true is the remark of Mr. Henry Thompson, that "incontinence of urine in the adult indicates a distended, and not a contracted bladder." I once met with a remarkable illustration of this in a gentleman of middle age, whom I was asked to see for a tumour of the abdomen, which had commenced some months previously, and was then like a pregnant uterus at full time. As he was an imbecile, I could obtain only an indirect history. He had kept his bed for several weeks; and the state of the bed, and of the floor beneath, gave ample evidence of incontinence of urine. The introduction of a catheter removed no less than ten pints of water! and the tumour was gone. May I venture to ask, Is not the surgeon himself sometimes under the impression that he has *emptied* the bladder with the catheter? Does he always bear in mind that, with the ordinary curved instrument, there must be necessarily some residuary urine?

Now, it is just this residuary urine which, in chronic cystitis, does so much mischief when retained. It acts as a ferment, and leavens the whole secretion with irritating and truly poisonous material; and it is by removing this foul and fœtid residuum that the injection of water becomes so beneficial. The catheter having relieved the bladder as much as it is able to do, the water mixes with and dilutes the remaining urine, and washes away with it the chief part of the ammoniacal muco-purulent sediment; the fluid which must be left behind after the washing being comparatively harmless. There is no need of a double catheter. The same instrument, with an elastic bottle fitted with a small conical nozzle, will answer every purpose. The water should be of the temperature of the body, not exceeding three or four ounces at a time, and be injected *very slowly*, the injection being repeated until the water passes off clear.

There is a similar state of things liable to occur in the female bladder, in the manner first pointed out, I believe, by the late Dr. Golding Bird. In cystocele, a pouch forms in the anterior part of the vagina, containing residuary urine, which can only be emptied by the catheter, and which may be the receptacle of fœtid ammoniacal fluid, demanding the same treatment.

The injection of warm water is applicable to all cases of retention where the urine decomposes in the bladder. In that which results from disease or injury of the spinal cord, its adoption as soon as any ammoniacal tendency manifests itself will remove a great additional source of danger.

I am, etc., W. F. MORGAN.

Bristol, October 6th, 1866.

RECENT IMPROVEMENTS IN SURGERY.

LETTER FROM J. G. DAVEY, M.D.

SIR,—The letters of Messrs. H. Greenway and W. P. Swain, in the last number of the JOURNAL, headed "Recent Improvements in Surgery," remind me that "suction-instruments" (of a kind) for the "removal of cataracts" have been for generations in use, though not, perhaps, in Great Britain, nor in Europe.

The Cingalese (native) surgeons have been in the habit, from time immemorial, of employing suction by the mouth in the removal of cataracts, hard and soft.

The mode of operating—as described to me some twenty years since by a native practitioner then residing near Colombo—is this. The patient being placed in the semirecumbent posture on a couch or sofa, the surgeon, standing at the head, rests, simply, the cutting part of the knife—which is of a rude triangular shape, becoming broader and broader as it reaches what may be called the apex of the instrument—on the cornea, and (strange though it seems) directly in front of the pupil. The mere weight of the knife opens the anterior chamber; when, on the escape of the aqueous fluid, the operator applies his mouth over the eye, and sucks up the cataract.

I may add that medical practitioners (Cingalese) called now and then at the Colombo General Dispensary, to witness my own operations for cataract—performed, as they were, in the ordinary way—with the view only of comparing with them their own modes of manipulation and extraction of the opaque lens—or, what is the same thing, their own not recent but old-fashioned practice.

Apropos to this matter, permit me to quote these words from the admirable address delivered, a few weeks since, at Edinburgh, before the Medico-Psychological Association, by Dr. W. A. F. Browne. "The study of the literature of medicine has become absolutely imperative, were it for nothing else than to prevent re-discoveries, and the prosecution of inquiries long since exhausted." I am, etc.,

JAS. GEO. DAVEY.

Northwoods, near Bristol, Oct. 8th, 1866.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND. The following members of the College, having been elected Fellows at previous meetings of the Council, were admitted as such at a meeting of the Council, on October 11th.

Collins, John Hammett, Jumalpore, East Indies; diploma of membership dated July 26, 1839.
Cumming, Robert Butterfield, M.D. St. Andrew's, Malpas, Cheshire; June 16, 1835.
Hallsworth, Samuel Marsden, Atherstone, Warwickshire; October 2, 1840.

APOTHECARIES' HALL. On October 4th, 1866, the following Licentiate was admitted:—

Smith, Henry, Blackrod, near Chorley, Lancashire

At the same Court, the following passed the first examination:—

Anderson, William, St. Thomas's Hospital
Fawsitt, Thomas, Royal Hospital, Manchester
Prior, Richard Henry, King's College Hospital
Waller, Arthur, St. Thomas's Hospital

APPOINTMENTS.

ARMSTRONG, Dr. A., Deputy Inspector-General of Hospitals and Fleets, has been appointed Honorary Surgeon to Her Majesty, in the room of the late Dr. T. R. Dunn.

EDWARDS, H. N., Esq., appointed Surgeon to the Shrewsbury Dispensary, *vice* H. Fenton, Esq., resigned.

PARSON, Edward K., Esq., appointed by the Admiralty to be Visiting Surgeon at Portsmouth under the Contagious Disease Act of 1866.

ARMY.

CURTIS, Staff-Assistant-Surgeon J. L., to be Assistant-Surgeon 18th Foot, *vice* H. A. Coghlan.

HUTTON, Assistant-Surgeon G. A., 60th Foot, to be Staff-Surgeon, *vice* E. H. Roberts.

KILROY, Staff-Assistant-Surgeon P. L., to be Assistant-Surgeon 60th Foot, *vice* G. A. Hutton.

PEAKE, Surgeon G. W., M.D., 18th Foot, to be Surgeon 40th Foot, *vice* J. E. Young, M.D.

ROBERTS, Staff-Surgeon E. H., to be Surgeon Royal Regiment of Artillery, *vice* H. W. Voss.

SMITH, Staff-Assistant-Surgeon W. P., to be Assistant-Surgeon 35th Foot, *vice* D. M. Davidson, M.D.

YOUNG, Surgeon J. E., M.D., 40th Foot, to be Surgeon 18th Foot, *vice* G. W. Peake, M.D.

To be Staff-Assistant-Surgeons:—

COGHLAN, Assistant-Surgeon H. A., 18th Foot, *vice* R. M. Gilchrist, M.D.
CORBETT, Assistant-Surgeon W. H., M.D., 6th Dragoons, *vice* J. L. Curtis.
DAVIDSON, Assistant-Surgeon D. M., M.D., 35th Foot, *vice* W. P. Smith.
POWER, Assistant-Surgeon J. L., 97th Foot, *vice* P. L. Kilroy.
ROBINSON, Assistant-Surg. W. C., 34th Foot, *vice* D. P. Ross, M.D.

COULT, E. F.	LAMBERT, R.
BROWN, H. T., M.D.	M'CRYSTAL, E., M.D.
BUCHANAN, R. F.	M'CUTCHAN, J. S., M.B.
BURNETT, W. F.	M'PHERSON, R. N.
COMERFORD, H., M.D.	MARTELLS, W. G.
EATON, R. C.	NOTTER, J. L., M.B.
FORBES, W. A.	PATTERSON, T. W.
HANNAGAN, J. H.	ROONEY, J. P.
HOBBS, H. A.	RYAN, M. J.
HODDER, F. L. W., M.B.	STEVENSON, W. F., M.B.
JAMES, H. N. L., M.D.	THOMPSON, W. A.
JENNINGS, U. A., M.D.	WRIGHT, J. H.

MARRIAGE.

COOPER, the Rev. Arthur Henry, M.A., eldest son of *Sir Henry Cooper, M.D., of Hull, to Isabella Jean Reynolds, fourth daughter of Captain W. F. BAKER, at St. Andrew's, Islington, on October 6.

DEATHS.

FREEMAN, John Henry, Esq., Surgeon, at 361, Mile End Road, aged 53, on October 3.
MURDOCH, William, M.D., at Rotherhithe, aged 60, on October 9.
POWER, J. J., M.D., at Maidstone, aged 59, on October 5.

M. ROSTAN, Honorary Professor of Clinical Medicine in the Paris Faculty of Medicine, died on the 5th instant, in his seventy-seventh year.

IRISH POOR-LAW INSPECTORSHIP. The vacancy caused by the resignation of Dr. Purcell in the inspecting staff of the Irish Poor-law promises to be warmly contested.

UNIVERSITY OF CAMBRIDGE. The Professor of Anatomy gives notice that his course of Lectures on Human Anatomy and Physiology will commence on Tuesday, October 23rd, at 1 P.M., and will be continued on Tuesdays, Thursdays, and Saturdays, at the same hour.

THE NAVAL MEDICAL SERVICE. The *Navy List*, published on the 1st instant, shows that only two assistant-surgeons joined the service during the last quarter, and as two others resigned their commissions during the same space of time, the service is no better off in respect to a supply of medical officers than it was on the 1st of last July.

NEWCASTLE COLLEGE OF MEDICINE. The following is a list of the successful candidates, to whom prizes were presented on October 1st. *Winter Session*, 1865-6. *Anatomy.*—Medical and first certificate, R. Laing; second ditto, T. O. Wood; third ditto, J. W. Barkas. *Physiology.*—Medal and certificate, R. Laing. *Dissections.*—Medal and first certificate, R. Laing; second ditto, T. O. Wood; third ditto, J. W. Barkas. *Chemistry.*—Medal and certificate, James Gordon Black. *Surgery.*—Medal and first certificate, J. D. Bush; second prize, a pocket case of instruments and second certificate, F. W. Newcombe; third ditto, G. Longbotham. *Medicine.*—Medal and certificate, F. W. Newcombe. *Summer Session*, 1866. *Practical Chemistry.*—Medal and certificate, G. Rowell. *Botany.*—Medal and first certificate, G. Rowell; second ditto, F. S. Higgs. *Materia Medica.*—Medal and first certificate, F. S. Higgs; second ditto, G. Rowell; third ditto, J. G. Black. *Midwifery.*—Medal and certificate, R. Laing. *Medical Jurisprudence.*—Medal and certificate, G. Bolton. *Pathological Anatomy.*—Medal and first certificate, C. D. H. Drury; second ditto, R. C. Newton; third ditto, F. W. Newcombe.

A GOVERNMENT INSPECTOR AT DONCASTER. The Town Council of Doncaster has decided upon asking the Home Secretary to send an inspector to inquire into the cause of the outbreak of cholera in a certain district of the town where there were no less than thirty-one or thirty-two cases. Opinion is divided in the town as to the desirability of such a course; but it seems to be rendered imperative, from the fact that a large bone-depôt has been allowed to exist in almost the centre of the district where the cholera has been most fatal. To the existence of this bone-depôt the cholera has been attributed; but Mr. Fairbank, the medical officer of health, entertains a different opinion. No cases of cholera have occurred during the present week; and it is thought that the sanitary precautions taken have had no little to do with the disappearance of the contagion. The water-supply of Doncaster is very bad, so far as concerns its quality; and, had not the corporation liberally supplied pumps in every part of the town, there is no doubt the public health would have been greatly jeopardised. The water is pumped out of a navigable river, into which a great portion, if not the entire drainage of Sheffield falls; and lower down the stream, the Don, or, its tributaries, Rotherham, Barnsley, Swinton, Rawmarsh, Mexborough, Conisborough, and other populous places, empty all their sewage; and, beside this, water of the dirtiest description, from several of the large collieries in South Yorkshire, is pumped into the river. Should the inquiry have no other result, it is to be hoped that some practical scheme will be devised by which the water-supply will be improved.

Conviction of a Doctor for Protecting his Wife. Dr. Sweeny of Dublin was brought up in custody, charged with having assaulted a police-constable. It appeared that Dr. Sweeny was walking home with his wife at one o'clock in the morning, and the policemen, acting under orders recently given to the metropolitan force with respect to unfortunates, looked curiously at him and his wife, at which he was irritated. A policeman darted out of a laneway, and caught him by the shoulder and his wife by the breast, and asked him what business he had to be going with that young woman at that hour of the night; he then struck the policeman, and told him to begone, saying that the lady was his wife. Dr. Sweeny had to pay a fine of £1 for the assault.

The Faculty of Physicians and Surgeons of Glasgow. At a meeting of this Corporation, held on the 1st inst., the following office-bearers were elected for the ensuing year; viz.: *President*—J. G. Fleming, M.D. *Visitor*—A. Anderson, M.D. *Treasurer*—J. Coats, M.D. *Honorary Librarian*—G. Rainy, M.D. *Vaccinator*—J. Dunlop, M.D. *Councillors*—The President, *ex officio*; the Visitor, *ex officio*; W. Weir, M.D.; A. D. Anderson, M.D.; J. Watson, M.D.; R. S. Orr, M.D.; J. Coats, M.D. *Board of Examiners*—J. Adams, M.D.; G. Buchanan, M.D.; A. Anderson, M.D.; T. Watson, M.D.; W. Lyon, M.D.; A. Buchanan, M.D.; J. Morton, M.D.; R. Perry, M.D.; R. D. Tannahill, M.D.; J. B. Cowan, M.D. *Examiners in Arts*—Professor Ramsay; Dr. Bryce. *Clerks*—L. Hill, LL.D., and William H. Hill. *Librarian and Secretary*—A. Duncan, B.A.

Royal College of Surgeons. The Council has published for a second year the Calendar of the College. The following is an analysis of the work. The Council, or governing body of the College, consists of twenty-four metropolitan and provincial Fellows, selected as vacancies occur from among themselves at an annual meeting in July. During the past collegiate year, there have been thirteen meetings of this body; the oldest member being Mr. Lawrence, elected in 1828. He was admitted a member of the College September 6, 1805, and has twice filled the president's chair. The youngest member of the Council is Mr. Charles Hawkins, the Government Inspector of Anatomy, elected in July last, having displaced Mr. Luke, a twice-elected president. The Court of Examiners consists of ten members, and during the past year have had 54 meetings, and examined for the fellowship 20 candidates, rejecting only one. For the "primary" or anatomical and physiological examination, 497 candidates have been examined, and 136 referred back to their studies for three months. For the "pass," or pathological and surgical examination, 410 have been examined, and 64 rejected for six months. During the year 18 assistant-surgeons presented themselves for examination for promotion to the rank of naval surgeon, all of whom were reported to the Admiralty as having passed to the satisfaction of the Court. The Board of Examiners in Midwifery have had four meetings for the examination of 43 candidates, 36 of whom passed. During the past year only two candidates were examined for the dental diploma, both of whom passed. Mr. Hodgson, having resigned his chair as an examiner, was succeeded by Mr. Quain, who in July last, immediately after his re-election into the council, became a vice-president. In the Midwifery Board Drs. Barnes and Priestley have displaced Drs. Oldham and Lee, and in the Dental Board Mr. W. A. Harrison was elected in the vacancy occasioned by the resignation of Mr. Bell. Mr. Partridge has been elected president, and Messrs. Hilton and Richard Quain have been elected vice-presidents. The examiners in classics, mathematics, and French for the Fellowship of the College have disappeared altogether, and their places supplied by the Royal College of Preceptors, by which body all the preliminary examinations in arts, etc., are now conducted.

Manchester School of Medicine. The following prizes and certificates were distributed at the opening of the winter session on October 1st. *Second year's scholarship* (£15).—Mr. T. H. Pinder; *first prize* (£5 : 5). Mr. F. M. Pierce; *second prize*, Mr. T. Fawsitt; *third prize*, Mr. J. Kershaw; *fourth prize*, Mr. A. O. M'Kellar; *certificate of merit*, Mr. J. Wharton. *First Year's scholarship* (£10). Mr. Wm. C. Barnish; *first prize* (£5 : 5). Mr. J. P. Sleightholme; *second prize*, Mr. T. A. Somerville; *third prize*, Mr. T. Whittington; *certificates of merit*, Mr. C. F. Rigg and Mr. James West Moss. The third year's scholarship, value £20 was not competed for. *Certificates of honour* were awarded to the following pupils: J. W. Moss, J. Fayer, W. C. Barnish, T. H. Pinder, J. P. Sleightholme, J. H. Fletcher, J. T. Fox, R. Patrick, R. C. Wade, C. F. Rigg, S. Buckley, H. W. Boddy, T. Greenhalgh, H. O. Pilkington, J. Porter, H. R. Collinson, S. Marsh, F. M. Pierce, J. Whittington, A. Boutflower, J. Wardley, J. Anderton, T. Fawsitt, A. Steward, J. B. Southam, J. Wharton, and R. W. Williams.

Queen's College, Birmingham. The opening of the Winter Session took place on October 2nd, when the following prizes and certificates were delivered to the successful students. *Descriptive and Surgical Anatomy.*—Medal and first certificate, Mr. H. L. Snow; second certificate, Mr. James Brown. *Practical Anatomy.*—Medal and first certificate, Mr. H. L. Snow; second certificate, Mr. James Brown. *Junior Anatomy.*—Medal and first certificate, Mr. A. J. C. Waters; second certificate, Mr. John Green. *Surgery.* Medal and first certificate, Mr. W. H. Clarke; second certificate, Mr. James Sawyer and Mr. Daniel Bradley, (equal.) *Medicine.*—Medal and first certificate, Mr. Daniel Bradley and Mr. W. H. Clarke, (equal.) *Physiology.*—Medal and first certificate, Mr. W. H. Meredith; second certificate, Mr. Brown. *Chemistry.* Medal and first certificate, Mr. George England; second certificate, Mr. Down. *Materia Medica.*—Medal and first certificate, Mr. T. H. Ravenhill; second certificate, Mr. England. *Midwifery.*—Medal and first certificate, Mr. George England; second certificate, Mr. A. J. C. Waters. *Botany.*—Medal and first certificate, Mr. Thomas Ravenhill; second certificate, Mr. Smith and Mr. Waters, (equal.) *Forensic Medicine.* Medal and first certificate, Mr. Morris; second certificate, Mr. Brown. *Practical Chemistry.*—Medal and first certificate, Mr. England and Mr. Down, (equal;) second certificate, Mr. T. H. Ravenhill. Professor Lloyd presented certificates in the Prosectorship of Anatomy to Mr. Brown and Mr. Snow.

Dry Nursing at Oxford. Some disgraceful disclosures have been made in Oxford of the practices of sending new-born children to dry nurses, where they die of inanition and debility. A nurse named Chard having applied for certificates and registers of deaths more frequently than usual, an inquiry was instituted into the death of a child, committed to her care. The registrar stated that his attention had for some time been directed to the mystery surrounding the birth of children in the care of Mrs. Chard, as also to their frequent death and disappearance. It appeared that the deceased was the illegitimate daughter of a respectable person, the father was unknown, and the baby was registered in an assumed name in order to conceal its parentage. The

coroner's officer described the condition of the house to be filthy in the extreme, and the children there were so emaciated and dirty as to be scarcely recognisable as human beings. The jury returned a verdict to the effect that deceased was found in a house totally unfit for habitation; that it died from debility; that the practice of medical men recommending children to be sent to such a place was censurable in the highest degree.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....Metropolitan Free, 2 P.M.—St. Mark's for Fistula and other Diseases of the Rectum, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TUESDAY. .... Guy's, 1½ P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.

WEDNESDAY... St. Mary's, 1 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.

THURSDAY.....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Great Northern, 2 P.M.—London Surgical Home, 2 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.

FRIDAY..... Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

SATURDAY..... St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1·30 P.M.—Charing Cross, 2 P.M.—Lock, Clinical Demonstration and Operations, 1 P.M.—Royal Free, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

TUESDAY. Pathological Society of London, 8 P.M.

THURSDAY. Harveian Society of London, 8 P.M. Dr. Maudsley, "On Some of the Causes of Insanity."

FRIDAY. Western Medical and Surgical Society of London, 8 P.M. Inaugural Meeting. The President (Dr. Fuller) in the Chair.

TO CORRESPONDENTS.

* *All letters and communications for the* JOURNAL, *to be addressed to the* EDITOR, 37, *Great Queen St., Lincoln's Inn Fields, W.C.*

COMMUNICATIONS.—To prevent a not uncommon misconception, we beg to inform our correspondents that, as a rule, all communications which are not returned to their authors, are retained for publication.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

THE Publisher begs to intimate that orders for JOURNALS sent by post must be accompanied by stamps for the amount. Price of each number is, by post, *sixpence*.

THE *Wien. Med. Woch.* tells us that "Marion Sims is a celebrated London accoucheur."

CHOLERA IN PRISON.—A paper with this title, on Cholera in the Perth Prison, was sent to the Editor some time ago; but the name of the author is not given. Will he oblige us by forwarding it?

BLUE MIST.—SIR: The following extract from the supplement to the *Universal Magazine* of 1747, may interest Mr. Glaisher and some others.

"In 1682, on the borders of Italy, a murrain infected the cattle, which spread into Switzerland, the territories of Wirtemberg, and other provinces, and made great destruction among them. The contagion seemed to propagate itself in the form of a *blue mist*, which fell upon those pastures where the cattle grazed, insomuch that whole herds returned sick home; being very dull and forbearing their food, most of them would die in twenty-four hours."

When the propriety of the formation of a cemetery in Reading was discussed—more than twenty years ago—it was stated that a blue mist might be looked for and seen hovering over one of the churchyards of this town. I am, etc.,

Reading, October 9th, 1866. I. HARRINSON.

SCLOPETARIUM.—A member asks the meaning and derivation of this word, which is used ("Vulnus Sclopetarium") in the Weekly Sick Returns of the Army. The following extract from Dr. Adam Littleton's Latin Dictionary, fifth edition, 1723, will answer our correspondent's inquiry. "Scloppetum, i. *n.*, à Scloppo, sive sono quem edit cùm disploditur: A musket or gun; a pot-gun." "Vulnus sclopetarium" is therefore, simply, "gunshot wound"; and so it is rendered in the table of classification of diseases, etc., given in Aitken's *Science and Practice of Medicine*. In Dr. R. G. Mayne's *Lexicon*, "eau d'arquebusade" is said to have been sometimes called "aqua sclopetaria".

THE MEDICAL CLUB.—SIR: I do not propose to discuss the advantages likely to be obtained by the members of the medical profession from increased social intercourse on terms of perfect equality, for I believe the establishment of *our club* in London may now be looked upon almost as an accomplished fact, though many of our brethren, I find, both in town and country, are waiting till after the proposed meeting under the auspices of Sir William Fergusson, before they give in their names. But it will be wise, both for present and intending members, to consider well the *basis* upon which the club should be formed, *its local habitation*, and *its name*, as these are matters that must be decided upon at the outset, and that will greatly affect the vitality of the institution; and I therefore thus briefly invite an expression of opinion in the pages of our JOURNAL.

I am, etc., B. CHEVALLIER.

Ipswich, October 9th, 1866.

COMMUNICATIONS have been received from:—Dr. FREDERICK J. BROWN; Dr. GILCHRIST; Dr. B. CHEVALLIER; Mr. I. BAKER BROWN; Mr. I. HARRINSON; THE HONORARY SECRETARY OF THE HARVEIAN SOCIETY OF LONDON; Mr. S. WOOD; Mr. THOMAS NUNNELEY; Dr. J. G. DAVEY; Dr. JOHN BARCLAY; Dr. HYDE SALTER; Dr. W. NORRIS; Dr. MONCKTON; Mr. H. N. EDWARDS; and Mr. T. WATKIN WILLIAMS.

BOOKS RECEIVED.

1. Diabetes: its Various Forms and Different Treatments. By George Harley, M.D., F.R.S. London: 1866.
2. Osteology: a Concise Description of the Human Skeleton; accompanied by an Explanatory Atlas of Plates. By A. T. Norton. London: 1866.
3. A Dictionary of Science, Literature, and Art. Part XI. London: 1866.
4. Chromo-Lithography of Diseases of the Skin. By A. B. Squire, M.B. London: 1866.
5. On the Relative Weight of the Brain. By E. Crisp, M.D. London: 1866.
6. Sanitary Measures and their Results. By T. Shapter, M.D., F.R.C.P. Second Edition. Exeter: 1866.

ADVERTISEMENTS.

Christian Medical Association.

—The ANNUAL MEETING is proposed to be held at the Freemasons' Hall, Great Queen Street, Lincoln's Inn Fields, on Friday, October 26th, at 8 p.m.,

CHARLES BROOKE, Esq., F.R.S., in the Chair.

Gentlemen engaged in the study or practice of the profession are invited to attend.

Admission by tickets, by a private card of address, or on the production of a Student's entrance ticket to a Course of Lectures or to Hospital Practice.

J. H. GLADSTONE, Ph.D., F.R.S. } Hon.
HYDE SALTER, M.D., F.R.S. } Secs.

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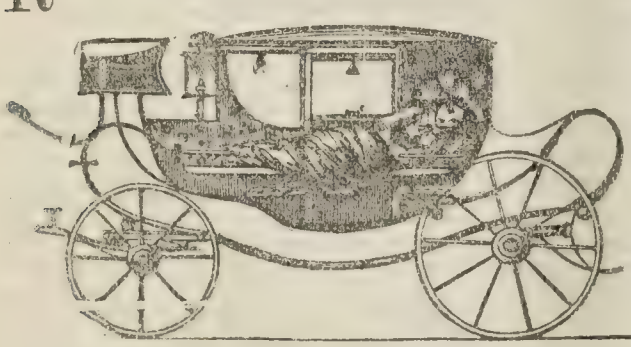
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Jacksonian Prize Essay

FOR 1865.

ON DISEASED CONDITIONS OF THE KNEE-JOINT.

BY

WILLIAM PAUL SWAIN, M.R.C.S.,

SURGEON TO THE ROYAL ALBERT HOSPITAL, DEVONPORT, ETC.

Section III.—Operative Interference.

The progress of disease in the knee-joint must occasionally lead to the positive necessity for its removal. A rapid and acute affection may so depress the vital powers as to call for immediate interference on the part of the surgeon, in order that the patient's life may be saved; or the slower advance of some chronic malady may, little by little, reduce him to such straits as to demand the removal of the disease, lest continuous pain and copious purulent discharges should prove too much for his endurance. Or, again, long continued disease, perhaps ill treated, or entirely neglected, may leave a knee-joint so deformed as to be not only useless, but an absolute encumbrance to its owner. In each and all of these cases, a very grave responsibility rests with the surgeon in deciding, first as to the exact period at which operative measures should be had recourse to, and secondly as to the nature of the operation which should be performed. With regard to the first of these difficulties, Bryant has well remarked, that

"Every surgeon must be able to recall cases where disorganisation of a joint had taken place, whether from disease of the synovial membrane, cartilages, or bones, where the question of amputation or excision had been suggested; and which the patient or his friends had positively refused, and where, to crown all, a recovery had taken place." (*Diseases and Injuries of the Joints,* chap. ix, p. 139.)

That is to say, with an useful ankylosed joint. We must acknowledge the truth of this observation. Even the most acute insight into pathological conditions may yet fail to calculate correctly the power which any given individual possesses to resist disease or to repair its inroads. Nature, if she be fairly treated, will after all do the work of healing more completely than Art can ever hope to do; and it is a sad error to expose a patient to all the risks and distress of an operation, the result of which may, after all, be far inferior to what she herself might have effected. Yet, on the other hand, too long waiting on Nature's offices betrays the timid surgeon. He lets his patient slip from his grasp. His timely aid might have saved a life, although at the sacrifice of a limb; or he might have achieved a still greater triumph, and not only rescued his patient from impending death, but have left him with a limb, not indeed perfect as before, but still most useful for the purposes of locomotion. A day, a week, or a month of too long waiting, and his chance is gone.

Perhaps the second difficulty referred to is the greater one; viz., the nature of the operation which should be performed for the removal of the disease.

Excision of the Knee.

The time was when no alternative existed for the surgeon, except the removal of an incurable knee-joint by amputation through the thigh. How many useful limbs have been thus sacrificed, and are, I fear, still being so, it is impossible to say. It is, however, satisfactory to find that the march of surgical science has provided another means of relief in excision of the diseased articular surfaces of the knee-joint; and the surgeon has now the opportunity of choosing whether he will remove the entire limb by amputation, or only the diseased joint, leaving a sound thigh and an useful leg and foot to his patient.

Great as is this addition to surgical science, I suppose there are few subjects which have caused more professional wrangling and discussion than this one of excision of the knee-joint. More than a hundred years have elapsed since Filkin of Northwich first performed the operation, and during the last fifteen it has been kept constantly under the notice of the profession by one of the most eminent professors of surgery in England, and has been more or less practised in nearly all the hospitals of the United Kingdom. It has been written about, and lectured about. Statistics about it, more or less reliable, have been collected from all parts of the world, and placed before the profession; and yet, in the face of all this, I fear I write but the simple truth when I state that there is very little more unanimity on the subject of knee-joint excision now than there was years ago, when first the dispute commenced. Nor am I inclined to think that this fact arises from any great fault on either side. Its first supporters may have been—I think they have been—too sanguine of success. They have promised a little more for the operation than now that it has, as it were, come of age, it is able to perform. It has been performed in cases, no doubt, unfavourable to its perfect success; and operators have been too hasty in returning as perfect cases those which time has proved to be anything but so. On the other hand, long before it had received a just trial, there was an evident tendency to "write it down". Men who had never performed the operation, some who had never even seen it done, wrote about it and talked about it as if it were one of the most fearful innovations surgery had ever witnessed. I remember well an old and most experienced surgeon, who was intensely prejudiced against the operation. He was present when I excised a joint; and, when the knee was laid open, I heard him remark that it was the most horrible operation he had ever seen. The case did exceedingly well; and I know that my friend has much modified his opinions as to this procedure.

It is really superfluous for me to repeat the oft-told history of this operation. Butcher, Holmes, Hodges, the American surgeon, Professor Fergusson, and the late Mr. Price, have each and all of them laid before the profession most full and interesting details as to its rise and progress. The last named

surgeon has most laboriously collected a large number of cases of excision of the knee from the year 1761 to the end of the year 1860; and he has divided this period into three, thus:

	Cases.	Cured.	Died.	Amputated.	Died.
From 1760 to 1830..	17	 7	 10	 0	 0
„ 1830 to 1850..	9	 5	 4	 0	 0
„ *1850 to 1860..	238	150	 52	 36	 7
Total.....	264	162	66	36	7

The first thing that strikes one in this table is the fact that, whereas in the first two periods 14 deaths occurred in 26 cases, or more than *one-half*, in the last period only 66 out of 264, or just exactly *one-quarter*, died from the immediate effects of the operation. In a foot-note appended to Mr. Price's table by Mr. H. Smith, it is stated that, at King's College Hospital, out of the first 24 cases, exactly one-half died; whilst in the last 29, only 5 deaths have taken place. These facts speak for themselves, and can leave no doubt that a better knowledge of the operation and after-treatment, combined with a more judicious selection of cases, has considerably reduced the mortality attending upon it.

Since 1860, Mr. H. Smith has obtained statistics of other cases of excision of the knee which have been performed by the British surgeons tabulated by Price, and the following is the result: 52 cases, 37 cured, 10 died, 3 amputated, 2 died, 2 doubtful as to the result.

These statistics, again, show an improved rate of mortality, more than two-thirds of the cases having recovered with "useful limbs". Nor do I think that we have as yet reached the limit of perfection. I trust that I shall presently show that there are many points the strict observance of which, both in the selection of cases for operation, and in the operation itself and after-treatment, will secure for it a yet greater immunity from the heavy death-rate which at present attends upon it. The term "useful limbs", quoted above, leads me to protest against a rather unfair attack which has been made upon the expression. The talented editor of *A System of Surgery* seems to have entered upon a crusade against the operation of excision of the knee. In addition to his article in the *System of Surgery*, he has written another in a periodical (*British and Foreign Med.-Chir. Review*, No. LIX, July 1862, p. 225), in which, giving him every possible credit for fair dealing, and for many truthful observations on the subject, I really think he has endeavoured to make the very worst of the operation. I shall refer to Hodges' essay at a later period; but I would just remark here, that the 208 cases he has tabulated are taken not exclusively from British sources; and this is the only explanation I can give of the difference of success, as shown by his statistics and by those I have already produced—a difference which, I trust I may be allowed to say, reflects credit upon English surgery. The term "useful limb", however, really seems to me to be perfectly explicit, and sufficiently indicative of the successful issue of any given case. I do not see how we can avoid accepting it *as such*, without directly impugning the honesty of the person who reported the case, and, in many cases, of the surgeon who performed the operation. It does not follow at all that, because the editor of *A System of Surgery* once saw a limb amputated which had been reported as "a sound and useful one",* suspicion should be cast upon all other cases to which this term is appended, without further comment. Many limbs may honestly be reported as "useful" ones, after excision of the knee, which are even "riddled with sinuses leading to diseased bone"; and it must be the experience of any surgeon who has seen much of excision of the knee, that, however troublesome sinuses and diseased bone may be to surgeon and patient, both are very frequently rewarded for waiting, by the most perfect result which surgery can procure.

Another point I would draw attention to. It is really no argument against excision of the knee, that a certain number of cases wherein it has been performed eventually require amputation. Excision of the knee has been frequently justifiable, even although amputation of the thigh has afterwards become a dire necessity. Nay, I would even go further, and say that it is a positive duty which the surgeon owes to his patient to give him the chance of saving a sound leg and foot, before having recourse to that last extremity—amputation of the limb. If the after-treatment of a case of excision of the knee be such as it should be, I contend that there are very few cases where, at the end of a considerable time, the patient is not as well able to undergo amputation of the thigh, if it be imperative, as he was before the operation of excision. Of course, I exclude from this observation all such cases as acute necrosis of the bone, etc., which are the usual causes of immediate mortality after excision of the knee. I think, too, that it is hardly fair to charge all the deaths following amputation after excision upon the excision operation. Who is to say that death would not have resulted if amputation had been resorted to as a primary procedure? In fact, the statistics of this operation are at present most unreliable, owing, I have no doubt, to the very incomplete manner in which our hospital records are preserved. In the case of simple amputation, it is easy to record and collect the fact either of death following the operation, or of recovery; but, in the case of excision, a lapse of time is required to test the true result of the operation, and during that time the patient too often passes from the observation of the hospital authorities, and no more is heard of him. Feeling, therefore, that a mere record of operations performed during any given period must of necessity be very incomplete, however extensive, I shall content myself with referring to those only with which I am either myself personally acquainted, or about which I have reliable information.

Modes of Performing the Operation of Excision. It now becomes my duty, in compliance with the more immediate requirements of this essay, to consider the diseased conditions in which this operation is advisable. And at this point I consider it to be most convenient to recount the method by which the operation is performed.

The patient being carried to the table, and placed fully under the influence of chloroform, an incision should be made across the joint sufficiently large to expose the ends of the femur and tibia. The old H-incision is, I think, now nearly abandoned; for it was in reality far more extensive than there is any

* These cases were all performed by British surgeons.

* See foot note to article in *Med.-Chir. Rev.*, LIX, p. 226.

necessity for. The horseshoe U-incision, extending from the back part of one condyle to the back part of the other, across the joint, below the patella, dividing the skin and ligamentum patellæ at one sweep, is a very useful and now common mode of proceeding. Care should be taken that this incision should be commenced and terminated well *behind* the condyles of the femur; as it will then be found to afford, when the limb is placed in position, two dependent points for the escape of matter. Another method—and in some cases a preferable one, as producing a smaller wound—is to carry the incision transversely across the joint. Mr. Henry Smith, in a note appended to Price's work, attributes the introduction of this plan to Sir W. Fergusson; but I think that Mr. Kempe of Exeter used it some years ago, and has continually done so with the best results. The joint having been laid open in front, an assistant should gently flex the limb. The flexion should be very gentle, or mischief will be done to the bone. There is a preparation, showing how the spine of the tibia was thus wrenched off; and I have the record of a case where the surgeon, in forcibly flexing the limb, tore off the entire epiphysis of the tibia. (See *Pathological Society's Trans.*, vol. xvii.) The surgeon may now introduce the fingers of his left hand into the joint, and, by drawing up the condyles of the femur, put all the parts on the stretch, and thus facilitate their division; for it must be remembered that, in the flexed condition of the joint, the external and internal lateral ligaments are relaxed. The position of these ligaments must also not be forgotten; they are placed nearer to the hinder than to the fore part of the joint. The lateral ligaments being divided, and the crucial (if they remain), the integuments must now be carefully dissected up from the femur, and the portion of bone to be removed exposed. In considering the anatomy of the femur, I have already referred to the extreme importance of cutting this bone through at a proper angle. Much of the after-success of the operation depends upon the manner in which this portion of it is accomplished. Owing to the width of the pelvis, the two femora are necessarily oblique in their axes, and the *internal* condyle is prolonged, as before noticed, in order to compensate for this, and that the articular surfaces of the femur and tibia may be parallel. Hence it follows that, in cutting both the bones, it is of the greatest moment to maintain this parallelism by taking care to make the slices removed of the same thickness throughout; or if, by any chance, any difference should be made in one section, that a compensatory allowance should be made in the other. It is also most important that the saw, when applied to the femur, should be held exactly perpendicularly to the shaft of that bone. And a difficulty arises here in practice, owing to the tilting of the thigh necessary in order to separate it from the tibia. An unwary operator may be misled by the position of the thigh, and apply the saw perpendicularly to the patient's body, instead of to the bone about to be sawn; the same rule applying, though in a less degree, to the tibia. When the femur is cut thus incorrectly, the tibia, if brought into apposition with it, must necessarily bow outwards, as is frequently seen. Two femora are sent in with this essay, to illustrate the correct and incorrect methods of cutting the bones. If the patella be fixed, as it frequently is, to the external condyle, it may sometimes be included in the section; or it may be torn from its adhesions, if they be only fibrous. At any rate, the bone should in all cases be removed. Hodges states that the percentage of death on amputation, following cases in which the patella was removed, was 21.31; whilst in cases where the patella was left, the percentage was 60.54—giving 39.23 in favour of removal of this bone. It is hardly necessary to remark, that the smallest possible portion of bone, consistent with the entire removal of disease, should be sawn off.

Much difference of opinion exists as to the kind of saw that should be used. For my own part, I know of none better than the common hand-saw, made sufficiently broad in the blade to cut through the broad surfaces of bone with which we have to deal. Butcher's saw is used by many surgeons; but it is neither so firm, nor so entirely at the command of the operator, as the less complicated one above referred to.

After the section of the bones has been completed, any circumscribed patches of disease may be removed with the gouge, and the rough edges pared off with the bone-forceps.

It is frequently the case, that the contraction of the hamstring tendons is so great, that much difficulty is experienced in placing the femur and tibia in good apposition. Under these circumstances, it is advisable to divide these tendons through the wound, when, in all probability, the difficulty will be overcome. If, however, it is still impossible to place the bones in good apposition, it will then be necessary to remove another slice from the femur. This proceeding should, however, be avoided, if possible, as it materially shortens the limb, and imparts an air of bungling to the operation. As much of the synovial membrane as possible should be removed, whether diseased or not, as its presence materially retards the future good progress of the case. Any suspicious-looking tissue should also be taken away; a pair of stout scissors, cutting on the flat, being very useful for this work.

It is very necessary to arrest all hæmorrhage before the limb is finally put up. I think we are too sparing in our ligatures in this operation. Every bleeding point in the soft tissues should be tied. I have frequently seen the most free hæmorrhage from the cut edges of the periosteum. A careful search for bleeding points should be here made. A little patience and a stream of ice-water will generally arrest oozing from the surfaces of the bones. It is most distressing to the patient, and a fertile source of ill success, to have to take down the limb, reopen the wound, and search for bleeding vessels. That free secondary hæmorrhage does sometimes supervene, we know from various recorded cases; but it has never been my lot, in a pretty extensive personal experience of the treatment of excision cases, to meet with one that required the after-application of a ligature, the actual cautery, or a styptic of any kind. I am convinced that this danger is overrated, and that ordinary care at the time of the operation may prevent its occurrence.

All hæmorrhage having ceased, the cut ends of the bones should now be brought into apposition, great care being taken to prevent any of the soft parts slipping between them. Just at this stage of the proceeding, the patient should be most fully under the influence of chloroform, in order that no

spasm of the muscles may interfere with the complete adjustment of the limb. This is a point the neglect of which is a *very* frequent cause of damage to the limb. I have frequently seen severe spasm of the muscles of the thigh suddenly pull the femur up and render the adjustment of the limb most difficult.

The bones being adjusted, the limb should be immediately placed on the retaining apparatus, whatever that may be. I have no hesitation as to my own choice in the matter. There is no apparatus equal to the iron splint described, shown in Fig. 4,* and which is, I believe, the only one ever used now by Sir W. Fergusson. The side splint is, I think, in very many cases, a superfluity; and I have frequently dispensed with its use throughout the entire run of the case. The box advocated by Mr. Butcher (Fig. 5) is far inferior, although that eminent surgeon has turned

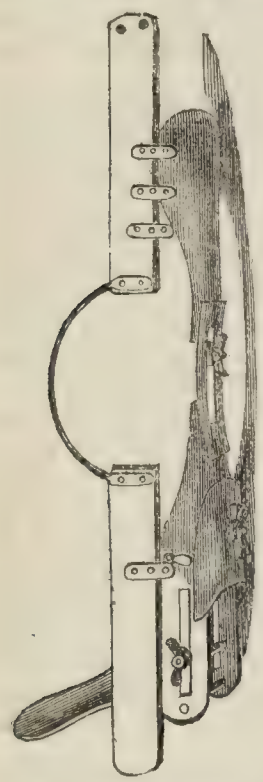


Fig. 4.

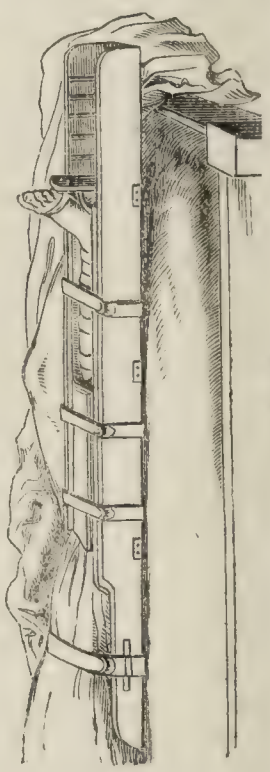


Fig. 5.

out of it many good cases. My objections to it are, first, that it is of wood, and absorbs the discharges; secondly, that it is very cumbersome, and cannot be swung; and thirdly, that, in order to get at the limb, a portion if not the entire retentive apparatus must be undone, thus exposing the limb to the risk of jars and starts very detrimental to its well-being. Some surgeons use an ordinary McIntyre splint, which is in many ways most inconvenient. The splint should be well padded, great care being taken that the pad in the thigh and leg part should overlap the edge of the splint, to prevent galling at any part. That portion of it immediately under the knee should be covered with Macintosh sheeting, and should be made rather full, so as to project into the popliteal space. Small supplemental pads, also covered with Macintosh, should be at hand; one especially being often required to go under the head of the tibia, to prevent its tendency to fall backwards behind the femur. Webbing straps and buckles should also be at hand. In my own cases, I am not only most anxious to see the splint well prepared, but I also prepare the limb itself for its long sojourn in the splint. All the prominent points of bone, especially the malleoli, the heel, and the tendo Achillis, should be covered with amadou spread with soap-plaster. The foot should be carefully bandaged from the toes up to just below the tubercle of the tibia. A bandage should also be firmly applied to the thigh from above downwards. I believe this latter precaution to be a most useful one; for not only does it to a very great extent control spasmodic action of the femoral muscles, but it also prevents matter from burrowing back amongst them—a complication most tedious to deal with, and often fatal to the good result of the operation. All these preparations should be made in the ward before the operation. A little care and supplemental bandaging will prevent the permanent bandages from being soiled during the operation.

The limb is now to be placed in the splint; and, the bones being in perfect apposition, I am in the habit of fixing it by four strips of adhesive plaster—one a little above the malleoli, another just below the head of the tibia, another just above the condyles of the femur, and the last at the upper part of the thigh. As a final step, the wound should be brought together by two or three wire sutures, the sides being left open for the free exit of all discharges. There is a double object in leaving the wound open to the last moment. First, we are able to secure more perfect adaptation of the ends of the bones; and secondly, to stop any further bleeding points which may present themselves in the soft tissues. Finally, a bandage is applied, further confining the limb to the splint, but leaving the wound exposed, which should only be covered by a square piece of wet lint.

The patient should now be removed to bed, placed on a water-pillow, and the leg swung in a "Salter's swing" (Fig. 6). I make a great point of the water-

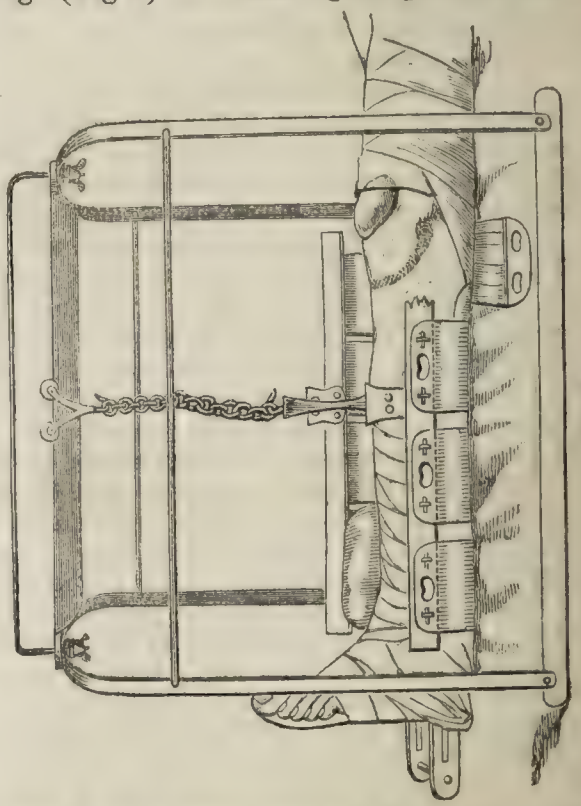


Fig. 6.

pillow. By it the pelvis is as it were swung, and the patient can move about with the greatest freedom, without a single jar being communicated to the limb. If the patient be, as is sometimes the case in females, of

* I have to thank Dr. Druitt for his permission to borrow Figs. 4, 5, and 6, from his well known *Surgeon's Vade-Mecum*.

an excitable nervous temperament, the administration of a subcutaneous injection of one-third of a grain of morphia, before the effects of chloroform have passed off, has a most quieting effect, and will often procure long and refreshing sleep.

After-Treatment. In a case managed as above described, the after-treatment is of the simplest kind. Throughout, one great object must be kept steadily in view; viz., the perfect immobility of the limb. In a well managed case of excision, there is not the slightest possible necessity to touch any of the retentive appliances for at least a month or six weeks after the operation; and then, in all probability, the limb may be once for all removed from the splint, and placed in some other support. I find that cotton-wool, carefully tucked in under the edge of the bandages nearest the wound, and changed once or twice a day, effectually prevents the matter from running up by the sides of the splint, and then collecting under the bandages and becoming offensive. If the discharge is very profuse, a drainage-tube inserted on each side, at the lower point of the wound, will conduct off a great deal of pus, and prevent its soiling the splint and bandages. When suppuration is fairly set in, it is often useful to syringe out the wound with a solution of Condy's fluid, or with the "red lotion"; but, of course, any local application will be made in accordance with the particular condition of the case. I have never seen it used, but I can quite conceive that the application of a bag of ice to the parts immediately after the operation, and the retaining it continuously for some days, would prevent the approach of much evil, and be a source of great comfort to the patient.

The position of the limb should be a continual source of care. The judicious application of a pad, strap, and buckle may rectify any commencing displacement. The bowing outwards of the joint is one of the most troublesome distortions we have to meet with. To prevent this, I have had a "truss-pad" made, which, taking its fixed point from a bar attached to the inner side of the splint, passes over the joint, and presses the limb inwards and a little downwards. A very good drawing of this apparatus is appended. (Fig. 7.)

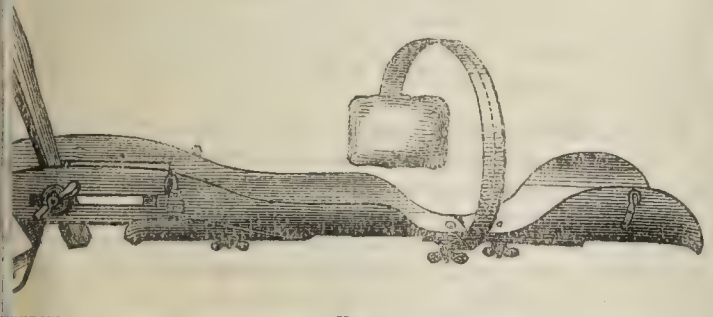


Fig. 7.

I have thus minutely described the steps of this important operation, and the after-treatment of the case, because I am convinced from my own observation, and from the accounts I have read, that frequently very many of the precautions which I have recounted are entirely neglected, and cases which might have turned out successfully have been lost or suffered amputation. Not long ago, I saw a case where, on account of not very excessive secondary oozing, the limb was taken down on the evening of the operation, the sutures were removed, and the actual cautery freely applied. Again, about the third or fourth day, when suppuration has freely commenced, I have known the limb removed from the splint (the wooden trough of Butcher) to cleanse it. Price, in his analysis of cases, gives many examples where limbs were undoubtedly sacrificed to bad after-treatment. For instance, in one case, the cause for amputation was stated to be "exhaustion, and the pain from dislocation which had occurred." (Price, *On the Knee-Joint*, p. 77.) The patella was allowed to slip between the ends of the bones, and "the patient died from *exhaustion* and *irritation* after some months." In another case, "considerable difficulty was experienced in keeping the bones in apposition: irritation of their extremities, and the consequent lighting up of unhealthy suppuration, induced necrosis of the lower end of the femur; so that amputation was needed after some weeks." (Price, *op. cit.*, p. 85.) In another case, amputation was resorted to "on account of non-union, necrosis, and *displacement of the cut ends of the bones.*" Three cases—"a clumsy flat leather splint with the first case, the McIntyre in the others, with too frequent shiftings, being used to support and steady the limb"—very soon came to amputation. In two cases, "mechanical irritation of the cut ends of the bones induced such an amount of inflammatory mischief in both of the bones and periosteum, that death was thereby the consequence." In another case, "on the third day the dressings had been changed, and a pillow and sand-bags substituted for the splint." In another, "the patient was shifted every few days;" in another, "the tibia and femur were allowed to shift their positions"; and in all these amputation was had recourse to. Thus twelve cases are recounted where the want of success following this operation must be entirely attributed to insufficient care in the after-treatment.

I need hardly point out that, until the treatment of these cases is better understood, statistical records of ill success must be taken for what they are worth. Sir W. Fergusson, in his lectures on "The Progress of Anatomy and Surgery during the present Century," delivered at the Royal College of Surgeons, has very aptly compared this operation to a compound fracture of the femur or upper end of the tibia. Would any surgeon in his senses take down a compound fracture every three or four days to see how it was going on or to clean the splint? And if, as is more than likely, such a case came to amputation, or the patient died of "irritation", would this be used as an argument against the attempt to save the limb, and in favour of primary amputation? I think it would rather be set down as an indication that the surgeon who thus acted did not know his business, and had sacrificed his patient's limb or life. I know that there are many more difficulties to contend with in treating a case of excision of the knee, than in a compound fracture of the lower extremity; but the principle should be the same in both cases—perfect and prolonged immobility secured by the use of appropriate retentive apparatus. When surgeons thoroughly recognise this principle of action, we shall begin to find out that the results of the operation of excision of the knee-joint are not quite so bad as some would have us think they ever must be.

[*To be continued.*]

Addresses and Papers

READ AT

THE THIRTY-FOURTH ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION.

[*Held in CHESTER, AUGUST 7th, 8th, 9th, and 10th*, 1866.]

ON THE REDUCTION OF DISLOCATIONS (MORE ESPECIALLY OF THE HIP AND SHOULDER) BY MANIPULATION.

By THOMAS NUNNELEY, Esq., Leeds.

THOUGH the reduction of dislocated bones by what has been called manipulation, in contradistinction to violent extension, whether this be effected by manual orce or mechanical appliances, has probably, at various times, been practised ever since dislocations were recognised as ills to which flesh is heir, it seems only within a very few years to have been tried in the first instance as a reasonable proceeding, or to have been adopted otherwise than when the more orthodox plan of extension could not be resorted to, or, having been resorted to, had failed. In fact, it was regarded as a makeshift—not as a legitimate surgical proceeding; one that might perhaps, by haphazard, succeed when proper methods had failed; not upon any known and rational principle, but by luck, in spite of the violation of all reasonable calculation. Even now, if we may judge from the very scanty reference to cases in which manipulation has been practised, which have appeared in the periodical press; the total omission of all reference to it in some modern works on surgery; and the very slight and passing notice in others recently published, it would seem to be little known or practised. Where it is referred to, it is so, as only applicable to cases of dislocation of the hip-joint, and of these, in two forms alone—on the dorsum ilii and into the ischiatic notch. Mr. Cock and Mr. Wormald,* whose names have been mentioned as the surgeons in this country who have practised the method, appear to have done so in two or three cases only of these forms of dislocation; and even Dr. Reid, of Rochester, United States, to whom, I believe, is attributed the honour of having introduced the plan as a legitimate one, does not appear to be aware of the extent to which the method is available; for he speaks only of reducing dislocations on the dorsum ilii and into the ischiatic notch by manipulation; whereas I believe it to be as applicable, not only to the two other forms of dislocation to which the hip-joint is liable, but equally so to all those to which the shoulder-joint is obnoxious. Indeed, it seems to me very difficult to account for the limitation of the practice to the two forms of dislocation of the hip just named; for, supposing the method to be applicable to them, the same reasoning would apply equally to the other two forms of dislocation of the hip-joint; and, even with increased force, to those of the shoulder-joint.

As it is probable that more cases of dislocation of the hip have, during the last few years, been treated in the General Infirmary at Leeds, and the reduction of them by manipulation has been put in practice more extensively than in most of the other hospitals of the country, it seems only proper that the result should be given to the profession at large. If other experience should confirm, as I fully believe that it will, the very favourable opinion at which I have arrived of its great superiority in every respect over the method of extension which, following the prescribed dicta of so many great authorities in every country, has been, and still is, almost universally adopted, it will be recognised as one of the greatest improvements in modern surgery. I will, as briefly as possible, relate the facts of each case, and then add such few remarks as the results appear to justify.

No. 1. March 5th, 1859. Benjamin Appleyard, aged 23, mechanic. Dislocation of femur into the ischiatic notch, from falling from the step of an omnibus. Easily reduced by manipulation. Mr. S. Hey's case.

No. 2. Feb. 27th, 1861. William Frobisher, aged 25, collier. Dislocation on dorsum ilii, caused by three tons weight of coals falling upon him whilst in a stooping position. Manipulation tried and failed. Reduction easily effected by the pulleys. Mr. S. Hey's case.

No. 3. August 26th, 1861. Emma Nellest, aged 21, Dislocation into the ischiatic notch, from getting her leg (left) between the spokes of a cab while it was in motion. Reduction was attempted by manipulation and failed. The pulleys were then successfully applied. As the patient was being carried downstairs from the operation-room to her ward, the head of the bone was heard to leave the socket. On her being placed in bed, all the symptoms of dislocation were again present. The pulleys were at once reapplied as she lay in bed, and reduction again effected. It was, however, found impossible to keep the head of the femur in the acetabulum. On Sept. 11th, the dislocation having recurred for the sixth time, a long splint was secured to the whole length of limb by means of starched bandages, as in fracture of the neck of the femur. This was kept on for nearly three months. When removed, the woman could walk without help, and the limb was in proper position; but after some time she returned to the hospital very lame. A mechanical support was now applied, which enabled her to walk well; and when last seen she had apparently recovered. Doubtless, in this woman, the acetabulum had been fractured. Mr. Smith's case.

No. 4. February 28th, 1863. John Maltby, aged 18, collier. Dislocation of right femur upon dorsum of ilium, caused by a fall of earth upon him. Easily reduced by manipulation without chloroform. Mr. Smith's case.

No. 5. March 29th, 1863. Mary Appleyard, aged 19, a very stout farm-servant. Head of femur thrown into the ischiatic notch. Attempts were made to reduce it without chloroform, when the head of the bone was put on the pubis. She was then put under chloroform, and both manipulation and the pulleys unsuccessfully tried. The following day the pulleys succeeded. Mr. S. Hey's case.

No. 6. October 17th, 1863. Joseph Phillips, aged 56, mason, admitted with compound fracture of skull with depression into frontal sinus. On the 19th, it was discovered that the right femur was dislocated into the thyroid foramen. On the 20th, it was reduced by pulleys, chloroform being given. Mr. Smith's case.

No. 7. February 6th, 1864. William Dawson, aged 31, labourer. Dislocation of left femur upon dorsum ilii, from falling from a height of thirty feet. Easily reduced by manipulation under chloroform. Mr. S. Hey's case.

* After the reading of this paper, Mr. Jonathan Hutchinson informed me that the plan had been practised at the London Hospital. Unfortunately, I have not seen any reports of the cases so treated.

No. 8. March 4th, 1864. William Styan, aged 72, farmer. Dislocation of right femur on dorsum ilii, from having been knocked down and run over by a horse and cart thirteen hours before. Repeated attempts had been unsuccessfully made by extension before his admission to effect reduction. Reduced with the greatest ease by manipulation. Chloroform given. Mr. Nunneley's case.

No. 9. April 16th, 1864. Hugh M'Loughlin, aged 20, navy. He had been completely buried by a fall of earth. Dislocation of right femur upon dorsum ilii. Easily reduced by manipulation. Chloroform given. Mr. S. Hey's case.

No. 10. April 22nd, 1864. Wm. M. Kew, aged 30, labourer. Dislocation of left femur into the ichiatic notch, owing to a fall of earth upon him. Reduction by manipulation, with some difficulty. Chloroform given. Mr. Pridgin Teale's case.

No. 11. June 11th, 1864. John Dickinson, aged 13, collier. Fracture of left femur, dislocation of right femur upon dorsum ilii, owing to his having been knocked down and pushed for many yards by a loaded coal-waggon. Easy reduction by manipulation under chloroform. Mr. P. Teale's case.

No. 12. August 8th, 1864. Fanny Fry, aged 30 months. Dislocation on dorsum of ilium caused by a gate falling upon her. Reduction easily effected by manipulation under chloroform. Mr. P. Teale's case.

No. 13. May 19th, 1865. Abraham Wardman, aged 34, a cart-driver. Dislocation on to the dorsum ilii. Manipulation fully tried under chloroform, and failed. The head of femur could be felt rolling round the acetabulum, but could not be got into the cavity, or, if so, immediately escaped. The pulleys were used more than once, with as little success; but the inversion of the limb was lost, and it became straight. A long splint and extension were used. He recovered with an useful limb. At first, the joint was very stiff and the limb weak; but after a time he was able to resume his work. It was supposed there was fracture through the acetabulum. The accident was occasioned by the man falling and the cart passing on to his body, dragging and rolling it up over a heap of stones. Mr. S. Hey's case.

No. 14. July 25th, 1865. Charles Stenson, aged 20, navy, a remarkably thick-set muscular man. Dislocation on dorsum ilii caused by a fall of earth. Great difficulty was anticipated; but the reduction was effected by manipulation in the most easy manner possible in less than thirty seconds. Chloride of olefiant gas (Dutch liquid) was given. Mr. Nunneley's case.

No. 15. October 16th, 1865. James King, aged 42, a quarry-man. This man fell a considerable distance into a quarry, where he lay all night in heavy rain. He was not brought to the Infirmary until forty-two hours had elapsed. He was greatly bruised over the body; several ribs were broken on the left side. The forearm was fractured, and the femur of the same side was thrown on to the dorsum of the ilium. Reduction was effected with the greatest ease in thirty seconds. Chloride of olefiant gas given. Mr. Nunneley's case.

No. 16. Feb. 12th, 1866. Henry Stead, aged 33, labourer. Dislocation of left femur into ischiatic notch. Chloroform given. Manipulation tried and failed. Pulleys then were used, which with a lifting towel succeeded. Mr. Wheelhouse's case.

No. 17. April 17th, 1866. Patrick Cabroy, aged 21, a navy. Dislocation of right femur on to the dorsum ilii, with a fracture of the leg on the same side. Manipulation under chloroform tried and failed. Pulleys were then used successfully, but with considerable difficulty. Mr. P. Teale's case.

No. 18. May 2nd, 1866. Edwin Thompson, aged 11. This boy was knocked down by a loaded coal-waggon drawn by a pony in the pit. He was dragged a long way, and then the waggon passed upon him, carrying him a considerable distance and eventually resting upon him. He was greatly cut and bruised all over the head and body. It was an extreme case of dislocation into the thyroid foramen, for the head of the femur could be both seen and felt resting upon the descending ramus of the pubis. Reduction was most easily accomplished by manipulation under Dutch liquid. Mr. Nunneley's case.

No. 19. May 26th, 1866. William Redfearn, dyer, aged 31. Dislocation into ischiatic notch, fifteen hours before, while quarrelling and wrestling. He admits having had some beer, but says he was not "to be called drunk." His adversary threw him and fell upon him. Chloroform was given. Manipulation was fully tried and failed. The head of the femur could be felt moving upon the acetabulum, but could not be got into it. The pulleys were then fully tried, with no better success. No noise or giving way was perceived; but when the pulleys were removed, it was found that the limb was everted, instead of being inverted. It still remained an inch shorter than it should be. Very considerable swelling followed. The limb remained everted. It was supposed that an impacted fracture of the neck of the femur had occurred, as well as the dislocation, and that the extension by the pulleys had separated the bone. A long splint, with extension, was used. The man has recovered an useful, though shortened and everted, limb. He took the chloroform very badly, and was never fully under its influence. Mr. Nunneley's case.

No. 20. July 10th, 1866. George Diggle, aged 41, a strong muscular man, while riding on a cart which was being drawn up a steep embankment, was, with the horse and cart, thrown over it, and fell several feet. He received a wound on the head, a fracture of the right wrist, an injury to the left one, a severe skin wound of the left knee, and a dislocation of the left hip low down on the dorsum ilii. Reduction by manipulation was easily effected. Chloroform was used in large quantity before spasm and convulsive rigidity of the muscles could be overcome. Mr. T. Pridgin Teale's case.

No. 21. Sept. 28th, 1866. Robert Burden, aged 24, coal-miner, crushed by a heavy fall of earth while at work, *six weeks* before his admission into the Leeds Infirmary. At first, it was supposed that the lower third of the left femur was fractured, as well as its head thrown on to the dorsum of the ilium. For the fracture, he was treated by Mr. Smith of Barnsley. The man was put thoroughly under chloroform. On the first manipulatory attempt, the adhesions which had formed were both felt and heard to give way; on the second, the head of the bone was made easily and speedily to enter the acetabulum. Mr. Wheelhouse's case.

No. 22. May 31st, 1866. ———, aged 22, bricklayer's labourer, a very stout muscular man, fell from a high scaffold and dislocated the left humerus under the pectoral muscle. Chloroform was very moderately given. The forearm was flexed, the arm raised and brought well over towards the opposite shoulder, the humerus gently rotated two or three times, then suddenly forced upwards and across the body, when the snap of its passing into the socket was heard. Not half a minute was occupied in the manipulation. Mr. Nunneley's case.

Nos. 23 and 24. ——— Parker, admitted on July 23rd, 1866, with dislocation of both humeri under the pectoral muscles: a thick-set, muscular farm labourer, aged 22. He is subject to epileptic fits. *Five weeks* before admission, he was seized with a fit when sitting in a chair. He fell to the ground. It was

afterwards found that the right shoulder was dislocated. It would seem that prolonged attempts, made with considerable force, both with and without chloroform, were unsuccessful in reducing the dislocation. Three weeks afterwards, and two weeks before his admission, he had another fit and fall, when the left shoulder was put out. No attempt was made to reduce this. It was impossible to ascertain whether the falls or the convulsive muscular action had caused the mischief; but, however induced, the characteristics of the dislocation were exceedingly well marked. The muscles about the joint were so rigidly contracted, that no attempts were made by manipulation, until the patient had been put under chloroform, of which he required more than common, to produce anæsthesia and muscular relaxation. When under its influence, the left humerus was easily reduced, on the third movement, in the space of two minutes. The right humerus was more difficult to manage. The adhesions were felt to give way, and the head of the bone to be brought close to the edge of the glenoid cavity, but not into it, under the movements. The foot was then placed in the axilla, with the intention of making extension from the wrist; but, on the arm being carried across the body, the width of the boot-sole in the axilla acted as a fulcrum, and the bone instantly slipped into the socket, without any extension whatever being made. Mr. Nunneley's case.

No. 25. Oct. 8th, 1866. G. Rowley, aged 45, railway foreman, while attempting to prevent a man from entering a train after it was in motion, had the right arm dislocated into the axilla. He was immediately brought to my house. As he was still suffering some depression from the accident, no anæsthetic was given. Reduction was readily effected by manipulation, the bone returning into the glenoid cavity with a loud snap. Mr. Nunneley's case.

Of these twenty-five cases, twenty-one were dislocations of the hip, and four of the shoulder. Mr. Smith had three cases of the hip; Mr. S. Hey, six cases of the hip; Mr. Nunneley, five cases of the hip, and four of the shoulder; Mr. Wheelhouse, two cases of the hip; Mr. T. P. Teale, five cases of the hip.

Of the twenty-one dislocations of the hip, fourteen were upon the dorsum of the ilium, five into the ischiatic notch, and two into the thyroid foramen, or near to it. One was converted into a dislocation on the os pubis.

Of the four dislocations of the shoulder, three were under the pectoral muscle and one into the axilla.

The ages were as varied as possible. One man was of the unusual age of 72 years, and one a child of the, perhaps, still more unusual age of only thirty months. In both cases, the symptoms were remarkably well marked; and in both, reduction was most easily accomplished by manipulation. With two exceptions only—the young child, and the farm servant girl, who was employed at man's work, and who was as muscular and strong as most men of her age—all were male subjects, and most of them young athletic labourers, in whom reduction might be expected to be as difficult as it is ever likely to be.

Out of the twenty-one cases, manipulation was tried in all but one; it succeeded in fourteen, and failed in seven. In these seven, who were afterwards subjected to the pulleys, three were reduced on the first attempt; one failed in the first attempt, but succeeded with considerable difficulty in a second effort; three failed altogether; and in another, though it was thought the bone was reduced, subsequently it was again found to be misplaced, and could not be permanently reduced—making four cases in which, doubtless, fracture of the acetabulum or of the neck of the bone accompanied dislocation, and prevented reduction. Of these four cases, three recovered in a few months, with very little deformity. There was some shortening, for which a high-heeled shoe had to be worn; and some loss of motion remained; but still the mischief was far less than was anticipated. In the fourth case (No. 3), the woman had, for twelve or fifteen months, to wear a stiff leather support to keep the bone *in situ*; but she also, it is said, was then enabled to walk well without it. She is now lost sight of.

In estimating the value of manipulation, as compared with extension, in effecting reduction of the various forms of dislocation of the hip and shoulder-joint, it is obvious that all these four cases must be excluded from the calculation. In the fourteen cases in which manipulation succeeded, it did so with difficulty in only one case; in all the rest, the reduction was easily accomplished. In three or four cases, certainly, less than one minute was occupied; in two of them, not more than thirty seconds were required to put the bone in position; and in the remainder, where there was the greatest difficulty, in no one was the time occupied more than ten minutes. So that, compared with the average time taken up in reduction by extension, all may be said to have been easily reduced. Indeed, when reduction is so easily effected, the effect is almost magical—so easy and simple does the proceeding appear to the bystander, more especially if he has witnessed the preparations, the various assistants required, the time often occupied, and the force exerted, in an ordinary reduction of dislocated limb, when effected either by manual or pulley extension. If intelligent, he must regard it as the very perfection of surgery. If not so, it would seem as though the distorted limb had merely to be lifted up, and, by some magical influence, instantly laid again, restored to its normal form, without much effort or skill on the part of the manipulator, who requires no other assistance whatever. It is, however, only so to the uninitiated bystander; for certainly important considerations, founded on the anatomy and physiology of the parts, must be carefully studied and thought of before success, as a rule, will reward the attempt. Without this, harm, rather than good, is likely to result; and, if the displaced bone be moved at all, it most likely will only be to substitute one form of dislocation for another, as from the ischiatic notch into the thyroid foramen, from the dorsum ilii on to the pubis. In estimating the comparative value of reduction by manipulation, it is only fair to mention, successful as the practice has been in the hands of my colleagues and myself, it is highly probable that, after the method becomes more familiar to us and others, and the required conditions better understood, the greater and more favourable will be the general results; for to each of us the practice was new, and had to be done for the first time by each of us. I need hardly remind my hearers that it is precisely in such manual feats as these that practice makes perfect; and that those who have before done it, or seen others do it, are likely to perform better than those who have not had the advantage.

The most important condition to be insured is *a relaxed, but not perfectly helpless, flaccid, uncontractile condition of the muscles;* as it is by the contraction of the muscles, which are attached near to the head of the dislocated bone, that reduction is mainly accomplished. The importance of constantly bearing this in mind I cannot too strongly impress upon those who may feel inclined to attempt the plan of reduction by manipulation. If the muscles which are more immediately concerned be in a state of active, rigid contraction, as they commonly are after a dis-

location has existed for a short space of time, and the patient has recovered from the immediate shock of the accident, they will almost inevitably prevent those movements of the bone which are essential for its being brought into a position for slipping into the socket, whence it has been removed; while, on the other hand, if they be incapable of any contraction whatever, it will frequently be found to be impossible for any manipulatory movements of the surgeon to replace the bone; or, being replaced, for its being retained in its position. I feel confident that I have seen both of these causes materially interfere with success, particularly the latter one, when the muscles have been entirely paralysed, owing to the anæsthesia having been rendered too profound. In the wish to prevent any muscular resistance whatever, the necessity for some contractility has been forgotten, or not understood. If the patient be still suffering from the shock of the injury, sickness, drunkenness, or, from age or any other cause, be in a depressed condition, he will hardly require to be put under chloroform or any other anæsthetic; but, on the contrary, if the patient be young and vigorous, if the muscles are in strong contractile action, or have been shortened by the loss of their normal opposing resistance, particularly where the dislocation is of long standing, or where there are adhesions to overcome, then the anæsthesia should at first be sufficiently profound to allow of free manipulatory movements being effected, so as to have overcome all such resistance by the time returning contractile power in the adjuvant muscles may be ready to pull the bone into the socket.

As the first commencement of manipulation, particularly in cases of recent date, the movements made with the limb should be very gentle, not rough nor abrupt. The limb should be well flexed: then, when all the muscles are relaxed as much as possible, and, so to speak, thrown off their guard, the limb should be suddenly and rapidly, but not violently, rotated on its axis, and completely abducted or adducted, as the case requires, and at the same time depressed or raised, when the adjuvant muscles will be perceived to rapidly contract. Thus the bone is partly pushed by the surgeon, and partly pulled by the muscles attached near to its neck into its place. A snap is commonly, but not invariably, heard; and the reduction is accomplished. This, I believe, can only be rapidly and brilliantly accomplished under the muscular conditions which I have indicated.

The sound heard, and the impression made upon the surgeon's sense of touch, on the slipping of the head of the bone into the socket, are so peculiar, that I do not think he will often be deceived as to whether the reduction has been effected or not, after he has once successfully accomplished it.

I need hardly detain the members by any very minute description of the precise manner of proceeding in each form of dislocation, as this must necessarily be varied to some extent with each form of dislocation, and must be guided by the surgeon's own knowledge of the anatomy of the joint; the object being, I would merely say, to use the limb as a lever to bring its displaced head into as near a position to its socket as is possible; at the same time calling into action those muscles which will immediately act upon it in pulling it through the ruptured capsular ligament into the socket, and at the same time relaxing those which may have a contrary effect.

As a rule, I think the patient should be laid on his back upon a mattress placed upon the bed, the floor, or a large table, so as to be firmly supported. When the muscles are thought to be sufficiently relaxed, and the patient is quite quiescent, the surgeon, supposing the dislocation to be on the dorsum ilii, or into the ischiatic notch, should mount upon the mattress, and, standing above him (if it be a dislocation of the shoulder, standing beside the patient on the affected side will be the proper position), quietly seize, with both hands, the leg of the dislocated limb; gently flex it upon the body; adduct it; then quickly rotate the head of the bone, which brings the muscles into play; and, almost at the same instant, suddenly and forcibly abduct the limb and bring it down into an extended position, when, if the movements be successful, the reduction is effected. If the head of the bone be in the ischiatic notch, while the movements will be of essentially the same character, the flexion will be required to be somewhat less than when it is high upon the dorsum; while the abduction, as the limb is rotated, must be more forcible, or the head of the femur will not be lifted out of the notch over the high edge of the acetabulum; and care, as has already been said, must be taken, or, instead of passing into the cavity, it will be thrown into the thyroid foramen. Should the dislocation, whether primary or secondary, be on this foramen, the movement must be one of full adduction, instead of abduction, so as to bring the head of the bone near to the socket.

Though this plan of reducing dislocations has been spoken of as one more especially adapted for cases in which the head of the bone is in the ischiatic notch, I believe it will be found that, in this position, reduction by manipulation will be more difficult, and more frequently fail, than in any other form of dislocation to which the hip is liable.

I may just add that, of anæsthetics, I prefer the Dutch liquid (chloride of olefiant gas), or the bromide of ethyle, to chloroform; as, amongst other advantages, they both seem to me to have decidedly less tendency to induce muscular contraction and that violent struggling which chloroform so commonly induces before the system is brought fully under its influence, and which it is of importance to avoid, as the more quiescent the muscles are the more easily and readily will reduction be accomplished.

N.B.—Two of these cases have occurred since the papers were read at the meeting of the Association at Chester, but have been added in order to make the series more complete. One of them (No. 21), the case of dislocation on the dorsum ilii, which had existed for six weeks, is of great interest and importance, as proving with what facility long-standing dislocations, even where strong adhesions have formed, may sometimes be reduced by manipulation.

Methylated Spirits. There is a provision in a recent Act of Parliament against the use of methylated spirits, either as a beverage or as a medicine. By the 29th and 30th of Victoria, chap. 64, it is declared that no person shall use methylated spirit or any derivative in the manufacture, composition, or preparation of any article whatsoever capable of being used either wholly or partially as a beverage or internally as a medicine, or shall sell or have in his possession, under a penalty of £100; and the article, as well as the vessel in which the same is contained, to be forfeited. The provision is not to apply to the preparation of sulphuric ether or chloroform, or to affect the power of the Commissioners of the Inland Revenue to allow methylated spirit to be used by persons authorised by them in such branches of the arts and manufactures of the United Kingdom as they may sanction or approve. No alteration is to be made in the mixture called "finish," made from methylated spirit.

Original Communications.

THE THEORY OF CHOLERA COLLAPSE.

By George Johnson, M.D., F.R.C.P.

I had formed a mental resolve that, in future, I would make no reply to criticisms upon my cholera doctrines. Dr. Woakes, however, appears to invite a reply to his very courteous criticism. I accept the invitation, and I will be as brief as possible.

I believe that the cholera-poison, like strychnia, causes cramp of the muscles by being conveyed to them through the blood. I have no reason to suppose that the minute arteries supplying the muscles are contracted. The notion that the poison is cut off from the muscles by spasm of their small arteries, is, I think, purely imaginary. Dr. Woakes asks why, if a blood-poison contracts one set of muscles, it does not contract them all; and why not the heart in particular, through which all the blood in the body passes. Now, we know that most poisons have textural affinities; they affect certain tissues and certain parts of tissues, to the exclusion of others. But we cannot explain this. We cannot tell why the poison of measles mainly affects the skin and the mucous membrane of the eyes and the air-passages, or why that of typhoid fever has a special affinity for the glands of the ileum. We do not even know why the sweat goes off by the skin, and the urine by the kidneys. The argument, that the heart should suffer most from blood-poisoning, because all the blood goes through its cavities, is, I believe, a fallacy. Its liability to be poisoned, so far as regards the mere quantity of blood, would be measured by the amount supplied to its tissue by the coronary arteries, and not by the volume of blood passing through its cavities. But, in fact, the liability, or freedom from liability, depends upon that very real, though indescribable influence, "textural affinity". Dr. Woakes is not correct in saying that I make "the theory of spasm of the pulmonary arteries the main pathological condition of cholera." I suggest this as a probable explanation of the fact that the blood is abruptly stopped at a particular part of the circulation. I am quite aware of the influence which is exerted upon the movement of blood through the capillaries by the interchange of materials between the blood and the tissues. Dr. Woakes argues, that a suspension of these changes, in consequence of an altered condition of blood, is the cause of the imperfect circulation, affecting first the systemic capillaries, and secondarily the pulmonary. Now here his theory is quite inconsistent with indisputable facts. During collapse, we know that the pulmonary arteries and the venous trunks are full, while the systemic arteries are nearly empty. If there were a primary obstruction in the systemic capillaries, or in the minute systemic arteries, the trunks of the systemic arteries would be as full as the pulmonary arteries are actually found to be. The systemic circulation is diminished in proportion to the smallness of the stream of blood which passes through the lungs, just as it would be diminished by compression of the aorta. There is no evidence of impediment in the systemic capillaries during collapse: there is positive evidence to the contrary, in the fact that the systemic arteries are so empty that the radial pulse is often not to be felt. This statement of facts is so indisputably true, that it would be useless to argue the question with any who deny its truth.

With regard to the suppression of bile and urine, I would ask Dr. Woakes to read carefully my paper "On the Physiological Correlation of the Lung, Liver, and Kidneys," published in the Journal for February 17th, 1866. He is not so good a physiologist as I take him to be, if, after reading that paper, he does not admit that there is some truth in this part of my theory. He is quite in error in stating that "no carbonic acid is found in the respired air during collapse." The amount of carbonic acid exhaled is diminished, as is the excretion of bile and urine, exactly in proportion to the arrest of the circulation, and the consequent suspension of the respiratory changes, with all the correlated phenomena.

Dr. Woakes says that rice-water stools occur before collapse. I admit that copious watery pale stools, pale from the copious dilution with fluid, occur before full collapse; but the genuine flocculent rice-water stool, as I should restrict the term—the stool in which bile can be detected only by chemical tests—is always exactly coincident with collapse. I undertake to say, from an inspection of the stools alone, whether the patient who passed them is in full collapse.

He says that, if spasm of the pulmonary arteries were the cause of collapse, collapse should always be sudden. But why so? From all that we know of the contractile power of the arteries, there is reason to believe that their contraction may be gradual or sudden, partial or complete, according to the intensity of the exciting cause. And, if it be asked why the choleraic poison should excite spasm of the pulmonary, and not of the systemic arteries, the reply is, that this is another instance of textural affinity. We know that the pulmonary and the systemic arteries have different vital endowments. The systemic arteries resist the passage of black unaërated blood, which the pulmonary arteries readily transmit, as it is their proper office to do. Again, Blake's experiments prove that certain salts injected into the veins pass freely through one set of arteries, but are arrested by the other set. We, therefore, can have no difficulty in understanding that the poison may excite spasm of the pulmonary, though not of the systemic vessels.

Dr. Woakes, I trust, does not suppose that I consider the intestinal discharges to be a consequence of the arrest of the circulation. I believe them to be a direct result of the action of the cholera-poison, first on the blood, and then on the mucous membrane of the alimentary canal; and I believe this to be as essential a part of the natural process of cure, as the eruption on the skin in a case of small-pox. One of the main reasons why collapse is so deadly is, that the arrest of the circulation impedes in a corresponding degree the eliminative process, so that the retained poison or ferment has more time to spoil the blood.

I believe that I have replied frankly to all Dr. Woakes's objections. I do not think it necessary to offer any further criticism on his theory. I think, however, that my own is more in accordance with the undoubted facts of the disease. He does not appear to have had any experience of the treatment which he recommends. When he has tried the plan, he will, perhaps, tell us the result of macerating his patients in a mixture of tepid water and intestinal discharges. Can he be sure that the cutaneous surface, while admitting the water, will refuse admission to the morbid poison which is thus presented to it, and allowed to remain in contact with it?

ETHER SPRAY IN STRANGULATED HERNIA.

By John Barclay, M.D., C.M., Banff, N.B.

On the evening of Tuesday, the 25th of September last, I was asked by Dr. Wallace, of Turriff, to see along with him a patient who suffered from strangulated hernia; and the following is an account of the case.

G. F., aged 35 years, a farm labourer, had always enjoyed very robust health till about two years ago, when he noticed a swelling occur suddenly in his left groin. This he found he could reduce at will by manual pressure, and little trouble was occasioned by it, and no medical advice had ever been sought by him on account of it, as it only made its appearance now and then when he was subjected to hard work, and he had never any difficulty in accomplishing its reduction himself. Thirty-two hours before I saw him, he had been engaged cutting oats in the harvest-field, work requiring a good deal of muscular exertion when the crop is a heavy one, when he suddenly experienced a severe pain in the left groin, and on examination, found that the swelling had come down. I need scarcely here remark that he had never worn a truss. He now found that to work longer was impossible, so he proceeded home and got to bed. No advice was asked, however, until the following day, when Dr. Wallace saw the patient, and found him complaining of eructations, nausea, sickness, and vomiting, pain of the bowels and constipation. On being asked whether at any time he had been the subject of rupture, he replied that he had not. An examination of the usual seats of the disease, however, showed Dr. Wallace that a hernia existed in the left groin, and which, no doubt, caused the symptoms complained of. There was no tenderness in the swelling, no discoloration, and though the patient complained of a good deal of pain over the abdomen, the pulse had not yet become affected. After a steady, gentle, and cautious application of the taxis, Dr. Wallace found that he could not return the hernia, so calomel and opium were prescribed, with the effect of allaying the pain and relieving the vomiting; and additional assistance was sought for by the doctor in anticipation of the necessity for operative proceedings.

About seven o'clock on the evening above referred to, Dr. Wallace and I visited the patient, and found him asleep. On awakening him, he complained of pain over the belly, though not quite so severe as in the morning, much tenderness in the swelling, and constant eructations and sickness. At the request of Dr. Wallace I made a very gentle attempt to return the hernia, but found that the pain induced by the most gentle handling of it could not be borne, so I at once desisted. I had brought with me Richardson's ether spray apparatus, thinking it might be useful in lieu of ice, which is difficult to be had, so after consulting with Dr. Wallace, it was determined to invert the patient, apply the ether spray short of freezing the skin, then to attempt reduction, and, if failure was the result, to operate by the knife.

The head and shoulders then being supported on the floor by some pillows, and the buttocks raised as much as possible against an inclined plane extemporised by an inverted bedroom chair, the ether spray was directed in the usual way on the swelling, for about forty seconds, when a minute spot of skin appeared white. The spray was at once removed, and, on applying the fingers of my left hand on the swelling for about two seconds, accompanied by the most trifling pressure, plump up (or rather down) went the hernia, to the great delight and satisfaction of us all. And such a result was exceedingly gratifying in many respects. The man made a first-rate recovery.

I have not up to this time seen or heard of a case where the spray was used for a similar purpose, but I think there can be no doubt but that in a great many cases of strangulated hernia, its employment is to be preferred to that of ice, or even that of chloroform.

Transactions of Branches.

NORTHERN BRANCH.

ON THE SELF-ELIMINATION OF POISONS.

By William Murray, M.D., Newcastle-on-Tyne.

[*Read June 22nd*, 1866.]

There exists in the human body a sphere for the operation of almost all the physical forces which are at work in the organic world; and, in all probability, the correlation of these forces with the vital force brings about the life and functions of which the body is possessed. If this be true, we shall find that the general laws which regulate the forces of the outer world apply also to the regulation of the vital economy. To select one of these laws and apply it, may test the truth of our remark. The great forces around us do not manifest their power, nor even their existence, unless they meet with appropriate material to act upon; *e. g.*, the chemical forces are without manifest existence till bodies with an affinity for each other give them an opportunity to act; and the electrical force is without effect in the presence of non-conductors. So that to present appropriate conditions and material to act upon is necessary in order to produce the forces and call forth their effects. In like manner, there are powers in the body latent till appropriate material is introduced, which calls them into action; and we desire to show that, when certain poisons are introduced, they afford a material on which the forces of the body act in such a manner as to eliminate the poison; in other but less definite terms, poisons bring into play a *vis medicatrix naturæ* which destroys them. I wish, therefore, to demonstrate that we are often dependent on the poison for producing the very action which best of all eliminates it; and further, that, were no such extraordinary action set up by the poison, it would remain in the body till removed by the ordinary processes of elimination, and, while so remaining, would do harm.

The great and almost universal principle of action and reaction finds a beautiful illustration in the action of poisons on the body, and the consequent reaction of the body on poisons.

At the outset, I ought to state that I do not use the word *poison* in a narrow or limited sense. I give it a larger signification than is allotted to it by medical jurist or toxicologist; and I mean by it any substance which is foreign to the body as food or drink, and which has the power of altering or deranging the natural structure or functions of the tissues. I therefore include by the term many substances which we call medicines, whose therapeutic effects depend upon a power to poison or alter the action of a part, so as to enable it to overcome conditions which are the consequence of disease. For instance, a diuretic medicine, such as digitalis, is a poison which excites the kidney primarily for its own elimination; but, in so doing, a dropsical accumulation is removed or reduced. The effects of poisons cannot, however, be called therapeutic or medicinal

in all cases; they are sometimes purely morbid, but nevertheless they lead to the elimination of the poison. Such, for instance, is the suppuration which follows the introduction of virus, where the poison is eliminated in the pus of the pustules or abscess which follow. This principle holds equally true in the case of poisons which produce cutaneous eruptions; it is true of the exanthematous fevers, where the eruption carries off the poison; and it is true of blood-poisons of every kind, which lead to inflammation, desquamation from epithelial surfaces, or suppuration. When the poison is eliminated, it either comes away as a secretion from a free surface, or it is contained in cells which are themselves discharged. The former holds good with the milder poisons; the latter especially applies to the severe poisons.

We say, therefore, that poisons lead to their own elimination by the action they set up in the cells of the various tissues; and so acting, they sometimez produce a therapeutic, sometimes a morbid effect; but in either case their action is self-eliminative.

In order to explain this great law, which pervades not only the science of pathology, but also the whole domain of the therapeutic action of medicines, I shall first describe its application to individual cells, then illustrate by examples its application to diseases depending on poison in the system, and conclude by showing that the curative action of medicine depends upon its operation.

1. What occurs in a cell when a poison acts upon it? This depends very much upon the kind of cell so acted upon, and for this reason we must study the process on three different classes of cells, remembering that in all cells there is an absorption of nutritive matter, which, being applied to the growth of the cell, becomes endowed with the cell's properties. In the first class of cells, this process of the absorption of nutritive matter, and the endowing it with vital properties, forms the chief part of the cell's life and work; the nutritive material being retained in the cell till used or oxidised in the performance of its work, and then cast out as waste or decomposed matter. Such cells exist in the nervous system, and in all non-secreting organs; when a poison acts upon them, and they are stimulated by it, they rapidly fill with nutritive matter, with which the poison passes into their interior, they multiply, and the result is what we call an inflammation, with effusion, exudation, or suppuration, as the case may be. It is on this class of cells that poison acts most seriously, because it is so long retained in their interior; hence an especial danger in our poisons being determined to the nervous system. Cells of the *second* class absorb matter into their interior, and, having changed its chemical and vital characters, discharge it as the elements of a secretion. The cells of the liver, pancreas, and salivary glands are of this class. When a poison acts upon them, their action is increased, whereby they secrete largely from the blood; and, having a special affinity for the poison, they withdraw the poison from the blood, and throw it rapidly out of the system. When our poisons act on the secreting organs, they are therefore somewhat rapidly eliminated. The *third* class of cells is purely excretive; they simply withdraw materials from the blood into their interior, and pass them on without change as the constituents of an excretion. The individual elements of the excretions preexist in the blood, and are simply filtered off by these excreting cells. The cells of the kidney, the skin, and the bowels are of this kind; a poison entering them excites them to increased activity, whereby more poison still enters, and keeps up in them the eliminating process till the poison is exhausted. It is fortunate when our poisons select these cells for their chief seat of action, for two reasons. A desquamation of the skin or renal tubes, or a large discharge of epithelium from the bowel, is a slight matter, compared with similar cell-changes in the brain or other vital organ; and, secondly, when once a poison is eliminated by the skin, kidney, or lower part of the bowels, reabsorption of it can but slightly occur. The practical conclusion of all I have said amounts to this: that we are to endeavour to determine the attack of our poison to the organs with excreting cells—the skin, the bowels, the kidney; and to promote the activity of these organs as far as possible within the bounds of health; and, when one excreting organ fails, or is unequal to the work, to excite by medicine the eliminating powers of the rest.

When the stimulus of a poison is applied moderately, we get increased activity in the functions of a part; when the stimulus increases, we get the various degrees of cell-multiplication, ending in the production of exudation-cells, pus-cells, and other departures from the normal standard of cell-development.

2. Passing to the second division of our subject, let us now consider the application of our law to those diseases which depend upon the presence of a virus in the system. We often gather valuable information by observing things under their simplest aspects first. We shall, therefore, regard the effects of poison or virus introduced through the skin by the ordinary nettle or by a bug-bite. We have first the elevation of the epidermis in white patches, and around these considerable vascularity of the skin; the white patches consist of epidermic cells in a state of great activity and tumefaction; and we find that, after the lapse of a certain length of time, the pain, swelling, and poison have disappeared; in short, the excessive action of the cells has disposed of the poison, without its entrance to the system. As a rule, we shall find that where poisons excite great local irritation, with excessive cell-action, the constitutional effects of the poison, *cæteris paribus*, are diminished.

We adduce as our next illustration the exanthematous fevers, which, we admit, depend on the introduction of a special virus. This virus, having found its way into the system, is the occasion of a series of processes which have for their object the elimination of the poison.* In the exanthemata we have, with the first symptoms, rapid growth of epithelial cells in the skin and kidney, and, according to the able researches of Dr. Fenwick in the mucous membrane of the digestive canal; from each of these excreting surfaces epithelial cells are discharged, laden with granular matter, the result of their increased activity; each cell having performed its quota of eliminating work, brings away with it a portion of eliminated poison. In these active exertions of the eliminating organs, it is not so much a new kind of action, as an increased degree of that same action which constitutes their normal function. An extraordinary amount of effete matter is circulating from the increased waste and oxidation going on in the system, and the poison is stimulating the cells to their increased work. In measles, the respiratory mucous membrane joins with the skin in the work of elimination. In small-pox, the virulence of the poison sets up still more decided cell-changes, and elimination does not take place till the cells have reached the pus-cell stage. In each and all of these,

* And I affirm that these salutary processes, which we call symptoms, are as dependent on the poison for their production as those other symptoms in connection with more vital organs, which seem to have no beneficial result. In fact, the disease in these cases leads to its own cure, according to a beneficent law, by which poisons necessarily set up that very action which will lead most rapidly to elimination.

we doubt not that the right organs for elimination are selected by the poison, and the right kind and degree of cell-activity is set up for the most effectual disposal of the poison. Let us remember that, as for the body in health, so also here are laws which regulate the body in disease; and it is for us to watch lest anything disturbs the laws which govern these natural efforts. When they are too slight, let us encourage them; when too active for the endurance of other important vital functions, let us try to modify them, and let us try to remove any hindrance which may prevent them following the course which makes for health. We cannot regard these eliminative efforts as the result of some instinctive power which resides in the body to meet emergencies; they must follow the poison as effect follows cause; and, though not so clearly seen step by step, I believe they in no wise differ in principle from the production of hydrogen gas by adding sulphuric acid to zinc filings, or carbonic acid by adding it to chalk. In the former case, the poison is doubtless as directly the excitant of its own elimination, as is our strong acid the cause of carbonic acid or hydrogen being set free.

Passing to another class of diseases depending on the introduction of a poison, we have syphilis, dissecting wounds, and poisonous bites, which affect the whole system. In the worst of these cases, the poison does not produce local effects with profuse suppuration and discharge, and the organs chiefly affected at first are not organs of excretion; thus ulterior and more serious processes are required for the elimination of the poison. In a case of syphilis, I regard the inflammation of an inguinal gland as a process set up by the poison, which will lead to its own elimination; and I regard a suppurating bubo as containing, in its discharge of pus, a large quantity of eliminated poison. In this I see a reason why soft chancres with suppurating buboes have but a slight secondary effect upon the system; while a hard chancre without a suppurating bubo is almost always followed by secondary symptoms. A bubo, therefore, is to be regarded as a natural effort to cure the disease. I regard each of the secondary symptoms of syphilis as the means used by Nature to throw off the poison and to cure the disease; and in the most approved methods of treatment I see an admirable illustration of my principle. Each of these, whether the mercurial or iodide treatment, depends upon the fact that we give a mineral poison which excites the eliminating glands to throw it off; and this excitement of the eliminating glands, when kept up, gradually drains off another poison, which, acting upon the skin or mucous membrane, is slowly removed with considerable disfiguration of the surfaces at which the eliminating process occurs. The physician comes in, and exchanges the elimination by a morbid process into elimination by a medicinal process.

Before leaving those diseases which depend upon a poison introduced from without, I beg to refer to cholera as a good illustration of our theory. The chief symptoms of cholera are evidences of activity in the eliminating organs. The poison has been introduced; and what we regard as the disease are really efforts to throw out the poison. The patient dies when the elimination ceases, or when the poison is too strong for the eliminating process. The diarrhœa, the vomiting, and so on, are Nature's efforts; and our conclusion is, that no cure will ever be found for cholera. To attempt it is as absurd as to seek for the philosopher's stone. What, then, are we to do? Certainly not to interfere with Nature, but to follow her; to help the eliminating organs by eliminating medicines such as calomel; and to support the strength. We must become the servants of Nature, for we can never be her masters; and, if we lock up the bowels, or stop elimination, we must pay the penalty of the encounter with Nature's efforts by seeing the patient die. If I might dare to disagree with Dr. George Johnson, I would say that his treatment partakes too much of mechanical evacuation, and too little of medicinal elimination. Cholera, then, can never be cured, nor can Rinderpest, nor any other disease depending on a poison; because what we call disease is really a violent effort to regain health. All we can do is to see that the symptoms indicate that the disease is following its laws, and in no way falling below or passing their bounds. I would no more think of interfering with what I call the normal symptoms of cholera, than of stopping the vomiting which is throwing a dose of arsenic off the stomach.*

If I were asked to prove that poison is thrown out by the morbid process it sets up, I might adduce the vaccine pustule which is produced by vaccine virus, and from which vaccine virus is discharged. In such an instance, the thing is clear, a poison comes in, cell action with inflammation is set up by it, and this very process reproduces or brings out the poison. Another instance, equally clear, is to be found in gout, where uric acid pre-exists in the blood, sets up a morbid eliminative process in a joint by which the acid is eliminated from the blood into the joint, and thus the blood is purified; the beautiful experiments of Garrod, showing that fly-blisters over inflamed joints in gout eliminate the poison, give us a valuable practical hint here. Doubtless, rheumatism has its poison thrown out in a similar manner, and when these poisons are known to have a strong affinity for vital parts, and are liable to be eliminated by them, rational medicine comes in and diverts the action of the poison to the great eliminating organs, the skin, the kidneys, and the bowels.

3. I must conclude this somewhat lengthened paper by showing that the effects of many of our medicines depend on their powers of self-elimination. They set up an eliminative action, and thus carry with them out of the system large quantities of the secretions of the organ on which they act. It may be well to illustrate this by referring to medicines which act upon each of the great secreting organs. It will be necessary to show, in the case of each mineral medicine, that its mineral base at least appears in the secretion of the organ on which it acts. With organic substances, this is not necessary, as decomposition of them often occurs in their passage through the eliminating organs; such, for instance, is the decomposition of benzoic into hippuric acid, and such also the decomposition of vegetable acids, which pass out in urine in combination with the alkalis as carbonates.

Looking to the liver first, I will take as an illustration the salts of mercury as the great promoters of biliary secretion. Do we find calomel in the secretions of the liver? Most decidedly; and we find it in the secretions of every organ whose activity is increased by it. In the case of the liver, we would say that between the mercurial particles and the hepatic cells there is a special affinity, which brings into play a force or forces by which the calomel is withdrawn from the blood. The greater the quantity of calomel, the stronger becomes the process for its elimination; and the osmotic forces, finding ap-

* While, however, a cure for cholera can never be found, we may find an antidote for the poison; and we may learn when and how to interfere to relieve those symptoms which do not mark elimination. For instance, I should suggest that the spasm of the pulmonary arteries, which produces collapse, be treated by the administration of chloroform, which, by its local effect, as in asthma, would effectually relax the vessels.

propriate material to act upon, and acting through the animal membranes as through a dialyser, select for their action those substances which make up a secretion, and with them mercury is eliminated. The mercury gives, as it were, a fillip to the hepatic cells.

Again, do we find our diuretics eliminated by the kidneys. Most assuredly. To name a few, we find antimony and nitrate of potash so eliminated; so also with juniper, turpentine, and uva ursi. The acetate and other salts of potash having a vegetable acid in their composition are eliminated as alkaline carbonates. Many organic diuretics are decomposed in passing out of the system; but some still preserve their entirety, and appear in the urine. We have here, then, another instance of the secretion of an organ being increased by a class of substances which it eliminates from the system.

Sudorifics act in the same manner on the skin, because they are partially eliminated by the cutaneous surface. To take sulphur as an example, we find it opens the skin, and is thrown out by the skin. I might here advert to the great advantage of combining these self-eliminating medicines with specifics. By so doing, we excite the cells of any one eliminating organ on which we may wish the specific to act.

I have tried and found, by crucial experiments, that when arsenic is given, it often fails to cure a skin-disease till sulphur is given with it to determine its action to the skin.

The action of iodide of potassium on the salivary gland is peculiar, inasmuch as the salt being swallowed with the saliva is re-absorbed, to be again in part eliminated by the saliva, until entirely removed by the kidneys. That this is practically true, is proved by the fact that iodine may be detected in the saliva for several days after taking a single dose.

The same is more or less true of all poisons which are eliminated into the digestive canal by the salivary glands, the stomach, liver, pancreas, or small intestine. They are eliminated and re-absorbed, and again eliminated, till wholly removed by the purely excreting organs. In this we see another reason why we should determine as far as possible the action of poisons to the skin, kidneys, and bowels. Some poisons are eliminated by the stomach, and unless vomited are very liable to re-absorption; *e.g.*, arsenic injected under the skin is often eliminated by the stomach and may be detected in its contents; and when this occurs in those animals which cannot vomit because of the shape of the stomach, the effects of the arsenic are greatly increased because it is re-absorbed. I well remember performing with Dr. Harley some experiments to this effect; and in the case of the non-vomiting animal the effects were so distressing that we felt it necessary to kill the animal outright.

Finally, aperient medicines for the most part do not act by their local effect on the coats of the bowels, but, entering the blood, they are eliminated by the intestinal glands, and carrying with them the watery parts of the blood and mucus with epithelium, they produce watery evacuations.

I have already trespassed too far upon the kind attention of this meeting, and must now conclude. The issue of my paper leads me to look upon the symptoms of diseases depending on a poison in the system as of the same nature and in the same light as I regard the action of medicine or effects; and I am compelled to regard them both as salutary. I look upon the diarrhœa of cholera and typhoid, the rapid oxidation of fever, the arthritis of gout and rheumatism, the cutaneous eruptions of the exanthemata and syphilis, a bubo, or a suppurating gland from a dissecting wound, as being the effects of poison no less salutary in their tendency than the purging of calomel, the diuresis of antimony, or the sudatorial effects of sulphur. They are each and all our friends, and they invite us to unite with them in driving out our common enemy the poison; and they tell us to interfere only when our experience shows us that without us they cannot perform their work, or can perform it only in such a way as to seriously injure our patient. Surely, then, the highest office of the physician is to watch with careful eye lest the eliminating processes are carried too far for the strength of the patient, lest in fever our patients' tissues should be burnt away, lest the eliminating organ should be injured in the work, and lest the poison fail to operate upon the organs best calculated for its elimination.

Progress of Medical Science.

ANATOMY, PHYSIOLOGY, & PATHOLOGY.

Epithelium of the Air-Vesicles. Dr. C. O. Weber says that there is no doubt of the existence of this epithelium, at least in the fœtus. In a fœtus four months old, it may be easily isolated from a pulmonary vesicle in the form of a small spherical mass. (*Virchow's Archiv;* and *Gazette Méd. de Paris,* June 16th, 1866.)

Caries in the Anthropomorphous Apes. M. Kirchoff communicated to the Academy of Sciences a paper, read at the meeting on June 4th, in which he describes caries as having been met with by him in several crania of apes which he had examined. The skulls of four out of nine chimpanzees, and of one out of thirty ourang-outangs, presented the disease more or less extensively. The bones of the skull were diseased in nine cases, and in some the teeth. (*Gaz. Méd. de Paris,* June 16th, 1866.)

Chemical Pathology of the Brain. Dr. Adam Addison discusses this subject in the *Journal of Mental Science.* The results deducible from his observations are, he states, as follows. 1. A confirmation of the assertion that the different anatomical parts of one and the same brain present great differences in their quantities of water and fat (with the addition that these differences appear to be greater when complicated by insanity). 2. A confirmation of the fact that the gray substance is far poorer in fat than the white. 3. A confirmation of the law that the quantity of matters soluble in ether stands in an inverse relation to the quantity of water. 4. In the greater number of the foregoing cases, the results as to the quantities of water were slightly higher than those of other experimenters on sane brains. 5. The quantities of fat were generally smaller, and that in two cases of idiocy, one of dementia, and one of chronic melancholia, they were below the quantity found in the new-born child, and in two cases not greater than the amount found in embryonal conditions of an early stage. 6. The quantities of phosphorus did not have a parallel connection with the degree of intelligence. 7. In three cases of hemiplegia, the average quantity of fat in the corpus striatum, optic thalamus, and gray substance of the hemisphere opposite the paralysis, was less than the average quantity in the same parts of the other side. 8. In a case of cancer cerebri the cancerous mass contained less fat and more albuminates than the unaltered cerebral substance.

We are requested to remind members of the Association that the Annual Subscriptions became due on the 1st of January. They can be paid either to the Secretaries of the Branches; or to the General Secretary, T. Watkin Williams, Esq., 13, Newhall Street, Birmingham.

British Medical Journal.

SATURDAY, OCTOBER 20TH, 1866.

OUR SOLDIERS: HOW WE KILL THEM.

THE Report of a serious outbreak of yellow fever in the island of St. Thomas gives us an occasion to publish a summary of one of these fearful inflictions, to show how our great army managers at the Horse Guards provide for these things—how they anticipate the evil, and how they meet it when it comes.

Deputy Inspector-General Barrow, in the fifth volume of the *Statistical, Sanitary, and Medical Reports*, has published a Report of the epidemic of yellow fever which occurred last year in Bermuda. This Report is published by authority, and presented to Parliament, and, as Professor Maclean of Netley (who last year made it the special subject of a clinical lecture) remarks, was "written for our learning".

The scene of the epidemic in Bermuda was St. George's Town, a hotbed of filth and cesspools, lying in a basin, undrained, cut off from all winds, and densely populated—the very place for yellow fever to "run riot in", as Dr. Barrow says. Yet here, in this focus, where corruption invites the direst of fevers, our Government quarters its valuable and costly soldiers. And in what kind of barracks? Sanitary and barrack commissioners have laid down, in their minute detail, rigid rules for the construction of barracks. How these rules are carried out in the yellow fever zone, Dr. Barrow explains for us. "The barracks are intolerably hot in summer, as the prevailing south-west wind is completely cut off by a lofty wall within a few feet of the rear of the building." Their "ventilation is bad, and the men's rooms scarcely raised above the level of the ground, low ceilings, small windows, crowded outbuildings, privies placed to windward, and water-tanks close to the dwellings; the whole area inclosed by a wall, which obstructs the sea-view, and keeps off the southerly winds." The hospital is "intended for forty-eight patients, but is fit for only twenty-four;" and the wards are fitted with water-closets *à demi—i. e.*, without water. To make the picture complete, there is a burial ground a few hundred yards off, "*quite full of graves*". Did the *Lancet* Commissioners ever meet, in metropolitan workhouses, such a combination of health-destroying elements as these? How is it, then, that public indignation, which has been so excited in reference to union workhouse evils, should have silently let pass such a frightful condition of things as here described, and which culminated in so fearful a mortality?

Speaking of this inviting condition for the advent of the yellow fever offered by St. George's, Professor Maclean remarks: "Is it too much to say that it is a disgrace to our civilisation, that such a state of matters should be found in a town under British government, and in a station where British soldiers are quartered?" Forewarning has been no forearming here. Again and again have epidemics raged, to the destruction of our soldiers; but still has the lesson been taught in vain. In 1843, 15 officers, 297 men, 29 women, and 30 children, were slaughtered by the fever; and even this last deadly lesson of 1865, Professor Maclean anticipates, will be as unheeded as the preceding lessons have been.

The tale, as told by authority, is this. Yellow fever appeared in Bermuda towards the end of June 1865. On July 15th, part of the 2nd Regiment, 756 strong, arrived from Gibralter. Seven companies were encamped at Bowz Island; and three "at the Navy Tanks, within half a mile of St. George's, now known to be a tainted district." On the very same day, a sergeant of the 39th Regiment (which the 2nd Regiment came to relieve) was smitten with yellow fever; and on the next day, Dr. Hunter, health-officer, called on the commanding officer of the 2nd Regiment, and urged him instantly to move his men away from the infected spot. But doctors' advice in matters sanitary is usually not favourably received, and was here once again fatally unheeded. The 39th Regiment, happily, sailed for England. On the 23rd of July appeared the first case in the fated 2nd Regiment, and from that day forwards the men fell thickly; and then only, and too late, when the regiment had become "thoroughly tainted", was it moved to Ferry Point; and yet only half moved, for six officers and fifty-six men were left behind. Moreover, incredible as it may appear, in defiance of all warnings, the head-quarters, the commissariat, the civil departments, and the general hospital establishments, where the sick were treated, were all left behind, in the very focus of disease. Fast as the orderlies in attendance on the sick were struck down, fresh men were sent in from the camp, until at last such was the drain of life, that "*there seemed a probability of the whole force being expended.*" At this period it was that Dr. Barrow appeared upon the scene. On the 23rd and 25th of August, two medical officers arrived from Halifax, and seven (including Dr. Barrow) from Canada. Dr. Barrow at once took the position of principal medical officer. He found all the medical men of

the force prostrated and worn out. There had been 238 cases of fever, and 65 deaths, of which 53 had occurred at St. George's. There were 100 sick in the general hospital, and 13 were admitted on the day of his arrival. His first act was to remove from St. George's every man "he could induce the military authorities to send into camp, and to hire blacks to carry on the service lately performed by soldiers." He was met with "difficulties", and there had been all along "difficulties"; but, happily, they did not stop him. His description of the state of the General Hospital is fearful. Seventy men were thrust into a place fit only to hold thirty-five. And this is what he tells us: "The sick were not only lying around the wards, but may be said to have covered the entire floor." Professor Maclean, in his lecture referred to, thus sums up the matter: "There lay these unhappy men on the floor of this pesthouse, ejecting black vomit over one another." Dr. Barrow went at once into this scene of horrors with his brother officers. They pitched tents, and brought the sick into them; yet still did the epidemic rage, and the sick pour in. All the medical officers who had come from Canada, including Dr. Barrow, were struck down, and four of them died. At St. George's, 290 cases were treated, and 107 died. Of the officers who were left there, thirty took the disease, and fourteen died.

Professor Maclean, commenting on these facts, says that "it would be difficult, even in the lamentable history of Crimean blunders and disasters, to find anything more painful than this." But what is still worse, his "experience leads him to fear that the lesson will have yet to be taught again and again"—in fact, that the ignorant stubbornness, which resists the teachings of sanitary science, will still continue to direct the health department of our army. Assuredly it will do so, so long as the medical officers of the army are looked upon only as men of the "Civil Department"—so long as they are permitted to have no *command* even in matters touching the health of the soldier. We have had our Lord Herbert's Commission, and our Parliamentary Inquiry into the State of the Health of our Army; and we have our Netley, and our sanitary science, and our sanitary officers; and in this lamentable case we have a specimen of the progress actually made by us in this direction! Our army medical men are taught at Netley special sanitary knowledge, for the very purpose of saving our soldiers from visitations of this kind. They are fully possessed of the requisite preventive knowledge; but they are powerless in its practical application. Stubborn and unknowing officialdom steps in, and thwarts and ignores them and their science. The Report will be presented to Parliament; people in office will shake their heads at the details; and, unless public opinion steps in, the same terrible tragedy, under the rigid rule of redtapeism, will, in due course of time, be acted over again.

We know not what may be the value attached to the lives of our soldiers, as human beings and as defenders of the country, by Horse Guards people. But, if officialism be dull to the teachings of humanity and science, it may perhaps open its eyes to another view of the matter. We would suggest that even the money transaction in this proceeding is a very bad one. If a made-up soldier be worth £150 as an article of commercial value, it follows that the loss of five hundred men is a sheer loss of £75,000 to the country. And we need not tell our brethren that death and destruction, of the kind we are now dealing with, are completely unnecessary; that they result, not from the will of Providence, but from the wilfulness of those in office, who refuse to use the means—the scientific knowledge—which Providence has placed at our disposal for their prevention and anticipation.

We cannot conclude without again asking, How comes it that public indignation has not been stirred up by the press at large to anticipate the recurrence of such outrages to science and sanitary laws as those here described? How is it that public monitors who have so furiously raged together against workhouse mismanagement—have strained their gullets at a gnat, and yet quietly swallowed this enormous camel of official misrule?

ARMY MEDICAL MEN AND ARMY MEDICAL DIRECTION.

In last week's Journal, we alluded to an appointment lately made by the Army Medical Direction; and have, it appears, left some obscurity behind us in dealing with the transaction there related. A correspondent asks whence came the extract—"Another, an army surgeon of great ability and high attainments, has resigned his commission to establish himself in the same specialty at Edinburgh." The words are Dr. Hunter's, and are to be found in the fifth edition of his *Letters*. He is speaking (in order to show the excellence of his treatment) of the splendid business he and his like were doing. "The practice in London," he says, "now requires the services of no less than four medical men." One physician, who enjoyed a large practice, and "for thirty years held an important medical appointment, has become so zealous a convert" that he forsook them both to join Hunter in his London practice. Dr. Hunter also tells how the blessings of his new light were being widely scattered. One convinced man had become a second Hunter among the weak-chested ones of Dublin. And, as even Edinburgh, with its mighty medical host, was not to be excluded, he informs us, as we stated, that "an army surgeon of great ability," etc. This we quoted because it

seemed to us probable that the gentleman whose merit was thus highly certified to by Dr. Hunter was the same person as he who, as reported, has again been received into the bosom of the service. It struck us that this certificate of worth (as well as, no doubt, the gentleman's own intrinsic merits) might have assisted once again in securing for him the favour of our Army Medical Direction. We hope, if this supposition be true, that Dr. Hunter will, in his next edition, tell us why the once retired army surgeon forsook his line of business, and once more returned to his original business in Her Majesty's Line. Dr. Hunter adduces, as a proof of "the deep and firm hold which the system of treatment introduced by me has taken of the professional mind", the facts above mentioned. Why, then, did the army surgeon forsake this excellent feast at Edinburgh to return to the Lenten diet of Her Majesty's service? Was the canny Scot too much for the "cute" Yankee? Or is the other hypothesis correct; viz., that our Army Medical Direction-General has become enamoured of the Hunterian (modern style) method of curing lung- and throat-affections by the inhaling and puffing-out vapouring system; and so enamoured, that it has resolved to re-introduce into the army, for the benefit of the soldier, one who has practically made himself a master of the business. If such were the Direction's mind, of course the above testimony of Dr. Hunter's to the "ability and high attainments" of the gentleman in question, must have been both highly gratifying to the Army Medical Board, as well as serviceable to the individual himself. To have been an army surgeon, to have forsaken the service to follow in the footsteps of Dr. Robert Hunter (author of *Letters, etc.*), and once again to become an army surgeon, is, we apprehend, a remarkable alternating movement—an original feat not unworthy of record.

Certainly, the Horse Guards may boast that they have at least a Medical Direction which sits high up above all vulgar professional prejudices, which knows how to appreciate talent wherever it finds the thing. Let our brethren in the army be thankful that they have at head-quarters those to care for their interests who understand the folly and emptiness of professional etiquette, and of all that foolish pride and hurtful prejudice which are bound up in the old-fashioned idea of what is called the honour and dignity and morality of the profession. Let our army medical brethren rejoice that they have to direct them those who are not ashamed to play the Dead March in Saul over the departed ghosts of these dusty worn-out orthodox worthies. Let them rejoice that they have to regulate their grades those who are not too proud to shake hands with scientific worth, even though its science be somewhat *quasi*, and the condition of its hands doubtful; who care little what waters they fish in, or what kind of fish they catch, provided only they get the article which is up to the level of their own ideas of fitness. Our army medical brethren must remember that they are in *service;* and that people cannot pick and choose their bedfellows; that they must be contented to sit down in fellowship with whatever companions Her Majesty's representatives, in their wisdom and discretion, may provide for them. Free-trade in physic is the order of the day. If a whole college of first-rate hygeists be admitted into the service—if

> "Ambubaiarum collegia, pharmacopolæ,
> Mendici, mimæ, balatrones: hoc genus omne",

find favour with the authorities—what right have army medical officers to complain?

It is hard to believe that any Examiner of the College of Surgeons can continue to hold office longer than ten years, after the opinion lately expressed in the resolution of the Council. Our own strong opinion is, that ten years is double the time during which an Examinership ought to be held. The office is one not only of honour, but also of considerable emolument. It is one, also, which requires, or which ought to require, the possession of advanced—*i. e.*, the latest—anatomical and physiological knowledge; such as can only be possessed by those who are engaged in the teaching of anatomy and physiology. Moreover, the emoluments of the office would naturally be, in many cases, a matter of no small consideration to Fellows of the College who are so engaged; they being, for the most part, men occupied rather in scientific pursuits than in the enjoyment of wealthy practice. To them, therefore, the Examinership would be a valuable encouragement; and, on the other hand, the College would have in their assistance just that particular knowledge in which at present they are most defective. We sincerely trust that the Council will no longer delay the proper infusion of this special knowledge into the Examining Board; and that they will elect Fellows, though they may not be on the Council, who will be accepted by all as representatives of anatomical and physiological knowledge. We may add, that the profession at large will undoubtedly expect the immediate retirement from the Examinership of the Fellows who have held office more than ten years. The resolution of the Council is clearly a standing condemnation of their further adherence to office. We shall, therefore, expect to have shortly to announce the retirement from office of Mr. South, Mr. Luke, and Mr. Cæsar Hawkins—these gentlemen having, all of them, laboured as Examiners for upwards of fifteen years. We still hope that the Council will reconsider its resolution as to the proposed ten years of office. We are thoroughly satisfied that a fair and full arguing of the question would lead to the conclusion, that five years' tenure of an Examiner-

ship is tenure enough; that the good of the College, and a liberal consideration of the claims of the Fellows at large to partake of the benefits of the office, require that no man should be allowed to hold it for a longer term.

The well known scientific labours of the late Dr. Snow assuredly give to the sisters he has left behind him a strong equitable claims upon the civil list. His brother has, we hear, resolved to memorialise the Government on their behalf, and will assuredly receive the favourable influence of the faculty in support of his application. We are glad to hear that the secretaries of several medical societies have undertaken to bring the subject forward at their meetings with a view to obtaining a strong expression of opinion such as may assist in furtherance of the objects of the memorial.

The following, which is taken from an official part of the *Times*, requires confirmation. It reads very like an invention of the enemy.

"Miss Shaw Stewart and eight attendant lady nurses from the hospital at Netley have taken up quarters in the infirmary at Woolwich, and for some days past have performed day duty at the Herbert Hospital, attending on the invalid soldiers, dispensing medicines, etc. The inmates complain, however, that they are unnecessarily deprived of the privilege of having their wants attended to by nurses of their own sex provided by the well-organised Army Hospital Corps, to whom they have been accustomed; and it appears to be generally considered that the introduction of the lady nurses is an innovation from which no benefit can possibly be derived. It was stated yesterday, that the number of patients in the Herbert Hospital amounted to about three hundred, and that nineteen in twenty had been understood to have expressed a dislike to the attendance of female nurses being thrust upon them contrary to their desire."

M. Bouvier, *apropos* of contagion of cholera, told the Paris Medical Society that he had had two cases of cholera in the Hôtel Dieu since he entered on duty there.

"Three cases of cholera had occurred in the ward a few days before my arrival, two of whom were immediately transported to the special cholera ward. Both of my patients who took the disease occupied the beds of two of these cholera patients, and were in good condition of health when they came into the hospital."

The Hertfordshire Medical Association have passed a resolution expressing their disapprobation of the discussion by members of the profession of medical subjects in the public journals. "It is futile for any useful result, and seldom fails to compromise the dignity of true science."

Dr. L. Beale says his observations show "that in cholera there is evidence of shrinking and casting of the villi, which absorb the nutrient constituents of the food, and wasting and degeneration of the follicles of Lieberkuhn, which secrete a vast quantity of fluid required for the solution of the nutrient matters about to be absorbed."

On Oct. 14th, no death from cholera was registered in Paris.

The last published statistics of Paris, for the three months from April to July, show the birth of 13,405 infants. Of these, 9601 were legitimate, and 3854 natural. There were 4877 marriages. During the same period, there were 11,114 deaths, of which 5780 were males.

Several papers have announced the death of M. Jobert, who has for some time past been afflicted with insanity. *L'Union Méd.* of the 16th instant states that the announcement is incorrect, although he still remains in a very precarious state. M. Jobert was born in 1799, at Lamballe (Côtes-du-Nord), the name of which place he added to his own. He passed his examination in 1828, and became successively surgeon to the hospital St. Louis and to the Hôtel Dieu. After the revolution of 1830, he was named surgeon to the Hospital of St. Cloud and consulting-surgeon to the King, and appointed to the chair of clinical surgery. In 1852, he was named surgeon-in-ordinary to the Emperor. He is a member of the Institute and of the Academy of Medicine.

A Commission at Lyons, formed to report on the curative method of stammering, proposed by M. Chervin, state that, having followed his theoretical and practical demonstrations, and witnessed the good results of his method, they consider it a means of cure, physiological and gymnastic. They recommend that a grant be made, to enable him to practise on the children of the poor; and hope that his system will become popular in all the primary schools, so as to enable teachers to correct in their pupils the evil, before it becomes permanent.

Dr. Ochwadt, head of the hospital department during the Schleswig war, says that between February and November, of 11,352 patients who came under his observation, 19.4 per cent. were suffering from syphilitic diseases. In peace, the number of syphilitic is not more than about 3 per cent. in the Prussian army. Dr. Fränkel suggests that in future during war it will be as necessary to supervise prostitution as to provide hospitals for the sick.

Dr. Després has retired from the editorship of the *Gazette des Hôpitaux*; and in this wise. He wrote a series of articles against the contagion theory of cholera. The proprietor of the journal, without consulting Dr. Després, somewhat repudiated his articles; and, in fact, inserted a letter opposed thereto, without his knowledge. Thereupon the doctor throws up office.

THE CHOLERA.

The deaths from cholera registered on Tuesday were no fewer than thirty, besides seven from diarrhœa. The central districts, with the smallest population, are now the worst, for, of eight deaths in the north, four, in hospitals, were brought from the central districts. This brings the mortality of the latter up to nine; whereas the eastern districts, with nearly double the population, had only eight deaths altogether.

Since the outbreak of cholera in the district of the University College Hospital, ninety-one cases have been admitted, and 5954 persons suffering from diarrhœa received relief.

Since the 2nd inst., there has been a decided diminution in the number of cholera patients in Vienna and its neighbourhood. The present number is about 150 to 200 cases, and from 60 to 70 deaths, daily.

Up to the 2nd inst., 7,650 persons were officially known to have been seized in Berlin with cholera, of whom 4,840 had died, 1,908 recovered, and 982 remained under treatment. During the great festival week, from the 17th to the 23rd of September, in spite of the stirring about the streets from morning to night of enormous crowds of people, when, no doubt, excesses in diet were the order of the day, no exacerbation of the epidemic occurred.

The general spread of cholera throughout Germany has within the last weeks become more and more pronounced. In Breslau, the number of cases up to September 30th was 5,875, and of deaths 4,153. In the Neumark Brandenburg, the disease has raged in a truly formidable manner. The first town where it appeared was Arnswalde, where upwards of 600 persons were swept away by the plague—*i. e.*, exactly 10 per cent. of a population of 6,000. The town contains little more than 400 houses. And, whilst here the disease has somewhat subsided, it has invaded other towns with great vehemence. In Neudamm there is hardly a house without a case of cholera, and recovery is quite the exception. In Soldin, the disease is as yet restricted to three or four streets; but in these scarcely a house, and comparatively few individuals, have escaped. Five per cent. of the population have fallen victims to the epidemic already, and every day it is drawing some fresh houses in its circle. In Königsberg, the disease has not yet invaded entire rows of houses; but, in the vast majority of cases, it has rapidly ended in death, and continues unabated in virulence. The country around has been less severely visited. Most of the villages have remained free; and in those invaded, the disease has emerged in isolated cases only.

The uncommonly warm and pleasant autumn favours the spread of cholera in Wilna and its vicinity. The first case, some six weeks since, was that of a soldier who had come from Petersburg (where the disease was then at its acme), and who was seized at the railway station, from whence he was taken to the military hospital. The next day, another case occurred, likewise in a soldier, who had brought the disease with him from Petersburg. Both cases ended fatally, as did that of the nurse who had tended the patients. These seizures were not followed by any more, until a soldier from Kowno (where the epidemic prevailed), who had come to the camp at Wilna, was seized, and thereupon received into the military hospital, half an hour distant from the town. The next cases were those of two soldiers from the camp, which lies an hour and a half distant from the town, of two inmates of the military hospital—a male nurse, and a patient convalescent from some other affection. Thenceforward stray cases occurred in the town and in the camp, and since a fortnight the disease has become epidemic; yet the number of seizures has not yet on any day exceeded sixty, within a population of 60,000. The largest contingent is furnished by the Jews, who number 30,000. The new Jewish hospital is overcrowded, and two rabbis have died within three days. Here, as in Petersburg, extensive and excellent provision has been made to receive the evil guest. The town is divided in cholera districts, in each of which there is a reception-room, with medicaments, utensils, and attendants, under the direction of a physician, from where the first assistance may be obtained for cholera patients. The hospitals have separate cholera divisions in detached houses. A medical officer, sent here by the Government, treats the disease with bloodletting and hydrocyanic acid. (*Deutsche Klinik*, No. 40, October 7th, 1866.)

In the village Uchdorf, near Königsberg in der Neumark, the disease appeared early in July, when it befel thirty persons, of whom seven died very rapidly. Thereupon the evil appeared to be extinct, as four weeks elapsed without any further seizures; but the disease was imported afresh by a man from Vidniz, a village about four miles distant, and which is said to have lost 40 of its 500 inhabitants through the epidemic. The cases in Uchdorf now attained to the figure of 106, of which 31 ended in death. The victims were for the most part persons in the prime of life, not more than three old people and six children being counted among the dead. Fresh seizures are yet occurring daily. No medical man resides in this locality; only the well-to-do people sometimes send for assistance to Königsberg. (*Ibid.*, No. 41, October 13th, 1866.)

Dr. Livois, mayor of Boulogne, states that between the 31st August and 7th October, 1866, there have been in Boulogne 385 deaths from cholera. The average number of deaths *per diem* being ten; number of English died of cholera between these dates, twelve, including three sailors. The mayor is surprised that people should think anything of ten deaths a day from cholera in Boulogne.

In Belgium, the cholera has been very virulent. Since the commencement of the epidemic to the 15th of September, the number of attacks have been 49,558, and the number of deaths 27,340, or more than half the total number attacked. The population of Belgium is 4,940,570, so that the scourge has carried off 1·67 per cent. of the inhabitants. The deaths are thus distributed among the various provinces:—Antwerp, 4,413; Brabant, 6,993; West Flanders, 1,278; East Flanders, 4,722; Hainault, 2,804; Liege, 5,544; Limbourg, 165; Luxembourg, 762; and Namur, 629.

The cholera at Berlin, after abating considerably, has remained unaltered for the last fortnight. It still keeps up its fatal character, so that we have from ten to twenty deaths a day in a total of thirty cases.

Cholera has appeared in the town of Aderno, twenty miles from Catania. The Catanese are emigrating. Some are packing up for Malta, preferring an incarceration in the lazzaretto to the possibility of catching cholera. The Malta Government has consequently put on a long term of quarantine (twenty-one days) on arrivals from all the ports of Sicily. Malta communications with the coast of Barbary are likewise obstructed.

Dublin has been also made subject to a quarantine of fifteen days.

The alarm of an outbreak of cholera at Alexandria has completely subsided.

The accounts of the cholera at Naples are still very distressing.

Introductory Lectures.

ST. MARY'S HOSPITAL.

Mr. Haynes Walton delivered the inaugural address. Following that rule of order which says "seniors first," he addressed himself to the many physicians and surgeons present, and attributed the goodly gathering of them to the fellowship which the laws of St. Mary's had established between the hospital, the school, and the profession, adding, that it deserved to be well known that the medical governors of the hospital took part as committee men in all that concerned practice and teaching. In most committees they acted on the same footing as the regular medical officers. He asked them in the name of *confrères* to continue to join heartily in the work, and to assist in the many questions that were ever requiring to be answered. He assured them the demon jealousy would not pursue them, that any improvements might enter more readily through them, and any neglect or abuse be the more quickly and smoothly put down by their assistance. The student should forcibly recognise whatever of good supervision emanated from them, as there could be no secret working among the staff, no unchecked selfishness, therefore no corroding suspicion. He thanked them for what they had done, as science, suffering humanity, and the students benefited by them. In addressing himself to the pupils, and new-comers, he thought it well to tell them something of their educational home, to cast a retrospective eye, and to glance at the things that were. It was right that the history of the establishment should be unfolded at that time, fifteen years from its inauguration, and that the present policy should be developed. There had been no failures. Mr. Walton then gave a sketch of the success of the hospital, and alluded to the enlargement in the new wing which was being built, praising its internal arrangements and organisation. The success of the school was then pointed out, and this he considered more astonishing than the successes of the hospital, as the conditions necessary for its prosperity were of a different nature and more difficult to be reached. No happy accident brought this about. The most promising feature in the new hospital was the largeness and completeness of its staff, and the high reputation of the individual members for teaching, writing, and practical knowledge. St. Mary's was well represented in the profession, as the examining boards of their colleges and other bodies testified. It stood high in public estimation, and it had pleased her most gracious Majesty to look there for some to be among those whom she selected to attend her and those most dear to her. He pointed out the general proficiency of the students who had been educated there. It was, he said, the subject of remark by examiners as well as in private life. In the list of honours the students had not disappointed the professors. A large number had sought the competitive examinations, and entered the public services, a fact which showed that these men had confidence in their acquirements. In all that concerned the school in the coming session, in legislation and administration, all had been done that could be done for the student's welfare, and to render his teaching as complete and easy as possible. It need be told the students, for it was scarcely well understood, that the work was not all on their side. The teachers had a great deal of care, labour, and fatigue, and in many instances more than the students. The teaching of elementary matter was always drudgery to a proficient in his subject, and he hoped a remembrance of this would be a check to any restless spirit that might be in a lecture room. The student of the present day had everything to his hand; in his (Mr. Walton's) time it was not so. He then alluded to the very long period which had passed without any change in the medical staff. For years it was unaltered, and even now the old faces abounded. It was not until late in this year that death entered its ranks, and now it fell to his (Mr. Walton's) lot, in his capacity of a public lecturer, to notice the sad calamity, and to allude to the solemn end of our nature, which all healthy minds regarded with instinctive dread. The lecturer then gave a short biographical sketch of his late colleagues, Mr. Ure and Mr. Toynbee. He then turned to the freshmen, who had taken the most momentous step in their life. He urged them not to be daunted by the magnitude of their task, for in three or four months the phantom fright would vanish. There were few studies more difficult than those in which they were about to engage, and much would be required of them during the next three or four years in mental training. The subjects were numerous, lengthened, and intricate, and the sooner they knew this the better. The practice of medicine was not a mere empirical art, nor a mere routine. At the present time there was no more varied or difficult curriculum anywhere established than was required in this country from the candidates for the medical profession. After enlarging on the importance of character, without which knowledge would be useless, and giving some valuable hints in reference to the hours of study, he particularly directed their attention to the necessity of cultivating a knowledge of anatomy and physiology, and hospital practice. Anatomy was the foundation and framework of the profession. Unfortunately it would present itself in unattractive form, and must for a time, except to a very few, be a repulsive study. A surgeon ought to be as familiar with anatomy as with the clothes he wore. He should be able to find any part or object without any puzzle of the memory. When he so knew it he would be master of numberless professional details, and be ready for all emergencies. He pointed out the manner in which dissections should be conducted, and sketched a strong contrast between anatomy acquired by practice in the dissecting-room and the faint trace which memory might retain of ideas not originally impressed by the absorbing sight and the vivid touch. At present medicine did not entirely rest on that basis which was claimed for an exact science. This state of things must not make them heretical, because it arose not from error on the subject, but from want of more knowledge, more time to learn, and more learners. They could not deal with animate as they did with inanimate matter, for it was subject neither to the like laws nor amenable to the same treatment. Neither could they at will take it under their own control, since it was governed by certain vital processes of which they were mainly ignorant, and further, it was under the influence of the mind, which would not yield itself to man's government. They might not be astonished that the treatment of disease in those practical days was constantly undergoing a change. It must not be long before they discovered that a large portion of their attendance in the wards consisted of what they gathered of the natural history of the disease, the phases, and the termination rather than the treatment of any particular disease. In conclusion, he urged the students to work with their teachers. They would be as pleased to assist as the students to get their help. The diligence of the pupil roused the master. For

them to secure the highest attainable advantages there must be association, a social tie, and through this would arise proper respect on both sides. The students should regard the professors as friends ready to help them, and as fellow-students only a little in advance.

QUEEN'S COLLEGE, BIRMINGHAM.

Dr. David Nelson delivered the Inaugural Address. He said that the College seemed to aim at becoming more and more of the nature of an University, not only from the mental instincts of the founder and the vast extension of wealth and intelligence in the neighbourhood, but also from that tendency to a co-ordination of all the sciences which characterised the present age, and made it view nature as a totality, and not in separate parts. In 1853 he urged to the same purport that, however separate the various portions of creation and of the sciences might seem to be, yet were they all blended in nature with one cosmic philosophy. Mr. Sands Cox had begun the College on a medical system alone, but had taken pains to base the medical department upon a preparatory department of literature and general science. Besides this, the medical sciences of themselves comprehended a very wide field of varied learning, including mathematics, mechanics, botany, anatomy and physiology, natural philosophy and chemistry, besides those subjects of inquiry which are more purely medical and appertaining directly and exclusively to the arts of conservation and curation of the body.

Dr. Nelson proceeded to dwell specially upon the benefits which the microscope had conferred upon those who pursue such researches, and said of medicine that it was the discriminative art, which, under the guidance of those faculties called by the general name of judgment employed the subsidiary sciences as a means to an end, namely, the prevention and cure of disease. He drew special attention to the advances of chemistry, as one of the principal handmaids of medicine, more particularly in the success which had attended some of her efforts to build up from simple inorganic molecules materials of a nature almost identical with those that had hitherto been produced under the vital principle alone. This proved that the expectation of further discoveries of that kind was based upon established facts; and that they who were now striving in their secluded laboratories to attain such ends were not to be viewed as idle dreamers, but as pioneers of future discovery, useful to the world even by their failures, and in their success glorious. Medicine, being a composite science, is necessarily complicated. Attempts to simplify it so as to make one process of cure serve for all purposes, and thus bridge the difficulties thereof by a sort of juggle, have been made in all times and under manifold forms, but such efforts had always diminished the more science had advanced; and at the present day not a single philosophic physician believed in any panacea. He next reviewed the department of law, showed the requisites for forming a sound-judging practitioner, and quoted from the work of Warren upon this subject to prove how strongly that eminent gentleman had advocated the extension of literary and scientific as well as legal knowledge amongst that body, such information being necessary for the due performance of their professional functions. As to the engineering and architectural department, he said that, considering the locality, it might have been expected that this, of all the others, would have been the most successful. When he considered the wealth, and the amount of mechanical contrivances constantly in operation in Birmingham and neighbourhood, and how necessary was scientific skill to the safe and economical management of such proceedings, it was surprising that so little advantage had been taken of this further effort of Mr. Sands Cox for the benefit of his native town. There were doubtless sundry gentlemen in the neighbourhood who had not only attained to such accomplishments, but had also gone through regular university courses and obtained distinguished degrees. But there were a vast many more who had made no such progress, and who, therefore, were both damaged in a monetary point of view and in point of social position. Engineering was now in the greatest requisition, on account of the gigantic works everywhere in progress; and proofs of the skill and genius of engineers were to be found in all parts of any civilised country, but still they would do well not to confine their views to mechanical appliances alone, even though combined with elegance of taste; but to study general literature and science, and the grand models of ancient and foreign art, which, while it would tend to induce a sense of personal humility, would really exalt their minds to the highest pitch of contriving excellence. As to the theological department, which owed its existence to the pious generosity of Dr. Warneford, no such branches of knowledge could be out of place in that high walk. Some of the ordinary ministrations of the clergy might not require the exercise of the highest accomplishments any more than ordinary duties in other lofty pursuits; but he who possessed the most accomplishments, would be most fit for the effectual exercise of his holy offices. To understand aright the accepted Word of God, it was necessary to study His works; and to study them properly demanded an acquaintance with the natural sciences. Scripture was constantly recurring to illustrations of the attributes of God drawn from the magazine of creation; and so much knowledge of nature was equivalent to so much knowledge of God, and his attributes. He thought, from his arguments, that it would be seen that one of the principal functions of a teacher in things divine, was to trace to their final fountain head all those various rills of distinctive knowledge the channels of which have, no doubt, been worked out by the keenness of the human intellect, while pursuing this or that particular track of inquiry; but the original source of which was traceable to, though hidden within, the bosom of the Deity. Dr. Warneford, he said, recognised this truth practically by founding the Warneford Prize Essay, the object of which was to multiply proof upon proof of the stamp of God upon nature. Besides these special and ordinary courses of professional study, he went on to recommend the College as a means of instruction in various parts of literature and science, interesting to the general scholar, and private gentleman, who, he said, might attend with advantage upon sundry courses of instruction, such as chemistry, botany, or natural history, according to their tastes or objects in life, without tying themselves to all the courses of any special department. Under such rightly guided efforts for the good of the community at large, assistance might be expected from the friends of sound education as well as the Government, so as to improve the library and add to that museum which already contained such valuable treasures. He alluded to the fact of so many former students of the College being in positions of high public utility here and elsewhere; and founded thereon a claim for public support to the institution which had trained them so well for their present duties. He concluded by giving some excellent advice to the students.

ST. GEORGE'S HOSPITAL.

Dr. J. W. Ogle delivered the inaugural address. He said that on mature reflection it had appeared to him that an introductory lecture was not the opportunity, as some had accounted it, for a dissertation upon any abstract philosophical or transcendental theme, nor the fit occasion for a tirade which to so many was a mere platitude on such questions as medical education and discipline in the reform and organisation of the profession. He thought he should act most serviceably in making his remarks as plain-spoken and as practically subservient as possible to the personal requirements of the majority of those present, bearing in mind the immediate objects which in that place of education they always had in view, not, however, forgetting the adge, "*Difficile est propriè communia dicere.*" First, there were the veterans among them—the Nestors or Coryphei, if the term might be allowed—to whom experience with length of days had secured the respect of the profession, the only tribunal whose judgment was decisive, and the suffrages and gratitude of the public. They could scarcely forget their former impressions and requirements in that place, and would welcome as future compeers those who sought to tread in their steps and to emulate their example. Secondly, there were those who, having fulfilled their course of required study, and being freed from the necessary restrictions of the pupil life, were starting for the course which was before them in the world. Then came those who, not having yet attained to the position of the latter, were nevertheless anxiously expecting it, and looking for the rewards of their exertions, being as yet immersed in the numerous and important studies of their curriculum. And lastly, but by no means least in importance, were those who, having determined as to their choice of a profession, now came forward and enlisted in those ranks to which all present were so proud of belonging. He must congratulate them on the choice they had made of that hospital. In addition to the many advantages which were there to be obtained, he might be allowed to state that he believed the facilities for prosecuting study and for observation which were open there to all students were unequalled in any other metropolitan hospital. He alluded especially to the almost unrestricted access to the patients at all hours. In this they had to thank the wise permission of the board of governors of the hospital, who knew how much it was to the well-being of their charitable institutions that highly trained and efficient medical men should grow up within its walls. They were awaiting the completion of structural and other arrangements, which would enhance still further the value of the advantages offered. At the beginning of their career the question for them to ask and to be informed upon was, What was disease?—which it would be their business to learn, to treat, to combat, and to subdue. They would have to divest their minds, as far as possible, of popular theories on this subject, and to bring scientific thought to bear upon it. It would be foreign to his present object to enter into any consideration of the various agencies by which the disturbance of functions was induced, but it was in the clear realisation of the truth that the correctness of their thoughts as to the treatment of disease must depend. This was a matter which was at the very threshold of all their practical inquiries, and would meet them, so to say, at every turn, and it was one which, he conceived, would be, by the novice at any rate, almost entirely misunderstood. Intimately connected with this consideration was, of course, the abstruse question of the origin and nature of that upon which health (the opposite of disease) depended—namely, the principle of life. Happily they had not in those their studies, either in physical or metaphysical inquiries, to agitate themselves on such matters, diving as it were into the arcana of eternity; but there was an allied question which still vexed not only philosophical thinkers and historians, but also observers of the present moment, to which, though it would probably be never settled to the satisfaction of all, he would briefly allude. It was one which had lately, and would also for the future, occupy the attention of medical men and of physical inquirers, as its interest was much enhanced by the advance which had lately been made in their knowledge of the so-called physical forces, and especially of their conservancy and correlation. The inquiry was whether there was such a thing as vital force or vital energy, and whether they might rightly speak of vital processes. These were terms which until lately were constantly on their lips as physicians and physiologists. The present tendency was no doubt to discard them from the medical vocabulary. Modern enlightenment and direct experiment had shown that many actions and functions which could not formerly be understood as depending upon physical phenomena, that was on phenomena witnessed in matter of substance unconnected with what was termed organic life, and which were therefore ascribed to some peculiar power or force superadded to physical actions, really depended upon such actions, and on such alone; whilst recognising that many of these actions, such for example as digestion, respiration, the power of forming and maintaining the temperature of the body termed "innate heat," were physical actions. It was very clear nevertheless that at any rate a large number of the processes of what was called life could not even yet be explained on merely physical principles, such as they knew them. For his own part, irrespective of the moral or theological tendencies of objections, even if all the processes which they termed functions of organs or parts were positively found to be referable to and could be ranged under physical actions, he should still detect something additional, and wholly different from them in which they acted together. After pursuing this subject, Dr. Ogle touched on the practice of medicine. Physiology and anatomy were the basis of pathology; and to claim for their practice more of a scientific or logical character than was warranted by fact was simply self-deception or charlatanism. The greater part of the practice of physic rested upon experience, and was in the best sense of the word, empirical. Dr. Ogle strongly recommended patience and perseverance. They were entering a profession, than which none was more varied in character, none more interesting in detail. No profession demanded of its members more clearness of conception, more ready command of knowledge, and therefore it was well that they should entertain the deepest sense of their responsibilities. He earnestly recommended them never to let go of the golden thread of Christian sympathy.

The United States Marine Hospital at Cincinnati was lately sold at auction for 75,000 dollars. It cost the Government 250,000 dollars ten years ago.

Horseflesh as Food. It is scarcely two months since the sale of this new kind of food was officially authorised in Paris, and the consumption is now considerable. The establishments for the sale of the flesh are under the surveillance of the Government veterinary inspector. A manufactory of horseflesh sausages has just been opened in the Avenue du Clichy.

Association Intelligence.

SHROPSHIRE SCIENTIFIC BRANCH.

The annual meeting of the above Branch will be held in the Museum of the Natural History Society, Shrewsbury, on Wednesday, October 24, at 3 o'clock. The general business will be then transacted, and several interesting papers read, etc. Edward Burd, M.D., President; William Newman, M.D., St. Martin's, Stamford, Vice-President.

The members will dine together at the Raven Hotel at 5.30 P.M.

SAMUEL WOOD, *Honorary Secretary.*

Shrewsbury, October 8th, 1866.

SOUTH EASTERN BRANCH: WEST KENT DISTRICT MEETINGS.

The next meeting is appointed to be held at the West Kent General Hospital, Maidstone, on Friday, October 26th, at 2.30 P.M. Frederick Fry, Esq., will take the chair, and will be pleased to see his numerous friends.

Dinner will be provided at the Star Hotel, at 4.45.

Papers have been promised by Dr. J. V. Bell, "Ague in connection with Gout"; by Dr. S. Monckton, "On Brain Disturbance in the course of Rheumatic Pericarditis".

FREDERICK J. BROWN, M.D., *Hon. Sec.*

Rochester, October 9th, 1866.

BATH AND BRISTOL BRANCH.

The first ordinary meeting of the session will be held at the Victoria Rooms, Clifton, on Thursday evening, November 1st, at 7.15 P.M.; J. S. Bartrum, Esq., F.R.C.S., President, in the chair.

The following papers are expected:—T. Green, M.D., "Delirium Tremens"; A. Prichard, Esq., "Case of Gonorrhœal Rheumatism"; W. B. Herapath, M.D., F.R.S., "On the Use of the Spectroscope and Micro-Spectroscope in the discovery of Blood Stains"; "On some Cautions arising out of the recent Sudden Deaths at Cardiff Union Workhouse"; F. Poole Lansdown, Esq., "Case of Excision of the Knee-Joint".

C. STEELE, } *Hon.*
R. S. FOWLER, } *Secs.*

12, Meridian Place, Clifton, October 1866.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH: GENERAL MEETING.

The first General Meeting of the present session was held at the Midland Institute on October 11th; Dr. CARTER, President, in the chair. Twenty-six members and visitors were present.

Communications. 1. Mr. FURNEAUX JORDAN exhibited a specimen of Chronic Rheumatic Arthritis of the Hip-joint removed from a woman a little beyond middle age.

2. Mr. ALFRED BAKER read a paper on Recurrent Fibroid Tumour; illustrated with specimens and cases.

Several of the cases mentioned by Mr. Baker were typical of this affection; but the last case brought before the Society was remarkable; inasmuch as a tumour of the arm which, previous to and after removal, presented all the general and microscopic characters of a fibrous tumour, was followed, about a year after removal, by a tumour at the cicatrix, of undoubtedly malignant character, as evidenced by its rapidity of growth and its general and microcopic appearances.

An interesting discussion followed, in which Mr. Gamgee, Mr. Furneaux Jordan, Dr. Steell, and Dr. Russell, took part.

Correspondence.

ON MANAGEMENT OF THE PEDICLE IN OVARIOTOMY.

LETTER FROM JOHN CLAY, ESQ.

SIR,—Having a great objection to discuss personal matters in the public papers, I had hoped to have avoided the necessity of saying anything about the "*due credit*" which Mr. Spencer Wells says in his lecture at Chester has, he thinks, not been given to me with regard to the introduction of the principles of combining *compression with cauterisation* in ovariotomy. But, after the letter which you published last week from Mr. I. B. Brown, I am induced to submit to you the following plain statement in the hope that it may lead to a proper understanding of the facts of the case—at least, so far as I am concerned.

Mr. Brown states, in your impression of Saturday last, "I must claim for myself whatever credit is due for being the first to use a particular kind of clamp along with the actual cautery to the pedicle. This clamp has been described in the *Lancet*, and is similar to the clamp used in the spaying of sows." If Mr. Brown had added that the instrument he describes was a modification of my "clam", no further explanation would have been necessary. That this is the fact, is proved in that number of the *Lancet* to which Mr. Brown refers, when he says, "This instrument is, I think, an improvement on the 'adhesion clam' of Mr. John Clay." Again, when Mr. Brown narrated the case to the Obstetric Society where he first applied the actual cautery to divide the pedicle, he styled me "Dr." (not Professor, as he states in his last letter); whereupon I wrote to him to ask if he referred to myself, and he frankly acknowledged that he did, and that it was my instrument to which he referred, and that he had from the first used a modification of it to divide adhesions, and that now he employed it to divide the pedicle, and that I was fully entitled to the credit of first bringing out the instrument, etc.; and he authorised me to publish his letter, which I did in some of the medical periodicals for April 1865.

My instrument differs from that used in the spaying of the sow in three particulars.

1. In consisting of two blades, which are connected by the male blade being pushed into a "notch" in the female one.

2. In having a narrow groove in which to run the cautery.

3. In the handles being slightly separated, so as to add to the compressing power of the instrument.

Mr. Brown's modification consists—

1. In making the male portion, for sliding into the notch, curved, instead of being nearly straight.

2. In making the groove for the cautery wider, moveable, and roughened.

3. The compressing power he applies by means of a screw.

I make no other comments upon these alterations than this, that, in my opinion, they do not affect the *principles* which I claim for my instrument. The "particular kind of clam" to which Mr. Brown refers,

must be considered a modification of my "clam", for which, as I have before stated, he has given me every acknowledgment; but I contend that both instruments are different to that used in the spaying of sows.

I think I ought to state that Mr. Brown was not the first to suggest the application of the actual cautery to the pedicle in ovariotomy. When I published a description of my instrument, I stated, "It is probable that hereafter it may be found of service in dividing some forms of pedicles of ovarian tumours." In 1862, Braithwaite, in his *Commentary on Midwifery, etc.*, strongly urges its employment for dividing the pedicle. In the same article, it appears that Dr. Tanner of Ledbury suggested the division of the pedicle by electric cautery. Mr. S. Wells also wrote to me at the time that my case was published by Dr. Dewes, stating that if cautery was applicable for dividing adhesions, he thought it might be used to divide the pedicle.

I may, therefore, in conclusion, state briefly that Mr. I. B. Brown, early in 1865, fully acknowledged my claim as the inventor of the "clam" for dividing adhesions in ovariotomy; but Mr. Brown is entitled undoubtedly *to the fullest credit of being the first to use the actual cautery to divide the pedicle in ovariotomy*, using for that purpose a particular kind of clamp, which, I may add, is a slight alteration of my "adhesion clam". I must, therefore, also claim whatever credit there may be due for divising the principles of the clamp, and for first applying it in the operation of ovariotomy, but not of course to sever the pedicle. In the first application which I made of the "clam", I removed nine inches by seven inches of omentum, thus showing what the instrument was capable of accomplishing; and I also suggested its being capable of further application and extension "in dividing some forms of pedicles of ovarian tumours". I am, etc.,

JOHN CLAY,

Professor of Midwifery, Queen's College, Birmingham.

95, Newhall Street, Birmingham, Oct. 15th, 1866.

RECENT IMPROVEMENT IN SURGERY.

LETTER FROM HENRY GREENWAY, ESQ.

SIR,—In to-day's JOURNAL, I find a letter from Dr. J. G. Davey, relative to the correspondence on the above subject which appeared in your last week's number. He commences by saying that suction-instruments ("of a kind") for the removal of cataracts "have been for generations in use."

As far as I have been able to ascertain, this is not exactly correct. Suction instruments may have been *known* for generations, but have only been *used* at intervals, to be again laid aside in consequence of the difficulty or danger attending their use. As Dr. Davey does not mention the "kind", I have yet to learn that my claim to be the first to devise an instrument "whereby parts within the eyeball could be acted on by suction *with ease and safety*" does not hold good. As regards the antiquity of the operation, I believe most surgeons interested in ophthalmic surgery are acquainted with that fact, for, on the revival of the operation by Mr. Teale, jun., he alluded to its history.

Dr. Davey then gives an account of the operation of extraction by suction as performed by the Cingalese surgeons. As one of the "things not generally known", we must feel indebted to him for the information. I presume he would scarcely speak of their mode of procedure as a safe one, however easy it may be; for, irrespectively of the injury inflicted on the cornea, there would be a fair chance of removing not only the lens, but the vitreous humour.

The quotation from Dr. Browne's address, which forms the last paragraph in Dr. Davey's letter, is not happily chosen, however good it may be in itself. Coupled with the former part of the letter, it savours somewhat of censure. I do not think "the study of the literature of medicine" before 1860 would have enabled Mr. Teale to successfully revive an operation which had fallen into disuse from the mode in which it was performed; neither would it have "prevented re-discoveries", as far as my labours are concerned; and my latest informant and censor has only told me that suction instruments "*of a kind*" for the removal of cataract have been for generations in use (known ?)

If Dr. Davey had carefully read my letter in the JOURNAL of the 6th instant, I do not think he would have written in the strain he has chosen. He has, as far as the operation in question is concerned, unintentionally proved there was room for "improvements in surgery." I am, etc.,

HENRY GREENWAY.

Plymouth, Oct. 13th, 1866.

P.S.—I would here say I have given instructions for further improvements to be made in my suction instrument. In the mouthpiece there will be placed a valve, allowing free suction but preventing an accidental back current of air into the eye. It will also have the effect of retaining in the instrument that which has been withdrawn from the eye. The cannula will be prolonged upwards nearly to the closed extremity of the hollow handle in which it will lie. This arrangement will, from the circuitous course the current must take, allow of very gentle action. As the handle and the cannula within will both be of glass, a graduated scale might be placed between the two. I mention this, as a graduated tube has already been introduced to the profession; but I cannot see that measurement is of much service, for whilst there is any opaque lenticular matter remaining in the eye it must be extracted. The suction tube will join the handle at right angles, as in my original instrument, and in front of the operator's hand. This prevents any accidental doubling of the India-rubber tube on itself, and gives the operator a greater command over the instrument.

AMERICAN CHILDREN. The registrar of the city of Boston reports that in the year 1865 the births in that city were only one in thirty-six of the population. The registrar states that while the population of Boston has been uniformly increasing for many years, the birth-rate has with equal uniformity been declining, and has fallen from one in twenty-six in 1850 to one in thirty-six in 1865. The birth-rate, he says, has been declining throughout the United States for the last seventy years. In considering what may be the causes of this unsatisfactory result, the registrar suggests that it may be that immigration swells the aggregate of the population with more proportionate rapidity than marriages are formed; but he has also to suggest the possible desire of Americans to avoid the natural increase of their families, a desire which, it may be feared, leads to a large amount of secret crime. It appears that only one in four of the children born in Boston in 1865 was the offspring of parents both of whom were natives of the United States. The majority of the children born in Boston in the year were the offspring of parents both foreign born. In fact, in natural increase Boston is not a native American city. A New York paper represents that the unwillingness of American women to be the mothers of large families is to be attributed partly to the unruly nature of American children.

Medical News.

ROYAL COLLEGE OF PHYSICIANS OF LONDON. At a general meeting of the Fellows, held on Wednesday, October 17th, the following gentlemen, having undergone the necessary examination, and satisfied the College of their proficiency in the science and practice of medicine, surgery, and midwifery, were duly admitted to practise physic as Licentiates of the College:—

Barrick, Eli James, M.D.Vict. Coll., Canada
Coleman, Alfred, Dulwich
Denne, Henry, Guy's Hospital
Goullet, Arthur, New Wimbledon
O'Sullivan, Thomas George, Limerick
Taylor, James Mare, Hanley, Staffordshire
Williams, Joseph Arthur, M.D.Vict. Coll., Canada

APPOINTMENTS.

SWALES, Edward, Esq., appointed Inspector of the Government Hospital established at Sheerness for the reception of patients under the Contagious Diseases Prevention Act.

ARMY.

ATKINSON, Staff-Assistant-Surgeon J., to be Assistant-Surgeon 3rd Foot, *vice* T. Teevan.
CHARTRES, Surgeon J. S., 100th Foot, to be Staff-Surgeon, *vice* R. W. Jackson.
CROKER, Staff-Assistant-Surgeon A., to be Assistant-Surgeon Royal Regiment of Artillery, *vice* A. D. Gulland, M.D.
GULLAND, Assistant-Surgeon A. D., M.D., Royal Artillery, to be Staff-Surgeon, *vice* J. J. Mulock.
JACKSON, Staff-Surgeon R. W., to be Surgeon 100th Foot, *vice* J. S. Chartres.
MOUAT, Staff-Assistant-Surgeon G. B., M.D., to be Assistant-Surgeon 73rd Foot.
TEEVAN, Staff-Surg. T., to be Surgeon 3rd Foot, *vice* E. Touch, M.D.
TOUCH, Surgeon E., M.D., 3rd Foot, to be Staff-Surgeon, *vice* J. Davys.

ROYAL NAVY.

ARCHER, Archibald L., M.D., Surgeon, to the *Clio*.
BENNETT, William R., M.D., Surgeon, to the *Star*.
BOGG, E. W., M.D., Assistant-Surgeon, to the *Duke of Wellington*.
DOLAHAN, Thomas N. W., Esq., Assistant-Surgeon, to the *Egmont*.
ELLIOTT, J., Esq., Surgeon, to be Staff-Surgeon.
MACDONALD, J. D., Esq., Surgeon, to be Staff-Surgeon.
M'SWINEY, J., Esq., Surgeon, to be Staff-Surgeon.
MORGAN, D. L., M.D., Surgeon, to be Staff-Surgeon.
MURPHY, John, Esq., Surgeon, to the *Sylvia*.
ROBERTSON, Adam, M.D., Assistant-Surgeon, to the *Vixen*.
SLOGGETT, W. H., Esq., Staff-Surgeon (additional), to the *Fisgard*.

YEOMANRY CAVALRY.

JAMES, D., M.D., to be Assistant-Surgeon East Lothian Yeomanry Cavalry.

VOLUNTEERS, (A.V.=Artillery Volunteers; R.V.=Rifle Volunteers):—

CHALDECOTT, T. A., Esq., to be Honorary Assistant-Surgeon 15th Surrey R.V.
HARCOURT, G., M.D., to be Captain 15th Surrey R.V.
LOVE, J. H., Esq., to be Assistant-Surgeon 5th Suffolk R.V.
RAWDON, H. G., M.D., to be Honorary Assistant-Surgeon 1st Lancashire Engineer Volunteers.
RICHMOND, S., Esq., to be Honorary Assistant-Surgeon 19th North York R.V.
WATERS, J., Esq., to be Hon. Assistant-Surgeon 5th Surrey R.V.
WELLS, C., Esq., to be Hon. Assistant-Surgeon 2nd Surrey A.V.

DEATHS.

WALNE, D. Henry, Esq., Surgeon, of 72, Guildford Street, on Oct. 3.
WALTER. On October 11, at Dover, aged 92, Anne, widow of the late John Walter, Esq., Surgeon, of Romney, and afterwards of Dover.

DR. BARNES has resigned the office of Medical Officer of Health for Shoreditch.

DR. LAYCOCK. We are glad to hear that Professor Laycock has so far recovered as to be able to drive out in a carriage.

THE METROPOLITAN POOR-LAW MEDICAL OFFICERS ASSOCIATION have elected Drs. Burrows, Jenner, and Sieveking honorary members.

SEWERAGE OF LIVERPOOL. The borough engineer of Liverpool has been authorised to expend £2,000 per month, in ventilating the sewers of that town.

COWHOUSES. A cow-keeper was last week refused a licence to keep a cowhouse near Drury Lane, at which he intended keeping some fifty cows.

ROYAL COLLEGE OF SURGEONS. Last year, *mirabile dictu*, only two candidates presented themselves at the College of Surgeons for the dental diploma.

HORNETS AND WASPS, says Dr. Crisp, do a vast deal of good by destroying insects in all stages of development.

THE QUARANTINE. Surgeon Negus, R.N., appointed to the *Hibernia*, at Malta, arrived with his family on September 29th, but would have to perform fifteen days' quarantine.

CHOLERA. Mr. J. N. Radcliffe is engaged under the direction of the Privy Council in drawing up a report touching the origin and spread of the present epidemic of cholera.

THE GREENWICH HOSPITAL PENSION of £80 a year, for a deputy inspector of hospital and fleets, vacant by the death of Dr. T. R. Dunn, has been awarded to Mr. John Watson, retired inspector-general.

CONTAGIOUS DISEASES ACT. Mr. Sloggett and Dr. Peter Leonard have been appointed inspectors and visiting surgeons of certified hospitals under the Contagious Diseases Prevention Act.

DR. GIBBON objects to the removal of cholera patients to hospitals. He considers that thereby the spread of the disease is increased. The patients should be kept at home and their discharges disinfected.

SCOTCH MEDICAL STUDENTS complain that the army medical competitive examination takes place in March. If it took place in April many, they say, would be able to offer themselves that now cannot do so, as they are unable to graduate before April.

ROYAL COLLEGE OF SURGEONS. From a short account of the library of this institution published in the last Calendar of the College it appears that there are now 31,157 volumes, comprising 13,076 works and 34,373 tracts, pamphlets and theses.

THE CATTLE-PLAGUE entered upon its second year in Great Britain in the third week of June. The general result of the sixteen weeks' review is a decrease of 11,760 cases of cattle-plague as compared with the corresponding period of 1865. The cattle-plague has now entered upon its seventieth week in Great Britain.

ST. GEORGE'S HOSPITAL. Dr. John Clarke, son of the late Sir Charles Clarke, has been appointed Lecturer on Midwifery and Obstetric Physician to St. George's Hospital. The very valuable museum, formed by Sir Charles Clarke and his brother Dr. John Clarke, was presented to the hospital some years back by the late Mr. Stone.

FATAL GUN ACCIDENT. At an inquest held at Bletchingly, it appeared that the deceased, Mr. William Thomas Sargant, surgeon to the 17th Surrey Rifles, and also to the Reigate Union, was in the act of stepping into a friend's vehicle, an Irish car, for the purpose of changing his shooting ground, and while taking his gun, one lock of which was defective, after him, the hammers must have caught the footboard of the car and caused the explosion. The charge entered the left breast, and penetrated the lungs, causing death in about two hours. The jury returned a verdict of accidental death. The sad event has caused deep regret throughout the whole neighbourhood of Reigate, where the deceased was so well known and so highly respected.

Slaughterhouses in the Metropolis. At a special session of the Strand Union, several applications were made for renewal of licences for slaughterhouses within the districts. There was no opposition; the parties had not obtained other places for the slaughter of cattle, and wished the licences to be continued. The chairman said the licenses would be granted; but he believed that the legislature intended to deal with the matter in the next session, and he had no doubt that all slaughterhouses would be prevented being licensed within the metropolitan district.

Sanitary Improvement of Edinburgh. At a meeting of the town council it was agreed to proceed with the scheme of sanitary improvement promoted by Lord Provost Chambers. The scheme involves an expenditure of about £200,000. The improvements proposed include the clearing out of old properties in some of the more densely crowded localities, and the opening up of other portions by cutting new streets through them. It also includes the formation of a wide street to the north of the University, by which the Museum of Science and Art, recently inaugurated by his Royal Highness the Duke of Edinburgh, will be thrown open to better view.

The Value of a Tooth. In the Manchester County Court, an action was brought against a druggist to recover the sum of £5 : 5 damages alleged to have been sustained by the plaintiff, in consequence of the defendant, who professes to extract teeth, having pulled out one of the plaintiff's sound teeth instead of extracting a decayed one. The defence was, that the plaintiff first pointed out the sound tooth as the one he wished extracted, but this was denied by the plaintiff. His Honour said that the defendant ought to have used a little more care in ascertaining for himself which tooth he ought to extract. He should give a verdict of £2 : 2.

Death from an Overdose of Gout Medicine. The deputy coroner for Westminster has held an inquiry into the death of Dr. Thomas Hall, inspector-general of hospitals, who died at a lodging-house, No. 3, Northumberland Court, Strand. Evidence having been given, after considerable deliberation the following verdict was returned: "We find that the deceased, Thomas Hall, died from the effects of purging produced by an overdose of Saville's mixture, kilo colocynthine, and we are of opinion that the medicine was taken while the said Thomas Hall was in a state of unsound mind." The Deputy Coroner. You think he took it by mistake? The Foreman.—Yes, we think so.

Infanticide. Dr. Lankester read a paper on Infanticide at the Social Science meeting in Manchester. A great majority of the mothers who gave birth to illegitimate children in London were, he said, domestic servants. Nine out of every ten of the children that were killed were destroyed within two hundred yards of the houses in which they were born. It was also a startling fact, that of the unfortunate mothers who murdered their infants one in six died. A prominent part in the discussion which followed Dr. Lankester's paper was taken by Dr. Mary Walker of New York. This lady attributed child-murder very much to the desire of mothers to hide their shame, and this arose in a great measure from the want of sympathy on the part of their own sex. One great thing would be accomplished when the seducer was regarded with as much scorn as his victim was now. There was not so much infanticide in the United States as there was in this kingdom—at least, she judged so from the accounts she had read. She accounted for this by the fact that in America they were more temperate. Her observation of immoral men and women was, that the large majority of the were habitual drinkers. In America, children wer not looked upon as responsible for the acts of the parents; and the speaker quoted instances to prov that illegitimacy was no bar to social positio Neither were children unduly respected because the parents happened to be very well-to-do. The lad concluded by laughingly saying that she did not wis to talk politics, but that such was the effect of r publican institutions.

Sewage Gases. A "Civil Engineer" gives reaso in the *Builder* for the excessive death-rate in Live pool, as compared with London, reasons which, righ or wrong, are at any rate sufficient to account for th uncomfortable fact. In London the "main sewe are abundantly ventilated." Bad gases arise, bu we get them continuously and largely dilute "This," the "Engineer" asserts, "has been the sa vation of London," *i.e.*, it has kept it from muc acute disease, while inducing all through the metr polis a low type of vitality, except in those who "comforts" render them more or less independent outward influences. In Liverpool sewage gases a concentrated till a deadly strength is attaine Then, again, in all the better parts of London ces pools are universally done away with; they are th rule in Liverpool, and in several other norther towns. Liverpool, again, is very short of water; th whole stock in the Rivington reservoirs would suppl London for about six days. Yet Liverpool was th first town in England to provide itself with sanitar laws, and if expenditure on sewers and waterwork were enough, it ought to be the healthiest large tow in Europe. Liverpool spends a little fortune ever year in passing local Acts through Parliament. Ye nothing comes of them but a steadily increasin death-rate. Dr. Trench's report gives overcrowdin and drunkenness as the chief causes of the excessiv mortality. Some years ago the corporation bough a plot of ground at the north end of the town, i tending to let it at low rates for the erection of im proved labourers' dwellings. Nothing has yet bee built upon it; and that fabulously rich body is talk ing of applying to the Public Loan Commissioner for £13,000 at 4 per cent., to be spent in building block of model lodgings. Things of this kind seem to move slowly in Liverpool. Moreover, the mayor' "regulations as to lodging-houses" have been sen back by Mr. Walpole, with the remark that "th *maximum* cubic space fixed is as small as, or smalle than, the *minimum* in other regulations submitted t the Secretary of State, and that it cannot b accepted, even in the face of the practical difficultie which exist, as more than a *minimum* space."—*Pal Mall Gazette.*

OPERATION DAYS AT THE HOSPITALS.

Monday.....Metropolitan Free, 2 P.M.—St. Mark's for Fistul and other Diseases of the Rectum, 9 A.M. and 1.3 P.M.—Royal London Ophthalmic, 11 A.M.

Tuesday. .... Guy's, 1½ P.M.—Westminster, 2 P.M.—Royal Londo Ophthalmic, 11 A.M.

Wednesday... St. Mary's, 1 P.M.—Middlesex, 1 P.M.—Universit College, 2 P.M.—London, 2 P.M.—Royal London Oph thalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St Thomas's, 1.30 P.M.

Thursday.....St. George's, 1 P.M.—Central London Ophthalmic 1 P.M.—Great Northern, 2 P.M.—London Surgica Home, 2 P.M.—Royal Orthopædic, 2 P.M.—Roya London Ophthalmic, 11 A.M.

Friday. ..... Westminster Ophthalmic, 1.30 P.M.—Royal Londo Ophthalmic, 11 A.M.

Saturday..... St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.— King's College, 1·30 P.M.—Charing Cross, 2 P.M.— Lock, Clinical Demonstration and Operations, 1 P.M.— Royal Free, 1.30 P.M.—Royal London Ophthalmic 11 A.M.

Clinical Lectures

DELIVERED AT

CHARING CROSS HOSPITAL.

BY

HYDE SALTER, M.D., F.R.S.,

FELLOW OF THE ROYAL COLLEGE OF PHYSICIANS; LECTURER ON MEDICINE AT CHARING CROSS HOSPITAL MEDICAL SCHOOL; AND PHYSICIAN TO THE HOSPITAL.

LECTURE XI.

ON THE DIAGNOSIS OF DROPSIES.

Diagnosis of External from Internal Abdominal Dropsy. Diagnosis between Primary and Secondary or Indirect Dropsies.

GENTLEMEN,—I wish to call your attention to-day to some cases illustrating the Diagnosis of Dropsies.

The seat of certain dropsies is often diagnostic of their cause. Dropsy as a general symptom, taken in the broad, may result from an almost endless variety of diseased conditions; and it is only by determining the characters and particular features of the dropsy in each case, that it becomes diagnostic of the disease that generates it. Of all the circumstances of dropsy that impart to it a diagnostic character, its localisation is, perhaps, the most important and indicative. This circumstance, taken alone, is almost sufficient, in a great number of cases, to determine the diagnosis. Thus, if I were asked what dropsy of the face pointed to, I should say disease of the kidneys; if I were asked what dropsy of the abdominal cavity pointed to, I should say disease of the liver; and if I were asked what dropsy of the legs pointed to, I should say disease of the heart or lungs. And, in the majority of instances, I should be right, especially if these dropsies occurred without any other distribution.

The particular point for to-day—that to which I would especially direct your attention—is the diagnosis between external and internal abdominal dropsy; between the accumulation of fluid in the peritoneal cavity, and the accumulation of fluid in the subcutaneous areolar tissue of the abdomen: in other words, between ascites and œdema of the abdominal wall.

From what I have said just now, you will see the importance of this:—Ascites points to the liver; subcutaneous dropsy does not. The determination of this question, therefore, determines approximately whether we are to regard the liver as concerned in the diseased process, or not. But, though you may admit the importance of the distinction, you may be disposed to regard the discussion of the method of making it as a superfluous inquiry. This, however, is not the case. Many a time I have had patients sent to me as labouring under ascites who have not had a drop of fluid in their peritoneal cavity, but the increased girth of whose abdomens has been entirely due to œdema of the abdominal wall.

On what rules, then, may we fall back for the resolution of a case in which there is undoubtedly an increase of the girth of the abdomen, in which that increased girth is undoubtedly due to fluid, and in which the causes of dropsy undoubtedly exist? How shall we determine, in such a case, whether the effusion is external or internal to the abdominal cavity?

1. If the effusion is external—if the abdominal enlargement is due to œdema of the parietes—the following conditions will be found to be present.

a. On attempting to pinch up the skin of the abdomen, we shall find that we pinch up a thick firm "roll" of integument, firm and doughy, an inch or more in thickness; and we generally find that the lower down on the abdominal surface that we attempt thus to pinch up the skin the thicker is the roll of integument which we raise; because the lower is the abdominal surface the more developed is the œdema.

b. We find the umbilicus deep-set, and deep-set in proportion to the œdema. This is always the case; and the reason of it is this:—At the umbilicus the skin and the deep fascia are fastened to one another, and cannot be separated; elsewhere, from the intervention of a loose and extensible areolar tissue, the one can be freely raised from the other. Now, it is into this areolar tissue that the dropsical effusion takes place; and by this effusion, and in proportion to it, the deep and superficial fasciæ are separated from one another, and the skin raised. In proportion, therefore, to the effusion which raises the skin from the deep fascia will be the depth of the pit at the point where it *cannot* be raised. This deep-set umbilicus is very characteristic, and I would especially recommend your attention to it.

c. Again, the parietes have a peculiar white opacity about them—an unnatural and uniform whiteness; and this, I think, is in part due to another appearance—an absence of any visible veins. The superficial veins lie in the subcutaneous areolar tissue; and this is so thickened and distended by the œdema, and the skin thereby so much raised, that the veins are no longer immediately beneath the surface.

d. Another characteristic of œdematous abdominical parietes is a peculiar quaggy vibration in them when they are tapped—a sort of jelly-like tremor. This may even be seen, but it is better felt by the hand. It is very important to recognise it, because it may be confounded, and often *is* confounded, with the true "fluctuation" of ascites. It is best felt in this way:—Place one hand lightly on the surface, and with the fingers of the other hand "flick" the skin close by; the peculiar thrill or tremor will be at once felt. And it will be found that the further the hand is removed from the point "flicked" the fainter are the vibrations, until, at some little distance, they are quite lost. I do not think they can ever be felt quite across the abdomen, from one side to the other. As far as they *can* be felt, the sensation is as if they were conducted along the surface, and never as if they were conducted through the abdominal cavity. I shall recur to these points presently, in contrasting this spurious fluctuation of œdema with the true fluctuation of ascites.

e. Again, the phenomenon so distinctive of œdema—pitting—is always present. Sustained pressure leaves the impression of the fingers; if we attempt to pinch up the infiltrated integument, by so doing we squeeze the fluid from it; and, on releasing it, depressions are left corresponding with the parts pinched.

f. Another appearance, and one which should

always raise a suspicion of œdema wherever you may see it, because it is indeed but another form of pitting, is visible marks of the bedclothes, or folds of the patient's dress, on the skin.

The three first of these signs—the thickness of integument when pinched up, a deep-set umbilicus, and an invisibleness of veins—you get equally in very fat subjects; and for this simple and manifest reason, that fat, like œdema, raises the skin, and inserts a material in the subcutaneous areolar tissue. But you will have no difficulty in distinguishing the one from the other: the proportionate distribution of fat elsewhere, the patient's condition in other respects, and, above all, the presence or absence of pitting, will leave no doubt upon your minds.

2. If the effusion is internal—free in the peritoneal cavity—the following signs will be present.

a. In the first place, if the fluid is in any appreciable quantity, sufficient conspicuously to enlarge the abdomen, there will be what is called "fluctuation". This is something very different from that quaggy tremor which I have described as characteristic of œdema of the abdominal wall. I think a better name for it would be "vibration". It depends upon the transmission across the abdominal cavity, from one side to the other, of a vibration imparted by a light stroke. It is best elicited in this way:—Apply your hand to the lateral or inguinal region of one side, and then flick or touch lightly the surface on the opposite side; you will find at each touch or stroke a little single wave transmitted through the fluid, and impinging on the fingers on the opposite side. The sensation which it imparts can never be mistaken when once felt; and you should all of you take an early opportunity of making yourselves practically acquainted with it: it will make a clearer impression on your minds than any description of it I can give you. It differs from the spurious vibration of œdema in these three points. In the first place, distance makes no difference to it; it is felt just as plainly completely across the abdomen as half-way—indeed, I think, better; whereas the strength of the vibrations in the spurious form is always proportionate to the shortness of the distance between the part felt and the part struck. In the second place, it consists, not of a quaggy tremor, but of a single wave; the impulse on one side being transmitted unchanged to the other. In the third place, it is evidently transmitted, not along the surface, but through and by the contained fluid.

When I said just now that distance makes no difference to it I should have qualified this expression in one particular, for distance does make a difference as to the *time* at which the vibration is felt; for, if the distance is great, as from one flank to the other, the vibration impinges on the fingers at one side, at an appreciable interval after it has been imparted at the other, the interval being proportionate to the distance. This lapse of time between the stroke and its resulting wave is one of the most striking and characteristic parts of the phenomenon.

From what I have said you will see that a vibration felt near the part struck is of no value as implying the existence of a true so-called fluctuation. It is only when transmitted quite across the abdominal cavity, that it implies the accumulation of fluid in the peritoneum.

b. In the second place, if we have fluid in the abdominal cavity we shall have dulness of percussion in the most dependent parts, and to an extent corresponding with the amount of the fluid. If the patient is supine, the dullest parts will be the flanks; if he is erect, the hypogastric, or hypogastric and umbilical regions.

c. Again, the umbilicus, instead of being deep-set, as in œdema, is unnaturally flattened out—indeed, in some instances protruded. The distending fluid dilates the umbilical orifice, and then drives through it a sort of hernia, the fluid within which, acting like a wedge, dilates the orifice more and more, till a considerable dropsical hernia exists, raising the thin integument over it to the size of a walnut, or even half a billiard-ball, through which there is often an appearance of an opalescent transparency, like that of a hydrocele. This appearance, however, is exceptional; the common appearance of the umbilicus in ascites is merely an unnatural flatness or very slight prominence.*

d. Lastly, instead of an absence of veins in the abdominal wall, there is often, in ascites, a great conspicuousness of them, sometimes even amounting to a varicosity. This depends on two causes: the veins are *visible* because, by the distension, the integument is stretched and thinned out, and therefore rendered more diaphanous; and they are *enlarged*, because the incumbent weight of the accumulated fluid exercises such a pressure upon the inferior cava as to impede the return of blood through it, and compel it (the blood) to find its way back to the heart by the superficial collateral venous circulation formed by the anastomosing epigastric and internal mammary veins.

Now let me call your attention to some cases in the hospital illustrating the practical application of these rules. We have two patients with abdominal enlargement due to dropsy—Mary Jones and George Davis; and they illustrate very well the striking contrast between external and internal abdominal dropsy.

In Mary Jones's case, which is one of chronic bronchitis, the enlargement of the abdomen is entirely due to an œdematous condition of the abdominal walls. Here we have the thickening of the integument, making it almost impossible to pinch it up, and then only in a roll an inch or an inch and a half thick; the deep-seated umbilicus; the quaggy tremor; and the pitting. The œdema of the abdominal wall is but a part of the general œdema; the legs, as you have seen, are enormously œdematous.

In the case of George Davis, which is one of mitral disease, we find, on the other hand, that while the abdomen is greatly enlarged, the abdominal wall is extremely thin; when we pinch up the attenuated skin, it has not much more than the thickness of paper. We find, too, the flattened umbilicus, almost effaced by distension; the conspicuous veins meandering over the surface; and, above all, true fluctuation.

There is one more point in relation to the diagnosis of dropsy, on which I would wish to say a few words to you.

I have two cases in the hospital at the present time, both of which are characterised by the following four circumstances:—

* Since this lecture was delivered, I have seen a case in which this dropsical umbilical hernia was well developed as a result of ovarian dropsy; it gave me the impression, on first seeing it, that the case was one of ascites.

1. Mitral regurgitant disease;
2. A greatly enlarged liver;
3. Ascites;
4. Œdema of the lower extremities.

One of these cases is that of George Davis, to which I have just referred; the other is that of John Flynn, a boy aged 12 years, lying in the Bow Ward, Bed No. 14.

Now, with regard to these cases, the two following questions suggest themselves:—

1. Is the enlargement of the liver due to primary hepatic disease, and the ascites, therefore, true hepatic ascites? or is it due mainly to hepatic congestion dependent on the impediment to the circulation through the heart, and the ascites, therefore, not true hepatic ascites, but indirectly cardiac?

2. Is the œdema of the legs the direct and immediate result of the heart-mischief? or does it result from impediment to the return of blood through the inferior cava, produced by the pressure which the incumbent weight of the ascites exercises upon that vessel? or is it due to the pressure of the enlarged liver upon the inferior cava in the supine posture?

According to the answers we may make to these questions we shall arrive at one or other of the following conclusions:—

That the liver is the seat of organic disease of such a nature as to obstruct the circulation through it.

That the ascites is the direct result of this liver-disease.

That the liver is not diseased at all, but is enlarged because congested.

That the obstruction, therefore, which gives rise to the ascites, though immediately at the liver, is primarily at the heart.

That the œdema of the legs is due to the systemic venous stasis of the heart-disease.

That it is due to the pressure of the enlarged liver upon the inferior cava in the supine posture.

That it is due to the incumbent weight of the ascites pressing on the cava. This last will give rise to two alternatives; for if we consider the ascites due to liver-disease, then the œdema of the legs is a secondary hepatic symptom; if the ascites is due to the heart-disease, then the œdema is a secondary cardiac symptom.

You see, then, to how many alternatives our answers to these two questions may give rise.

Now, with regard to the first question—the nature of the liver-enlargement—I came to the conclusion that, in the case of Davis, it was secondary to the heart-disease—due simply to congestion; and that the liver was not the seat of any real disease at all: for the following reasons:—First, the patient was of an age, 20, at which organic enlargement of the liver is not common; secondly, there was nothing in his antecedents or habits—no intemperance—to make liver-disease likely; thirdly, the liver was not the seat of any pain or tenderness; fourthly, although greatly increased in size, it was not altered in shape; fifthly, the very existence of the ascites rather pointed to the cardiac origin of the liver-enlargement, for such a cause of enlargement would necessarily also be a cause of ascites. In the case of Flynn, I thought at first that the liver was the seat of independent enlargement unconnected with the heart; the enlargement was so great and the ascites so moderate. And even now I do not feel certain. No doubt the volume of an organ so highly vascular as the liver may vary within very wide limits according to the amount of its turgescence. We know, too, that the liver is more advantageously placed for having its circulation influenced by the state of the heart than any other organ of the body. And yet, as a clinical fact, we find that it is comparatively rare for the liver to undergo any great amount of enlargement as a result of mere passive congestion from heart-disease. Is the organ so greatly enlarged in these cases on account of the youth of the patients? Does the liver in the young yield more readily to the enlarging influence of mechanical congestion than in those of more advanced age?

With regard to the part that ascites or enlarged liver might be supposed to play in the production of the œdema of the lower extremities, that question is, I think, set at rest in the case of Davis, in whom, for some days past, the ascites and enlargement of the liver have both been greatly diminishing, while the œdema of the legs has been continuously increasing. Had the latter been due to either of the former, *it* also must have diminished as well. It is clear, then, in the case of Davis, that the œdema of the lower extremities is to be assigned entirely and directly to the heart.

The future of these cases, gentlemen, must resolve the other alternatives that I have indicated to you; and I have pointed them out in order that you may see how complex and dependent a symptom dropsy is, and how many and what varied conditions it may imply.

Factory-Smoke and House-Smoke. From the researches of Dr. Crace Calvert, F.R.S., it is ascertained that whilst dwelling-house smoke is comparatively harmless, factory-smoke is highly deleterious. He explains that the smoke from private dwellings carries with it only carbonic acid, carbonic oxide, and sulphuric acid gases, and a small quantity of the most volatile hydrocarbons, the less volatile products forming "soot," which remains in the flue. The gases, the escape of which continues but a few minutes after firing, have but little or no action on vegetation or man. In burning coal under steam-boilers the results are very different. The fuel is not, as in private dwellings, perfectly consumed, but there is a continuous distillation of deleterious tarry products, which by the draught of the tall factory chimney are carried, with all the other noxious products, into the cold atmosphere at the top of the stack, where they quickly condense and fall, to poison all within their reach. (*Mining Journal.*)

Sudden Blanching of the Hair. The *Boston Med. Journal* cites from a recent number of *Virchow's Archiv* a case of sudden blanching of the hair. The case occurred in Professor Mosler's clinic. The patient was 34 years old, and was suffering from delirium tremens. On the fifth day of his stay in the hospital, the visiting physicians and the patients noticed that the hair upon his face and head had become grey. On looking at himself in a mirror, he exclaimed, "Ach, Gott, mir sind die Haare grau geworden." A microscopical examination showed the presence of a great many minute bubbles at the white points, both in the cortical and central portions of the hair. The pigment was perfectly preserved throughout the whole shaft of the hair, and had undergone no change whatever. As the hair gradually is changed to grey, the pigment disappears, but in this instance, the rapid whitening during a single night was produced by the development of gas within the substance of the hair.

Addresses and Papers

READ AT

THE THIRTY-FOURTH ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION.

[*Held in CHESTER, AUGUST 7th, 8th, 9th, and 10th*, 1866.]

ON A PROBABLE NECESSITY FOR THE REVIVAL OF THE LEPER HOSPITALS OF GREAT BRITAIN.

By Erasmus Wilson, F.R.S.

The attention of the British government was, a few years since, drawn to the fact of the prevalence of leprosy, the elephantiasis of the Greeks, among the population of our possessions in the East Indies, and the matter was considered of sufficient importance to warrant the appointment of a committee of the College of Physicians to investigate the circumstances of the disease. That committee has obtained very valuable information on the subject from every part of the globe where British representatives are to be found, and has published portions of their report from time to time; the conclusion of the report being at present, as we believe, in the printer's hands. In the course of this inquiry, I was honoured with the request of the committee to lay before them my personal experience of this remarkable disease, and I had the opportunity of presenting to that body a report of upwards of twenty cases which had fallen under my notice within the space of a few years. My statement will be published in an appendix to the report of the "Leprosy Committee of the College of Physicians", and need not, therefore, be further alluded to in this place.

To four of the cases, so reported upon, I am about to draw attention; but more especially to two other cases which have come under my notice during the last three months, making a total of six cases. The subject of one of the six cases is dead; two are under the protection of parents; but the remaining three, although respectably connected, are without guardianship, and are deprived of the means necessary for their maintenance, and for the supply of the comforts which their condition demands. I have purposely avoided reference to the question of treatment, otherwise I might say that the whole surviving five individuals are wanting in the means necessary for the proper treatment of their disease, inasmuch as that treatment could only be carried out effectually in an institution devoted to the purpose: hence my proposition of *a probable necessity for the revival of one or more of the ancient leper hospitals of Great Britain*, or the establishment of one especially devoted to the reception and treatment of this formidable disease.

The first case (No. 1) to which I call attention is that of a young lady who was consigned to my care like a bundle of goods, and with the intimation that the announcement of her death would be the happiest words that her relations and friends could receive. I obtained for her, after much trouble, an asylum in the house of one of the modern sisters of charity, where she died after two years. But the distress drawn upon that kind lady by her devotion to her charge, it pains me to remember. There were protests from the neighbours; protests from the boarders; protests from the servants; until almost the whole of the duty of succour was left in her own individual hands; she became ill, nervous, exhausted; her sleep was haunted by the presence and contact of her loathsome ward, and I was obliged to step in and say: "Tell me when you can bear it no longer, and I will seek an asylum elsewhere." Happily for me, however, she bore her cross with a holy determination, and performed her duty to the last. But she was not a relative; she was a stranger; the poor patient had been deserted by all those to whom she was allied by ties of blood; she realised grimly the historical accounts that we have received of the banishment of the unfortunate leper.

Case No. 2 is a young medical officer in the Indian service, sent to this country for the cure of a supposed constitutional syphilis, his real disease being anæsthetic leprosy. He is now 24 years of age, the son of a military officer of inferior rank, with a family in India, and doubtless without the means of supplying his son with the necessaries which the nature of his illness demands.

Case No. 3, afflicted with tubercular leprosy, is a young man, aged 19, the orphan son of a gentleman who had held a civil appointment in Bombay. He is one of four children; a brother died of mixed anæsthetic and tubercular leprosy at the age of 23; while another brother is the sole means of our patient's support. This young man was placed in a merchant's office in Bombay, but, failing in health, was sent to England under the hope of obtaining a cure.

No. 4 is a lad, aged 16, the son of a clergyman; the form of the disease is tubercular leprosy. He was sufficiently well in health to commence his education with a view to medical practice; but, as soon as the nature of the disease was made known, his studies were necessarily abandoned. In a letter received from this poor boy only a few weeks ago, he touchingly alludes to the loss of power creeping into his hands: "I also feel," he says, "the sensibility in the tips of my fingers considerably diminished, and, as you will see, I am unable to guide my pen quite right."

No. 5 is another example of tubercular leprosy in a lad not yet thirteen years of age, the son of a professor of music. He was born in India, and was first seized with the disease among the marshes of Rungpore.

No. 6 is a lad, aged 16; the form of the disease is elephantiasis anæsthetica. He is the son of a quartermaster in India, who has risen to his present post by meritorious conduct, and is thoroughly respected by his superior officers. One of these officers brought the boy to England to advance his prospects, and has a small sum of money at his disposal to assist the lad in his education. A few weeks ago, he was sent from school for my advice for a supposed ringworm situated on the trunk of the body. My examination detected the invasion of this melancholy disease.

My catalogue therefore is a very painful one; five youths, ranging in age from 13 to 24; all afflicted with this terrible and apparently incurable disease; all doomed to a certain and probably not distant death: without prospects, without hope, and with very limited means.

The question arises: what can be done for these young men? It would be advantageous to them to be gathered together in some institution where the disease might be studied in its phases and in its progress by a small staff of medical men, such as that of one of our hospitals or infirmaries. It would be pardonable to make their treatment experimental;

for at present, our knowledge of the treatment of this disease is most crude and unsatisfactory. Such an association would be the means of companionship to the patients themselves, would lighten the burden of their life, and with proper regimen and judicious treatment might open a way to the discovery of a cure. My friend Professor Boeck, of Christiania, after years of laborious study of leprosy, still entertains the hope that a cure may yet be found. Such a hope would stimulate our exertions to discover it, while we should be performing a simple duty to those for whom the operation of such a duty is an undoubted right.

While pondering in my mind the question—"*What shall we do with our lepers?*" it came to my knowledge that an ancient lazar-house, the hospital of St. Lawrence of Ponteboy, at Bodmin, in Cornwall, had left behind it revenues, which were transferred in 1810 to the Cornwall County Infirmary, at Truro, for the uses of the Infirmary, but with the condition that the infirmary should receive such lepers into the institution as might make application for relief.

It was not long after my acquaintance with this fact that the friends of Case 6, put the question to me:—What can be done with the poor boy? I mentioned the circumstances that I had learnt with regard to the County Infirmary at Truro, and on July 7th, 1866, I made a formal application to the governors of that institution to receive a leprous patient into their wards; to revive the benefits of the ancient institution from which they drew all that remained of its ancient revenues. My application is too recent to enable me to state the result, but I may say that that request was favourably received by the medical officer to whom it was addressed, and has been laid before the Committee for consideration.

Cases of elephantiasis are not adapted to general hospitals. The average duration of the disease is twenty years; therefore they require the application of means of relief such as are provided in lunatic asylums and in hospitals for incurables, but, nevertheless, with the hope that a cure may yet be discovered; while the best aid to that discovery will be the assemblage of patients suffering from the disease under the observation of intelligent medical men. No greater impediment, it appears to me, could be thrown in the way of the treatment of leprosy than its sporadic distribution amongst our general hospitals, or the wandering of the patient from medical man to medical man in private practice.

Cases 2 and 3 are examples of the truth of this observation. For many months I treated these young men gratuitously. I received them every week; but they grew weary of treatment, probably because they could perceive no change for the better in their symptoms; probably because, from the nature of the disease, they grew worse; perhaps they had friends, those marvellous beings of whom Shakespeare exclaims:—"Save me from my friends." These friends are always amateur doctors or learned advisers, and they possibly have advised some new physician, some different plan. Be it as it may; private treatment, unless the patient have guardians and a home, is certain of failure and disappointment, and another reason is presented for reverting to my original proposition; that it is necessary that something should be done for our lepers, and that that something should take the shape of a lazar-house or of an asylum.

PERIL OF ARMY SURGEONS. Surgeon Esdra, of the Italian army, was killed at Custozza, on the field of battle, whilst dressing the wounded. Three other Italian surgeons were seriously wounded, and twelve were made prisoners.

Illustrations OF HOSPITAL PRACTICE:

METROPOLITAN AND PROVINCIAL.

ST. MARY'S HOSPITAL.

CASE OF PARALYSIS OF OBSCURE ORIGIN, PROBABLY RHEUMATIC OR NEURALGIC: COMPLETE RECOVERY: CLINICAL REMARKS.

Under the care of C. HANDFIELD JONES, M.B., F.R.S.

Sc., aged 39, was seen Nov. 8th, 1865; rather slight and delicate looking, a hairdresser. He began to ail with headache and weariness of limbs about nineteen days previously; took to his bed fourteen days ago. His legs were first affected; the first symptom was that they got weak. He had not been exposed to wet, but to chills when perspiring. He was worse when seen than he was when he first laid up. He had then giddiness and failure of power of limbs, so that he fell in attempting to walk. At present, both hands felt numb, and were the seat of "pins and needles" sensation; these dysæsthesiæ extended as high up as the elbow. The grasping power of the hands was rather impaired; both were equally affected; with some difficulty he could raise a piece of bread to his lips, but not a cup of liquid. He could not stand on his feet, nor sit in a chair, nor bend his knees; the extensor muscles immediately restored his limbs to the straight position if the knees were bent. Both feet were numb; and the anæsthesia extended up to the top of the thighs. He complained of cutting pain across his insteps. The temperature of his feet in bed seemed normal; some days previously they were very cold. He did not feel when I moved his feet on the ankle-joints, nor had he pain on passive movement of any of his articulations. The morning of admission, the pains in his limbs were so severe that he became quite excited and delirious, "grinned his teeth viciously, struggled with his arms, felt himself going mad." The bladder acted normally. The bowels were confined. Head pretty free; he had no pain to speak of at any time. Vision and hearing were intact. He could not turn in bed, but had no pain in the back. When he leaned forward he had pain in the abdomen. He had no heat or tenderness of head, nor any in the spine when full pressure was made. The heart-sounds were normal. He was not subject to rheumatism. He had never passed worms. The urine was rather scanty; it was not thick now, but high coloured; it was at first very thick, with lithates. He admitted having had sores on the penis twelve or thirteen years ago, but no constitutional symptoms had ever occurred. The pupils were natural, rather small. On further questioning, he stated that he had some headache and slight giddiness about eight weeks before any paralysis commenced; he was never quite well afterwards.

When these notes were taken, he was under the care of Dr. Palmer, to whom I am indebted for seeing the case. As the etiology was very obscure, and there seemed a reasonable possibility that the symptoms might be the result of a latent syphilitic taint, Dr. Palmer determined to try the effect of mercury, and put him on the use of Plummer's pill, which he took for several days until the gums were made a little sore. No decided benefit was produced, and the patient was admitted into St. Mary's Hospital under my care on November 16th.

The next day my notes state that he had not the severe pains he used to have in his hands and feet, but the feet and legs felt heavy and dead, and were very sore; the hands felt numb and the feet too. He had no power of standing. He knew which hand I touched, and also which foot. He slid down in bed; could not hold himself up, and could not turn in bed. He had emaciated much. He had only been able to eat the last day or two; appetite now tolerable.

On examination the next day his muscles, both in the arms and legs, were found quite sensitive to the interrupted current. He was ordered—

℞ Potassii iodidi gr. v; ammoniæ carb. gr. iv; tinct. valerian. ℥j; infusi valeriani ℥j. Fiat haustus ter die sumendus.

Nov. 22nd. The feet were very sore and tender. He could turn in bed and feed himself, which he could not do on admission. He was ordered a drachm of cod-liver oil three times a day.

Nov. 24th. The hands and feet were more numb to-day. No reflex movements were excited, not even on tickling, when he moved them voluntarily to escape from it. When he attempted to stand, he did not know whether his feet were on the floor; but he could hold anything well without the aid of sight. The mixture was continued, being the iodide of potassium increased to seven grains.

Nov. 27th. A drachm of tincture of cinchona was added to each dose of the mixture.

Nov. 29th. He could cut up his food now; his hands felt numb at times, at others quite well.

Dec. 1st. The iodide of potassium was omitted.

Dec. 6th. He could dress and undress himself, and could stand a little. He was ordered to have two ounces of brandy.

Dec. 12th. He could walk now the length of a long ward; he complained most of weakness about the ankles and knees; the legs were emaciated. He was very nervous. The cod-liver oil was omitted, and he was ordered two drachms of iron wine three times a day.

Dec. 19th. He could go up and down stairs, and shave himself.

Dec. 23rd. He was made an out-patient.

Dec. 30th. There was some return of numbness and tingling in the feet yesterday.

℞ Ferri ammonio-citrat. gr. x; ammoniæ carbon. gr. v; tinct. nucis vomicæ ♏xx; tincturæ calumbæ ♏xv; aquæ ℥j. Fiat haustus ter die sumendus.

1866. January 6th. He felt only weak about the feet; he could walk two miles a day. He was ordered to have five grains of disulphate of quinine three times a day.

Jan. 13th. He had bad catarrh.

March 8th. I called at his house, and found him engaged in his vocation; he looked quite well. His wife said he felt nothing amiss, except that after a long walk or much standing he had aching in his feet.

Clinical Remarks by Dr. Handfield Jones. The diagnosis in this case at the outset was sufficiently obscure, and was felt to be so by the very able practitioner who first had the charge of it. At an earlier day, no doubt, the assumption of a spinal congestion would have solved the difficulty and ruled the treatment. Even recently, in a most interesting case which I have cited in my Lumleian Lectures from Dr. R. Levi's in the *Archives Génér. de Médecine*, 1865, and where a most searching necroscopy demonstrated the absence of all inflammatory mischief, the remedial measures consisted of purgation with croton oil, cupping along the spine, and calomel. I cannot but think that recourse to the two former would have lessened rather than increased our patient's chance of recovery. Calomel had been administered in a cautious manner, so as to affect the gums slightly before the patient was admitted; and I thus had the advantage of knowing that not much was to be expected from further experimentation in that direction. The circumstances which seemed to me of most significance were the integrity of the cerebral functions and of the muscular actions of the bowel and bladder, the absence of pain and tenderness in the spine, the complete loss of sensation and motion in the lower limbs, and the great severity (recent) of the pains in the upper. These symptoms coexisting appeared to me more like the result of some of the influences which so commonly vex and disorder the peripheral nerves, than of any organic or inflammatory lesion of the brain or cord, or their membranes. I cannot say that my opinion was at all a decided one at first; but it became much confirmed as the case advanced to recovery. It is a matter of certainty, I think, that no myelitis, or meningitis, or any structural lesion existed; inasmuch as such disease, when grave enough to produce the amount of paralysis which existed in our patient, rarely, if ever, departs without leaving traces of permanent damage, and especially requires much more time for recovery than was needed here. Reflex paralysis must be excluded, for the sufficient reason that no remote irritation was ever discovered or removed.

On conning the case over, I feel much disposed to think (for some theory about it is inevitable, and, I believe, desirable) that the disorder may have been essentially of the same nature as it was in some of the cases of brachial neuralgia recorded in my work. Pain, numbness, and loss of motor power, were not unfrequently marked phenomena; and though, in the present instance, the disorder occupied a much more extensive range, and was most intense in the lower limbs, this does not seem to me at all an improbable event. That cases are not unfrequent, belonging to the domain of influenza, rheumatism, and neuralgia, in which some miasmatic influence act paralysingly on the nerves or nervous centres, there can be no question; and I feel little doubt that instances of these affections occur most numerously during the prevalence of that particular constitution which predisposes to cholera. I had quite lost sight of brachial neuralgia the last few years, but in the last four or five months I have seen two cases of it. If, however, the disorder in the above instance were *au fond* of neuralgic character, are we to regard it as purely peripheral? I think not; partly on account of its wide extent, its involvement of sensation and motion, and partly on account of the retention of electro-muscular contractility in the paralysed limbs. Few things are more difficult in many cases, than to say what is the exact location of a neuralgic pain depending on general causes; and I believe the truth probably is that the whole nervous apparatus related to the suffering part is affected, both centre and peripheral extension. In the case we are considering, it is clear that the superior centres remained exempt; but in one which I propose hereafter to communicate the reverse took place.

I have said little as to the exciting causes of the disorder, for really none were apparent; but I will just add that there was never the least indication of any psychical cause in operation, there was nothing to warrant the notion of hysteric paralysis.

The history now related goes decidedly to confirm the position taken in my first Lumleian Lecture, as to the possibility of a primary functional paresis, and justifies my anticipation that this conception must replace to some extent those of congestion and effusion which have been so widely current. M. Constantin James some years ago expressed strongly the

same view. He says (*Guide aux Eaux Minérales*, p. 479, 5th edit.): "I regard paraplegia from enervation as the most usual form, and myelitic as the exception."

BIRMINGHAM GENERAL HOSPITAL.

A CASE OF SYPHILITIC THICKENING WITHIN THE LARYNX; AND A CASE OF SYPHILITIC OBSTRUCTION IN THE TRACHEA.

Under the care of JAMES RUSSELL, M.D.

I HAVE not preserved notes of the former of the two cases the titles of which appear at the head of this communication; it was not an unusual one, and is noticed in this place solely from the points of resemblance and of contrast it presented with the second case, which was of a much less ordinary character. Both were typical instances of syphilitic obstruction of the upper part of the respiratory passages; but in the one case the disease was situated in the larynx, whilst in the other it was in the trachea; and a very interesting contrast was thus afforded between the respective symptoms of the two cases. In each case, too, the internal disease was accompanied by a local induration of like kind, affecting an external tissue; and thus the progress of the inner malady could be measured by the condition of the outward organic change.

In the former case, the ordinary symptoms of laryngeal disease were perfectly characteristic. The laryngoscope demonstrated the presence of a nodal thickening, confined strictly to the left ventricular band (false vocal cord), which formed a considerable projection within the laryngeal cavity. Upon the forehead was a periosteal node, and a second existed upon the right temple. Under treatment, each node steadily diminished; and, as this went on, the voice cleared, the laryngeal symptoms subsided, and the thickening of the ventricular band was entirely removed.

CASE II. J. H., aged 26, a hoop-maker, was admitted with considerable dyspnœa, plainly of laryngeal origin, and due, I have little doubt from the description, to spasm of the glottis. I did not see him at this time; and, as his severe symptoms speedily subsided, my attention was not specially directed to him for a week. I believed him to be suffering from laryngeal disease, and prescribed for him accordingly. At the end of this time, however, I made an examination with the laryngoscope. I was then surprised to find the larynx perfectly healthy. This discovery led to a more careful investigation of his case, when I at once remarked the presence of two symptoms, both, according to general rule, diagnostic against the seat of the disease being in the larynx. The voice of the patient was perfect, and had never been at all affected at any period of his illness; and his cough, which was very troublesome, had a normal explosive character, which indicated that the lips of the glottis were brought into perfect contact, and, together with the perfect state of voice, that the movements of the arytenoid cartilages were unimpeded.

On examining the chest, I found that the left side expanded with less freedom than the right. Percussion gave a normal result. The heart's apex was depressed, doubtless from the corresponding depression of the diaphragm, due to the dyspnœa. Beneath the upper bone of the sternum, a load *roaring* inspiratory sound was audible, but was less loud over the larynx. The respiratory sounds were more feeble beneath and above the left clavicle and over the root of the left lung. The symptoms which the patient presented were, very noisy breathing, during both inspiration and expiration, especially loud during a deep breath; and a troublesome cough, with considerable mucous expectoration. He had spat up a little blood.

The cough had existed for about a fortnight; but his breathing had been difficult for eleven weeks, and he had been emaciating rapidly for nine weeks. His history previously to these dates was one of perfect health.

The symptoms pointed to obstruction in the lower part of the trachea, involving the left bronchus. On the upper and inner part of the left thigh were two deep excavated ulcerations, each surrounded with a large amount of thickening, which elevated the lower one in particular into a prominent tumour. The upper sore had been present for eighteen months, the lower for a shorter period. There was also a cicatrix on the frænum of the prepuce, and a history of syphilitic infection nine years ago.

The patient was extremely cachectic, pallid, and emaciated; his pulse was quick and irritable. His treatment consisted of generous diet, the bichloride of mercury with steel, and cod-liver oil. He began to improve at once. Subsequently, small doses of blue pill were substituted, until slight salivation was induced. During the period of salivation, his temperature, which had been normal previously, rose, and remained elevated until the ptyalism had subsided (the degree is not noted). As the health mended, the external indurations lessened progressively, and with this the tracheal symptoms subsided. He left the hospital at the end of a month, with some remains of the induration in the thigh, but only very slight stridor on a deeply drawn breath. He was then taking the iodide of potassium.

THE WOUNDS OF RIFLE-BULLETS IN BATTLE. There is in the museum of the Army Medical Department a very interesting specimen of a bullet, connected with a wound of the head, and exhibiting nearly one complete turn on its long axis after it had been thus caught or lodged. This bullet, a Russian conical rifle bullet, has been divided in its deadly course by an oblique slit from the apex or tip to the base; and the two divided parts are only held together by a narrow isthmus of lead at one of the angles of the base of the section. But that is not all; this isthmus, or connecting strip is twisted round itself like a piece of cord, carrying with it the thinner section of the bullet, or that section which was most easily acted upon by the twisting force. There are ridge and furrow lines on the separated surfaces of the bullet, and they are contorted from the right to the left, indicating the direction towards which the rotary force of the projectile had modified the direction of the bisecting force. Here we have the demonstration of the influence of the spinning property of a rifle bullet in motion, first detected we believe by Professor Longmore. The general conclusions drawn by Mr. Longmore are, if elongated projectiles, such as the Whitworth bullets, were substituted for the Enfield: First, that the number of head and trunk wounds would be greatly increased; the amount of increase being proportional to the velocity and lower trajectory and greater hardness of the Whitworth hexagonal projectile. Secondly, that of these wounds a greater proportion than now usually happens in war would be attended with fatal results on the field of battle. Thirdly, that there would be, in like proportion, a greater number of fractures of bones, as well as of flesh wounds of the extremities, but the comparative degree of severity of these can hardly be stated without further experience. (*United Service Magazine.*)

Original Communications.

CASE OF HERPETIC ERUPTION IN THE COURSE OF BRANCHES OF THE BRACHIAL PLEXUS,

FOLLOWED BY PARTIAL PARALYSIS IN CORRESPONDING MOTOR NERVES.

By W. H. Broadbent, M.D., Assistant-Physician to St. Mary's Hospital.

This case is forwarded as a contribution to the series, which it is to be hoped will be long and valuable, started by Mr. Paget in the Journal of October 13th. The influence of the nervous derangement on the nutritive operations was not so profound as in the case related by Mr. Paget; but the association of motor paralysis is an interesting point, and seems to fix the seat of the morbid change in the spinal cord.

A. W., a woman, aged 74, was seized, without any assignable cause, with severe superficial pain of a burning and smarting character in the right side of the neck and down the right arm. This was followed by an eruption of herpetic character, which extended in patches from the lower cervical vertebræ, across the right side of the back of the neck, over the shoulder, down the outer side of the arm to the upper part of the forearm on its outer aspect. Below this point the skin was red. The vesicles gradually dried, forming slight superficial scabs. A week after their appearance she lost to a great degree the use of the arm, and on this account applied as an out-patient at St. Mary's Hospital on July 5th, 1866. At this time the remains of the eruption existed in the situations named. Great pain and a sensation of extreme heat were complained of about the shoulder, elbow, along the radial border of the forearm and in the ball of the thumb. The muscles were tender on deep pressure.

The entire limb was enfeebled and trembling. She could flex the forearm on the arm and move the fingers, but could not raise the arm from the side. There was no tenderness on pressure over or about the cervical spines.

Looking upon the case as allied to neuralgia, I first gave quinine in four-grain doses three times a day for a fortnight; afterwards iodide of potassium in doses of two grains, with ammonia and infusion of gentian for a similar period; when the quinine, with the addition of iron, was resumed. Cod-liver oil also was ordered. Sinapisms and a blister were applied over the cervical spines; and linimentum opii was ordered to be rubbed into the painful parts.

She remains under observation in very much the same condition; is better in general health, suffers less pain, and has a little more power in the arm, but is still unable to raise it from the side. The shoulder-joint has become more stiff, and there is more resistance and pain when the arm is moved by me than was the case at first. A curious fact recently mentioned by the patient is that a minute cicatrix at the bend of the elbow, where she was bled when young, and the vaccination marks, are seats of very severe pain.

This case will find a place in the series illustrating the influence of disordered nerve-force on organic operations, and may be more valuable, since, from the accompanying motor paralysis, the seat of the disturbance would seem to be centric. The paralysis might, of course, be looked upon as reflex; but this view does not seem to me to be supported by the facts of the case; and an additional reason in favour of the centric origin is seen in the occurrence of herpes in the distribution of the small posterior branches to the back of the neck, as well as along the main trunks of the plexus.

Another point illustrated by this case is the analogy existing between pain in a sensory nerve and paralysis in a motor nerve—a point from which important inferences follow. These cases of herpes generally also seem to show that sensory nerves may conduct influences or impressions from as well as towards the nerve-centres; unless we are to accept the hypothesis of the existence of a special set of nerve-fibres presiding over nutrition, bound up with the sensory nerves and distinct from the vaso-motor nerves, which, notwithstanding the high authority of Dr. Brown-Séquard, seems to me untenable.

ON THE ASTRINGENT PLAN IN THE TREATMENT OF CHOLERA.

By W. Norris, M.D., Stourbridge.

Amid the conflicting opinions on the pathology and treatment of cholera, it is really very difficult to know what plan to adopt; and, in our ignorance, it must surely be the safest plan to give those remedies most likely to alleviate the prominent symptoms. If we see a patient bleeding to death from hæmoptysis, we do not hesitate to give our best astringent; and when we find the most voluminous secretions running away from the mucous membranes, and glands of the stomach and bowels, endangering life, why may we not endeavour to check them by acetate of lead, probably the most direct astringent we possess? and why may we not endeavour to allay the violent pain and spasm by opiates?

When I cannot discover or cure a disease, I always administer to symptoms; and then kind Nature will often finish the cure. The most severe case of English cholera I ever saw, I cured by a single grain of opium in a pill. It occurred in a young surgeon, who had taken repeated doses of laudanum, which were rejected as soon as taken. A cloth wetted with cold water immediately stopped the spasms in the extremities, which were extremely violent; and the disease yielded at once.

The poison of cholera will not be easily eliminated; it must surely involve the whole system, and does not exhaust itself on the small glands and mucous membrane of the bowels and stomach. In small-pox, scarlet-fever, etc., the poison is, I fear, never totally eliminated till the disease has nearly subsided; and in this disease, so suddenly fatal, if we lost much time, our chance of success would be lost.

We must remember that, in most cases, numerous secretions must have passed away before we see our patients; and, as they so rapidly form again, should we not endeavour to check or suppress them as speedily as possibly, or life may be gone?

I have often thought that, before we begin to use astringents in cholera, it may be well to wash away the fluid from the stomach by draughts of warm water; and also to use injections of thin gruel to bring away the unnatural secretions from the bowels, which may also tend to soothe the irritable parts; and, should the symptoms continue severe, I think we should give pills with three grains of acetate of lead every quarter of an hour, and half a grain of opium with the two first doses; and frictions of ointment, made with the same mineral, may be occasionally rubbed over the abdomen. Should the symptoms not yield, injections of lead may be tried; for I

really think lead our sheet-anchor when diarrhœa and vomiting are the prominent symptoms.

I wrote several times in the *Lancet* on cholera during the late visitation, and then urgently recommended acetate of lead; for a medical friend and myself used the remedy with wonderful success, after other plans had failed.

I think that chloroform, applied to the spine and the painful parts, may probably allay the pain, with the aid of friction, and flannel bandages to the legs, abdomen, etc.

During the stage of collapse, when a patient is cold and almost pulseless, when life appears to be fast flitting away, how can we resuscitate the poor remains of life, without giving stimulants? By endeavouring thus to promote the circulation through the pulmonary arteries, may we not lessen congestion in the lungs? and, if there is so much more carbon in the blood, may not oxygen diffused through the apartment be beneficial?

I wish the evacuant and astringent plans of treatment could be fairly tried by scientific men in a certain number of cases. We should then be able to ascertain which is the most successful. I have really known so many vaunted theories and remedies fall to the ground, that I am probably too sceptical about new doctrines.

Dr. G. Johnson alludes to the case of my late old friend, Mr. Samuel Rogers, an Indian surgeon, and nephew to the poet; who, when on duty, was attacked with cholera, and was speedily cured by bloodletting. Although I have often talked with him on his case of cholera, I am not aware that he adopted the same plan in the generality of his cases. When cholera first came here, I bled a leucophlegmatic elderly man when the collapsed stage was commencing, and he died in a few hours; this deterred me from using the same plan ever afterwards.

Although I trust and hope that in many cases we may be successful with our remedies, yet I fear that, in the severest cases, our best plans will be of little avail.

In the strangely excited state of the glands and mucous membrane of the alimentary canal, surely something should be done to diminish the secretions before we can expect to cure our patients.

I think cholera to be contagious. A drunken man near here kissed his wife's lips after vomiting, and they both died with cholera the next day. Nurses often have the disease from taking food and drink out of the same cups or the same spoons which the patients use. I had a long correspondence with the late Dr. Snow, and he appeared to be of my opinion. I think the disease is often propagated by downright carelessness.

Probably the long continued rains have materially diminished the spread of cholera, by washing away and diluting voluminous noxious materials.

Australian Medical News. At a meeting of the Senate of the University of Sydney, on July 18th, Dr. Haynes Gibbs Allwyne was appointed an Examiner in the Faculty of Medicine in that University. The Rev. Wazir Beg, M.D., M.R.C.S.Eng., is giving a series of lectures on popular subjects, in aid of the funds of religious institutions in Sydney. In consequence of complaints having reached the Government in reference to inefficiency in the general arrangements of the Sydney Infirmary, a commission has been appointed to inquire into the present state of the establishment, and to report to the Government any recommendations that may occur to them for improving its efficiency. The commission held its first meeting at the Colonial Secretary's Office on August 22nd.

Reviews and Notices.

A Treatise on the Principles and Practice of Medicine; designed for the Use of Practitioners and Students of Medicine. By Austin Flint, M.D., Professor of the Principles and Practice of Medicine in the Bellevue Hospital Medical College, etc. Pp. 867. Philadelphia: 1866.

The high position which Dr. Flint holds in America as a physician and teacher of medicine, would at first seem to demand that we should devote some columns to an analysis of his work. But, to attempt this task with a book of the kind now before us—a systematic treatise on the Principles and Practice of Medicine—would be to give an epitome of the whole subject, with, perhaps, such an amount of commentary as would neutralise all efforts at condensation. It is, therefore, from no want of respect to Dr. Flint that we dispose of his treatise in a few words.

The book consists of two parts. In the first part are contained the Principles of Medicine or General Pathology, arranged in nine chapters, under the heads of: Anatomical Changes in the Solid Parts of the Body; Morbid Conditions of the Blood; the Causes of Disease, or Etiology; Symptomatology; and Prophylaxis and General Therapeutics. In the second part, that on Practice of Medicine or Special Pathology, the subjects are arranged in sections, allotted respectively to the respiratory, the circulatory, the digestive, the nervous, and the genito-urinary systems, and to fevers and other general diseases. The author's object is expressed in the following extract from his preface.

"The object of this work is to present such a digest of the Principles and Practice of Medicine as will be serviceable alike to the pupil in the prosecution of his studies of disease, and to the physician engaged in the practical duties of his profession..... As much conciseness as is consistent with clearness has been studied. Very little space will be found to be occupied with past opinions or doctrines which have become obsolete. Discussions relating to mooted pathological questions are rarely entered into. Illustrative cases have been introduced with reserve..... Finally, in writing the volume, the study has been to keep prominently in mind the practical applications of medical knowledge to diagnosis, prophylaxis, and therapeutical indications."

There is abundant evidence, from the references to names with which we meet throughout the book, that Dr. Flint is, besides himself holding a very high rank among the leading physicians of his country, extensively acquainted with the literature of medicine on this side of the Atlantic—both British and continental. We are, therefore, heartily glad to see him taking an independent position as the author of such a treatise as that which he has produced, in a country where, as we think, it is too much the custom to depend on foreign resources in medical literature and thus to obscure native talent. Our American medical brethren are to be congratulated on the possession of such an excellent digest of modern medical science as that with which Dr. Flint has furnished them.

MEDICAL DIAGNOSIS, WITH SPECIAL REFERENCE TO PRACTICAL MEDICINE. A Guide to the Knowledge and Discrimination of Disease. By J. M. DA COSTA, M.D., Lecturer on Clinical Medicine and Physician to the Pennsylvania Hospital, etc. Illustrated with Engravings of Wood. Second Edition, revised. Pp. 784. Philadelphia: 1866.

THIS is a book which has, apparently, achieved its reputation in America, inasmuch as a second edition has been called for in little more than two years. Dr. DA COSTA in it, *inter alia*, brings to the notice of the American student such aids to diagnosis as the sphygmograph of Marey, the laryngoscope, the thermometer, and the endoscope. Taking the book as a whole, we regard it as carefully written, and well adapted for its purpose of "furnishing advanced students and young graduates of medicine with a guide that might be of service to them in their endeavours to discriminate disease."

Progress of Medical Science.

MIDWIFERY AND DISEASES OF WOMEN.

ABSENCE OF THE VAGINA: SUCCESSFUL OPERATION. A girl, aged 15, of delicate appearance, although she had never been seriously ill, came under the care of M. Dolbeau, complaining of pains in the renal and hypogastric regions, which had occurred twice, with an interval of a month. On examination, the labia, clitoris, meatus urinarius, and hymen, were found perfect; but, on introducing a probe through a small opening which existed in the hymen, the instrument was suddenly arrested after passing a short distance. Exploration by the finger in the rectum detected, at a depth of six *centimètres*, a hard elongated projection corresponding with the anterior wall of the canal, and apparently mounting towards the pubes with a slight inclination to the right. On abdominal palpation, vague signs only were discovered; a little resistance on the right side in the hypogastrium, and slight movements communicated by the pressure of the finger in the rectum; there was nothing in the middle line which seemed to correspond with the fundus uteri. By introducing a sound into the bladder, while the finger remained in the rectum, it was found that the posterior wall of the urethra was continuous with the anterior wall of the intestine for a space of four *centimètres*. It was concluded from the results of this, and the periodical symptoms above noted, that the vagina was wanting, but that the uterus and ovaries were present; that the uterus was probably two-horned, and that the right cornu was distended with blood. M. Dolbeau performed the following operation on May 22nd. The urethra being held forwards by a catheter, M. Dolbeau pushed the rectum backwards with the index finger of his left hand. He then made a transverse incision in the perineum, and easily separated the soft tissues by his fingers, the bistoury being again required only to make a second deep incision into the tumour; after which the sanguineous coagula were expelled, and the finger could be introduced as far as the neck of the uterus, which was small. No ligature was required. During the first few days after the operation, sanguineous clots were expelled; after which, there was healthy suppuration, at first abundant, but gradually diminishing. The opening being large, no plugs nor cannulæ were used; but, as a precaution, the finger was introduced every second day. At the time of reporting the case, a menstrual period had passed without the appearance of catamenia; but this probably arose from the constitution of the patient, and there was reason to believe that menstruation would be established, and that, if care were taken to keep the opening patent, the fluid would escape. (*Gaz. des Hôpitaux*: and *Bull. Génér. de Thér.*, September 15th, 1866.)

SURGERY.

THE GALVANIC CAUTERY IN VARICOCELE. Paul B., aged 44, had suffered during eight years from a large varicocele on the left side. On January 29th, M. Amussat applied the galvanic cautery to the varicose veins of the spermatic cord. The mass of veins, having been first isolated carefully from the vas deferens, was surrounded by a loop of platinum wire, the two ends of which were brought out through the same opening in the skin, and placed in connexion with a Middeldorpf's apparatus. As soon as the circuit was established, the wire became incandescent; and in a few minutes the vessels were cauterised and divided. The operation was very painful, but was well borne. The only dressing applied was a little cotton wool in a suspensory bandage. In the evening, the patient was a little feverish; but afterwards he had no pain nor any bad symptoms. He kept in bed eighteen days, and, at the end of May, the cure remained complete. (*Gazette des Hôpitaux*; and *Bull. Génér. de Thér.*, June 30th, 1866.)

LUMBAR HERNIA. A man, aged 70, was admitted into the Hôtel Dieu, at Montpellier, under M. Bouisson, with lumbar hernia. At the posterior part of the left lumbar region was a round sessile tumour, of the size of a fist, a little flattened from above downwards, painless, soft, fluctuating, resonant on percussion, and increased in size by the erect position, coughing, efforts, etc. It was easily reducible, sometimes with gurgling, sometimes without. Above, it was bounded by the last false rib, behind, by the muscles of the spine and the anterior border of the latissimus dorsi, and in front by the abdominal muscles. Its reduction left a very marked depression, by which the hand penetrated, as it were, into the abdominal cavity, through an opening about two inches in diameter. The intestine was separated from the skin only by a layer of cellulo-adipose tissue and fascia propria. The hernia, which had existed three years, first appeared in consequence of a violent blow with the fist in the left lumbar region. The patient said that the hernia caused him no trouble, except some slight colic when his bowels were constipated. He stated also that he had not been so well, and that the tumour had increased, since he ceased to wear a bandage which had been ordered for him by Dr. Reveil of Nîmes. M. Bouisson caused to be made for the man a bandage consisting of a girdle about four inches wide, composed of non-vulcanised India-rubber, covered with a web of cotton, and furnished with leather straps and buckles. On its inner surface, at the point corresponding with the hernia, it was fitted with a nearly oval pad, with its larger end directed forward, and with the upper edge slightly concave, so as to fit the convexity of the lower border of the thoracic walls. The pad, which rested on a metallic plate of the same shape, was convex on its inner aspect, so as to close the opening through which the hernia escaped. (*Montpellier Médical*; and *Bull. Génér. de Thér.*, September 30th, 1866.)

ELECTION OF EDITOR.—DR. MARKHAM *having resigned the Editorship of the* BRITISH MEDICAL JOURNAL, *the* COMMITTEE OF COUNCIL *will meet at Birmingham on Thursday, the 22nd of November next, to fill up the vacancy. Communications on the subject will be received by the Secretary,* MR. T. WATKIN WILLIAMS, 13, *Newhall Street, Birmingham.*

British Medical Journal.

SATURDAY, OCTOBER 27TH, 1866.

CORONERS' POWERS.

WE had hoped that the difficulties which used, in the late Mr. Wakley's time, to arise between coroners and magistrates as to the custody of accused parties, had ceased. We always thought that these discrepancies in opinion, so practically expressed, added nothing to the dignity of the coronership, but rather tended to bring the profession of medicine into disrespect as representative of coronerships. We must say we regret that one of the coroners in Middlesex has found himself in a similar position of difficulty. The coroner, as far as we know, may be perfectly right in a legal sense, and may be only doing his duty in defence of the privileges of his office; but then, unfortunately, the public do not seem to see the matter in this light. We, therefore, think that the coroner would act more judiciously in this matter to submit to public sentiment, even though he may feel and know that the rights and dignity of his office suffer, in so far, a kind of *lèse-majesté*. The coroner's court is a very ancient one; and it is just possible that some of its ancient privileges, fitted for a bygone age, are no longer suited to the times we live in. In such a case worldly wisdom should step in and stifle conscientious scruples, recommending their sacrifice as necessary to present expediency and the general comfort. One of our daily papers thus comments on the present case. The remarks apply not to Dr. Lankester, but to Mr. Humphreys. We give them because we think they represent very fairly the opinion of the public.

"Mr. Wakley was in a state of continual feud with Home Secretaries, prison governors, and magisterial functionaries, because they would not support him in his endeavours to get prisoners charged with homicide brought before him. We never knew any advantage result from these squabbles; and we must confess we do not see how the ends of justice can be promoted by such means. The duty of the coroner and his jury is simply to ascertain the cause of death, not to determine the question of guilt or innocence. A coroner is not necessarily a legally educated officer, and is, consequently, liable to fall into mistakes in his application of the laws of evidence, and in not checking with sufficient firmness the disposition of jurymen to find a short cut to a verdict by asking the prisoner questions. Not very long ago, in one of these inquiries, the proofs of murder or manslaughter having failed, the jurors wanted to bring in a verdict of 'Guilty of concealment of birth' against an unwedded mother. The coroner endorsed their decision; and the whole of them had to be set right by the police-serjeant in attendance, who bluntly refused to obey the order because it was not legal. If the coroner's were the only court in which a preliminary inquiry were conducted, it would be necessary to provide far more elaborately and systematically than at present for a fulfilment of the conditions, the first step to which would be the positive disqualifying of any one but a lawyer from holding the office. It is only on the ground that the coroner's duty is restricted to an inquiry into the reason why the slain died, in which the guilt of the slayer is not necessarily involved, that the election of non-legal coroners can be justified. It is said that the knowledge of anatomy and physiology which these gentlemen possess may often stand them in good stead when instituting an inquiry *per visum corporis*. Admitting that there is some truth in this, the loss of legal skill in a judicial inquiry which has to be set against it may make the wisdom of choosing a medical man somewhat doubtful. But if to this we are to add a constant disposition to impede and embarrass the magistrates charged with the conduct of the formal investigation of the prisoner's guilt, if witnesses are to wait for the appearance of a prisoner in a place where his presence is essential, because he is detained by official caprice in another place where he is not wanted at all, we may have to ask ourselves whether a medical coroner is not a bit of a bore, whose redundant energy in endeavours to exalt his office it would be wise and well to restrain."

Rightly or wrongly, such undoubtedly are the sentiments of the public in reference to disagreements of this nature. Difficulties of this kind, so far as they are raised by medical coroners, will surely tend to bring medical men into bad odour as fitting representatives of coronerships; and for this reason we hope that, at all events, our medical coroners will (as we suppose they readily may) carefully avoid the exciting such unfortunate discussions.

THE COLLEGE OF SURGEONS AND ITS EXAMINERS.

A "COUNTRY FELLOW" addresses us concerning a comment upon the important resolution, respecting the term of office of Examiners, lately arrived at by the Council of the College of Surgeons. He thinks we have somewhat misunderstood the intention of the resolution. He says, and truly enough, that the Council does not affirm by its resolution that the Examinership is to be held for ten years; the Council merely state that such term should, under all or any circumstances, be the full period of office. We must nevertheless still maintain that the resolution will probably be read, and especially by those who wish to read it so, as indicative of what the Council considers a proper period of office. He reminds us, also, that the Council has the power of determining

the term of office at the end of every five years; every Examiner, if he remain such, having then to undergo re-election.

We have already said that the profession will doubtless expect that the three Examiners who have at present held office upwards of fifteen years will at once retire from it. It is difficult to suppose they can adhere further to it after such an unmistakeable hint from the Council. Under any circumstances, the Council will, of course, not negative its own resolution by re-electing them at the termination of their next quinquennial period. But here a very curious question offers itself for consideration, in reference to this resolution. Are not the three gentlemen alluded to already defunct as Examiners, in conformity with the terms, and as a consequence, of the resolution itself—defunct, we mean, legally, as well as morally? Examiners, according to the terms of the Charter, hold office during the pleasure of the Council. Well, have not the Council distinctly said, by their resolution, that it is not in conformity with their pleasure that an Examiner hold office longer than ten years? Consequently, are not the holders of office beyond ten years thereby actually removed from office? We suggest this question for the consideration of the legal adviser of the College. The profession, in the meantime, will doubtless agree with us that, whatever may be the law of the case, there can be little doubt as to the moral of it.

The *Army and Navy Gazette* tells us that

"The new warrant for improving the position of the medical officers of the Royal Navy has been decided upon; but the publication is deferred until such time as the Army Medical Department is prepared with its particular scheme."

Here, again, it appears, as usual, the Royal Duke and his party are the stopgaps to any improvement of the position of our army and navy medical brethren. How the navy suffers from this criminal reticence of the Horse Guards may be judged of from the following.

"The following facts speak for themselves, and tend to prove the very great unpopularity of the medical service of the Royal Navy amongst our schools of medicine. On comparing the present *Navy List* with that of last quarter, we find the number of assistant-surgeons shows a reduction of eight. There have only been six entries this year; and we moreover find that there are no fewer than twenty-five surgeons borne in lieu of assistant-surgeons, and that sixteen ships have either no assistant-surgeon at all, or only one assistant-surgeon where two would be the proper complement."

The President of the South Midland Branch, Dr. Lawford of Leighton Buzzard, has determined on signalising his year of office by a proceeding which denotes an earnest desire on his part to act according both to the letter and to the spirit of the Association. He offers a prize of the value of ten guineas for the best essay on Enteric or Typhoid Fever, its causes, nature, propagation, and treatment. The competition is open to any member of the Association, who is invited to send in his essay, signed with a motto or number, and accompanied by his name in a sealed envelope, to Dr. Bryan of Northampton, on or before the 1st day of May, 1867. The prize will be awarded at the next annual meeting of the Branch. We trust that Dr. Lawford's liberal offer will be well responded to, and that he will have the satisfaction of seeing his prize awarded to an essay of such merit as shall fully justify his highest expectations.

According to *L'Avenir National*, hippophagy flourishes at Paris. The success of the market there opened appears certain. The appearance of the meat-display has nothing extraordinary. The choice bits look like so much beef. Sausages are also sold in the market, and of a very savoury odour; they are made of horse and pig flesh, with plenty of spice. The meat is sold from $2\frac{1}{2}d.$ to $10d.$ the pound, according to the cut. The animals are killed outside Paris, in special slaughter-houses; and the quarters are brought to the market with the feet attached, to prevent unfair play. The supply of animals is said to be abundant. Masters of horses which are no longer of use prefer sending their old servants to the market, to selling them to end their days in a wretched and miserable service. The opening of this market, we are told, is a progress "alimentary", not culinary. Meat, having the same nutritive qualities as beef, is sold in a populous quarter 50 per cent. cheaper than beef. That is the important fact. The success of this experiment in Paris and elsewhere on the Continent will, perhaps, in the course of time, induce our national—we can hardly say natural—prejudices to reflect. Perhaps we might follow the example of our transmarine neighbours with advantage. Perhaps we might go even a step further in this line of progress, and fatten our lame and useless animals (not diseased) for the slaughter-house.

Mr. Ambrose Blacklock, surgeon-major of the Madras Army, asks in a pamphlet, "Do small-pox and cow-pox afford any protection from Asiatic cholera?" His own impression is, "that persons who have had well marked cow-pox at no distant period, say within five years, are fully protected from Asiatic cholera, as well as from small-pox." Again, he says that, after twenty-three years' residence in India,

"Where vaccination makes but slow progress among the people, and pock-pitted persons are to be seen in abundance, and where I have had a large number of cholera cases to attend to from year to year, I cannot remember ever having seen or heard of any person marked by pits of small-pox being affected with Asiatic cholera."

The following somewhat curious case a few weeks ago excited a good deal of warm feeling amongst the governors and officers of the Middlesex Hospital, and gave rise to a few sensational articles in the daily press respecting the condition of our modern nursing system.

John Donaldson was charged with having published a libel concerning Mary Ann Deans, knowing it to be false. The prisoner said: I am not guilty. What I did I did for the good of the hospital. The prosecutrix was, and had been for some time, a nurse at the Middlesex Hospital, and the prisoner a patient. They both occupied Forbes Ward. The prisoner entered on the 10th of July, and left on the 30th. He occupied bed No. 20. In bed No. 19, the next bed to his, there was a person named Manning, who at Balaklava had received a wound in the knee-joint. Since then he received a kick from a horse in the same joint, and was thereby incapacitated from active work. He was unable to move from his bed. His knee was placed in a "cradle"; the knee was bandaged; and, in point of fact, he was said to be bedridden. On the day the prisoner left the hospital, he made a statement to Mr. Shore, senior house-surgeon, which was taken down in writing, signed by the prisoner, and brought before the Board, who instituted an investigation. The result was that Mary Ann Deans was retained in the service, and that this prosecution was commenced and carried on by the authorities of the hospital against the prisoner for the libel. The libel was to the effect that for two or three nights after he (the prisoner) was admitted, Manning and the nurse Deans were whispering together, she sitting on the side of Manning's bed; that on Sunday morning, July 15th, between the hours of one and two o'clock, the prisoner was awakened by a noise, and found her lying alongside Manning in the bed, her arm being round his neck; that criminal intercourse took place between them; and that subsequently Manning was supplied with spirits by Deans. The only motive assigned for the utterance of the libel was that the prisoner complained he had not been as well attended to in the hospital as Manning and other patients were. Mr. Ribton admitted that his client might have been mistaken in what he witnessed; but said that some irregularities at, and dismissal of nurses from, the Middlesex Hospital had taken place; that a controversy was going on in the *Times* respecting the necessity of having lady nurses to supervise the paid nurses; that these irregularities and controversies had operated upon the mind of his client; and that there was no publication on the prisoner's part of the libel.

The jury returned a verdict of guilty upon the second count; viz., that he had published the libel not knowing it to be false. This the Recorder considered was a verdict of acquittal.

The cholera daily diminishes in Vienna; the deaths are now (9th) from fifty to sixty a day. The *Wien. Med. Woch.* strongly urges the impropriety of opening the public schools there at present.

Dr. Loudon, Physician of Rudolph's Hospital at Vienna, has been made Head Physician of the Rothschild's Hospital at Jerusalem.

The *Wiener Med. Woch.* publishes a letter of Professor Pitha relative to his lost son. "After a long season of painful uncertainty, I have at length received positive assurance of the fate of my son. He fell at the battle of Nachod, on the 27th of June, struck in the heart by a bullet."

M. Grimaud assures the Academy of Sciences that an inquiry at Marseilles proves that no cases of cholera appeared there in 1865 before the arrival of pilgrims from Mecca, as has been asserted.

Professor Leudet of Rouen tells the Academy that, at the Hôtel Dieu at Rouen, no case of cholera during the last epidemic arose within the hospital, notwithstanding that there was no isolation of the patients. The patients were treated in the ordinary wards; and the bedding, etc., were not removed for purification. Notwithstanding the isolation practised in the Paris hospitals, and the extreme care used in disinfection, cases have arisen within the hospitals, and in very varying proportions.

Dr. Mericourt says that the new naval architecture has produced in the fleet very serious results from overcrowding. He asks for some special method of ventilation.

A dispensary was some few years ago established at Lyons; the patients being attended at their own houses. At starting, the medical officers were paid 300 *francs* a year, and shortly afterwards 600 *francs*. This year, the administration, *sua sponte*, has again "favourably ameliorated" the position by increasing the sum to 800 *francs*, in addition to midwifery fees.

DEATH OF F. D. FLETCHER, ESQ.

We regret to announce the death of our associate, Frederick Dicker Fletcher, Esq., of Liverpool, which took place on the 18th instant, at Southport, where he had been residing for some months, having been compelled to retire from practice from failing health. He was cut off at the comparatively early age of 39, by pulmonary consumption.

Mr. Fletcher was educated at University College, having served as house-surgeon to University College Hospital, and subsequently to the Liverpool Royal Infirmary. He was for several years lecturer on Anatomy and Physiology at the School of Medicine, surgeon to the Dispensaries, and latterly surgeon to the Workhouse Hospital and to the institution for infectious diseases. A well-educated and accomplished surgeon, and taking a lively interest in professional matters, he occupied a high position in the estimation of his professional brethren. He was a fluent speaker, and a pleasing writer, as will be recognised by those who remember his communications on various subjects, in the pages of a contemporary (*Medical Times and Gazette*), as local correspondent for Liverpool. In private life, his amiability of disposition, his kindness of heart, and, above all, his truly Christian character, had won for him the respect and affection of a large circle of friends, by whom his loss will be regretted no less than by his medical brethren.

THE CHOLERA.

The Registrar-General's return shows that only 20 death from cholera and 4 from diarrhœa were registered for the two days, Sunday and Monday. The central districts show a very low figure. The weekly return gives to cholera 144 deaths, and to diarrhœa 55, being on the two 55 less than the previous return. This is very satisfactory. But, on the other hand, we have to lament an increase in the total number of deaths, chiefly due to bronchitis, caused by the approach of winter. The return gives some interesting facts about the water supply and the discharge of sewage.

The deaths from cholera and diarrhœa in the last six weeks were 292, 248, 244, 251, 254, 199.

The health of London, says the Registrar-General, depends very much upon the inflow of pure water and the outflow of impure sewage. The nine water companies have supplied 100,864,971 gallons daily in the London area during September. South London received 30,186,829 gallons daily during the month. The sewage discharged daily in September at the southern outfall works, Crossness, amounted to 46,229,675 gallons. Mr. Bazalgette fears that "it will be quite a year and a half before we shall get the whole of the northern discharged through the outfall sewer." Dr. Frankland gives a remarkable instance of the effects of filtration of water through animal charcoal of the East London Company's water, supplied to the tenants of Miss Coutts in Columbia Square. A table exhibits the effect of filtering the East London Company's water through animal charcoal. A comparison of the results yielded by this water before and after filtration shows this marvellous effect of animal charcoal in removing, not only organic, but also mineral impurities, from water filtered through it. Thus, the organic and other volatile matter contained in the East London Company's water is reduced to less than one fourth by this operation, and the residual quantity contains but mere traces of organic matter, since the filtered water on examination leaves a snow-white residue which is scarcely perceptibly altered in colour on ignition; the hardness is also reduced from 20·2 to 7·1. In fact the waters of the New River and East London Companies, although so different in purity as delivered to consumers, become almost identical after filtration through animal charcoal. This filtration was not performed on the small scale for the purposes of the analysis, the sample examined having been taken from the daily supply of about 700 inhabitants in Columbia Square, Shoreditch,

The Medical Health Officers of London have been requested to favour the Registrar-General with a weekly return of what is done in their respective districts for extinguishing epidemic cholera. Dr. Ballard has fully described the measures which are employed in Islington. It is by scrupulous attention such details, and by purifying the water, that this plague can be stayed.

The deaths from cholera in Liverpool continue to decline steadily, the numbers in the past three weeks having been, respectively, 99, 53, and 38. In Dublin, however, the disease is still increasing in fatality, and the deaths, which in the two previous weeks had been 81 and 98, further rose last week to 118. During the week ending the 13th inst., of the 799 deaths recorded in Vienna, 453 were referred to cholera, showing, however, a considerable decline upon the week ending the 29th ult., when the fatal cases were 672, in a total of 1,007 deaths.

PROMOTION OF NAVAL MEDICAL OFFICERS.

The *London Gazette* announces the promotion of four naval surgeons to the rank of staff-surgeon "in consideration of their services and attainments." John M'Swiney, surgeon, 1853, was assistant-surgeon of her Majesty's ship *Calypso* when she lost men and officers, among them the surgeon, by yellow fever, in consideration of which, together with services on board her Majesty's ship *Highflyer* during that epidemic, he was promoted. In 1857 he proceeded to China in the *Furious*, and, as surgeon, was present at the capture of Canton and the Peiho Forts. In 1861-62, he was surgeon of the *Sanspareil*, employed as hospital-ship to the Royal Marine battalion, landed at Vera Cruz with the allied Mexican expedition. In 1864 he was surgeon of the Naval Hospital at Bermuda; and, on the outburst of yellow fever among the troops, had charge of a military hospital; after which he was in charge of the Royal Naval Hospital, in consequence of the death by fever of Deputy-Inspector-General John Gallagher. He also was attacked, and narrowly escaped. On that occasion the senior surviving Army medical officer was promoted to the rank of deputy-inspector-general, and the second to be surgeon-major. John Elliott, surgeon, 1853, was promoted for services ashore during the Kaffir War. In 1857 was sent to China. and served at Canton; in 1861-62 was surgeon of the Royal Marine battalion landed in Mexico, and had charge of Military Hospital at Vera Cruz. Dr. David Lloyd Morgan, surgeon, 1854, was assistant-surgeon of the *Trafalgar* in the Black Sea, when, owing to the illness of the other medical officers, he became senior on duty during the cholera epidemic on board; was engaged under the batteries of Sebastopol, in the attack of October 17th, for which services he was promoted to the rank of surgeon; in 1857 was landed at Canton; from 1862 to 1865 was surgeon of the *Euryalus*, and present at the various engagements with the Japanese forts at Kagosima and elsewhere. John Denis Macdonald, F.R.S., surgeon, 1859, served as assistant-surgeon of her Majesty's ship *Herald*, surveying-vessel in the Pacific from 1851 to 1858; was elected F.R.S. for contributions to zoological science; was surgeon of her Majesty's ship *Icarus* throughout that commission, when the crew of that vessel suffered one of the most terrific epidemics of yellow fever recorded of late years. From these brief data it is clear that the officers promoted to staff-surgeon's rank, before completing twenty years' service, are well selected. (*Army and Navy Gazette.*)

Sanitary Improvements in Liverpool. The Liverpool Town Council have sanctioned improvements in various parts of the town to the extent of £250,000

Health of Scotland. In the eight principal towns of Scotland there were in July 92 deaths from diarrhœa, and 14 from cholera, and in August 128 deaths from diarrhœa, and 14 from cholera—numbers much below those for the corresponding months of the year 1865. But the September return shows as many as 48 deaths from cholera, 25 of them in the comparatively small town of Leith with a population probably under 40,000. There were in September 6 deaths from cholera in Glasgow, and 48 from diarrhœa; in Leith 25 from cholera, and 6 from diarrhœa; in Edinburgh 7 from cholera, and 15 from diarrhœa; in Dundee 7 from cholera, and 16 from diarrhœa; in Aberdeen 3 from cholera, and 6 from diarrhœa; in Greenock none from cholera, but 6 from diarrhœa; in Paisley and Perth none from cholera, but one from diarrhœa in Perth.

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Wilson, H. O. Esq. Medical Officer to the Dispensary, Bristol
Wilton, J. W. Esq. Gloucester
Woolmer, Thomas, Esq. Bristol

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Noott, W. F. M.D. Brading, Isle of Wight
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Page, Frederick, M.D. Medical Officer to the Royal Portsmouth Hospital, Landport
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Howey, Edwards W. Esq. Bromyard
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Rudge, Henry, M.D. Surgeon to the Dispensary, Leominster
Smith, Joseph Evans, Esq. Ewias Harold
Turner, Thomas, Esq. Surgeon to the Infirmary, Hereford
Wood, Miles Astman, Esq. Surgeon to the Dispensary, Ledbury

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Pyne, Richard, Esq. Royston
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Scarr, R. T. Esq. Bishop's Stortford
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Foster, Michael, jun. M.D. Medical Officer to the County Hospital, Huntingdon
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Wright, Thomas G. Esq. Stilton

KENT.

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Allwork, Charles L. Esq. Maidstone
Angier, George A. M.D. Tunbridge

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Armstrong, John C. Esq. Surgeon to the Infirmary, Gravesend
Astley, E. F. M.D. Phys. to the Hospital, Dover
Atkinson, Frederick P. M.B. House-Surgeon to St. Bartholomew's Hospital, Chatham
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Barnett, Henry, Esq. Blackheath
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Sankey, George, Esq. Surgeon to the West Kent Hospital, Maidstone
Sankey, William, M.D. Sutton Valence
Sankey, William, Esq. Dover (dead)
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Barlow, Joshua, M.D. Ardwick, Manchester
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Barrow, David, Esq. Prescot
Batty, Edward, Esq. Liverpool
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FitzPatrick, W. H. M.B. Knotty Ash, Liverpool
Fletcher, F. D. Esq. Southport (dead)
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Gaine, C. Esq. Bath
George, Richard Francis, Esq. Bath
Gillett, W. E. L.R.C.P.Ed. Taunton (dead)
Gourlay, Frederick, M.D. Physician to the Dispensary, Weston-super-Mare
Harper, Charles, L.R.C.P.Ed. Batheaston
Harries, Charles Alexander, Esq. Bath
Haviland, Alfred, Esq. Surgeon to the Infirmary, Bridgewater
Hensley, Henry, M.D. Bath
Hill, James, M.D. North Curry
Hinton, Joseph, Esq. Charterhouse Hinton
Hitchins, Charles V. Esq. Surgeon to the Dispensary, Weston-super Mare
Howes, F. C. P. M.D. Eastern Dispensary, Bath
Hutchins, W. Esq Keynsham (dead)
Jenks, George S. M.D. Bath
Jey, Chas. Esq. Queen Camel, Ilchester
Kelly, William Marwood, M.D. Physician to the Taunton & Somerset Hospital, Taunton
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Lawrence, Joseph, Esq. Bath
Liddon, Wm. M.B. Surgeon to the Taunton and Somerset Hospital, Taunton
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Luce, J. J. M.D. Wincanton
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Stringfield, Joseph, Esq. Weston-super-Mare
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Wallis, Charles C. Esq. Castle Carey
Walter, W. W. Esq. Stoke-under-Ham
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Waugh, A. Esq. Chilcompton
Weatherley, Frederick, Esq. Portishead
Winterbotham, Washington L. M.B. Surgeon to the Infirmary, Bridgewater
Woodforde, Francis Henry, M.D. Taunton
Wookey, James, Esq. Wellington

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Belcher, Robert Shirley, Esq. Surgeon to the Dispensary, Burton-on-Trent
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Davis, R. A. M.D. Stafford County Asylum, Burntwood, Lichfield
Day, Henry, M.D. Physician to the County Infirmary, Stafford
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Garman, William C. Esq. Wednesbury
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Lomax, H. T. Esq. Stafford
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Morgan, M. Butler, Esq. Senior Surgeon to the Dispensary, Lichfield
Nesbitt, F. A. Esq. Surgeon to the South Staffordshire Hospital, Wolverhampton (dead)
Newnham, Christ. A. Esq. Wolverhampton
Partridge, S. Esq. Darlaston, near Wednesbury
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Shaw, James, Esq. Handsworth
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Thornhill, J. H. Esq. Willenhall
Underhill, Thomas, Esq. Great Bridge, Tipton
Underhill, William L. Esq. Tipton
Wades, John W. B. M.D. Hanley
Welchman, C. E. E. Esq. Lichfield

SUFFOLK.

Number of Members..50.
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Beck, Henry, Esq. Needham Market
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Bullen, George, Esq. Senior Surgeon to the East Suffolk Hospital, Ipswich
Chevallier, Barrington, M.D. Physician to the East Suffolk Hospital, The Grove, Ipswich
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Crowfoot, William Edward, Esq. Surgeon to the Dispensary, Beccles
Day, William H. M.D. Newmarket
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Edwards, George C. Esq. Ipswich
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Faircloth, Richard, Esq. Newmarket
Freeman, Spencer, Esq. Stowmarket
Fuller, Harry, Esq. House-Surgeon to the Suffolk General Hospital, Bury St. Edmund's
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Gissing, John Stearn, Esq. Woodbridge
Goodwin, John W. M.D. Physician to the Suffolk General Hospital, Bury St. Edmund's
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Hammond, Charles C. Esq. Surgeon to the East Suffolk Hospital, Ipswich
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Haward, Frederick, Esq. Halesworth
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Image, W. Edmund, Esq. Surgeon to the Suffolk General Hospital, Bury St. Edmund's
Jones, Robert Edwards, Esq. Long Melford, Sudbury
Kilner, John, Esq. Surgeon to the Suffolk General Hospital, Bury St. Edmund's
Kirkman, John, M.D. Resident Physician to the Suffolk Lunatic Asylum, Melton
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Marshall, Charles G. Esq. Woodbridge
Martin, Robert, Esq. Ipswich
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Simpson, E. Esq. Long Melford, Sudbury
Taylor, Henry, Esq. Ixworth
Tench, E. B. Esq. Wickham Market
Thompson, Robert, Esq. Brandon
Williams, John, M.D. Sudbury

SURREY.

Number of Members..82.
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Barlow, George H. M.D. Physician to Guy's Hospital, Union Street, Southwark (dead)
Berney, Edward, Esq. Croydon
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Bottomley, George, Esq. Croydon
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Bush, John, Esq. The Retreat, Clapham
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Chaldecott, Thomas A. M.D. Chertsey
Chapman, George, Esq. Lingfield
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Forster, J. Cooper, Esq. Assistant-Surgeon to and Lecturer on Anatomy at Guy's Hospital, St. Thomas's Street
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Frodsham, John M. M.D. Streatham
Hallowes, Frederick B. Esq. Redhill
Harris, Henry, Esq. Reigate
Hetley, F. M.D. Norwood
Hicks, J. Braxton, M.D. F.R.S. Assistant-Physician Accoucheur and Lecturer on Midwifery at Guy's Hospital, St. Thomas's Street, Southwark
Holman, Constantine, M.D. Reigate
Johnson, Jeffrey S. Esq. Croydon
Jones, Arthur O'Brien, Esq. Epsom
Jones, Sydney, Esq. Assistant-Surgeon to and Lecturer on Anatomy at St. Thomas's Hospital, St. Thomas's Street
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Marshall, Edward, Esq. Mitcham
Martin, Thomas, Esq. Reigate
Matthews, Arthur, Esq. Melbourne Place, Old Kent Road
Moon, R. C. Esq. Ophthalmic Hospital, Southwark
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Rogers-Harrison, C. H. Esq. Lansdowne Road, Clapham Road
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Spitta, Robert J. M.D. Medical Officer to the Clapham Dispensary, Clapham Common
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Walter, John, M.D. Reigate
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Webster, George, M.D. Dulwich
Whitling, Henry T. Esq. Croydon
Wilks, Samuel, M.D. Assistant-Physician to and Lecturer on Medicine at Guy's Hospital, St. Thomas's Street
Willis, Robert, M.D. Barnes
Wisden, William, Esq. Oxted
Yate, Frederick, Esq. Godalming

SUSSEX.

Number of Members...59
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Addison, W. F.R.C.P. F.R.S. Brighton
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Aldersey, Wm. H. Esq. Cliftonville, Brighton
Allison, W. J. Esq. Brighton
Boxall, H. Esq. Wisborough Green, Horsham
Bull, John Henry, Esq. Lindfield
Burrows, J. Cordy, Esq. Brighton
Byass, Thomas Spry, M.D. Cuckfield
Caudle, Adolphus W. W. Esq. Henfield
Collet, Henry, M.D. Surgeon to the Dispensary, Worthing
Corbet, John, Esq. Brighton
Cunningham, J. M. M.D. Hailsham
Davies, Robert C. N. Esq. Rye
Dill, Richard, M.D. Brighton
Elliott, Robert, Esq. Senior Surgeon to the Infirmary, Chichester
FitzPatrick, John, M.D. Ticehurst
Furner, Edmund J. Esq. Surgeon to the Sussex County Hospital, Brighton
Graham, T. H. Esq. Lamberhurst
Gravely, Richard, Esq. Newick, Uckfield
Gravely, Thomas, Esq. Cowfold
Hall, Alfred, M.D. Physician to the Dispensary, Brighton
Hall, William H. M.D. St. Leonard's
Harland, H. M.D. Mayfield
Harris, W. J. Esq. Worthing
Hester, James Torry, Esq. Hastings
Hodgson, George P. Esq. Brighton
Holman, George, Esq. Uckfield
Holman, Henry, Esq. East Hoathly
Humphry, Frederick A. Esq. Assistant-Surgeon to the Sussex County Hospital, Brighton
Ingram, William, Esq. Midhurst (dead)
Johnson, Athol A. Esq. Brighton
Kent, Octavius J. Esq. Eastbourne
Leslie, Percy, M.D. Eastbourne
Lowdell, George, Esq. Surgeon to the Sussex County Hospital, Brighton
McCarogher, Joseph, M.D. Senior Physician to the Infirmary, Chichester
Mercer, William, Esq. Wadhurst
Moore, W. Withers, M.D, Physician to the Dispensary, Brighton
Ormerod, Edward Latham, M.D. Physician to the Sussex County Hospital, Brighton
Philbrick, Thomas, M.D. Brighton
Prince, C. Leeson, Esq. Uckfield
Pursell, John, M.D. Brighton
Rogers, Robert J. Esq. Brighton
Smith, Heckstall, Esq. Hove, Brighton

Smith, John P. M. Esq. Surgeon to the Dispensary, Brighton
Smythe, Lewis, M.D. Lewes
Stephens, Joseph, M.D. Brighton
Taaffe, Richard B. P. M.B. Surgeon to the Eye Infirmary, Brighton
Tatham, George, Esq. Brighton
Taylor, Charles F. Esq. Ticehurst
Tuke, J. K. Esq. Brighton
Tyacke, Nicholas, M.D. Physician to the Infirmary, Chichester
Underwood, John, M.D. Surgeon to the Dispensary, Hastings
Weeks, W. H. Carlisle, Esq. Hurstpierpoint
Whately, Edward, Esq. Brighton
Wilton, William, Esq. Brighton
Winter, John N. Esq. Brighton
Winter, Thomas B. Esq. Brighton
Wooldridge, William, Esq. Preston, Brighton

WARWICKSHIRE.

Number of Members..139.
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Bailey, J. H. T. Esq. Coleshill
Baker, Alfred, Esq. Surgeon to the General Hospital, Birmingham
Baker, Robert L. Esq. Bordesley, Birmingham
Barker, John, Esq. Coleshill
Barratt, Alfred, L.R.C.P.Ed. Birmingham
Bartleet, Thomas H. M.B. Surgeon to the Hospital for Children, and Lecturer on Physiology in Sydenham College, Birmingham
Bassett, John, Esq. Lecturer on Midwifery in Sydenham College, Birmingham
Bellot, William H. M.D. Moreton Lodge, Leamington Priors
Berry, Samuel, L.R.C.P.Ed. Surgeon-Accoucheur to the Queen's Hospital, Birmingham
Bicknell, E. Esq. Surgeon to the Self-Supporting Dispensary, Coventry
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Bucknill, S. Birch, M.D. Rugby
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Chavasse, Pye Henry, Esq. Birmingham
Chavasse, Samuel, Esq. Birmingham
Chesshire, Edwin, Esq. Surgeon to the Birmingham and Midland Eye Hospital, Newhall Street, Birmingham
Clarke, John, Esq Kenilworth
Clay, John, Esq. Professor of Midwifery in Queen's College, Newhall St. Birmingham
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Dunn, G. P. Esq. Mosley Road, Birmingham
Ebbage, Thomas, Esq. Leamington
Elkington, George, Esq. Lecturer on Anatomy in Sydenham College, Birmingham
Elkington, Thomas, Esq. Fenny Compton
Evans, G. F. M.D. Physician to the General Hospital, Birmingham
Fayrer, George, M.D. Henley-in-Arden
Fleming, Alexander, M.D. Physician to the Queen's Hospital, Birmingham
Fletcher, Thomas Bell E. M.D. F.R.C.P. Physician to the General Hospital, Birmingham
Fosbroke, George Haynes, Esq. Bidford, near Stratford-on-Avon
Foster, Balthazar W. L.K.Q.C.P.I. Physician to the Queen's Hospital, Edgbaston, Birmingham
Fyfe, George, M.D. Kineton
Gamgee, Joseph Sampson, Esq, Surgeon to the Queen's Hospital, Birmingham
Garner, John, Esq. Resident Surgeon to the Dispensary, Birmingham
Gibbs, Edward, Esq. Digbeth, Birmingham
Goodall, W. P. Esq. Birmingham
Goodchild, Frederick, M.D. Physician to the Dispensary, Warwick
Griffith, E. T. Esq. Birmingham
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Helm, George F. Esq. Rugby
Heslop, Thomas P. M.C. Physician to the Hospital for Children, Birmingham
Hickinbotham, James, Esq. Nechells Green, Birmingham
Hill, Alfred, M.D. Lecturer on Chemistry and Forensic Medicine in Sydenham College, Birmingham
Hinds, William, M.D. Professor of Botany in Queen's Hospital, Birmingham
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Horniblow, Richard E. B. M.D. Leamington
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Howkins, Thomas, Esq. Lecturer on Dental Physiology and Surgery in Sydenham College, Birmingham
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Jeaffreson, Samuel J. M.D.F.R.C.P. Physician to the Warneford Hospital, Leamington
Jeyes, Samuel, Esq. Leamington
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Johnstone, James, M.D. Birmingham
Jones, George, Esq. Birmingham
Jones, Richard, Esq. Senior Surgeon to the Warneford Hospital, Leamington
Jordan, John, Esq. Birmingham
Jordan, T. Furneaux, Esq. Surgeon to the Queen's Hospital, Birmingham
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Kingsley, Henry, M.D. Physician to the Infirmary, Stratford-upon-Avon
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Laxon, William, M.D. Senior Medical Officer to the Coventry and Warwickshire Hospital, Coventry
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Male, James E. Esq. Surgeon to the Warneford Hospital, Leamington
McVeagh, Denis, L.K. & Q.C.P.I. Surgeon to the Dispensary, Coventry
Marriott, Charles W. Esq. Leamington
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Nason, John J. M.B. Surgeon to the Infirmary, Stratford-on-Avon
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Nelson, David, M.D. Professor of Medicine in Queen's College, Birmingham
Nunn, J. Robert, Esq. Surgeon to the Dispensary, Warwick
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Rice, David, Esq. Southam
Robinson, Edmund, M.D. Birmingham
Russell, James, M.D. Physician to the General Hospital, Birmingham
Ruttledge, Thomas E. Esq. Surgeon to the Eye and Ear Infirmary, Southam
Savage, Thomas, M.D. Lecturer on Botany Sydenham College, Bordesley
Scurrah, John D. M.D. Broad Street, Islington, Birmingham
Sharman, Malim, Esq. Surgeon to the Children's Hospital, Birmingham
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Smith, Joseph, Esq. Lozell's Lane, Birmingham
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Troughton, Nathaniel, Esq. Consulting Surgeon to the Coventry and Warwickshire Hospital, Coventry
Vinrace, J. M.D. Birmingham
Wade, W. F. M.B. Physician to the General Hospital, Birmingham
Walker, Richard P. Esq. Birmingham
Warden, Charles, M.D. Surgeon to the Dispensary, Birmingham
Waterson, John, Esq. Birmingham
West, James F. Esq. Surgeon to the Queen's Hospital, Broad Street, Birmingham
Wilders, John St. S. Esq. Assistant-Surgeon to the Queen's Hospital, Islington Row, Birmingham
Wilkinson, Alfred G. Esq. Birmingham
Wilkinson, E. A. J. Esq. Birmingham
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Wood, — M.D. Queen's Hospital, Birmingham
Woody, John F. Esq. Tamworth
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Wyley, Francis, Esq. Coventry
Wyman, George, Esq. Alcester
Yates, George, Esq. Surgeon to the General Dispensary, Paradise Street, Birmingham
Yates, George, Esq. Bath Row, Birmingham

WESTMORLAND.

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Branch..None.

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WILTSHIRE.

Number of Members..20.
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Vicary, Charles, Esq. Warminster

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Curtler, Henry, Esq. Droitwich
Darke, James, Esq. Malvern
Davies, Francis, Esq. Pershore
Everett, David, Esq. Senior Surgeon to the Ophthalmic Infirmary, Worcester

Fitch, Frederick, M.D. Chaddesley Corbet
Fletcher, Thomas S. L.R.C.P.Ed. Bromsgrove
Gabb, John, Esq. Bewdley
Gaunt, J. Smith, Esq. Alvechurch, Redditch
Greensell, John Nicholas, Esq. Great W tley
Hastings, Sir Charles M.D. D.C.L. Consulting Physician to the Infirmary, Worcester (dead)
Haynes, John B. Esq. Evesham
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Jackson, Thomas, Esq. Welton
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Wood, Richard, M.D. Driffield

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Williams, G. Harvey, M.D. Rhyl
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Evans, Thomas. Esq. Cardiff
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Howell, Edward, M.D. Consulting Physician to the Infirmary, Swansea
Jones, Evan, Esq. Aberdare
Jones, Thomas M. Esq. Dantwyn, Swansea
Leigh, John, Esq. Pont-y-Pridd
Morgan, Walter, Esq. Pont-y-Prydd
Paddon, John, M.B. Swansea
Padley, George, L.R.C.P. Physician to the Infirmary. Swansea
Pearse, Frederick, Esq. Cardiff
Price, William, Esq. Gian Twrch, Swansea
Prichard, Hopkin L. Esq. Tir Caradoc, Taibach
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Jones, Richard, M.D. Newtown
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Reid, Douglas A. M.D. Medical Officer to the Pembroke and Tenby Dispensary, Pembroke

RADNORSHIRE.

Covernton, Charles J. L.R.C.P.Ed. Knighton
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ISLANDS.

Numbers of Members..4.

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De Lisle, De Beauvoir, M.D. Guernsey
Ranking, William H. M.D. Guernsey
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Number of Members..50.

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Grant, George, M.D. Huntley
Greig, A. F. Esq. Sunny Side, Fyvie
Mackie, George, M.B. Insch

ARYGLESHIRE.

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Black, James, M.D. F.R.S.E. George Square, Edinburgh
Browne, W. A. F. M.D. Edinburgh
Christison, Rt. M.D. D.C.L. F.R.S.E. Professor of Materia Medica in the University, Edinburgh
Edwards, Alexander M. Esq. F.R.S.E. Assistant Surgeon to the Royal Infirmary, Edinburgh
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Inglis, A. M.D. Edinburgh
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Hastings, George W. Esq. Barnard's Green, near Malvern

Association Intelligence.

BATH AND BRISTOL BRANCH.

The first ordinary meeting of the session will be held at the Victoria Rooms, Clifton, on Thursday evening, November 1st, at 7.15 P.M.; J. S. Bartrum, Esq., F.R.C.S., President, in the chair.

The following papers are expected:—T. Green, M.D., "Delirium Tremens"; A. Prichard, Esq., "Case of Gonorrhœal Rheumatism"; W. B. Herapath, M.D., F.R.S., "On the Use of the Spectroscope and Micro-Spectroscope in the discovery of Blood Stains"; "On some Cautions arising out of the recent Sudden Deaths at Cardiff Union Workhouse"; F. Poole Lansdown, Esq., "Case of Excision of the Knee-Joint".

C. Steele, } *Hon.*
R. S. Fowler, } *Secs.*

12, Meridian Place, Clifton, October 1866.

SHROPSHIRE ETHICAL BRANCH: ANNUAL MEETING.

The annual meeting of the Shropshire Ethical Branch was held at the Raven Hotel, Shrewsbury, on Monday, October 1st; W. Slyman, L.R.C.P., President, in the chair.

Resolutions. The following resolutions were unanimously passed.

"That the cordial thanks of this meeting be given to the President, Vice-President, Council, Treasurer, and Honorary Secretary, for their valuable services during the past year."

"That W. Minton Beddoes, M.D., be elected President; W. W. Thomas, Esq., and J. W. Roe, M.D., Vice-Presidents; and the following gentlemen Members of the Council for the ensuing year, in the place of those who retire by rotation or otherwise—Edwyn Andrew, M.D.; W. J. Clement, Esq., M.P.; J. R. Humphreys, Esq.; and Alfred Mathias, Esq."

"That, in accordance with the eighth general law of the British Medical Association, Dr. W. Slyman, Dr. W. M. Beddoes, and W. W. Thomas, Esq., be the representatives of the Branch in the General Council for the ensuing year."

"That the four gentlemen proposed as members of the Branch be elected."

Papers. The following papers were read.

1. A Successful Case of Ovariotomy. By J. R. Humphreys, Esq.
2. A Case of Lithotomy. By J. R. Humphreys, Esq.
3. Notes on a Fatal Case of Intestinal Obstruction. By Edwyn Andrew, M.D.

At the close of the business, the thanks of the members were presented to the gentlemen who had kindly furnished papers, and to the President for the ability and courtesy with which he had conducted the business of the meeting.

In the evening, the members and visitors dined together; and after the usual loyal and medical toasts, the proceedings terminated at an early hour.

SOUTH MIDLAND BRANCH: AUTUMNAL MEETING.

The tenth autumnal meeting of this Branch was holden at the Swan Hotel, Leighton Buzzard, on Wednesday, October 17th; Edward Lawford, M.D., President, in the Chair. Nine other members were also present.

The minutes of the last meeting were read and confirmed.

Letters were read from several members who were unable to attend; also one from Mrs. Barker of Bedford, conveying her thanks for the letter of condolence sent her on the death of her late husband, Dr. T. Herbert Barker.

The President made a few remarks, especially regarding the Medical Provident Society. He expressed his confidence in it, and said that it was very desirable that it should remain in connexion with the British Medical Association. The Society was deserving of every support.

New Members. Mr. Watkins proposed, Mr. H. Terry, jun., seconded, and it was unanimously resolved, that the following gentlemen be elected members: G. N. Swinson, Esq., and H. Swinson, Esq., Daventry; J. Denne, Esq., Winslow; and G. Harris, Esq., Leighton Buzzard.

The Editor of the Journal. On the motion of Mr. Appleton, seconded by Mr. Ceely, and supported by Mr. H. Terry, jun., a vote of thanks was unanimously passed to Dr. Markham, the editor of the Journal, for the valuable aid which he has given to

the Association. Regret was expressed that the Association was about to lose his services.

Papers. The following papers were read.

1. The Contagion of Typhoid or Enteric Fever. By C. E. Prior, M.D., Bedford. A discussion followed, which was shared in by Mr. Ceely, Mr. Spencer, Dr. Lawford, Mr. Appleton, Dr. Bryan, Mr. Watkins, and Mr. Hochee. Mr. WATKINS considered that local circumstances influenced the contagion.—Mr. CEELY said that it had been demonstrated that carbolic acid was superior to all other disinfectants.—Dr. LAWFORD considered McDougall's powder a good disinfectant.—Mr. APPLETON instanced the advantage of disengaging the vapour of chlorine, or placing some solution of chloride of lime on a hot plate of some kind—a frying-pan, for instance.—Mr. CEELY thought the simplest and best plan of fumigation to be that of setting fire to some brimstone, and allowing it to burn, in perfectly closed apartments.—Mr. HOCHEE (on board ship, where small-pox was raging, and no other disinfectants being at hand) had burned pitch-pots, and found this to act as a perfect disinfectant, and to arrest the malady.

2. On Arcus Senilis, or Fatty Degeneration of the Cornea. By E. Lawford, M.D., Leighton.

3. Simulation of Disease, or Malingering: two Cases. By R. Ceely, Esq., Aylesbury. In the first case, that of J. W., aged 36, a prisoner in the county gaol, he was proved by Mr. Ceely to have had neither food nor drink for nine days, and was also obstinately mute. The stomach-pump was used, and a pint of milk injected, but returned; afterwards, beef-tea and cod-liver oil were administered in the same way until his trial. He was of filthy habits, defæcated, and soiled his cell, and was very refractory. When tried, he would not plead, but was mute. He was found guilty, and awarded six months' imprisonment; and, on retiring to his cell, he spoke at once as well as ever.

4. Dr. Lawford showed some Microscopic Specimens.

A vote of thanks was then given to the authors of papers, with a request that they allow them to be published in the JOURNAL.

Prize. Dr. LAWFORD offers a prize, of the value of ten guineas, to be awarded at the next annual meeting of the South Midland Branch, to be held at Northampton, in June 1867, for the best essay "On Enteric Fever, its Causes, Nature, Propagation, and Treatment." Members of the Association who may compete for the same are requested to send their papers, on or before the 1st of May, 1867, to the Honorary Secretary, Dr. Bryan of Northampton, with a motto or number, and a sealed envelope containing the name of the writer.

The late D. Nixon, Esq. The Honorary Secretary was requested to write a letter of condolence to Mrs. Nixon of Stoney Stratford, on the death of her late husband, D. Nixon, Esq., a member of the Branch.

The meeting then terminated with a vote of thanks to Dr. Lawford, to whose house the gentlemen present adjourned to coffee, having been entertained by him at luncheon previously to the meeting.

AMERICAN PHARMACEUTICAL ASSOCIATION. The Association met this year in the city of Detroit, on the 22nd of August; and it is represented that the meeting was one of unusual interest.

EFFECT OF ATMOSPHERIC PRESSURE ON THE HEART. In ascending into the air the heart-beats increase 5 for the first 3000 feet, 7 more for the next 1500 feet, 8 for the next 1500, and 5 for each 1500 feet of ascent after that. This is an average increase of one beat for each 100 yards of ascent.

Correspondence.

EXCISION OF THE KNEE.

LETTER FROM T. HOLMES, ESQ.

SIR,—In reading the paper in your number for October 20th, by Mr. Swain, on Excision of the Knee, I was surprised to see the following remark with reference to certain writings of mine: "The editor of *A System of Surgery* seems to have entered upon a crusade against the operation of excision of the knee." I protest against this as uncalled for and incorrect. Uncalled for, because in what is, after all, a question merely of fact, my opinions are a matter of no consequence. At the same time, I have always stated, with perfect honesty of purpose, that my object was not to decry the operation, but merely to lay before the profession facts which I believe to have been incorrectly represented by other writers. I have also published plenty of cases which show (what those who have attended my practice at St. George's and the Children's Hospital know perfectly well) that I never omit to perform the operation of excision of the knee in any case which seems at all fitted for it. But to say, as Mr. Butcher has done, that excision of the knee is a simple and harmless proceeding—to say that, as a matter of fact, it has proved less fatal than amputation in similar cases—to say that it is not liable to be followed in certain cases by arrest of growth of the limb—all this appears to me to be contrary to recorded facts, and, as such, to be a hindrance instead of a help to the right understanding of the question. Indeed, as I stated in the article to which Mr. Swain refers, I believe the general adoption of the operation in question has been more retarded by its indiscriminate eulogists than by its indiscriminate opponents. It is, therefore, mainly as an ardent admirer and by no means an inactive follower of the great masters of "conservative surgery" (in this as in other particulars), that I have endeavoured to set the operation in its true light. I utterly deny Mr. Swain's assertion that I have "endeavoured to make the very worst of the operation"; nor do I see how that could be consistent with the "fair dealing" for which, nevertheless, he gives me credit. I have endeavoured to record, as exactly as I could, the real facts connected with excision of the knee, as it has been practised in London hitherto, and to institute as fair a comparison as I could with amputations practised in similar cases and in the same institutions. I have not since met with any refutation of the facts which I adduced, nor does Mr. Swain enter upon any such refutation; and I believe the judgment of the great body of practical surgeons would affirm what I then said—viz., that, as practised up to that period, excision had been more fatal than amputation. I myself took good care to observe that this fact, if true, did not necessarily show that excision would always maintain the same fatality. I only tried to prove—and I think in this I succeeded—the incorrectness of the assertion that the operation was a harmless one and much more successful than amputation.

With reference to Mr. Swain's remarks upon my objection to the summing up of the result of a case as "useful limb", I beg leave to say that my objection is simply to the vagueness of the term. I am well aware that sinuses, and even diseased bone, do not necessarily preclude the ultimate usefulness of the limb; but they do, at any rate, detract a good deal from its present utility. It is quite easy to put into two or three lines an accurate account of the

real condition of the limb; and until the wounds are healed, the diseased bone eliminated or restored to health, and ankylosis (whether soft or hard) established, I say we have no actual proof that cure is complete. The fact that I once saw a limb amputated which had been reported in a journal (and which has since been included in many a statistical table) as "sound and useful", is of course "no proof that suspicion ought to be cast on all such cases"; but it is, at least, an apposite illustration of the danger which the use of general terms of this kind always brings with it, and a caution against trusting reports when unaccompanied by details, which are both so essential and so easily obtained.

In conclusion, I beg to apologise for writing so much about myself and my own opinions, which I would not willingly do, but that I think they have been in this instance misconceived. I beg Mr. Swain to believe that, if he wishes to extend the practice of excision of the knee, he cannot have a more sincere well-wisher than myself; but I think that this only can be done by fairly stating the facts of the case.

I am, etc., T. HOLMES,
Editor of *A System of Surgery*.

31, Clarges Street, October 22nd, 1866.

REDUCTION OF DISLOCATIONS BY MANIPULATION.

LETTER FROM THOMAS CUDDEFORD, ESQ.

SIR,—Having read the interesting communication of Mr. Nunneley on the Reduction of Dislocations by Manipulation, I beg to state that this method has been for some time adopted, not only by Mr. Wormald, but also by the other surgeons of St. Bartholomew's Hospital, and that Mr. Coote, in the surgical course of lectures, demonstrates it on the dead subject.

It is taught, and I believe established, that there is but one primary dislocation of the shoulder or hip. In the former, the humerus is first thrown into the axilla; the other varieties being secondary, and caused chiefly by muscular action. As regards the hip, the head of the femur is first thrown into the obturator foramen. In both instances, the capsule is torn where it is weakest. Manipulation consists in working the head of the bone and making it retrace its course to the situation of the rent of the capsule; a very slight rotatory movement then suffices to lift it into the socket.

The general plan here, especially in dislocations of the hip, is to attempt reduction by manipulation first, and, if that fail, then to have recourse to extension.

I am, etc., THOS. CUDDEFORD,
House-Surgeon St. Bartholomew's Hospital.

St. Bartholomew's Hospital, Oct. 22nd, 1866.

ON THE USE OF BATHS AND BATHING IN THE TREATMENT OF DISEASE.

LETTER FROM GEORGE B. MEAD, M.D.

SIR,—Since the publication in the JOURNAL of a few cases under the above heading, I have received letters of inquiry from numerous members of the profession as to the *modus operandi*, the necessary apparatus, and other questions of detail. As it would be impossible for me to enter into a lengthened correspondence with many persons on the subject, I have thought it might be useful to my interrogators and others to communicate with them through the pages of the JOURNAL.

It being often of importance to administer hot-air baths in the patient's bedroom, and having frequently done so, I will first describe *how* such a bath may be given. My first attempts were in this manner. I procured an old-fashioned rushlight shade, about eighteen inches in height and nine in diameter, removing the candle-holder. I introduced three ordinary glass spirit-lamps, placing the patient in a common wooden-bottomed chair, on a cushion or folded towel, and enveloping him in blankets. I introduced behind, under the chair, the apparatus with the lamps lighted, and in this manner was enabled to subject him for as long as desired to a temperature varying from 120 to 150 degrees Fahrenheit.

After a sufficient time had elapsed, I removed the blankets; placed the patient, standing, in a common round shallow bath; and, standing on a chair, emptied over him, by the spout, a two-gallon can (called a boiler-filler by ironmongers) of water, varying, according to the nature of the case, from 80 to 100 degrees Fahrenheit. If the patient was able to bear it, and the case admitted, I next, through the rose of a watering-pot, drenched him with a quantity of cold water, varying from one quart to a gallon or more.

In very delicate cases, the cold douche should be omitted altogether; in those less so, a spongeful or two of cold water would be enough. I need hardly state that this part of the treatment requires the greatest possible caution; and that personal knowledge of the patient's strength, and some practice in the giving these baths, are necessary. In cases of rheumatism, the addition of from two to four ounces of common washing soda, dissolved in the warm water, is useful.

It was found that the glass spirit-lamps were, in moving about, from the carelessness of attendants, very liable to be broken. I therefore caused three holders to be placed in the tin shade, and substituted three tin lamps. These have the objection, that one now and then will be blown out with a kind of coughing noise, by the generation of gas from the spirit; but they are easily relighted; and I have no doubt that I shall be able before long to design a lamp in which this is remedied. And this is not found a very serious objection. The admission of a little air during the relighting I have found often an advantage, rather than otherwise. Indeed, the error which those unused to these baths usually commit is in being too hasty in the first bath, subjecting the patient too quickly to too great a heat. The skin of a person unused to Turkish baths requires proceeding with gently. In this way, you gradually soften the skin, dissolve as it were the fatty and other matters which choke up the tubes of the skin, and so avoid giving the patient unnecessary pain. A temperature of from 100 to 110 deg. Fahr. is generally high enough for the first bath or two; and, if the skin be particularly hard and horny, a good sponge over with a strong solution of soda and water, as hot as it can be borne, prior to the bath, will be found a very useful preparation. The head being above the blankets admits of a cold cloth being readily applied round the forehead to the back of the head. This can be renewed as deemed advisable. The patient should be encouraged to drink cold water cautiously—half a tumbler or so the first bath; after the second or third bath, when the skin begins to act freely, two to three tumblers. At the first bath, ten to fifteen or even twenty minutes will often elapse before the skin begins to act, and then only partially. I am always content with a very slight action the first time; but, after the third, a profuse perspiration will be produced in less than five minutes. If on the first bath these lamps give out too fierce a heat, put out one lamp, or raise the blanket and let in a little cool air. If at any time

there be a disposition to faintness, attend to the cold head-bandage, frequently renewing it.

One matter ought to be mentioned. I always put the patient's feet in either warm water or warm mustard and water—generally as hot as can be borne.

Should any gentleman wish for an apparatus like mine, one shall be forwarded by the ironmonger who made mine, on forwarding me a post-office order for 10*s.* 6*d.* Only a few can be sent at this rate, as he has but a limited supply of the shades; and it is uncertain whether he could get any more like them, they being now disused. I have had added to mine a tin plate, something like a soup-plate: this, filled about an inch deep with boiling water, and placed on the top, converts it at once into a vapour-bath. I generally use it as a vapour-bath the first time, the vapour being less burning than the dry hot air, and therefore less likely to cause the patient pain.

Many little matters, only observed in practice, are important. Some patients cannot bear flannel to touch their skin. In such cases, a fine linen sheet can be thrown over them in front, and then blankets above. I have given the bath with the patient enveloped in sheets only, but prefer the blankets, as there is less danger of setting them on fire by any clumsiness. At any rate, the portion hanging down over the lower part of the back of the chair, where the apparatus is placed, should be woollen, being less inflammable. I have used them many times, under a variety of circumstances, without the slightest accident. One gentleman inquires whether they can be given by an assistant. In cases of chronic rheumatism with heart-affection, each bath requires careful watching by one well skilled. In other cases, the practitioner will, I think, find it best to watch personally the effects of the first two or three; but the remainder may be given by any person, male or female, after very little instruction. They are given by persons constantly who know very little about physiology or disease.

I have written thus hastily, being unwilling to even appear to act discourteously to any of my fellow-associates; and, being pressed for time, I hope they will excuse the crudity and want of arrangement of my remarks. I am, etc.,

GEORGE B. MEAD, M.D.

Newmarket, October 22nd, 1866.

THE "NEW" WORLD THE OLDEST. Professor Agassiz says that the strip of "highlands which divides the waters flowing into the St. Lawrence from those flowing into the Atlantic" is the oldest land in the world. It was once a lonely sea beach, washed by an universal ocean.

A CUP OF TEA. A cup of tea, according to chemical analysis, contains volatile oil, chlorophyl, wax, resin, gum, tannin, theine, extractine, apotheme, albumen, sulphur, phosphorus, chloride of potassium, oxide of iron, carbonate, sulphate, and phosphate of lime, carbonate of magnesia, manganese, and silica, twenty different articles. The peculiar flavour of the tea depends on the volatile oil, which is lighter than water, and has a lemon-yellow colour, and the smell of tea. Liebig is of the opinion that tea is not only an astringent and dilutent, but possesses nutritive properties of no mean kind. Tea and coffee act upon the nerves and upon the brain, and have a quickening and refreshing influence; but taken in excess result in excitement prejudicial to sleep and rest. Green tea is considered more injurious to persons of a highly nervous temperament than the black. (*Chemical News and Artisan.*)

Medical News.

APOTHECARIES' HALL. On October 18th, 1866, the following Licentiates were admitted:—

De Morgan, Edward, Adelaide Road, Haverstock Hill
Kinsey, Robert Henry, Thurlow Road, Hampstead
Mickley, Arthur George, Buntingford, Herts

At the same Court, the following passed the first examination:—

Bevan, John Aylwen, Guy's Hospital
Norman, Burford, Guy's Hospital
Saundry, James Baynard, Guy's Hospital

APPOINTMENTS.

*SANKEY, George, Esq., appointed Surgeon to the West Kent General Hospital, *vice* F. Fry, Esq., resigned.

ROYAL NAVY.

M'MAHON, William, M.D., Assistant-Surgeon, to the *Supply*.

VOLUNTEERS, (A.V. = Artillery Volunteers; R.V. = Rifle Volunteers):—

DAGLISH, R. R., Esq., to be Honorary Assistant-Surgeon 10th Cinque Ports R.V.

EVERSHED, A., Esq., to be Honorary Assistant-Surgeon 5th Bedfordshire R.V.

RENDALL, W., Esq., to be Honorary Assistant-Surgeon 5th Orkney and Zetland A.V.

DR. EASTLAKE has recently obtained the Fellowship of the Dublin College of Physicians.

THE LATE DR. SNOW. The Health Department of the Social Science Congress have passed an unanimous resolution, asking the government to place the sisters of the late Dr. Snow on the Civil Pension List.

CAMBRIDGE. The examinations for Medical and Surgical Degrees will commence on November 26th. The final examination for the degree of M.B., under the old regulations, will begin on November 26th, as well as the first examination for the degree of M.B., under the new regulations, and the examination for the degree of Master in Surgery. The second examination for the M.B. degree, under the new regulation, will begin on December 3rd.—Professor Sedgwick will commence his course of Geological Lectures on October 24th.

WEST KENT MEDICO-CHIRURGICAL SOCIETY. The annual meeting of this society was held on Friday, October 12th, 1866, at the Royal Kent Dispensary, Greenwich Road. The following gentlemen were appointed officers of the society for the ensuing session. *President*—David Hope, Esq. *Vice-Presidents*—Charles Nind, Esq.; Jas. Palfrey, M.D. *Council*—John Anderson, M.D.; Samuel H. Cornish, Esq.; William Lockhart, Esq.; John Nicholas Miller, M.D.; Robert N. Mitchell, M.D.; Arthur Roper, Esq.; Robt. Venables, A.M., M.B. *Treasurer*—Prior Purvis, M.D. *Secretary*—James H. Allingham, Esq. *Librarian*—H. W. South Sherton, Esq.

FOOD OF THE SPARROW AND THE MOLE Dr. Crisp. states that he has for many years endeavoured to ascertain the nature of the food of the mole and of the sparrow; and his examinations amount to a thousand, at least, of each of these animals. The mole can scarcely be called an insectivorous feeder, for its food consists almost entirely of the common earth-worm. He has never met with a wire-worm in the stomach of any mole that he had examined. The sparrow is almost exclusively graniverous, and obtains insects chiefly for its young; but these, when compared to the quantity of grain consumed, are very limited.

University of Durham. The following degree has been conferred. *Bachelor of Medicine*—Thomas Hill Redwood, M.A., Bishop Hatfield's Hall.

Downing College, Cambridge. Mr. T. W. Danby (first in the Natural Sciences Tripos, 1864) has been appointed Superintendent of the Laboratory, and Lecturer in Geology and Mineralogy; and Mr. J. B. Bradbury (second in the Natural Sciences Tripos, 1864) has been appointed Lecturer in Comparative Anatomy and Physiology at Downing College.

Testimonial to Dr. Morell Mackenzie. This gentleman, the founder of the Hospital for Diseases of the Throat, in Golden Square, has been presented with a beautiful silver centrepiece, representing "Charity", the gift of four hundred of his patients, as a mark of appreciation of his high skill and success in treatment of throat-disease.

Death of Dr. Barlow of Guy's Hospital. The death of this eminent physician, which occurred on the 13th inst., at his residence, Sydenham, will be read with regret by a large circle of professional and other friends. Dr. Barlow was educated at Trinity College, Cambridge, as a member of which he proceeded B.A. in 1829, M.A. in 1832, M.D. in 1841. He studied medicine also at Edinburgh and Guy's Hospital. The deceased was admitted a licentiate of the College of Physicians, London, in 1834, and a fellow in 1842. In 1840, he was appointed assistant-physician of Guy's Hospital; and, on the resignation of Dr. Richard Bright, in 1843 he became one of the principal physicians. Dr. Barlow was for some years editor of *Guy's Hospital Reports*, and was author of a work on *Disease of the Kidneys*, and a *Manual of the Practice of Medicine*. By his death the appointments of physician to Guy's and the Magdalen Hospitals become vacant.

Striking a Lunatic. At the Central Criminal Court, H. Burton and E. Morgan, men of great physical strength, attendants in a lunatic asylum, were charged with unlawfully striking and ill treating George Tite, a lunatic confined therein. In summing up the case, the Recorder told the jury that the first and principal count in the indictment had been framed under a salutary Act of Parliament passed for the special protection of lunatics, by which it was provided that any person who struck or assaulted a lunatic unlawfully should be guilty of a misdemeanour. He remarked that the visiting justices had very properly preferred this indictment for the safety of a class of persons unable to take care of themselves; and it was most important to be publicly known that any person having the care of a lunatic, and who should be guilty of violence, rendered himself liable to a criminal prosecution. He commented upon the obvious exaggeration and contradictions in the evidence of some of the witnesses for the prosecution; but there was nothing, he said, in the evidence to justify a single blow, supposing the lunatic in this case was struck when lying on the ground; and, if when the prisoners got him down, they dealt the blows stated in evidence, unquestionably they ought to be convicted. The jury found both prisoners guilty on the first and third counts, the latter of which charged a common assault; recommending them at the same time to mercy in consideration of their position, and that circumstances might arise in which they might be tempted to strike a blow. The Recorder, in passing sentence, told the prisoners that, after a very patient inquiry, they had been convicted of having ill treated and assaulted this lunatic. Undoubtedly, if the case had presented itself to the minds of the jury in the form represented by one of the witnesses, and if they had returned a verdict in accordance with that view, it would have been his duty to pass a severe sentence; but the jury were of opinion that the only part of the conduct of the prisoners which rendered them liable to a conviction was that of throwing the lunatic down after he brandished the chair. It was most important to be known that persons in the position of the prisoners must control their tempers, so far as it was possible for men to do so under all circumstances; and, taking the recommendation of the jury into consideration, he sentenced each of them to two calendar months' imprisonment, with hard labour.

Liverpool Medical Institution: Session 1866-67. The first meeting of the Medical Society was held on October 4th, 1866, when the following officers were elected for the ensuing session—Vice-Presidents, Dr. Cameron, Mr. Hakes, Mr. Long, and Mr. M'Cheane; Honorary Secretary, Mr. Harrison. The Secretary read a letter from the late President of the Institution, James Dawson, Esq., expressing his great gratification at the addresses which had been presented to him by the members. The retiring Vice-President, Dr. Gee, then delivered the inaugural address. He briefly traced the various changes and amalgamations which had taken place in the past history of the Institution; and regretted that a more simple and harmonious code of laws had not been framed. He referred to several anomalies in the present code, and offered a few suggestions with regard to their amendment. He proposed that the whole subject should be referred to the Council, with a request from the Society that the matter should be taken up by that body with the view of preparing such amendments as might appear desirable. The author gave an outline of the number of officers, councillors (and the mode of their election) connected with the principal medical societies; and stated that he would be happy to present copies of the laws of these societies to any committee which might be appointed to consider the matter, if it were thought desirable to take further action in the matter. A vote of thanks was unanimously passed to Dr. Gee for his very interesting address. Mr. Steele gave notice that, at the next meeting of the Society, he should propose that steps be taken to consider the very important suggestions made by Dr. Gee.

The Hunterian Museum. From the last annual report of the Council of the Royal College of Surgeons, it appears that Parliament having voted £42,500 for the purchase of the extraordinary collection formed by John Hunter, and towards the erection of suitable buildings for its display and preservation, the large sum of £61,000 had been supplied from the College funds up to 1847, when further enlargement of the building having become necessary by the continued increase of the collection, the Council in that year purchased the extensive premises of Mr. Alderman Copeland, in Portugal Street, formerly the site of Ben Jonson's theatre, for the sum of £16,000, and in 1852 proceeded to the erection of the Eastern Museum, at the expense of £25,000. Parliament granting £15,000 in aid thereof. The re-arrangement of the specimens was completed, and the additional portion of the building opened to visitors in 1855, since which time considerable and most valuable specimens have been added by purchase and donation. Mr. Flower, the indefatigable conservator of the museum, has for some time past been exploring the osteological stores which have been accumulating for many years in the subterranean apartments of the College, and which are now gradually yielding up their treasures to enrich the museum. Among the particularly valuable additions from this source, which appear to have escaped the attention of previous conservators, is the skeleton of that rare

and probably extinct bird, the Great Auk (*Alca impennis*), of which only three other skeletons are known to exist in Europe, and none so perfect as the specimen lately added to the collection. Some of the bones of this valuable Hunterian specimen were already catalogued in the collection, but without any reference to the remainder being in possession of the College until the examination of boxes in the store-room during the present year brought to light all the others required to complete the skeleton, with a few unimportant exceptions. The eggs of this bird at auctions have recently fetched upwards of £30 each, from their great rarity. The Hunterian Museum possesses half-a-dozen. Another rare skeleton is that of the Awantibo (*Arctocebus Calabarensis*), a lemuroid animal, from Old Calabar, and is the only skeleton of the genus known to exist. The skeleton of another very rare animal, the Aye-Aye, has been added during the past year, with other interesting additions, to the Hunterian Museum.

The Brain and Intelligence. Dr. Crisp says: The external form of the brain alone in most animals is to a great extent an indication of the comparative amount of intelligence; but to this rule there are many exceptions, as in the examples of the elephant, dog, seal, rat, marmot, and many birds. The number and figure of the convolutions are to some extent tolerable indications of the amount of intelligence in Mammals; but to this rule there are also many exceptions, as exemplified by a comparison of the brains of the bats, capybyra, rats, mice, monotremes, and many others. Looking to the weight of the brain and of the body, it is evident that the most intelligent mammals and birds have the largest brains, and that there is no example of an animal with a relatively small brain that possesses a great amount of intelligence.

American Medical Fees. The following is the tariff of charges adopted by the medical profession in the North Riding of Wellington: For a visit by day, $1; by night, $2; if out of the town or village, 50c. for each mile travelled by day, and $1 by night. Consultation fee, besides mileage, $2 to $5. Midwifery cases, from $5 to $20 (with mileage beyond the first two miles), according to the nature of the case, and with $2 extra if protracted beyond twelve hours, and $4 beyond twenty-four hours. Fracture of the upper extremities, $12; of the thigh, $8; of the leg, $5. Dislocation of the upper extremities, $5; of the lower, $8; of the hip, $20. Capital operations, $20. Extracting teeth, vaccination, and bleeding, 50c. Stethoscopic examinations, $1. Advice in office, $1. We fear the double fees for night calls may prevent patients from sending for aid at the earliest period of attack. But it would be well if this system of uniform charges prevailed everywhere, in order, if possible, to remove the temptation to employ an inferior man. (*Toronto Globe.*)

COMMUNICATIONS have been received from:—The Honorary Secretaries of the Western Medical and Surgical Society of London; Mr. Holmes; Mr. A. B. Steele; Mr. R. Harrison; Dr. G. B. Mead; N. Y.; Dr. W. H. Broadbent; Editor of the Medical Mirror; Mr. J. H. Spencer; Mr. G. Sankey; Dr. James Russell; Dr. Lanchester; Mr. T. M. Evans; Dr. Handfield Jones; Dr. W. Norris; Mr. H. Terry, jun.; Mr. Allingham; Mr. T. Cuddeford; Mr. W. Smith; Dr. Eastlake; Dr. Hyde Salter; Dr. J. G. Davey; Mr. C. J. Evans; Mr. T. Watkin Williams; Dr. J. Stephens; Mr. S. Farrant; Dr. Wade; Mr. Clay; Mr. Baker; Dr. L. Beale; The Honorary Secretary of the Harveian Society of London; Mr. Birchenall; The Registrar of the Medical Society of London; Dr. Thomas Balman; The Honorary Secretaries of the Obstetrical Society of London.

OPERATION DAYS AT THE HOSPITALS.

Monday.....Metropolitan Free, 2 P.M.—St. Mark's for Fistula and other Diseases of the Rectum, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

Tuesday. .... Guy's, 1½ P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.

Wednesday... St. Mary's, 1 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.

Thursday.....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Great Northern, 2 P.M.—London Surgical Home, 2 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.

Friday. ..... Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

Saturday..... St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1·30 P.M.—Charing Cross, 2 P.M.—Lock, Clinical Demonstration and Operations, 1 P.M.—Royal Free, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

Monday. Medical Society of London, 8 P.M. Mr. Henry Lee, "The Treatment of Aneurism by Acupressure."

Thursday. Harveian Society of London, 8 P.M. Dr. T. Ballard, "On Epistaxis and its Treatment; with Cases."

Friday. Western Medical and Surgical Society of London, 8 P.M. Practical Evening for the Narration of Cases and Exhibition of Specimens.

TO CORRESPONDENTS.

*** *All letters and communications for the* Journal, *to be addressed to the* Editor, 37, *Great Queen St., Lincoln's Inn Fields, W.C.*

Communications.—To prevent a not uncommon misconception, we beg to inform our correspondents that, as a rule, all communications which are not returned to their authors, are retained for publication.

Correspondents, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

The Publisher begs to intimate that orders for Journals sent by post must be accompanied by stamps for the amount. Price of each number is, by post, *sixpence.*

Erratum.—At page 444, col. 1, last line but one, Dr. Beale is unfortunately made to say: "that in cholera there is evidence of shrinking and *casting* of the villi," etc. The word should have been "*wasting*" of the villi, etc.

Medical Etiquette.—A correspondent asks, whether or no it is "recognised professional etiquette of a professional brother calling and asking the patients of a retiring surgeon, who has disposed of his practice, to employ him?"

[We suppose there will be no difficulty in answering this question; because we have to guide us the custom of bakers, butchers, chimney-sweepers, etc. It is not considered contrary to etiquette on the part of tradesmen to "call for orders", and to leave their cards on new comers; but then physic is usually held not to be a trade. Trade customs and practices consequently introduced into the business of medicine, are undoubtedly contrary to the proper sense of professional etiquette.]

Extraction of Cataract by Suction.—Sir: The letter of Mr. Greenway, in to-day's Journal, is, evidently, written under a mistaken impression. If Mr. Greenway had read my letter in the Journal of the 13th instant with ordinary care, I cannot doubt he would have perceived that the "kind" of suction instrument so long in "use", "not in Great Britain nor in Europe", but among "the Cingalese surgeons", was simply the "mouth".

The "omission" in Mr. Swain's paper of Mr. Greenway's own invention of a "suction instrument", it was (in great part) which led me to make the "quotation" which the latter named gentleman declares to be "not happily chosen"; but I cannot agree with him.

I would assure Mr. Greenway that nothing could be further from my thoughts than to write in a "strain" of "censure"; but for the acute susceptibilities of your correspondent I was unprepared. I am, etc., J. G. Davey, M.D.

Northwoods, Bristol, October 20th, 1866.



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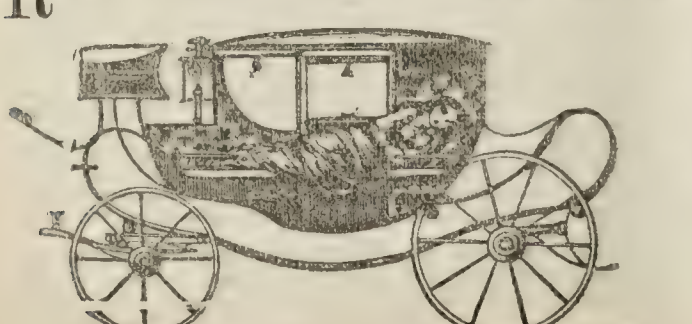
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THE

Jacksonian Prize Essay

FOR 1865.

ON DISEASED CONDITIONS OF THE KNEE-JOINT.

BY

WILLIAM PAUL SWAIN, M.R.C.S.,

SURGEON TO THE ROYAL ALBERT HOSPITAL, DEVONPORT, ETC.

SECTION III.—OPERATIVE INTERFERENCE. (*Continued.*)

Diseased Conditions in which the Operation of Excision of the Knee-Joint is admissible.

THESE conditions deserve our most serious attention. It has been already stated, that much of the previous ill-success of the operation of excision of the knee depends upon an injudicious selection of cases for its performance. The highest authority on this subject has made the following statement. "I may myself have been too zealous, and resorted to the operation where I should have selected amputation." (Fergusson, On the Progress of Anatomy and Surgery during the Present Century, *Lancet*, 1864, vol. ii, p. 35.) Nor can we doubt that this has been very generally the case, and that, in the first flush of enthusiasm, we have been led to excise joints in cases where the amputating-knife would have been better employed. Are we not now in a position to avoid this error? I think I may safely say that we are. Fifteen years' experience of the operation, and the vast amount of detail which has been laid before us lately, especially by Hodges, Holmes, Price's Essay, and the lectures above referred to, must give us opportunities of judging rightly, which the pioneers of knee-joint excision had not; and, if we use our opportunities well, greater perfection in the results of this operation must be attained.

It appears to me that, in deciding as to whether a diseased joint should undergo excision, the three following points deserve the most prominent attention.

1. The extent and character of the disease;
2. The constitutional condition of the patient; and
3. His age.

I believe the importance of these considerations to be in the order in which I have stated them; and I would first consider what is the character and extent of the disease which warrants the removal of the joint by excision, with a fair and reasonable hope of retaining to the patient an useful limb.

In treating of this question, it is hardly necessary to consider those conditions of disease confined simply to the soft tissues. I do not think that any operative measures should ever be undertaken whilst disease is confined, for instance, to the synovial membrane. In cases, even, of gelatiniform degeneration, the surgeon would be most culpable if he resorted to extreme measures at so early a stage of the disease as that in which the synovial membrane was alone affected. Indeed, not only is it incurring a wanton risk in the performance of what may be a needless operation, but there seems to be a peculiar fatality attending upon excision for disease of synovial membrane. I have extracted from Price's list no less than twenty-one unsuccessful cases in which the operation was undertaken for the removal of diseased synovial membrane only. And Mr. Cadge of Norwich writes, "It will be generally found useless to remove the ends of the bones, when the synovial membrane is the primary and chief seat of disease." The reason of this is, I think, obvious. In the first place, we lay open a joint the main tissues of which are unaffected by disease; and the shock to the general system is in proportion to the integrity of the joint. In the second place, we expose healthy bone-tissue, with the cancelli open and not condensed by disease, and the consequence is that the risk of purulent absorption or infiltration is all the greater. I cannot agree with Price's opinion on this point; viz., that "the proceeding is not only justifiable, but advisable." "If the diseased action is confined to the synovial membrane, the bony structures are completely healthy", writes Price (*On the Knee-Joint*, p. 130); and in that sentence, I think, he plainly shows that the operation should not be undertaken; for, with perfectly healthy bony structures, and a disease confined to the synovial membrane, I can see no reason whatever why a cure by much less heroic means may not be procured.

In cases of acute suppuration, it seems that all now agree in condemning recourse being had to excision. As a general rule, no doubt, excision should not be performed in these cases; but, as an exception, I would refer to a case which was under the care of Mr. Kempe of Exeter, the history of which is given in the appendix. This was a case of acute synovitis, with abscess in the popliteal region. The constitutional condition of the patient was in every way against the performance of excision of the joint, and amputation was urged upon him. He, however, declined that proceeding; and eventually the knee was excised with the admirable result stated in the appendix. I have been enabled to trace out this case, and append a photograph of his present condition. (Fig. 8.)

The extension of the disease to the articular cartilage renders the question of operative interference, in my opinion, more easy of decision. There can be no doubt that the bones very soon sympathise with the articular cartilage, and that, even although disease be not actually commenced in them, yet continuous hyperæmia at length may produce considerable condensation of the osseous structure, thereby rendering it more favourable for section.

It has been already shown that the so-called ulceration of cartilages exposes the osseous structure of the joint, and produces a train of symptoms of a most distressing character. Here we are satisfied that the integrity of the joint is destroyed. We may labour to obtain ankylosis in good position, and very frequently, no doubt, our labours are crowned with success. Still our most complete success cannot restore a perfect knee; and the remembrance of this fact will lead us to undertake the operation of excision with less compunction. These cases of disease of the articular cartilages are very frequent; and they come to us, too often, in so advanced a stage, that little short of removal of the disease is of much avail. A knee-joint flexed at right angles, the tibia drawn back behind the femur, exquisitely painful to

the touch, causing agony at every movement, and starting so painfully as to arouse the poor patient hour after hour during the night from the soundest



Fig. 8.

repose, is unfortunately familiar to most surgeons. When the disease has reached this stage, I have frequently known all attempts at palliative treatment signally fail. Even placing the limb on a splint does but increase the patient's sufferings; for the hamstring tendons are so tense that the stretching to which they are subjected causes intense anguish.

I do not mean to assert that at this stage of the disease favourable ankylosis may not sometimes be obtained; but I have frequently seen the attempt fail after many months of suffering, which has reduced the patient to a condition very unfavourable to operative measures of any kind. Besides, even when a supposed cure has been effected, a fall or a blow will frequently again set up inflammation in the joint, and the unfortunate patient will have once more to drag through months, if not years, of suffering. This is no exaggerated statement. Hilton, in his *Lectures on Rest and Pain*, gives full particulars of a case of "disease of knee-joint (scrofulous?) treated by mechanical rest, cured by firm bony consolidation." The treatment commenced in March 1852. The limb being placed in "a deep trough" of wood, steady pressure upon the joint by soap-plaster was kept up for "several months"—we are not told how many. A thick leather splint was then applied, which

"He wore nearly *five years*; the latter part of the time at night only. For *sixteen months* he was not allowed to make the slightest attempt to bear any weight upon his leg. He was carried about in the arms of his mother, or placed in a little carriage, and dragged out daily, weather permitting. Then he began to get about cautiously on crutches. His general health was very bad; but the knee was diminishing in size."

After going to Wales to the seaside, abscesses formed about the joint, bursting into the popliteal space; and in the month of June 1861, he is pronounced cured—that is to say, he has an ankylosed limb, not by any means at a good angle, after steady continuous treatment for the space of nearly ten years! The accompanying illustration is copied from Mr. Hilton's book, and shows the position of the limb at the conclusion of the case. (Fig. 9.)



Fig. 9.

I have quoted this case at length to show how hard so good a surgeon as Mr. Hilton can ride his peculiar hobby. From henceforth the grand argument against excision of the knee-joint, that recovery from it is so long in taking place, may be abolished. There is no case on record that I know of that has taken ten years.

I believe that these acutely painful cases of articular disease are eminently marked out for treatment by excision of the joint. The following case, with illustrations taken from photographs, before and after the operation, show the good result of excision of the joint for advanced disease of the articular cartilages. (Figs. 10 and 11.)

Case. Feb. 18th, 1864. Mary Ann Lane, aged 16, admitted under the care of Mr. Swain, with disease of right knee-joint.

History. For five years she had suffered from disease of the right knee-joint. She was first seized with an inflammatory attack, which subsided under treatment. This, however, was followed in three months' time by a second attack, which confined her to her bed. This attack passed away in about a month, but left her a cripple, as her leg became contracted on the thigh. During the last three years she had suffered from repeated attacks of inflammation of the knee. For some months she had been an out-patient, and had taken cod-liver oil and steel, and had worn a gutta-percha splint.

On admission, she was seen to be a pale and strumous girl, of hysterical disposition. She had a cough of two months' duration. The right leg was flexed almost at right angles with the thigh; the toes only of this foot touching the ground. The right knee-joint was much enlarged, and very painful on slight pressure. There was considerable thickening of the joint, giving it a very round appearance. The external condyle of the femur was much enlarged; the patella was inclined to the outer side of the joint, and was fixed to the external condyle. She had no motion in the joint. She suffered much pain on the slightest movement of the limb, and was very subject to painful startings of the limb at night.

Her leg was put up in a McIntyre's splint, and wung in a Salter's cradle. Slight extension was ade, but was obliged soon to be discontinued, owing



Fig. 10.

the violent inflammation and effusion into the int. Blisters were applied, and perfect rest enred. She was ordered to take half a drachm of the rup of iodide of iron three times a day.



ig. 11.

March 14th. The inflammatory attack had subled; leaving, however, the joint very painful. The tient suffered considerably from painful startings night, and complained of pulsation in the joint. ott's bandage was applied.

March 23rd. She was ordered to take the follow- g draught three times a day.

℞ Mistur. ferri comp. ℥ss; decocti aloes comp. ℥ss; ætheris chlor. ♏x.

April 11th. The patient was ordered to have a grain of disulphate of quinine and ten minims of dilute sulphuric acid three times a day.

May 20th. The knee had subsided into a more chronic state. The inflammation had gone, leaving the joint in much the same condition as on admission. It was still very painful on handling, and was in no way benefited by the treatment pursued. At a consultation to-day, it was thought proper to adopt some operative means; and excision was thought the best course to be adopted.

May 28th. The patient being placed under the influence of chloroform, the leg was flexed on the thigh. Mr. Swain made a semilunar incision; and, after dissecting back the flap and dividing the lateral ligaments, exposed the joint. The crucial ligaments were gone, no remains being left; the articular cartilage was entirely detached from the head of the tibia, as well as from the articular portions of the condyles of the femur. Mr. Swain then removed an inch and one-eighth from the femur, and half an inch of the tibia; after which it was thought necessary, by reason of the diseased state of the bones, to remove a thin slice from both the tibia and the femur. The diseased bone remaining on the section was gouged out, leaving a cavity in each bone of about half the size of a walnut. The leg was then extended on a Price's excision-splint, and the bones brought into apposition. One ligature and three sutures were applied. There was not much hæmorrhage. The limb was swung in a Salter's cradle.

May 29th. She had rather a restless night, with much constitutional disturbance from the chloroform and shock. Skin cool; pulse 128; tongue furred. She was ordered to have a draught of citrate of potash, with eight minims of solution of muriate of morphia, every three or four hours; also soda water and brandy, beef-tea, and twelve ounces of wine daily.

June 1st. She had had repeated rigors. Skin hot and dry; pulse 120, weak; tongue furred, dry; bowels confined. Suppuration had commenced in the wound. A diffused blush covered the upper and inner part of the thigh, from pressure of the corner of the splint.*

℞ Ammoniæ carbon. gr. iii; ætheris chlor. ♏x; solut. morphia muriat. ♏xiii; aquæ ℥i. Fiat haustus 4tis horis sumendus.

An evaporating lotion was ordered to be applied to the affected part.

June 2nd. The patient had a restless night, the joint starting much. The limb was in good position The sutures were removed.

June 3rd. She passed a good night. Skin cool. The redness had almost subsided. She was more cheerful.

June 8th. She was much improved; slept well, and had a fair appetite. Skin cool; pulse quiet. The wound was looking healthy. There was free suppuration of healthy pus. Strips of lint, wetted, were strapped around the knee; and a compress prevented the condyle from rotating outwards, and also the bagging of matter up the thigh. Two days ago, the only ligature came away. Lately, she had restless nights, with pain under the leg and in the knee. To-day, some swelling, hardness, and redness was observed up the thigh near the groin; on pressing which, a large collection of matter escaped through the wound. The matter bagged back nearly to the groin. The wound of the flaps had united,

* Nearly all the sufferings of this patient were referable to an ill-made pad to the thigh-piece of the splint.

except at the margins, where there was a free escape of pus.

June 28th. She still required a morphia draught at night. Tongue clean; bowels tolerably regular; pulse quiet. She slept well at night, and had a good appetite. The leg gave her little or no pain, except when the dressing was done. The matter bagged back almost to the groin. Pressure was being made over the knee by a bandage.

July 4th. The wound had united, except at a point on the outside of the limb. There appeared to be firm union between the bones. The pus no longer bagged down the thigh; this was prevented by pads. The flaps looked healthy, the slight redness and inflammation having subsided.

July 18th. The leg to-day was put up in a plaster of Paris splint, and she was allowed to get up. Lately there had been a slight discharge from the wound, which had healed, except in two or three small openings.

July 28th. She suffered much pain in her thigh. Mr. Swain accordingly removed the plaster of Paris splint, when he found much pus bagging up the thigh, and setting up some little constitutional disturbance. This was pressed out through sinuses, and the leg put up in the resection-splint.

Sept. 2nd. A large abscess was opened in the muscles of the inner side of the thigh. Much pus was evacuated, after which the thigh became very easy.

Sept. 15th. A long sinus led from the counter-opening made on the 2nd to the sinus in the excised part. To-day, Mr. Swain passed a drainage-tube down the sinus.

Sept. 19th. She had been feverish for the last few days; was quiet now. The discharge came freely down the drainage-tube. The hardness in the thigh had disappeared.

Oct. 10th. The sinus in the thigh remained open, and pretty free discharge came from it. The patient had had a bit of drainage-tube inserted; but this was obliged to be taken out, and a poultice applied. Matter constantly formed in the sinuses, and required the application of poultice for a day or two; after which she got up on crutches. The sinus was now injected daily with a weak solution of sulphate of zinc.

Nov. 19th. The sinus still remained open. There was a fresh formation of pus in the middle third of the under surface of the thigh, which discharged itself through the sinus. Her general health was very good. The union of bone was osseous and firm. The shortening was three inches and a half. She was made an out-patient.

April 25th, 1865. She was walking through a paved court, when, owing to the thick-soled boot she was wearing at the time not fitting well, her ankle turned and she fell. On examination, it was found that her right femur was broken about three inches above the cicatrix left by the resection of the knee-joint. A long splint was applied.

July 6th. She was discharged. The leg was very slightly, if at all, shorter than before it was broken. She could use it quite well. The sinuses about the knee and on the outer side of the thigh were still discharging slightly.

December 1865. The joint was perfectly sound and strong. She walked with a high heel, and got about capitally. The shortening was four inches, some of which was no doubt due to the fracture.

The case in many points illustrates the propriety of excision. It came under my notice at an advanced stage, when considerable contraction of the knee had taken place. "The influence of rest" was fully tested for many months, but the disease steadily progressed, and the excessive pain and broken rest told much on my patient's constitution. After the operation, she experienced little or no pain, except at an after stage arising from exceptional circumstances. The great point to which I would direct attention is this: that whereas before the operation no sedative procured her rest at night, no sooner was the diseased articulation removed than she slept night after night with comparative ease and comfort. A singular, and I believe unprecedented, accident befel her. Soon after she left the hospital cured, with perfect bony ankylosis, she fell over some stone steps, and fractured the femur two inches above the excised knee; the osseous union there remaining intact. The cast of the limb sent in with the essay has been taken within the last few days. I venture to assert that, although my patient was not much more than ten months, instead of years, under treatment, the result will bear comparison with that above quoted.

Another case (see Appendix), under the care of Mr. Bowman at King's College Hospital, illustrates the fact I have noticed above, that, even after an apparent cure of these cases, an accident will again set up all the old mischief, and necessitate a further course of treatment. Here, in 1859, the patient was discharged from hospital with a limb nearly straight, and he was able to walk pretty well by the help of crutches. In 1861, he fell down and knocked the knee; the result of which accident is fully detailed in the case. There is a fact also mentioned which deserves notice; viz., that only an inch and a half of the femur was removed, and that upon section this was found to include the entire epiphysis and a portion of the shaft of the bone. Half an inch only of the tibia was removed. It shows how very sparing we should be in removing bone when the articular surface is only involved in disease. I append two illustrations of this case. Fig. 12, before



Fig. 12.

the operation; fig. 13, the present condition; with cast of the limb, which I have fortunately been able to obtain.

On October 16th, 1865, I obtained the following report of this case. The boy is now aged 16

Height, four feet nine inches. Heel of left foot, four inches from the ground when he stands upright with his toes touching the ground. Right side, from anterior superior spinous process to inner malleolus, thirty-two inches; left side, ditto, in straight line, twenty-four inches and three-quarters, but following the outward curve of the limb twenty-six inches.



Fig. 13.

There is a preparation sent in with this essay of the articular ends of the femur and tibia, removed by Mr. Whipple at the South Devon Hospital in December last. It illustrates the gradual thinning of the articular cartilage and the encroachment of "ulceration" from the edges. The spinous process of the tibia was firmly fixed by fibrous ankylosis to the femur, and was broken off from the tibia in flexing the limb during the operation. The case was stated to be rheumatic arthritis, although I think that the appearance of the joint hardly bears out this opinion. The case did exceedingly well.

I believe these cases of advanced disease of the cartilage to be eminently adapted for excision of the joints, especially if the operation be performed before the constitutional symptoms have become seriously aggravated. The bones are not often much involved, and it is sufficient to remove merely the extreme articular surfaces; so that there is not much shortening; and, in young subjects, the saving a portion of the epiphysis provides for the future growth of the limb.

In the Appendix, several cases of strumous disease of the knee-joint will be found; in most of which the disease, I believe, was principally connected with the cartilages, although the bones were secondarily affected. I regret that I am unable to give more exact information as to the real condition of the articular extremities excised.

[*To be continued.*]

PRESTON INFIRMARY. A bazaar has been opened in Preston in aid of the new infirmary in that town. A sum of £15,000 has already been raised, but £7,000 or £8,000 more is required to complete the institution.

Addresses and Papers

READ AT

THE THIRTY-FOURTH ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION.

[*Held in CHESTER, AUGUST 7th, 8th, 9th, and 10th, 1866.*]

ON REMOVAL OF THE ENTIRE TONGUE.

By THOMAS NUNNELEY, Esq., Leeds.

THE operation for the removal of the entire tongue may, without hesitation, be declared one of modern surgery; so modern, indeed, that I believe it belongs to the latter half of the nineteenth century. Though portions, larger or smaller, of the tongue have, from time immemorial, been in various ways removed, the idea of its being feasible to remove the whole of the organ does not appear to have been entertained, or, if ever entertained, ever to have been put in practice. So strong in all ages has been the popular idea for the necessary presence of at least some portion of the tongue, that, when the historian of the introduction of Christianity into the Roman Empire recorded, amongst other gross barbarities to which the converts were subjected, that one of the martyrs who had the tongue torn out not only survived, but afterwards spoke, he thought it necessary to call in the aid of direct miraculous intervention as the only explanation of so astounding a fact. Referring to this statement, Gibbon, who, as is well known, had no belief in miracles, sneers at the credulity of those who can believe in the possibility of such a mutilation being recovered from, and regards the whole statement as a romance. So also accounts have from time to time reached the western world, of the barbarous chiefs of some of the tribes in Central Asia, as an extreme measure of political vengeance rather than of criminal punishment (for which it appears to have been considered too horrible), ordering the tongue to be torn out, and the occasional surviving of the victim. Though the evidence in support of the truth of the stories, obtained by one of our ambassadors at the Persian Court, and by other persons in the East, would have been considered in many matters of inquiry sufficient to justify the belief in the statement, still so opposed was the general opinion to the possibility of any one living and speaking after such mutilation, that most commonly it was thought the well known tendency to exaggeration and mystification in these regions had imposed upon the credulity of those who related the tales. This opinion was rather confirmed than not by the fatal result which followed in the first two cases in which the operation was performed by a British surgeon, and by the very discouraging conclusions which he arrived at on a consideration of the operations. Mr. Syme says: "I think there should be no hesitation in deciding against the repetition of this procedure. In promoting the progress of surgery, it is hardly of more consequence to determine what is expedient than to ascertain what is not expedient; and I venture to hope that the experience now related may not prove useless, by saving others from the disappointment which I have myself experienced." (*Lancet*, Aug. 14th, 1858, p. 169.)

The reasons which mainly have weighed with surgeons in deterring them from attempting to remove the entire tongue, are—

1. The difficulty of reaching the base of the tongue so as to cut through it.

2. The difficulty in arresting hæmorrhage in a part so deeply seated, so elastic in texture, and supplied with large arteries in immediate continuity with the carotids.

3. The immediate danger to life from other important organs becoming involved.

4. Even though the immediate danger be escaped, the improbability of life being maintained for any lengthened period, owing to the difficulty in deglutition and the loss of the sense of taste.

5. The miserable condition to which it was supposed the sufferer must be reduced by condemnation to perpetual dumbness, from the loss of what has been universally regarded as the necessary instrument of speech.

Yet, in practice, it has been found that none of these reasons possess nearly the same importance which has been assigned to them. The entire tongue may be removed without any very great difficulty. The hæmorrhage is not necessarily severe; in some cases there has literally been none; and in no case has its arrest been difficult. The immediate danger to life has not proved great. Instead of deglutition being rendered impossible by the ablation of the whole tongue, on the contrary, after the first soreness caused by the operation has passed off, the patient is found, as compared with his previous condition, to be able to swallow both solids and liquids with facility. Indeed, no one who has not watched a person wholly without tongue, would be prepared to see him drink off half a pint of beer without stopping, as I have repeatedly seen more than one person do. The sense of taste is not lost, but remains in a considerable degree; and, so far from emaciation following the operation, in every case which I have seen the patient has rapidly improved in flesh and strength, which may partly, no doubt, be attributed to loss of the pain and want of sleep he has suffered, but to which the improved facility of deglutition mainly contributed. So far from dumbness ensuing, the loss of the diseased organ is speedily followed by greatly improved articulation; and the power of speaking and reading aloud with sufficient distinctness to be easily understood is surprising. Indeed, one of my patients, who was fond of exhibiting his power, when in company often took part in the conversation, and contrived to lead it towards the subject in which he was so interested, frequently had to exhibit his empty mouth before his incredulous companions would believe him to be without a tongue.

I have now operated five times. In four of the cases the entire tongue was removed; in the other, more than two-thirds of it. In two of the patients, no constitutional disturbance whatever followed; one did not even require an opiate; and in two others, the disturbance was very slight and temporary. In the first case only were there any dangerous symptoms; and even this man, on the separation of the tongue, immediately recovered. Much of the trouble and suffering in this case arose from its being a first operation, and the unfortunate *contretemps* of the chain of the *écraseur* breaking, and thus necessitating a different and far more tedious proceeding than that originally intended. Hence I think I am justified in saying that, as compared with other important operations, the removal of the entire tongue is not a very dangerous one. It would be difficult to point out one new capital operation, in which, in the hands of one surgeon, all the cases—five in number—have recovered.

I allude now only to my own cases, because, while I would desire to speak with the greatest respect of the operations of Mr. Syme, whose boldness in conceiving, and whose practical skill in executing, any surgical procedure, all must confess and admire, I cannot dismiss from my mind the feeling that the fatal termination in his first two cases resulted rather from mischief inflicted in reaching the tongue than from the removal of the tongue itself. As in a third and more recent case success rewarded the operator, his former decided opinion as to the unjustifiableness of removal of the tongue, above quoted, has been modified.

The operation which I now perform is not a very difficult one. I need not detain the members with the various modifications which the plan of operation has undergone; but merely state that adopted in the two last cases, which appears to be as simple as possible.

The two great indications to be kept in mind are, the removal of the organ just anterior to the epiglottis, with as little disturbance of any other part as possible, and the avoidance of hæmorrhage, which, if free, would be found very difficult, if not impossible, to arrest. This latter indication is to be attained by using the *écraseur* for dividing the tongue, instead of a sharp cutting instrument; this being one of the very few exceptions in which, in my opinion, the *écraseur* ought to be allowed to usurp the place of the knife.

No knife is required, and only one small external wound is made.

I take a sharp-pointed curved blade, about four inches long, and of just sufficient thickness and breadth to carry the wire-rope of the *écraseur*. This rope I have made somewhat thicker than those ordinarily supplied by Messrs. Weiss, with Hick's instrument; and I always have a second in reserve in case the first one should give way.* The middle of the rope should be attached by a piece of string to an eye made in its broad end. The patient reclining on his back in a semi-recumbent position, this blade is plunged exactly in the median line, between the base of the jaw and the os hyoides, but somewhat nearer to the latter than to the former, into the mouth, and brought up at the frænum linguæ, and so out of the mouth, the wire-rope following. A good sized loop of the rope must be drawn through, and the needle cut off. The rope must now be carried well back and spread over the base of the tongue, the tip of which being then drawn through the loop, is seized with Luer's tongue-forceps, and pulled forcibly outwards and somewhat upwards. Two or three long and strong hare-lip pins, somewhat curved towards their points, should next be carefully thrust from the underside of the anterior attachment of the tongue through its substance, and brought out on its upper surface as near to the base as possible. One of these pins should pass on each side; and if a third be used, it should traverse the median line. Their points should just appear on the upper surface, and over them the rope should be carried. They will thus serve to prevent its slipping forward when it begins to be tightened, as it might otherwise do. They are not absolutely necessary, but I think are useful, and give rise to very little pain; besides which they serve to indicate the exact portion which has to be removed. Of course, the larger this is, the more carefully must the

* A certain amount of strength is required, or the rope will break from the resistance of the tongue. While on the one hand it must not be too thick to increase this resistance to too great a degree, so on the other it must not be too thin, or it will act too much as a cutting instrument, and thus give rise to a danger of hæmorrhage, to avoid which alone it is employed. I am by no means sure that a chain made of small hexagonal pieces jointed together in alternately opposite directions would not be an improvement. It would make a chain equally flexible in all directions, and be somewhat serrated, by which it would be easily introduced, and when fixed easily cut its way through the parts. One of these chains I am now having made.

pins be carried well back. The screw of the instrument should now be turned so as to gently fix the wire, that it may not move from the line in which it is intended to cut.

Hitherto very little pain has been inflicted, and the voluntary efforts of the patient have been useful in facilitating the proceedings; but at this stage he should be put fully under the influence of an anæsthetic so that he may not feel, and the screw of the *écraseur* be steadily but very deliberately turned, the tongue being forcibly extended. It speedily becomes strangulated, and is cut off. The operator must be prepared to find in most cases considerable resistance, and to employ more force in turning the screw than possibly, *à priori*, he might anticipate would be required; though, as the force necessary varies considerably in different tongues, he must be on his guard, or the wire may cut through too rapidly, and serious bleeding from the lingual arteries may ensue. To meet this contingency, I have always had in readiness different forms of cauterising-irons, as well as the solid perchloride of iron (in a liquid state it is of very little use in free deep hæmorrhage), though in only one case has there been any bleeding whatever from the divided base. In that case—the last one in which I have operated—the tongue yielded with much less force than it had done in any other, and was cut through more rapidly than I had intended it should have been. For a moment there was free bleeding from one lingual artery, but none from the other. Though the mouth of the vessel could not be seen, the part was seized with forceps and a ligature placed upon it, when the bleeding at once stopped and did not return.

The small submental wound has in every case healed by the first intention. The mouth and pharynx for the first thirty-six hours are painful, and deglutition is difficult; but these symptoms very soon mitigate, and the patient is able to swallow liquids; though I think it in all cases advisable to administer nutritious enemata and opiates, and thus keep the throat quiet. A little ice placed in the mouth is usually very grateful. In a fortnight or three weeks the wound heals. The two last cases I had, a man and a woman, both returned home in three weeks quite well. It is surprising how speedily the patient improves in condition. The cessation of the horrible pain and restlessness caused by the disease seems to enable the patient at once to rally, and to counterbalance any shock which the operation might otherwise inflict.

In the first case I operated upon, there was certainly diffuse inflammation of the lungs, which rendered the patient very ill for the first few days. This was, as I have already said, rather to be attributed to the mode in which the operation was performed than to any inevitable sequence on removal of the tongue.

It must not be understood I am for a moment asserting, that the operation will be a permanent cure in all cases of cancer of the tongue, any more than the removal of a cancerous tumour in other situations of the body will secure immunity from relapse; but of this I am confident that, by affording the means of removing a larger portion than has formerly been thought to be practicable, and inducing an earlier performance of the operation, so as to secure the entire removal of all parts involved in the disease, it will, in accordance with all practical teaching, give the patient a far better chance of recovery, and, should the disease have been local, and not dependent upon a constitutional diathesis, this may be permanent.

Even in cases which are far advanced, when the pain and distress are great, as they commonly are, I would not hesitate, if I could get fairly beyond the part of the tongue actually involved, after what I have seen, to operate, as a means of prolonging life and lessening suffering, even though I felt confident that the disease could not be effectually eradicated. Thus, I have operated in a man, and also in a woman, in whom the submental glands were implicated. The tongue occasioned so much distress, there was no sleep at night, articulation was so indistinct, and talking so painful, that they could not be understood, and deglutition was so difficult that both were literally starving. On the removal of the tongue, each patient at once rallied, gained flesh and strength, could swallow with comparative ease, and articulate so as to be readily understood. Though in both the disease in the glands progressed, as was anticipated, it did not reappear in the stump of the tongue; and thus the downward path was not only rendered much slower, but it was relieved of much of its horror.

One man upon whom I operated continued quite free from any return of the disease for three years, when he died from hereditary phthisis, accelerated by continual intoxication. Two died, as I have just mentioned, from development of the disease externally to the mouth and in the abdominal viscera. The other two are alive and well, and pursuing their ordinary avocations: the woman attending to her house-work, the man following his trade as a carpenter. The latter says that he is as well as he ever was.

Illustrations
OF
HOSPITAL PRACTICE:
METROPOLITAN AND PROVINCIAL.

ST. MARY'S HOSPITAL.

CHOREA: DELIRIUM: MITRAL MURMUR: DEATH BY EXHAUSTION: VEGETATIONS ON MITRAL VALVE.

Under the care of C. HANDFIELD JONES, M.B., F.R.S.

C. J., female, aged 18, admitted Feb. 28th, 1866; a tolerably well made, not anæmic girl; had never had rheumatic fever; no cardiac bruit was detected on admission. She had been ill eight days, since a fright. The disorder had come on gradually.

March 1st. She was in a state of severe chorea, jactitating very considerably; was obliged to be placed on the floor on a mattress; was delirious, talking continually to herself, and not answering questions, but she was so far conscious that she tried to put out her tongue when asked repeatedly, though she could hardly get it out at all; it appeared white and rough. The bowels were well opened by an enema the previous night. A systolic bruit was now heard at the apex of the heart or a little above, and also at the base. Skin quite cool. Pulse weak. She was ordered on admission the following draught every two hours.

℞ Tinct. cannabis Indicæ ℥xv; spirit. æther. nitrici ℥xx; mist. camphor. ʒj.

She was decidedly better than she had been. The pupils were large. Twelve minims of liquor opii sedativus were injected subcutaneously. She was ordered brandy, beef-tea, and milk.

March 2nd. She had last night a grain of morphia, but slept very little; was now agitated very much, and seemed to have no consciousness. She refused to take nourishment, and clenched her teeth when the cup was presented to her mouth. Pulse barely

to be felt; skin cold; and hands of a dull red tint; mouth covered with sordes. The cannabis was omitted, and she was ordered to have five grains of disulphate of quinine four times a day.

10 P.M. Chloroform inhalation was commenced about 3 P.M., and she was kept tranquil by its means most of the time; the inhalation being repeated when the jactitations returned. The pulse was still extremely weak, not always to be felt; the heart's action was very quick and weak. Brandy and beef-tea were given by enema, and the attendants got down what they could by the mouth.

March 3rd. She was quite tranquil this morning, and took nourishment pretty well. No chloroform was given since 4 A.M., after which time she slept till 8 A.M. Pulse more distinct. She seemed scarcely to be conscious, but made an effort to put out her tongue when I pressed her to do it. Since yesterday she had been taking fifteen ounces of brandy *per diem*.

March 4th. She had a very good night; took her food well; the chorea had almost disappeared. She showed some conscicusness, but looked very wild. Pulse distinct, 100; no fever spots visible; abdomen quite collapsed and caved in. Tongue rough, whity, and dryish. She was ordered to have three eggs.

March 5th. Pulse 117, weak; tongue dryish; lips cracked; countenance more natural. She remained quite quiet in bed.

March 6th. Eyes sunken; lids half-closed, their edges smeared with mucus. She seemed unable to open her mouth; but sucked her food down from a spoon. The pupils were of medium size. She was semiconscious; breathing irregular, deep and jerky at intervals; pulse feeble and very quick, about 120. The heart's action was stronger; and there was a loud, rather harsh bruit heard at the apex, where it was loudest, and also at the base. There was no eruption on the abdomen. She passed all her urine under her; some which was procured was clear, of specific gravity 1020, not albuminous, and deposited on standing a flocculent sediment containing some largish epithelial cells (vesical, I think), and great numbers of small and medium sized hyaline casts, as well as some containing reddish-yellow pigment-granules. She was ordered an enema of brandy and beef-tea at night.

℞ Potassæ iodidi gr. ij; tinct. cinchon. flavæ ℥ij; aquæ ℥j. Fiat haustus quater die sumendus.

March 7th. She was pulseless, but warm; temperature 103°. She was noisy and called out much in the night, changed much about 4 A.M., and had been soporose ever since. She could barely swallow; and died soon afterwards.

Post Mortem Examination, March 8th. There was a commencing bed-sore on the sacrum. The lungs were rather congested, but healthy. The heart appeared small; weighed only seven ounces. The left ventricle felt firm, and was well contracted; the right was flaccid, and contained a good deal of soft coagulum. The right valves were healthy, and so were the aortic; the mitral presented, along the upper edge of its attached flap, a series of small vegetations, which appeared soft, and evidently of recent origin; one similar was detached from the anterior moveable flap during the examination. There was no trace of emboli anywhere. All the abdominal viscera were healthy. Peyer's patches in the small intestine were not at all enlarged. The spleen was healthy, free from fibrinous deposits. The brain and spinal cord were normal; the latter was pale in its interior throughout, but at its lower part some large veins were seen on its surface, gorged with blood. The brain was "wet", venously congested only, rather pale than otherwise; its structure was everywhere healthy; its weight was thirty-eight ounces. Examination of slices of the spinal cord in various parts discovered no glomeruli, nor any granular coating of the vessels. In one portion of the hemispheres, the precapillary vessels were found extensively coated with granular opaque matter; in another, they were quite normal; no glomeruli were found anywhere. The fresh cut surface of the hemispheres did not alter the colour of litmus-paper moistened with distilled water. The vegetations on the mitral valve were evidently outgrowths from the membrane; they presented masses of nuclear corpuscles, spherical and elongated, lying imbedded in a mass of soft granulous matter; these masses were deposited in various places among the normal fibres.

Clinical Remarks. The diagnosis that the chorea had a rheumatic origin in the above instance was warranted during life by the mitral murmur, and was confirmed at the autopsy by the valvular alterations discovered. The murmur, however, did not appear to me to afford conclusive evidence; it was possible that it might be functional, owing to irregular action of the columnæ papillares. Moreover, the patient's aspect during the last few days of her life was so much like that of one in low fever, her brain so bewildered and feeble, and the condition of her cerebral faculties so much like that which is seen in severe typhoid, that I was by no means certain what was the true nature of the malady until dissection showed us a healthy intestine, and a mitral valve bearing unequivocal traces of endocarditis. This lesion speaks almost as strongly for rheumatism as the known alteration of the aggregated glands does for typhoid. The case affords another example of the connexion which is occasionally found to subsist between rheumatism and chorea. It goes somewhat to substantiate the opinion expressed by Dr. Kirkes in one of his latest essays, "that whenever chorea occurs in association with acute rheumatism, the valves of the left side of the heart are inflamed; and that, therefore, the association is not between chorea and rheumatism, as usually believed, but between chorea and valvular disease of the heart excited by rheumatism." He prefers the view that the valvular lesion produces the chorea, rather than the converse, or than that which regards both as the result of some common cause. To my own mind, the latter view appears far the most probable, and to be much more consonant with our knowledge of the various complications of rheumatism, and those of typhoid and other fevers. Delirium often, unquestionably, is produced by rheumatism, without there being any cardiac affection; so that we must regard it as the direct result of the miasm, just as much as the articular or cardiac affections when they occur either together or separately. Delirium and chorea coexisted in my case; both symptoms were tranquillised by the chloroform, and both may fairly be regarded as the result of a common cause, acting differently in different organs. The valvular lesion I rank as a third result of the rheumatic miasm; and, had life been prolonged, we should probably have had a fourth, in the shape of articular affections. The connexion between these several disorders I believe to be quite analogous to that subsisting between the delirium, deafness, subsultus tendinum, intestinal ulceration, and pneumonia, of typhoid. If the endocarditis was the chief motor of the chorea, we ought to witness this complication much more frequently than we do in acute rheumatism. Dr. Kirkes dwells very justly on the general enfeeblement and paresis of the nervous centres in the class of cases he is alluding to, and fully admits the malnutrition to which they are subjected. This malnutrition was very marked in my case, the brain being no less than

six ounces below the average weight of that of the female. Though its tissue was apparently healthy, yet microscopic examination discovered some traces of inflammatory exudation on the minute vessels of some parts of the hemispheres. Trousseau (*Clinique Méd.*, vol. ii, p. 170) relates a case of chorea complicated at first with endocarditis and articular inflammation, and subsequently with cerebral disorder of a very marked kind, which seems to have depended on a degree of meningitis, and was treated successfully with calomel. In my case there were no such symptoms of meningitis as existed in Trousseau's (strabismus, pain in the head, slowing of the pulse and respiration); and I have not the least idea that calomel would have rendered any service. Though the general powers were so greatly prostrated from the first, yet the administration of chloroform during many hours at intervals, for which I am greatly indebted to Mr. Mahon, was well borne, and gave us for some time great hopes that we should be able to bring her through. These, however, were doomed to be disappointed; and, in spite of the most diligent administration of food and stimulus, her heart's action failed, and she sank. The fatal asthenia can scarcely be ascribed entirely to the muscular agitation, severe as it had been; for this had quite ceased during the last four or five days of her life. I believe we must regard this case as very similar to the one I recently commented on of violent rheumatic delirium proving fatal by sudden collapse, and must consider that in both the rheumatic miasm, owing to some peculiarity of vital condition, so depressed the nervous power, that life could not be sustained. In both cases, the primary affection of internal vital organs, instead of the less important articulations, is a sure indication of the impaired energy of the whole system, and of its diminished capacity to resist the injurious effects of disease.

Transactions of Branches.

SOUTH MIDLAND BRANCH.

PRESIDENT'S ADDRESS.

By Edward Lawford, M.D., Leighton Buzzard.

[*Delivered at Bedford, June 7th*, 1866.]

I have no sympathy, gentlemen, with the feelings of that man who can accept for the first time the post which your kindness has conferred on me without feelings of misgiving as to his ability to perform the task, and it is on that account, that I crave at your hands to day, all that kindness and consideration which on these occasions you are ready to bestow.

These feelings of embarrassment are in no degree diminished when I consider, on the one hand, how ably this chair has been filled on former occasions, that it has been graced by a Barker and a Ceely in Bedford, and by a Francis and an Ashdown in Northampton, and on the other hand, that I have for an audience an assemblage of medical men, who are as devoted to their profession as the members of any branch of the great British Medical Association.

It is not my intention to detain you by giving a long address on this occasion, but there are duties which devolve upon me as your President, and there are remarks which it becomes me to make, and from these I must not shrink.

First, as to the South Midland Branch of the British Medical Association; it appears that it numbers about eighty or ninety members, and is in a healthy state. And as we form our opinion of the health of the natural body by its activity, so would I have you form your opinion of the healthy state of the medical body by the activity of its individual members. The question naturally arises—Have we as a Branch maintained our social position as active members of the body medical? Have any of our members deserved well of their country, or distinguished themselves above their fellows?

It is now scarcely a year since a gold medal, offered by the British Medical Association, and thrown open to its members for competition, found a resting place in the town of Bedford. This was a subject of congratulation; but scarcely had these notes of congratulation died away, when lo! "the silver cord is loosed, the golden bowl is broken," and the spirit of Herbert Barker has taken its everlasting flight; we must not look for perfection; but it would ill become me to pass over his loss in silence. But why should I, in the town of Bedford, record the virtues of the dead? You know his zeal in the exercise of his profession. You know his devotion to the public good. You know how warmly he espoused on all occasions the claims of this Branch of the British Medical Association. Indeed, I may say, that he was the first to impress my mind with the benefits it might confer on us as a body; and I cannot for a moment doubt that, if it had pleased Providence to prolong his life, he would one day have occupied the highest position that it is in the power of this Association to bestow.

I need not remind my audience that Dr. Barker obtained the Fothergillian as well as the Hastings Medal; the first on Malaria and Miasmata, the latter on Deodorisation and Disinfection.

During the past year, Providence has thought fit to visit us as a nation with a dire calamity. Our flocks and our herds have died by thousands and tens of thousands; and it must be gratifying to you to know, that the Government of this country selected a member of our Branch (Mr. Robert Ceely) to serve on the Royal Commission; and, moreover, it reflects no slight credit on the gentlemen who formed that Commission, many of whom were medical men, that, slightingly as their opinion was received at the commencement, and much as they were derided by newspaper writers, the time has now arrived when justice has been accorded to them, and the wisdom of their advice not only acknowledged; but put into practice with success, by the nation at large.

On looking over the *Medical Directory*, I find the names of sixteen gentlemen mentioned as practising in the town of Bedford, and on referring to our list of members, I find that but two of them are members of our Branch. One of our Northampton friends, writing to me on this subject, said with truth: "We are well represented in Bedfordshire, but not in Bedford town!" This is a subject for regret. The town of Northampton affords a pleasant contrast with this; there, the board room of the County Hospital is considered the proper arena for such discussions as these; and I think I might be allowed to assure the members of the hospital staff in this town that we should not only be proud of their society, if they would come amongst us on these occasions, but that we should receive them with open arms.

Medical men at the present day possess immense advantages, and a word or two should be said of these excellent societies, which afford us such great facilities for obtaining information at a small cost: I allude to the New Sydenham Society, the Ethnological Society, and others. Our ancestors would have required a knowledge of half the European languages; they might have spent their nights in study and their years in travel; they might have ransacked the libraries of Europe, and could not then have obtained that diversity of medical information supplied by the New Sydenham Society

alone. This Society not only gives you translations of the best living authors, but it reproduces the works of those who have left us that richest and noblest inheritance, "the undying legacy of thought." I have been one of the Honorary Local Secretaries of the New Sydenham Society since its formation, and it will afford me pleasure to forward the names of any gentlemen who wish to join it.

I cannot omit to notice the pleasing fact that our neighbours the French have erected a statue to the memory of our immortal Jenner, during the last year; as if to compensate for the slight which our own Government has visited on the memory of one of the noblest members of our profession, by removing his statue from its pedestal in Trafalgar Square.

The introduction of lady nurses into our hospitals, is, we may say, one of the novelties of the present time. King's College, the University, St. Thomas's, and the Great Northern, have already availed themselves of an example so long set us by our continental neighbours.

The introduction of light wines into the sick room, and almost into the *Pharmacopœia*, is another sign of the times, on which we may congratulate ourselves. The fearful adulteration and fortification by ardent spirits, of the wines of Spain and Portugal have worked a reformation for us, and we are once more returning to the habits of our ancestors, and are beginning to appreciate again the more healthful wines of France.

And now, gentlemen, in conclusion, I wish I could impress you more and more with the dignity of your profession, with the necessity of maintaining that manly bearing which gives dignity to it, with the necessity of united action in drawing closer and closer the bonds of professional brotherhood, and also with the necessity of supporting this great British Medical Association, which ought—as a silver cord—to bind us all together. Remember, that you occupy no subordinate position, for, if on our metropolitan professors devolves the noble task of demonstrating the truths of medical science, to you undoubtedly is entrusted the high commission of making that profession respected by the public, and beloved.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT MEDICAL MEETINGS.

A CASE OF CHOREA, ENDING FATALLY, IN A YOUNG MAN AGED 20, COMPLICATED WITH DISEASE OF HEART AND BRAIN: POST MORTEM.

By S. Monckton, M.D., Maidstone.

[*Read September 28th*, 1866.]

James F., a young farmer, well grown and robust, enjoyed good health up to the commencement of the present year. In February, he became wet through while rabbit-shooting on a bleak cold hill, and stood about wet for three hours. A decided chill was the result. He continued aching and invalid for some weeks, but did not keep his bed for a single day. He received a few visits from his medical attendant, who discerned rheumatic symptoms of a vague and ill defined nature about him, and permitted his return to office-work, but not to out-door occupations, about eighteen days after exposure to wet and cold. He continued in fair health and engaged in book-keeping for two months.

On Sunday, May 13th, certain odd and irregular movements of one hand were noticed after his dinner. These increased and made him indisposed. On Tuesday, he saw his medical attendant, who sent him to me on Thursday with a letter.

On that day, the fifth after the movements began, he presented the unusual spectacle of a young and powerful countryman with very pronounced hemichorea—*i.e.*, St. Vitus's dance, affecting one side only. The movements were unmistakably choreic; and even then a dash of the characteristic fatuity of expression was manifest on his countenance. No symptoms were complained of, except the movements and imperfect sleep. No distinct history of rheumatism could be discovered in the past, nor evidence of it found in the present. His heart was examined then and there; with the more care, on account of the difficulty of finding adequate causes for the attack in other quarters. A guarded, but hopeful, opinion was expressed; accompanied by a warning that he would most likely, for a time, become worse, and that the jactitation, then strictly unilateral, would become general. An aromatic mixture, with sulphate of magnesia and sulphate of iron, was prescribed, and all book-work forbidden.

In three days (the 8th), he was so much worse as to be unable, with any safety or comfort, to leave his bed. He was perfectly rational, and free from pain, dyspnœa, cough, headache, and every other symptom; but the twitchings of face and the twistings of body and limbs were violent and uncontrollable, affecting the whole frame. The articulation was confused and broken up, and deglutition spasmodic and gulping; but the whole storm subsided perfectly during the short sleeps he was able to obtain. The urine, carefully watched for rheumatic indications, was high coloured and acid; but hardly more so than the limited consumption of fluids and the unlimited consumption of tissues would be adequate to explain. The heart was again attentively examined by myself and his usual attendant, Dr. Norton of Wateringbury, but without result; nothing unnatural was to be heard.

Four days later (the 12th) much the same condition was existing. He was somewhat weaker, and his eyes were watery and bloodshot from want of sleep; but no evidence of anatomic lesion, cerebral or cardiac, was to be discovered. A large dose of henbane and a small one of morphia was ordered for alternate nights, and other measures adopted, which it is needless to detail at length.

Three days after this (the 15th), he had slept better and taken more food, and the movements were subsiding. Still his improvement was not decided or perfectly satisfactory; and our report was qualified by the reminder that there might be latent head mischief to prove fatal, even though the chorea was passing away.

In three days more (the 18th), he was found sitting up, free from jactitations altogether, his countenance quiet and cheerful. There was vague complaint of pain, or rather uneasiness, about the left ear; with, for the first time, a very slight defect of power in the right arm. The pupils were perfectly equal, but rather small. The pulse struck us particularly, being 120. Through the day he continued better; he could feed himself, and was in good spirits; but in the evening more forebodings were aroused, for the pulse had fallen to 60. He went to bed without any medicine, sedative or aperient, and was soon fast asleep; but in the morning, attempts to rouse him having failed, Dr. Norton was summoned, and found him comatose. The same afternoon, he was again visited by Dr. Norton and myself. He was supine, bathed in sweat, utterly unconscious; the urine was running off; breathing slow, irregular, and laboured—in short, his condition was one of profound apoplectic coma. Pupils still even, and of medium size; no hemiplegia could be made out. The pulse in the left wrist was full and thumping, as in reaction after cerebral hæmorrhage; but no pulse whatever could be felt in the right radial or brachial artery. In the axillary, pul-

sation could be found; this phenomenon was detected by Dr. Norton, and fully confirmed by myself. Once more, while he lay unconscious, with this clear indication of embolism, we both auscultated his heart, and, although the action was unnatural and tumultuous, there was no bellows-sound. The next day he died.

Twenty-four hours after death, a *post mortem* examination was made.

The body exhibited great discoloration. There was much emphysematous inflation of cellular tissue about upper thorax, axillæ, and base of neck. Decomposition had evidently advanced at a rapid rate. The calvarium was thick, strongly connected with the dura mater, and torn off with difficulty. There was hypostatic congestion of the superficial veins and sinuses about the occiput; but nothing strictly morbid to be seen upon the surface, either on the convexity or base. The right hemisphere, being carefully sliced down, was healthy throughout. The left hemisphere was so also, down to and including the lateral ventricle; but imbedded in the white matter of the middle lobe, over the petrous bone of that side, was found a small mass of claret-coloured softened brain-tissue, equal in bulk to a small filbert, with well defined borders, not shaded off, but easily separated from the sound white matter in which it was embedded; no sign of suppuration in connection with it. On opening the thorax, the lungs collapsed imperfectly, but appeared healthy. The pericardium was also healthy, non-adherent, and without effusion. The heart itself was more dilated, thin, and rotten, than would have been expected. The endocardium was natural; but on one aortic semilunar valve was a large warty growth of fibrinous character and castellated shape, attached with much firmness to the inner surface of the valve, but still separable by pulling; its base covered two-thirds of the surface of one valve, extending fully to the free border on one side, and to the line of attachment to the arterial wall on the other side; its bulk was about three times that of a barleycorn; no blood-corpuscles were entangled in it. On detaching the growth by moderate force, the serous glaze of the valve was gone, and no amount of washing could restore it.

The difficulties peculiar to a *post mortem* examination in a private house prevented our dissecting out the axillary and brachial artery; but no embolus could be found up to the point where either subclavian left the chest.

Among the points which this case appears to suggest for our discussion are the following.

1. The mischief which rheumatism, *other than acute and articular*, is capable of effecting in the heart. Many who now hear me must have remarked the difficulty there is in tracing to a distinct cause a large portion of those chronic cases of heart-disease that are continually presenting themselves to our notice. We see, of course, often enough, acute rheumatism issue directly in valvular or pericardial lesion; and with perhaps equal frequency patients come before us in whom this organic damage has clearly originated in some definite and antecedent attack of rheumatic fever; but are we sufficiently alive to the mischief that may be insidiously wrought upon the cardiac structures in the course of a feebly developed rheumatic illness, not confining the patient to bed for a single day? Analogy would, indeed, lead us to conclude that the fibrous tissues of heart valves and orifices might become slowly contracted, modified, and stiffened, just as the same structures do in the case of joints; but here it seems difficult to doubt that a case of distinct inflammatory outgrowth from a serous surface was the result of a rheumatic contamination so vague and latent as hardly to have been recognised as such at all. On the other hand, we may consider how far these vegetations owe their origin to endocarditis, which has occurred independently of rheumatism altogether? Are there other agents of blood-contamination—urea or bile-elements, for instance—which are to be held as occasionally responsible for this class of injuries? Do we not get occasionally idiopathic endocarditis of a subacute form, as we do an overlooked pleurisy? and is not the difference of pathologic result purely attributable to differences of anatomic condition?

2. We may remark on the strange absence of auscultatory evidence which was connected with the existence of a large deposit intruding itself so formidably into the aortic current. I was quite unprepared to believe that so much mischief could be compatible with apparently normal stethoscopic signs; but the conclusion must be accepted, for the formation of the deposit must have long preceded death; and a murmur, if present, could not have escaped detection in the course of all the careful examinations that were practised throughout the three weeks by Dr. Norton as well as myself.

3. It appears to be suggested to us, that the injection of a small embolus into one of the cerebral arteries does not of necessity command instant attention, or develope immediate symptoms. It can hardly be doubted that, in the present case, such injection occurred some weeks or even months before death, without giving rise to any remarkable symptom, but leading on to the destruction of a small tract of brain-substance.

Lastly, we may conclude that chorea is *not*, as has been lately taught, at all exclusively associated with morbid conditions of the optic thalami, for both these organs were typical and healthy. *Post mortem* examinations in connexion with chorea are rarely obtained, and still more rarely lead to decisive results. Probably, in this case, the red softening had but little direct influence in producing the erratic movements, which are more likely to have originated in some damaged nutrition of brain-cells or disturbed equilibrium of molecular forces, than in any sort of cognisable anatomic change.

Weak Eyes. Some time ago, at the Academy of Science, M. Foucault said that the sun might be contemplated with impunity through a lens covered with silver leaf, the latter being just transparent enough to allow of the sun's disc being seen very clearly, though "shorn of its beams." A few weeks ago, the Academy received a communication from M. Melsens, in which he described a useful application of M. Foucault's discovery. He states that about the beginning of last July he received an injury from the bursting of a balloon containing a solution of iodine and liquid sulphurous acid, whereby both his eyes were attacked with inflammation. Great weakness of the eyes remained, so that light was painful to him. He then had recourse to the sort of spectacles used by engine-drivers on railways. These spectacles are provided with black glasses, and as these were still too transparent M. Melsens put green ones over them. In this way they answered tolerably well, but the author ultimately used preservers with pale blue glasses, which he covered mechanically with either gold or silver leaf, and this he found to answer best of all, the light so transmitted being exceedingly pleasant, especially in the case of gold leaf. The latter when yellow lets green light pass, when green (that is, alloyed with silver) the eye receives blue light. M. Melsens, therefore, thinks that persons labouring under the inconvenience of weak eyes will derive great relief from spectacles so prepared. (*Galignani.*)

Reviews and Notices.

LECTURES ON CLINICAL MEDICINE, delivered at the Hôtel Dieu, Paris. By A. TROUSSEAU, Professor of Clinical Medicine in the Faculty of Medicine, etc. Translated and edited with Notes and Appendices by P. VICTOR BAZIRE, M.D. Lond. and Paris, Assistant-Physician to the National Hospital for the Paralysed and Epileptic, etc. Part I, pp. 276. London: 1866.

THIS is, Dr. BAZIRE says, the first instalment of a translation of M. TROUSSEAU'S *Lectures on Clinical Medicine*—a work which, both from the reputation of its author and its own merits, has met with high appreciation in France. In the part before us, seven lectures are given.

The first lecture is on Cerebral Hæmorrhage and Apoplexy. The case which formed the foundation of the lecture was that of a patient in hospital under treatment for chronic pulmonary catarrh, who, without any premonitory symptoms, found that his speech was embarrassed, and that the motion of the right upper limb was impaired. There was no intellectual disturbance, nor impairment of the senses or of sensibility. M. Trousseau recognised in this patient an attack of *cerebral hæmorrhage;* and his reason for arriving at this diagnosis he states to be, that the paralysis of the facial muscles was less complete than that arising from disease of the seventh nerve.

He then goes on to comment on what he regards as a matter of much importance—the distinction between "cerebral hæmorrhage" and "apoplexy". "There is a great difference between cerebral hæmorrhage and apoplexy, although some confound them still, in spite of the majority of our classical authors, who try to do away with this deplorable confusion." The term apoplexy he would confine to its old meaning—an affection in which the individual is suddenly struck down. This, he says, is often the result of conditions very different from cerebral hæmorrhage; *e.g.*, cerebral softening, accumulation of serum in the ventricles, extreme congestion, or embolism; and, again, cerebral hæmorrhage may occur without producing apoplectic phenomena. He asserts that the production of apoplexy, strictly and properly so called, as the first and foremost result of cerebral hæmorrhage, is at least a very rare occurrence.

"For more than fifteen years my attention has been directed to this point in the history of cerebral hæmorrhage, and I never had the chance, *never once,* of seeing a patient struck down suddenly by *apoplexy,* in the classical and etymological sense of the word. I have not seen a single case in my hospital or my private practice, or in the practice of my professional brethren who have done me the honour of asking me to meet them in consultation. I have, indeed, seen a great number of individuals suffering from cerebral hæmorrhage, in the most profound apoplectic stupor; but in every case, *without exception,* when the attack had occurred in presence of witnesses, it had come on gradually, and had in general been slight at the outset, coma supervening ten minutes, half an hour, or several hours afterwards; but in no single instance, I repeat, have I seen a man with cerebral hæmorrhage struck down as by a blow, and dropping instantly into a state of unconsciousness." (P. 7.)

The treatment adopted in the case referred to at the beginning of the lecture was simply *nil;* and M. Trousseau explains his reasons for abstaining from active measures—bloodletting especially. The hæmorrhage, he says, is a *fait accompli* when its symptoms are first presented. Bloodletting and purgatives are said to empty the vessels and promote absorption of the extravasated blood; and also to antagonise cerebral congestion, and thus prevent the risk of increase or renewal of the hæmorrhage. But, he argues, does any one think of employing local or general bloodletting to remove other extravasations of blood; *e.g.*, ecchymoses under the skin? And can we act more powerfully on ecchymoses of the brain than on those of other parts of the body? And, as to congestion, this he believes to be as much an effect as the cause of extravasation of blood; and, bloodletting, in place of being useful, has seemed to him to be hurtful, and to favour instead of prevent congestion. Even in the febrile reaction following hæmorrhage, where to many bloodletting would seem to be indicated strongly, M. Trousseau regards such treatment as more likely to do harm than good.

The treatment which he adopts in cases of cerebral hæmorrhage, and especially in apoplexy, he thus describes.

"Instead of bleeding my patients, of putting them on low diet, and keeping them in bed, I do not draw blood from them, I recommend them to get up if possible, at least to remain in the sitting posture, and I feed them. I am convinced that I thus obtain much more favourable results than when I interfered more actively, and that patients so treated do a great deal better than those whom I bled in former days, kept on low diet, and confined to their beds." (P. 11.)

"I am not the only one who regards bleeding, and the other means usually recommended in cerebral hæmorrhage and apoplexy, as useless and inconvenient. Very recently one of my colleagues, Professor Monneret, declared that he had for a long time given up the active treatment which, like myself, he formerly had recourse to. Far from lowering his patients, he feeds them, and gives them wine. Since I have conformed to the rule of keeping up the strength of my patients by giving them food in moderation, I find that the bad symptoms under which they labour disappear more rapidly than when I interfered actively." (P. 13.)

Having disposed of the question of treatment, M. Trousseau offers some remarks on the diagnosis between cerebral softening and hæmorrhage. Here he follows Recamier, who held that the occurrence of *sudden* and complete hemiplegia, without loss of consciousness, denotes softening; "whereas the complete loss of motor power is attended by loss of consciousness, whenever, especially, the individual has become suddenly comatose, hæmorrhage may be diagnosed, and hæmorrhage to a considerable amount."

The second lecture is on Apoplectiform Cerebral Congestion, and its Relations to Epilepsy and Eclampsia. When, says M. Trousseau, a man is suddenly seized with apoplectic symptoms, or with giddiness, and recovers in the course of a few minutes or hours, he is said by many to be suffering from cerebral congestion, of greater or less intensity. This opinion M. Trousseau himself once held; but he no longer

does so. Facts which he relates have come under his notice, which have led him to the conclusion that the majority of cases of so-called apoplectiform cerebral congestion are in reality cases of epilepsy; and a close examination of the histories of the cases has confirmed him in the belief.

He then enters on the question of the criminal responsibility of epileptics. He repudiates the doctrine, "that, because a criminal is epileptic, he should be exonerated from all criminality." But, he argues, an act of homicide, or of injury to himself or to others, may be committed by an individual during the epileptic state, and as a result of the impairment of the will by the epileptic shock; the reason, before and after the committal of the act, being entire, and the act itself being committed without any knowledge on the part of the epileptic, and without his retaining any recollection of what has been done.

"The very reverse obtains in the case of an insane individual, who is prompted to his acts by hallucinations or by motives connected with his delirium, but who still acts with a very determined will after long and matured premeditation.....

"I admit that the acts of an individual poisoned by alcohol, belladonna, or hachisch, may be unpremeditated and committed under the influence of an irresistible impulse; and that all recollection of them may be completely lost, as in the case of an epileptic. I admit that an idiot whose intelligence and moral sense do not rise to the level of those of the lower animals may kill a man, as he breaks a piece of wood, without being conscious of his act, or keeping any recollection of it. But I never meant to include these particular cases in the general proposition I laid down, since I supposed a complete integrity of the reason immediately before and soon after the perpetration of the criminal act." (P. 27.)

M. Trousseau comments at some length on the relations between apoplectiform cerebral congestion and epilepsy and eclampsia. In many cases, he says, epilepsy is unrecognised through the unwillingness of the patients and their families to acknowledge the existence of the disease. The phenomena are described in such a way as to lead to the idea of cerebral congestion; and hence medical men are misled as to the frequency of occurrence of cerebral congestion. Further, according to M. Trousseau, many cases of so-called cerebral congestion are in reality cases of internal convulsions, or of vertigo connected with disease of the internal ear or with dyspepsia.

Cerebral congestion, M. Trousseau says, is often assigned as the cause of the sudden and transient insensibility supervening on an attack of hæmorrhage in the brain. He does not deny the existence of such congestion; but he at least greatly limits its importance.

"There is another symptom to which sufficient importance has not been attached, so far as I know; namely, a kind of stupor which follows on commotion, and to which I have given the name of *Cerebral surprise*. When the brain is suddenly torn or compressed, it bears such a grave lesion with an impatience which varies according to individuals, but which may be very considerable in some cases." (P. 31.)

In illustration, he refers to the sudden and transient stupor, followed by hemiplegia, etc., which occur in cases of wounds of the brain, or in the experiment of introducing a foreign body between the dura mater and brain of an animal. "In this experiment," he says, "no cerebral congestion can be appealed to; and it must be admitted that the brain is somehow surprised by an accident which is accompanied by a transient disturbance."

The practical conclusion which M. Trousseau draws is this:

"If the proposition which I have attempted to prove be true, it will be conceded that we must less frequently have recourse to revulsives and to antiphlogistic measures in the treatment of these cases of pretended cerebral congestion, and that we must seek for other indications more in conformity with the views that should be entertained of the various conditions too often confounded under the same denomination." (Pp. 31-2.)

Cerebral congestion, then, M. Trousseau shows, is not to be held as the cause of the symptoms which are often attributed to it. But cerebral congestion does occur; and M. Trousseau points out under what conditions. In a woman during labour, very severe efforts are often made during the passage of the child's head, and her appearance leaves no doubt that the cranial sinuses and the brain are congested—and yet it is not in this state that eclampsia generally occurs. Again, there is no doubt cerebral congestion during an attack of whooping-cough—but nothing like eclampsia and its attendant apoplectic phenomena; and further, acrobats, and porters who carry heavy burdens, "and who get almost blue in the face, whilst the blood-vessels of the neck are turgid", are not seized while in this condition with sudden loss of consciousness or of muscular power.

"Let us admit, then, that so long as the blood is not altered in its intimate composition, and is not extravasated, it is not so injurious to our tissues as is commonly said; and that something more than a purely physical congestion is needed to produce the apoplectic phenomena which succeed epilepsy or eclampsia." (P. 35.)

Before concluding the lecture, M. Trousseau protests against being misunderstood. He does not, he says, deny the existence of cerebral congestion; but he holds that such congestion never produces the sudden and transient apoplectiform phenomena attributed to it. Congestion may and does sometimes produce symptoms of apoplexy; but they are neither sudden nor transitory.

With one more extract, which summarises M. Trousseau's views of the relations between cerebral congestion and epilepsy, we must leave this subject.

"There are two very distinct conditions in an attack of eclampsia or of epilepsy, whether idiopathic or symptomatic: 1. *A cerebro-spinal modification*, unknown in its essence and in its nature, which in a second abolishes all the manifestations of animal life. Of the two, this is by far the more important condition. 2. *A secondary cerebral congestion* which, although less important, may in some extremely rare cases be carried so far as to produce subcutaneous ecchymoses, cerebral capillary hæmorrhage, and even meningeal hæmorrhage." (P. 36.)

The third lecture is on Epilepsy. In his remarks on this disease, M. Trousseau calls attention to a sign which was described by Van Swieten, on which, he thinks, not enough stress has been laid.

"If you examine an epileptic carefully after one of his fits, or, better still, several hours afterwards, you will often find on his forehead, his throat and chest,

minute red spots, looking like flea-bites, which do not disappear on pressure, and have all the characters of ecchymoses..... Not only are the small red puncta I mentioned observed, but large ecchymoses also, which are produced in the same way, and apart from all contusion." (Pp. 48-9.)

If, says M. Trousseau, a patient complain that he has had pain and heaviness in the head on waking in the morning, that he has during the night passed his urine or motions involuntarily; if his tongue be painful and swollen, or cut in several places; and if ecchymosis be noticed on the forehead and throat—it may be affirmed that he has had an epileptic fit during the night.

In the course of the lecture, M. Trousseau, besides noticing the symptoms and treatment of epilepsy, comments on the relation of the disease to insanity, on hereditary taint as a cause of epilepsy, and on the influence of marriages of consanguinity; and also on the diagnosis between epilepsy and eclampsia, and on the differential diagnosis between epilepsy and hysteria.

M. Trousseau does not appear to have used bromide of potassium in epilepsy; and this gives occasion to Dr. Bazire for some remarks on the use of this remedy, which will be found at p. 98. Dr. Bazire says that the results of its administration at the Hospital for Paralysis and Epilepsy has been such "as to warrant the conclusion that it is infinitely superior to all the other remedies that have been recommended against epilepsy." He believes that better effects are produced by the continued administration of moderate doses of the bromide, than by trying to crush the disease at once by giving large doses, so as to induce the phenomena called *bromism*.

The fourth lecture is on Epileptiform Neuralgia. Under this term, M. Trousseau includes two varieties—one, the more common, characterised by neuralgic pain without convulsive twitches; the other accompanied by convulsive movements. These disorders—simple epileptiform neuralgia, and convulsive epileptiform neuralgia or *tic douloureux*—must, he says, be distinguished from the other cases of pain in the course of the fifth nerve which are classed together under the name of trifacial neuralgia. These are readily remediable; while the disease under description is obstinate—so much so, indeed, that "even now, after more than thirty-six years of practice, *I have never known it to be cured in a single case radically.*" Opium in large doses is the only remedy in which he appears to have any confidence, as a means of producing, if not cure, at least that amount of relief which most nearly approaches cure.

"Of all the therapeutic agents which I have used—and I have tried a good many with extreme perseverance—opium is the drug which has least disappointed me..... In the treatment of epileptiform neuralgia, opium should be administered in large doses, which cannot well be determined *à priori*. They should be gradually increased until the pain is quieted, so long as no unpleasant effects shew themselves.* It may be laid down as a general rule, that the doses which in a state of health give rise to very marked functional disturbances, are on the contrary well borne in proportion to the intensity of the pain. There are also idiosyncrasies which cannot be known beforehand, and which may completely preclude the administration of opium in sufficient doses." (P. 115.)

The subject of the fifth lecture is Glosso-Laryngeal Paralysis. The remarks made by Professor Trousseau on this affection are highly interesting. He refers the paralysis to an alteration of the motor roots of the nerves which supply the affected muscles.

The sixth lecture is on Progressive Locomotor Ataxy; or, as the translator suggests that it should be called, Progressive Locomotive Asynergia. M. Trousseau defines the disease, and describes its prodromata, symptoms, varieties, etiology, and treatment. To this lecture, Dr. Bazire adds an appendix containing the histories of several well marked cases of progressive locomotor ataxy which have come under his notice at the Hospital for the Paralysed and Epileptic.

M. Trousseau's remarks on progressive locomotor ataxy are very instructive. He begins the lecture by remarking that, although the disease had been noticed and partially described by previous writers, to Dr. Duchenne of Boulogne is to be ascribed the merit of having been the first to describe the disease correctly, and to assign to it a distinct name. M. Trousseau accepts, though still incomplete, the definition given by Duchenne:

"Progressive abolition of the faculty of co-ordinating movements, and apparent paralysis contrasting with the integrity of the muscular power."

The characteristic feature of the disease, according to M. Trousseau's description, is a difficulty, more or less great, in maintaining the equilibrium in standing. The patient can walk, but throws his legs about in doing so. Formerly, persons having this uncertainty of gait were described as suffering from paralysis; but that there is not paralysis is demonstrated by the fact that the muscular strength is considerable, although the power of co-ordinating movements is lost. One of the patients whose cases form the groundwork of the lecture, is described by M. Trousseau as being

"A young man, whose muscular power is so great that his limbs cannot be flexed or stretched against his will. Although his gait be vacillating, he is strong enough to bear on his shoulders, when standing, a weight of 160 lbs., on condition, however, that he may rest on a friend's arm or on a piece of furniture; and he can carry on his shoulders several students in succession." (P. 145.)

Other patients, again, whose cases are referred to, could not, even when supported, co-ordinate their movements so as to walk, but thrust their legs about in a disorderly manner, especially when their eyes were closed; and yet, when they were sitting or lying, it was not possible to bend or extend their limbs against their will without considerable effort.

This want of the power of co-ordination is, then, the essential feature of the disease; but in only three instances out of more than fifty has M. Trousseau found it to be the only feature. It is generally accompanied by impairment of muscular sensibility, by analgesia, and by cutaneous anæsthesia.

The disease has premonitory symptoms. The most constant consists of pains of a peculiar character.

"They come and go off with the rapidity of lightning or of the electric spark; in some cases, however, lasting from a few seconds to a minute. They recur ten, fifteen, twenty times in an hour; and they come on in paroxysms several times in the

* Among the cases which M. Trousseau mentions, is one of an old lady, who took daily from five to twenty boluses of crude opium, each weighing a drachm.

year, or in a month, often without any other exciting cause than variations of temperature. At other times they are of a boring character, and either simultaneously or successively attack limited, perfectly well defined spots, which the patient quickly compresses or rubs so as to diminish the pains. When the disease is confirmed, these pains may become continuous and gradually increased in intensity. These have been described by some authors under the names of *general neuralgia* and *neuralgic rheumatism*, but Dr. Duchenne was the first to point them out as preludes of locomotor ataxy. They are the most constant premonitory symptom of the disease; and yet, in September 1861, I had under my care at the Hôtel-Dieu a man aged 37, suffering from well marked ataxy, who had never had any pain." (P. 147.)

Other premonitory affections which may precede locomotor ataxy are nocturnal incontinence of urine; seminal losses; defective, or excessive, sexual appetite; certain forms of transient paralysis, affecting commonly the movements of the eye or vision; a sense of constriction of various parts of the body; and paresis of the rectum and bladder, or paralysis of their sphincters.

Little is known as to the etiology of progressive locomotor ataxy. It generally occurs, M. Trousseau says, between the ages of 20 and 40; and in eight cases recorded by Dr. Bazire in his appendix, the ages ranged between 30 and 40. It is met with sometimes in advanced age—M. Trousseau mentions the case of a patient aged 80; and Professor Friedreich of Heidelberg has described the occurrence of the disease in three patients aged 15, 16, and 18.

Males are by far more subject to the malady than females. M. Trousseau has seen it three times only, and Dr. Duchenne four times, in females. Dr. Bazire states that Dr. Topinard, in a monograph on the subject, gives 33 females *versus* 81 males, in 114 collected cases; and, in 70 cases collected by Eisenmann, 20 only were females.

"This relative protection of the female sex," says Dr. Bazire, "has not been noticed in the case of progressive locomotor ataxy alone, but seems to obtain in all forms of disease of the spinal cord, as would appear from a table published by Dr. Brown-Séquard, showing that, of 177 cases of paraplegia, 129 occurred in men and only 49 in women." (P. 199.)

As to hereditary predisposition, the difficulty of assigning this as a cause is great, in a disease which has been so recently studied. M. Trousseau seems inclined to admit the influence; he says, that the occurrence of various nervous diseases in other members of a patient's family gives a certain degree of authority for connecting the ataxy with these diseases, and ascribing to them all a common origin. Dr. Bazire finds no indication of hereditary predisposition, as manifested by nervous affections, in his eight cases; but he believes that predisposition sometimes occurs, as shown both by Trousseau's cases, by "those related by Friedreich, which include two individuals of one family and four of another, and by an instance related by Dr. Marius Carré, where eighteen members of a family became ataxic in turn."

M. Trousseau then goes on to describe the disease when fully developed.

"At the outset of the complaint, the patient staggers a little, especially as he gets up after having sat down for a long time. He rests on a stick or on the chair which he has just left, and he starts. As he takes the first step, the arm which does not rest on the stick leaves his side and oscillates like that of a rope-dancer, and his body inclines a little forwards. His walk is at first slow and uncertain, but becomes involuntarily hurried. Whereas, in true paralysis, the leg is slowly lifted off the ground and is dragged along; in ataxy the foot is thrust forward in variable directions, and comes down suddenly. Instead of the measured flexion of the knee-joint, which obtains normally, the flexion is sudden, and followed by forcible extension. When the disease is in a more advanced stage, if the patient does not rest on a stick, he throws his legs about with still greater disorder, and the inequality of his steps renders the loss of equilibrium still more imminent. Both his arms are then moved about like those of a rope-dancer, and his trunk itself is inclined or straightened according to the displacement of his centre of gravity. This uncertainty and difficulty of progression do not prevent the patient from walking several miles on even ground..... When the disease, however, has made pretty considerable progress, the violence and irregularity of his movements soon exhaust the patient's strength, and he can scarcely walk a hundred paces before he gets out of breath, and is thrown into profuse perspiration." (Pp. 151-2.)

Even beyond this there is a stage where, though muscular power is retained, the patient cannot move a single step without falling; and the muscles of the trunk and even of the arms become implicated.

The prognosis is most unfavourable. Death supervenes; and more rapidly from the exhaustive suppuration produced by the bedsores which form. Sometimes, however, but rarely, some degree of motor power is regained.

The diagnosis of the disease, in its advanced and well-marked stage, is, M. Trousseau says, easy; but not so at the outset. The increased irregularity of the patient's gait when his eyes are closed has its diagnostic value principally in an advanced stage; not for the early period. M. Trousseau employs another diagnostic method, which consists in ascertaining whether the patient can, when his feet are closely applied together at their inner edges, maintain his equilibriuum when his eyes are closed. A patient affected with paralysis can do this, M. Trousseau says; an ataxic cannot, but falls at once, unless supported.

An ataxic patient, M. Trousseau says, cannot maintain his equilibrium, because his muscles are in a state of aggravated spasmodic contraction; and in an advanced period of the disease, spasmodic contractions—powerful jerkings of the limbs—are frequently observed even when the patient is at rest.

As the disease becomes developed, the pains, already described as premonitory, usually become more intense—occurring sometimes in paroxysms lasting for a few hours or days, every week or month; sometimes being continuous, recurring from ten to thirty times in an hour for months or even years. Their onset is generally sudden.

In the majority of cases there is cutaneous anæsthesia, sometimes also anæsthesia of the mucous membranes; and, when the disease is fully developed, the affections of the eye—diplopia, amblyopia, amaurosis, etc.—which have been mentioned among the premonitory symptoms, recur and may become persistent. There is often loss of sexual appetite, and paralysis of the sphincters of the rectum and bladder. All these symptoms, however, M. Trousseau points out, are not of constant occur-

rence, and are, therefore, not to be regarded as essential to the disease, but only secondary.

The development of the disease is frequently imperfect; and its progress is usually slow—extending sometimes over a period of ten or twenty years. Sometimes, however, it runs a rapid course: M. Trousseau refers to a patient in whom the ataxy became generated in six months.

M. Trousseau comments at some length on the question of the existence of a special muscular sensibility—the *muscular sense* of Sir Charles Bell, and the *sense of muscular activity* of Gerdy. He does not, he says, deny that muscles are sensible of pain under certain circumstances—as when pinched, or during surgical operations; but he holds that there is no evidence of the existence of a special sense of muscular activity; and, therefore, he does not admit the theory which has been advanced by Landry, that locomotor ataxy consists in the loss of this sense. Cutaneous and deep sensibility may be affected; and yet the muscles may retain their power—the muscular sense of Bell and others. Again, this loss of sensibility is not sufficient to constitute ataxy, as was shewn in a patient of M. Trousseau's, in whom sensibility, both superficial and deep, was lost, and yet he could walk naturally, even when his eyes were shut. There must therefore be, in M. Trousseau's opinion, another element—viz., *spasm*.

Regarding the pathological anatomy of the disease, M. Trousseau gives the following summary of the appearances which have been met with.

"The anatomical appearances in ataxy are confined, as a rule, to the posterior columns of the cord and the roots which come from them; it is only in exceptional cases that the antero-lateral columns are implicated as well. These appearances consist sometimes in a kind of grey degeneraton, and sometimes in a gelatiniform and translucent condition, in a diminution of consistency, or in a state of induration called *sclerosis*. In the greater number of cases the posterior columns are sensibly diminished in size, but in some very rare instances the volume is increased. The alterations of the posterior roots are proportionate to those of the cord; that is to say, they are most marked in the roots which are connected with the most diseased portions of the cord." (P. 169.)

Again, at p. 179, he mentions three facts as especially striking:—"First, the atrophy of the nerve-tissue of the posterior columns and the corresponding roots; secondly, the development of cellular tissue, or hypertrophy of the *neuroglia;* thirdly, the vascularity of the diseased tissues."

All these pathological conditions M. Trousseau considers to be, not the cause, but the effect, of the disease—regarding them, indeed, much in the same light as we have seen him regarding cerebral congestion, etc., in epilepsy.

As to the treatment, M. Trousseau holds out no hope of doing anything more than alleviating some of the symptoms. Methodical and moderate flagellation has moderated the pains in some cases; and he gives alternations of belladonna and spirits of turpentine, to calm the pain, when very acute. Nitrate of silver has been praised by Wunderlich, and by Charcot and Vulpian; but M. Trousseau has been disappointed in it. Above all, he says, the patient's strength must be supported.

The seventh and last lecture is on Aphasia. Of this affection, M. Trousseau recognises three forms, characterised by—1. Amnesia of speech; 2, amnesia of speech and writing; 3, amnesia of speech, writing, and gesture. It may be transitory, or persistent. The subject is one to which M. Trousseau has paid a great deal of attention; and his remarks should be perused by all who are engaged in the study of aphasia.

In concluding—somewhat abruptly, as regards the last lecture—this analysis of the first part of M. Trousseau's lectures, we would express our obligations and those of the profession to Dr. Bazire for placing within the reach of all of us the matured views of one of the most distinguished of modern French physicians.

Osteology: A Concise Description of the Human Skeleton, adapted for the Use of Students in Medicine. Accompanied by an Explanatory Atlas of Plates. By Arthur Trehern Norton, Assistant-Lecturer on and Demonstrator of Anatomy, St. Mary's Medical School. Pp. 128. London: 1866.

Mr. Norton's object has been to give a simple description of the bones, easily comprehensible by those who enter for the first time on the study of osteology, the necessary preliminary of the study of anatomy. He has placed the plates in a separate book from the description of the bones, in order to avoid the inconvenience of constantly altering the pages and the position of the book. The figures, which represent the bones in various positions, have been very carefully drawn; and each bone is marked with figures referring to the attachment of muscles. We must say that we prefer, for the first study of the bones, the plan which dispenses with the mention of muscles by name. The student, we think, who is entering on a branch of knowledge so entirely new to him as osteology, has enough to do to learn the characters of the bones and the names of their processes, etc., and to notice that certain parts are intended for the attachment of muscles, without being burdened with the names of those muscles until he enters on the study of myology.

Although Mr. Norton has, in our opinion, put rather too much into his book, we have no doubt that it will be found very useful. In using it, or any other work of the kind, students must follow the very judicious advice which he gives.

"The student is advised always to have the bone as well as the plate before him, and, in following the letter-press, to place the former in its exact position with regard to his own body, the correctness of which may be ascertained by reference to the plates. The use of the plates without the bones cannot be too strongly denounced."

Dr. Andrew Smart has published a series of recommendations for the use of the local authority in Edinburgh, in which the measures to be taken for guarding against cholera, or grappling with its premonitory symptoms, are concisely detailed.

Dr. Mary Walker lately visited Middlesex Hospital. The students were somewhat surprised at her appearance, for it seems that she has not only donned the M.D. but the breeches as well. She wears a low-crowned plain felt hat, a dark plush coat not quite reaching to the knees, and black cloth trousers. (*Sunday Gazette.*)

ELECTION OF EDITOR.—DR. MARKHAM *having resigned the Editorship of the* BRITISH MEDICAL JOURNAL, *the* COMMITTEE OF COUNCIL *will meet at Birmingham on Thursday, the 22nd of November next, to fill up the vacancy. Communications on the subject will be received by the Secretary,* MR. T. WATKIN WILLIAMS, 13, *Newhall Street, Birmingham.*

British Medical Journal.

SATURDAY, NOVEMBER 3RD, 1866.

CHOLERA LITERATURE.*

PUBLICATIONS on the subject of Cholera continue to issue from the press. Whether they do or do not advance our knowledge of the disease, their number and variety suffice to prove how deep an interest the subject excites, and how differently it is viewed by different minds.

Sir Dominic Corrigan has re-published a map, which was originally constructed at his suggestion in 1850. The towns which suffered from cholera during the epidemic (1848 to 1850) are marked black; those which escaped the disease are marked red on the map; and it is seen that, in the western parts of Ireland, where there is a scattered population, little traffic, and little direct intercourse with other countries, scarcely a town escaped the disease; while, in the eastern half of Ireland, with its populous cities and towns, its numerous seaports, roads, and factories, presenting all the facilities for the conveyance of contagion, there is a much larger proportion of the red dotted towns, which did not suffer from the disease. Sir Dominic's object in re-publishing this map is to show, as he says, "that contagion, admitting it to exist in cholera, is an element in the spread of the disease less to be dreaded than the contagion of small-pox, typhus fever, follicular or typhoid fever, erysipelas, measles, or scarlatina; and that, therefore, there exists no good reason for considering cholera, in regard to contagion, in any light different from other epidemic diseases."

It is certain that the contagiousness of cholera is very different in kind and degree from that of most of the acknowledged infectious diseases. In this respect, it appears to resemble typhoid fever more closely than any of the other diseases mentioned by Sir Dominic Corrigan. There is this important feature which is common to the two diseases, cholera and typhoid; namely, that the specific poison of each disease is contained in the intestinal discharges, and that these discharges are the chief, if not the only, vehicle by which the disease is transmitted from one individual to another.

For a knowledge of this great fact in the history of these two diseases, we are indebted chiefly to the labours of two English physicians, the late Dr. Snow and Dr. William Budd. Dr. Budd has laboured at this subject for many years; and he has published papers of great interest in this JOURNAL and elsewhere. We trust that he will ere long give us his matured views on the interesting questions to which he has devoted so much time and thought. We believe that the only way in which the apparent anomalies represented in Sir Dominic Corrigan's map could be explained, would be by instituting a careful inquiry into the sanitary condition of each town, with reference especially to the drainage and the water supply. It would probably be found that the black towns presented a favourable soil for the reception and growth and diffusion of the cholera virus; while the red towns contrasted with the others in this respect.

One of the most remarkable illustrations of the contagiousness of cholera that we have met with, is contained in the "narrative" which stands second in the list of publications at the head of this article. The following is a condensed account of the facts, as verified by Dr. Barrow, who made careful inquiry into all the circumstances on the spot. On the morning of April 9th, the steam-ship *England* arrived about fifteen miles off Halifax having cholera on board. A pilot named Terence, with an assistant named Purcell and his son, went out to the ship in an open boat. Hearing that there was sickness on board, the pilot remained in his boat, which was towed at a considerable distance astern by a ten fathom rope. In this way, the ship, with the boat in tow, was conducted to her place of anchor. The men then went on shore, and were never on board the infected ship.

Purcell returned home the next morning (April 10th) to Portuguese Cove, eleven miles south of Halifax, and had an attack of diarrhœa on the following day (April 11th), which gradually got worse on the 12th, 13th, and 14th; by the 15th he was greatly prostrated, and then vomiting appeared for the first time. He was always free from cramps, and he recovered. Two of his children, aged 5½ and 3 years, were seized on the 16th with slight symptoms, with vomiting and debility; but quickly recovered. On the 16th, the eldest daughter, aged 15,

* The Cholera Map of Ireland: with Observations. By Sir Dominic Corrigan, Bart. Pp. 18. Dublin: 1866.
Narrative of the late Outbreak of Asiatic Cholera on Board the Steamship *England*. By Deputy Inspector-General Barrow. Statistical, Sanitary, and Medical Reports, Army Medical Department. London: 1866.
The Nature of Cholera: a Guide to Treatment. By William Sedgwick, M.R.C.S. Pp. 200. London: 1866.
The Arrest and Prevention of Cholera: being a Guide to the Antiseptic Treatment: with New Observations on Causation. By Arthur Ernest Sansom, M.B.Lond. Pp. 131. London: 1866.
Malaria the Common Cause of Cholera, Intermittent Fever, and its Allies. By A. T. Macgowan, L.R.C.P., etc. Pp. 15. London: 1866.
Cholera: its Cause, Pathology, and Cure. By I. Pidduck, M.D. Pp. 12. London: 1866.

was attacked. She was dangerously ill with every symptom of true Asiatic cholera; and the attack was followed by low fever.

Thus, four individuals were attacked out of a family of nine persons, but there were no deaths. It was believed that the type of the disease was modified by the fair sanitary condition of the house and neighbourhood. The house was in an airy situation, fifty feet above the sea; the rooms were of fair size, and the windows were kept open.

We now return to the history of the other pilot Terence. He left the anchorage of the steam-ship *England* on April 9th, in the same boat as the two Purcells, and went ashore. The next day he was employed to pilot a block-ship to the steam-ship *England*, to serve as a hospital for the cholera patients. He then returned to Halifax, without going on board the *England*. While in bed that night, he was seized with vomiting, cramps, and purging. The next morning (the 11th), he was rowed home in a boat to Portuguese Cove (where Purcell also lived), a small fishing settlement about eleven miles south of Halifax. In Terence's case, there was much collapse, followed by fever, from which he died after an illness of nine days' duration, on April 19th. On April 14th, three days after Terence returned to his home, his daughter Elizabeth, aged 5 years, was seized with acute cholera at 6 A.M., and died the same evening at nine o'clock. Next day (the 15th), three children were prostrated. Mary, aged 3 years, who slept with her father, had a severe attack, and died on the 17th, all the symptoms of Asiatic cholera having been present. Catherine, aged 9 years, was dangerously ill; she recovered after consecutive fever. Susan, a year old, at one time seemed almost at the point of death; but reaction took place, and she recovered. Out of five children living at home, only one, a boy aged 8, escaped an attack. He slept in a room by himself, and was out of doors all day. The mother escaped, although she nursed the others; and she declared that she was frequently covered by discharges from the children.

The cottage in which the Terences lived contrasted very unfavourably with that of the Purcells. It was on the lowest level of the village, near the sea; the land sloped upwards near the back of the house; and in wet weather the surface water found its way under the floor, where it was more or less dammed up. The rooms were small and ill ventilated.

No other cases of choleraic disease appeared in Portuguese Cove, or in any part of the district, with the exception of several in a family residing at Freshwater, in the immediate neighbourhood of Halifax. The history of these cases is as follows. A man named Evans, in very indigent circumstances, was living with his wife and two children in a small cottage near the sea at Freshwater. A large quantity of bedding, saturated with cholera discharges, had been thrown overboard from the steam-ship *England* soon after her arrival, and for many days was allowed to float about the harbour. Some of it drifted ashore close to Evans's abode, and a woman living in the same house declared that she had seen his children playing with it. Evans also stated to Dr. Woodhill, the medical attendant, that the two children had played with the bedding. There was also a strong suspicion that several of the family had slept on an infected mattress. On April 22nd, the eldest child, a girl about 2 years old, was seized with cholera after having had diarrhœa for nearly a week. She was conveyed to the City Hospital, and died next day. The entire family was then sent to the hospital, and kept in a state of isolation. On the 24th, two days after the seizure of the eldest child, the second, a girl aged 13 months, was prostrated. The case was a very severe one, but she recovered. Next the mother was seized on the 25th, and died on the 30th. The father had diarrhœa throughout, but declared that he was at all times subject to it.

According to this narrative, then, it appears that the ship *England*, having cholera on board, arrived off Halifax, where the disease had been unknown for many years. The two pilots, who were towed astern of the ship, were in two or three days seized with cholera; one died, and both transmitted the disease to their families. Only one other family in the district suffered; and in that case the disease was traceable, with scarcely a doubt, to infected bedding. Surely, if disease was ever communicated by infection, it was so in these cases.

The object which Mr. Sedgwick has in view in his treatise is to show that cholera is caused by "functional disorder of the central parts of the sympathetic nervous system, excited through the medium of the stomach." It would, he says, be contrary to the object of his treatise to consider the merits of other theories, and he shall, therefore, confine his attention to this one. Accordingly, we have a treatise on cholera which evinces considerable research and ingenuity; but which consistently ignores every fact and argument which does not accord with the theory of the essentially nervous character of the disease.

Mr. Sedgwick denies the existence of a blood-poison in cholera; and he does not tell us by what channel the choleraic influence reaches the nervous system. He institutes an elaborate comparison between the collapse of cholera and that well known form of collapse which results from perforating ulcer of the stomach. There are, as every one must admit, many points of contact and resemblance between these two conditions; but are there not points of difference equally striking and indisputable? The effect of treatment alone would suffice to show that there must be an essential difference between the two conditions. All are agreed that large doses of opium

afford the only hope of prolonging life in a case of perforating ulcer of the stomach. Nearly all are equally agreed that large doses of opium in cholera collapse have a deadly influence.

Again, consider the effect of venesection upon these two contrasted states. Mr. Sedgwick adduces a large amount of testimony in favour of venesection as a remedy, sometimes of marvellous efficacy, in the collapse stage of cholera. Would Mr. Sedgwick—would any practitioner in his senses—think of bleeding a patient who is cold and pulseless from the shock and pain of perforating ulcer of the stomach? Is it not certain, that such treatment would be always injurious, and often instantly fatal?

Since, then, opium and venesection have such opposite effects upon these two pathological conditions, the inference is obvious, that they must be of an essentially different character.

Our belief is, that what is common to all forms of collapse is a defective circulation, and a consequent impairment of secretion, and of all the functions which are dependent on the supply of blood. The causes of this defective circulation are different in different classes of cases. In cases of nervous shock, an enfeebled heart's action is the cause; in cases of hæmorrhage or great loss of blood-constituents, there is an absolute deficiency of blood in the vessels; while in the collapse of cholera there is an arrest of blood in its passage through the lungs, as is proved by the symptoms during life, by the effect of treatment, and by the anatomical characters of the disease discoverable after death. To ignore the differences, and to see only the resemblances, between these forms of collapse, is not, as we think, the true way to advance our knowledge of the essential nature of each.

Dr. Sansom believes that the phenomena of cholera depend upon an organic poison; and that this enters the blood, and acts as an irritant upon the great sympathetic nerve. The effect of this irritation of the sympathetic is to cause contraction of the arteries throughout the body, both systemic and pulmonary. Now, there is one part of Dr. Sansom's theory that has greatly perplexed us. He admits, as every morbid anatomist must, that, in the collapse of cholera, the pulmonary arteries are distended, and the systemic arteries are nearly empty; and he maintains that, while the contraction of the minute pulmonary arteries retains the blood in the trunks of these vessels, the contraction of the minute systemic arteries drives the blood on through the capillaries into the veins. Is it possible that the contraction of these two sets of vessels can have such directly opposite effects upon the movement of their contents? We believe not. We have no doubt that Dr. Sansom is right in his explanation of the fulness of the pulmonary arteries, and in error as to the cause of the emptiness of the systemic arteries. The arrest of the blood in the pulmonary vessels is surely a sufficient explanation of the deficiency of blood in the systemic vessels. So we think that Dr. Sansom has misinterpreted the contraction of the systemic arteries in animals narcotised by the vapour of bichloride of carbon. It is evident, from his own account of the experiments, that the blood is arrested in the lungs. The systemic arteries are, consequently, empty; and their contraction is a consequence, and not a cause, of their emptiness.

Dr. Sansom thinks that the evacuant treatment recommended by Dr. Johnson "has had a success above all other methods hitherto vaunted." He thinks, however, that "it is better to kill the germs than to remove them;" and he advises an antiseptic treatment of cholera. He particularly recommends the administration of carbolic acid and sulphite of soda. He has given these remedies with apparent benefit in a few cases; but his observations have been too few to prove that the treatment had any really beneficial influence. This method, however, appears to be worthy of a more extended trial.

Mr. Macgowan appears to be one of those pathologists who think that true philosophy consists in confounding things which are essentially different. His pamphlet is entitled, *Malaria, the Common Cause of Cholera, Intermittent Fever, and its Allies;* and he thus expounds his doctrine. We prefer to let him speak for himself, lest it should be supposed that we have exaggerated or incorrectly stated his views. He says:

"My idea concerning cholera, sun-stroke, intermittent, remittent, and typhoid fever, as seen in India, is simply this: *Malaria* causes all. We know the parable in the Scriptures. The sower went out to sow, and some seed fell on good ground, other on stony ground; and so forth. Malaria is sown in one of good constitution, and intermittent fever of marked type and daily occurrence takes place. Let the same be sown in a weakly man, who has suffered from previous attacks, and remittent fever will result, relapsing surely into typhoid, if the doctor uses depletive measures. In another, congestion of the lungs and effusion on the brain is caused, or sun-stroke; in another, congestion of the bowels and effusion, or cholera. But it has all the same beginning, that beginning being the inhalation of malaria, which acts immediately on the nervous system, whose sudden derangement paralyses for a time the circulation of the blood."

Having thus introduced Mr. Macgowan to our readers, we leave them to draw their own conclusions—first, as to the soundness of his pathological doctrines; and secondly, as to the correctness of his taste in the use of scripture illustrations.

Dr. Pidduck believes that the cause of cholera is a subtle poison diffused through the air. Whatever be the second cause, he says, "doubtless it must be primarily traced to a Divine visitation." He argues thus:

"For dirt and squalor, unwholesome food and impure water, overcrowded and badly ventilated lanes and alleys, garrets and cellars, have always existed

in our metropolis and other large and densely inhabited cities and towns; but cholera does not always exist; so that the mysterious poison which imparts to these peculiar localities a facility for propagating this disease must come directly from God."

We fail to see the force of this argument; and we certainly would not permit a careless water-company or a negligent landlord to plead it in extenuation of guilt, or in mitigation of punishment. In the treatment of the disease, Dr. Pidduck's main object is, by the use of diluents and evacuants, to assist the natural efforts to expel the poison from the alimentary canal. He says:

"It is safer to do nothing than to injudiciously interfere and stop the diarrhœa. The most common, nay, almost universal mismanagement, is that of administering opiates and astringents to arrest the vomiting and purging."

We do not hesitate to express our conviction that, if the disease had always and in all places been treated in accordance with the principles which are advocated by Dr. Pidduck, the balance of good conferred upon cholera-stricken humanity by the medical profession would have been very largely in excess of what it now is.

HOMŒOPATHIC LIFE-ASSURING.

The following indicates a clever method of attempting to raise a business; but the scheme does not seem promising in the future from its history in the past. A journal tells us that, it having been found that treatment by homœopathy increased the value of human life, a Life Assurance Company took the hint, and started on this platform into life. But "this Company was, for some cause, merged into another. The principle was correct, but the scheme was badly supported." In fact, as the Yankees say, it wouldn't float. Then came a better scheme (founded on truly homœopathic principles), offering to treat the victim either homœopathically, or, if he preferred it, on ordinary assurance principles; of course, the homœopathic life-insurer being done the cheapest. We are not told if any provision was made for a change of principles, nor if this plan was more successful than the former. However, there is, at all events, a chance for every one now. The *Empire Assurance Corporation*, with a moderate capital of half a million, has opened a *homœopathic section* for people of this credulity.

"But the Directors have not felt justified in making, in advance, a reduction of the premium rates; but they are assured by those who have mainly promoted the homœopathic section, that at the end of each quinquennial period for the division of profits, an advantage will be shown in favour of the assured in this section. The business in this section will be kept entirely distinct from the general business; so that by this means the Directors will be able to compile statistics from time to time, by which will be ascertained the comparative value of lives in the homœopathic and general sections."

If our homœopathic friends will consider this promise of the Directors equivalent to a reduction of 10 per cent. on the premiums, we can only say their credulity is even bigger than we thought it to be.

On Monday last, an unofficial assembly of Fellows of the College of Physicians met at the College, in order to send a deputation to wait upon Sir Thomas Watson, and present him with a memorial requesting him to sit for a portrait to be suspended in the College as a lasting token of the respect and admiration of his cotemporary Fellows. The deputation, consisting of Drs. Alderson, Burrows, Jackson, Bennett, Sibson, Buchanan, and Markham, was unanimously voted. Out of 231 Fellows—of whom 16 have no address—no fewer than 189 have signed the memorial.

We have to remind our readers that a meeting of the Medical Club will be held in the Hanover Square Rooms, on the 8th inst., at 2 P.M., to promote the formation of a club in London (the name of which will be decided at the general meeting), for the social intercourse of members of the medical profession, graduates in science, noblemen and gentlemen, members of scientific societies. Sir William Fergusson will take the chair.

We have had our famous Muck-Manual, and we have now a Sewage Congress, lately holding a sitting at Leamington. Leamington has got into Chancery about its sewage, and *à propos* comes a Congress to help it out of its legal slough. This unfortunate town is therefore literally in a double mess. At present, its sewage water is deodorised by the "lime process", and then allowed to run into the river Leam, before its confluence with the Avon. This the Court of Chancery holds to be a nuisance to the residents on the banks of the river. The advocates of the "dry-earth closet" mustered strongly, and the irrigation scheme had its friends, who pointed to Croydon and Worthing with pride. The Congress met under the presidency of Lord Leigh. Dr. Hawkesley was the chief expositor of the earth-closets, and led off with a paper. After dilating upon the uses and abuses, the benefits and the diseases of excrementitious matters, he said that

"Half a century ago, a well-meaning individual invented water-closets, which quickly became in general use. Thus the unintentional error of one man became the source of their present difficulty, and bade fair to sap the health of the nation. He had invoked a monster which even now overshadowed ten large towns, and cast its baneful and destructive effects over the land. Day by day thousands of tons of animal refuse and human excreta were washed into the sewers; and though they might fondly imagine it was washed away, a portion of the gelatinous matter clung round the walls and sides of the drains, and became the constant source of disease. He then proceeded to point out the advantages of the earth-

closet system, by the use of which human excreta became absorbed; and in place of being a nuisance, became a valuable fertilising manure. If removed and attended to twice or thrice a week, it became easy, convenient, and perfectly practical. He then detailed a plan for the adoption of the system to London."

In speaking of the Endoscope in the *Lancet*, Mr. Henry Thompson says:

"He is convinced that patients suffer greatly from unnecessary instrumental interference. The really valuable maxim which I implicitly believe to underlie all success in the surgical treatment of urethral and vesical disease, is to diminish as much as possible all sources of mechanical irritation."

He fears that the endoscope may lead to mischief in this way, and without affording any commensurate benefit.

Dr. A. H. Howe, in *Reflections on Cholera*, says that in a book he wrote in 1865, his "object was to demonstrate that epidemic diseases, so far from occurring at random and indiscriminately, observe certain fixed laws and periods of recurrence, which it is very easy and simple to calculate"; and that "a period of eighteen years and a half is the term of their periodical return. Now, if my theory is correct, it is evident that an epidemic of cholera was due in the year 1849, as the first epidemic visitation of cholera occurred in 1831. Cholera did come, according to my anticipation and computation, as a universal epidemic in the year 1848-49. I determined that I would again wait for the next expected return of cholera in 1866, resolving, in this instance, that if the epidemic should again become prevalent and universal, and my conclusions should again be verified, I would give my labours to the public, and that if cholera did not become a universal epidemic in the year 1866, I would suppress my views altogether. The year 1866 has arrived, the cholera epidemic has come." Dr. Howe says that he then carried his inquiries back into past times. "I carried the eighteen years and a half theory into the most remote periods of time from which we can derive anything like authentic data relating to the subject of epidemic diseases, and I found that the same law of recurrence pervaded and embraced them all, however remote." The doctor seems to have forgotten that we had the cholera in 1854. How does this chime in with his eighteen year interval theory?

The present condition of the Paris Faculty of Medicine is exciting considerable attention. No less, it would appear, than seven of the actual professors, who are temporarily or permanently incapacitated for lecturing, are represented, or rather replaced, by *agrégés*—by assistants. *L'Union Médicale* declares that the only remedy for this crying evil is the *Concours*.

"The necessity is demonstrated," says M. Diday, "in the actual fallen condition of our faculty. What is the meaning of this progressive decay, which excites even the lethargic and disturbs the most stoical quietism? It is the gradual disappearing of those professors who were originally nominated by *concours*."

The disappearance of the *concours* and the degeneration of the faculty have gone on together.

"Deprived of the elements which kept it in a perfect state of nutrition, the faculty loses its strength just in proportion as it has to seek its new recruits from imperfectly elaborated materials which are introduced, without preparation, into its economy? Already engorgement, stasis, and consecutive atony have arisen; the next step will be a fatal embolism."

Lady nursing at Lincoln Hospital is most unlucky. Two superintending ladies, Miss Neville and Mrs. Whitehead, have died from diseases caught within the hospital. The third lady appointed has, we are informed, sent in her resignation. It appears that her efforts do not suit the running of the ordinary official wheels, and hence disagreements. Her supporters say that she has not had a fair trial; but has been thwarted and impeded in her movements. In the meantime, the Governors hesitate in accepting her resignation. If all we hear of this hospital be true, surely the Governors had better expend their energies in reforming its constitution, than in vain squabbles about lady nursing.

The Annual Report of the Vienna General Hospital has just been published. During 1865, there have been treated in it 20,915 patients, of whom 12,295 were cured, 2,565 died. There were 1,542 *post mortem* examinations.

The cholera at Vienna is rapidly on the decrease. One cholera ward in the General Hospital has been closed.

In the Report of the Medical Association of Moselle, we are told of a case in which a woman refused to pay her doctor for more than one visit. She admitted in court that he had cured her of a severe illness; but said she only sent for him once; if he came oftener, that was his look out. The judge took the same view of the case; and the doctor got for his action an order to pay the costs of it!

M. Jarjavay this year delivers the opening address at the Academy. The subject of it will be Malgaigne. At the Academy of Medicine, the subject of the discourse, which is to be delivered by M. Béclard, will be Professor Gerdy.

Dr. McEvers says:

"That in all cases where the forceps has been introduced, and has failed to deliver, perforation having been subsequently determined on, the forceps should be allowed to remain on the head of the child whilst perforation is being performed, as delivery will then be most easily accomplished."

THE CHOLERA.

The Registrar-General's weekly return shows 1394 deaths in London during last week, being 123 over the average. The excess is set down partly to the account of bronchitis. During the week, there were 112 deaths from cholera and 32 from diarrhœa; the two together being 55 lower than during last week, which was just 55 below the week before. The decrease, which is very satisfactory, would have been even greater but for the 30 deaths from malignant cholera at Woolwich and Plumstead.

Mr. Rugg tells the Registrar-General that "four fatal cases of cholera have occurred along the line of the southern outfall sewer, and just at the point where its ventilation commences—a ventilation that is by no means perfect there, inasmuch as it is made through the steam factory shaft, the fires of which are alight during the day only."

Dr. Finch, Medical Officer of Health for Charlton, writing on October 25th, states "that during the last twenty-four hours a severe outbreak of cholera has occurred in my parish, and seven cases have proved fatal, the duration of the attack varying from eight to sixteen hours. They have all occurred in the marsh district, where there are streets of small houses built on the soil without any basement whatever, and many of them flooded at present with water from the tidal ditches with which they are surrounded. These houses are much below the level of high-water mark."

The convocation of the Hungarian Diet has been postponed in consequence of the cholera. During the epidemic, 48,845 persons have been attacked, of whom 21,556 have died, in Hungary.

A meeting of the fellows, professors, students, and graduates of Trinity College, Dublin, has been held for the purpose of organising a subscription in aid of the cholera wards of Sir Patrick Dun's Hospital, and to express the thanks of the meeting to the medical scholars for the services rendered by them during the past trying summer.

A report published by the Lord Mayor shows that fifty-six local committees and fourteen hospitals had furnished the Committee with an aggregate return of 4396 deaths from cholera and 646 from diarrhœa. The total number of deaths from cholera, however, is probably nearer 8000 than 4000. In Austria, it is computed that at least 100,000 lives have been lost, and there was hardly a week in which the deaths in London were not exceeded by those in some continental city with scarce a tenth of our population. That much of this exemption is due to sanitary improvements cannot be doubted.

The medical officers of health have given an interesting account of the hygienic measures now in operation, showing an amount of vigilance and efficiency in some districts for which the local authorities and their excellent health-officers have not obtained due credit.

The health-officers of Bristol and Birkenhead, as well as of London, bear ample testimony to the utility of the disinfection of the cholera dejections by chemical agents. This can only be done effectively and kindly under medical supervision. It is a difficult chemical experiment, to perform by a practised operator. To place carbolic acid, or chloride of zinc, or permanganate of potash, in the hands of people who have never seen these substances, know none of their properties, and have just been terrified by the sudden loss of a father, a mother, or a child, is to do nothing. The poor people cannot be expected to know how a house is to be disinfected, and still less to perform the operation.

At the American Social Science Association, Dr. Read of Boston read a paper in which he maintained that cholera is not epidemic, but infectious, and communicable in various ways. Dr. Read argued that, to ward off the disease, the circle of exclusion must be made complete by some central authority; and he suggested united action between the United States Government and that of the British provinces to effectually guard the entire sea-coast when the disease threatened to approach. Certainly, he argued, it was better that the few who wanted to enter the community should be inconvenienced, than that the many should be exposed to danger; and the same principles which would govern us in our families, under similar circumstances, should obtain in matters of public concern.

Association Intelligence.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT MEETING.

The second meeting for the tenth session, 1866-7, was held at the West Kent General Hospital, Maidstone, on October 26th, 1866; F. Fry, Esq., in the Chair. Sixteen members and visitors were present.

The Secretary stated that Mr. Hoar had excused himself from accepting the appointment of chairman, in consequence of his late domestic affliction; upon which the members expressed their sympathy.

Next Meeting. Samuel Gould, Esq., was chosen chairman of the meeting to be held at Gravesend in March 1867.

Communications. The following communications were made.

1. Ague in connexion with Gout. By James V. Bell, M.D. The author alluded to the difficulty of correct diagnosis and of satisfactory treatment in compound disorders; and he illustrated his remarks by instances of ague occurring in a manifold form with other diseases in malarious districts. The author also entered on a similar consideration of the Protean forms of gout that complicate other maladies. His statement was, that long continued irritability of stomach or of urinary organs, also obscure nervous symptoms, if not otherwise accounted for, will prove in the end to be due to gout. When gout and ague concur in an individual, mixed treatment becomes necessary; such as quinine or arsenic for the ague; and bicarbonate of potassa, iodide of potassium, and colchicum, for the gout. The author referred to the observations of Dr. Easton of Glasgow on the composition of the blood and urine in gout and in ague: uric acid in the blood, and oxalate of lime in the urine, in gout; uric acid in the urine in ague. The author expressed his conviction that the eliminative powers of the system are diminished by the concurrence of gout and ague. He related several cases illustrating his remarks. In two or three cases, ammonia proved highly serviceable.

2. Brain-Disturbance in the Course of Rheumatic Pericarditis. By S. Monckton, M.D.

3. A patient was exhibited by Mr. Matthew Adams. The particulars of the case were, recurrent hæmorrhage into the vitreous space, causing temporary blindness; four attacks from June 1863 to January 1866; both eyes affected; patient had enteric fever at age of seven years, and ague in after years.

4. A morbid specimen was exhibited by Mr. Cooper Forster; viz., Traumatic Urethral Stricture; perinæal section; death by pyæmia.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.

The next meeting of the above Branch will be held at the Midland Institute, on Thursday next, Nov. 8th. The chair to be taken at 3 o'clock.

The following papers will be read:—On the Cardiograph and Sphygmograph. By B. W. Foster, M.D. On some Fallacies in the Diagnosis of Phthisis. By W. F. Wade, M.B. On Rheumatic Iritis. By J. Vose Solomon, Esq.

T. H. Bartleet, *Hon. Sec.*

COMMITTEE ON THE OBSERVATION AND REGISTRATION OF DISEASE.

1, St. Peter's Square, Manchester, Oct. 29th, 1866.

Sir,—I have been requested by the Committee on the Observation and Registration of Disease to forward to you, for publication in the British Medical Journal, a report of a portion of their proceedings at a meeting which took place on October 11th, at the rooms of the Manchester and Salford Sanitary Association. I also subjoin a letter from Dr. Farr, in answer to the resolutions passed at this meeting.

I am, etc., Arthur Ransome, *Hon. Sec.*

To the Editor of the British Medical Journal.

Mr. Rumsey called the attention of the Committee to Dr. Farr's recent letter to the Registrar-General, in which he has suggested an important improvement in the machinery of mortuary registration, with the object of verifying the fact of death, identifying the person of the deceased, and, as accurately as possible, investigating and recording the cause of death.

Dr. Farr's plan may be thus briefly described.

1. That a specially qualified registration medical officer should be appointed in each of the registration districts of the kingdom.

2. While certificates of the cause of death should still be received from the (family) medical attendants, provided they have seen the deceased on the day of death, or have seen the body subsequently for identification—that, in every case of death not thus certified, and in every case without medical attendance up to the date of death, or in which the certificate could not be obtained from a legally qualified medical attendant, it should be the duty of the proposed officer to visit the body, and, if all were clear and satisfactory, to certify the probable cause of death, thus authorising the Registrar to issue the usual certificate for burial.

3. That, if the case were enveloped in any suspicion or obscurity, the registration medical officer should refuse his certificate until an inquest had been held or refused by the coroner, "whose inquiry should by no means be superseded"; and that, if necessary, the proposed officer should appear as medical witness (or assessor) at the inquest, and should conduct *post mortem* examinations when ordered by the coroner.

4. That still-born children should be seen by the registration medical officer, whose certificate to the effect that they were still-born would authorise their burial without funeral rites.

5. That this officer, visiting the dwellings of the poor in unfavourable sanitary conditions, would discover and point out the evils of these conditions to the families themselves, and to the authorities, especially in seasons of cholera, fever, or other epidemics; that it would be his duty to give advice concerning the removal of such conditions; and, in certain cases of infection or overcrowding, to direct the prompt removal of the corpse to a mortuary-house, if such were established under recent legislative provisions. The authorities would in most cases find it convenient to make him the health officer of the district.

6. That, while he should be entitled for his medical certificate to a regulated fee "sufficiently high to command the services of a good class of the profession", a portion of his pay should come out of the rates and out of the Consolidated Fund.

7. That the appointment and remuneration of this officer by local authorities should be subject to the approval of a central authority, and to general rules which should be laid down as to qualification.

The following resolutions were then passed unanimously by the Committee.

1. That this Committee, recognising the importance of Dr. Farr's proposition for the appointment of a registration medical officer, in every Superintendent-Registrar's district, strongly urge him to press it to a successful issue, and assure him of their hearty co-operation.

2. That, in the opinion of this Committee, such a medical officer would be the suitable authority for collecting and publishing periodical returns of disease, obtained by local associations.

3. That the districts for the registration of disease should be based on the division of the country for the registration of births, deaths, and marriages.

4. That it is desirable that voluntary associations should be formed in each of the above districts, to carry out the scheme of registration of disease adopted by this Association. (See British Medical Journal, August 25th, p. 229.)

5. That the Honorary Secretary be requested to send a copy of the above resolutions to the British Medical Journal, along with some account of Dr. Farr's proposition.

[copy.]

General Register Office, Somerset House, Oct. 26th, 1866.

Dear Sir,—I have the honour to acknowledge the receipt of your letter, as Secretary of the Committee of the British Medical Association on the Observation and Registration of Disease.

It is particularly gratifying to me to learn, from the account you give of a portion of their proceedings, at a meeting held at the rooms of the Manchester and Salford Sanitary Association on October 11th, that the Committee recognise the importance of the propositions which I had the honour to submit to the Registrar-General, with a view to improve the arrangements for the correct registration of the causes of death.

The deliberate expression of opinion in favour of the appointment of a registration medical officer in every district by so competent a Committee, confirms my conviction of the public utility of such an officer.

The Committee strongly urges me to press the proposal to "a successful issue." I will do all I can to comply with this request, more particularly by bringing their letter under the notice of the Registrar-General, who, I feel confident, will attach great importance to this expression of opinion by so important an Association.

If I may venture to make a suggestion, it is this: that the Committee should bring their own views on the subject immediately before the Registrar-General and the Secretary of State for the Home Department. At the same time, even if these eminent officers of the Government be favourable to the measure, it could only be carried out by an Act of the legislature, under the influence of enlightened public opinion.

The proceedings of your Committee will contribute to create this influence.

I have the honour to be, dear sir,
Your faithful servant,
W. Farr.

Arthur Ransome, Esq., M.D., 1, St. Peter's Square, Manchester.

Correspondence.

REDUCTION OF DISLOCATIONS OF THE JOINTS BY MANIPULATION.

Letter from John Birkett, Esq.

Sir,—I send you a very brief report, with the dates, of the cases of dislocations of the hip-joint reduced by myself, and which have been under my care in Guy's Hospital.

I will not needlessly occupy space in your columns by comments, as the cases speak for themselves; except to add that all recent cases of dislocation have been so reduced for many years at Guy's.

1. 1848, February. Dislocation into foramen ovale; a female, aged 22.
2. 1849, December. Dislocation on to dorsum ilii; a female, aged 45 to 50—the twenty-second reduction.
3. 1850, February. Dislocation on to dorsum ilii; a female, aged 29.
4. 1850, February. Dislocation into ischiatic notch; a muscular male, aged 56.
5. 1851, April. Dislocation into foramen ovale; a very muscular male, aged 30.
6. 1854, January. Dislocation on to foramen ovale; a very muscular male, aged 28.
7. 1854, March. Dislocation on to foramen ovale; a male, aged 13.
8. 1855, April. Dislocation into ischiatic notch; a female, aged 36.
9. 1855, September. Dislocation into ischiatic notch; a female, aged 9 to 10.
10. 1858, August. Dislocation on to dorsum ilii; a male, aged 53.
11. 1859, April. Dislocation into ischiatic notch; a male, aged 26.
12. 1860, March. Dislocation on to ramus of the pubis, with simple fracture of the same femur at its upper and middle third; a male, aged 12. The value of this method was most strikingly exemplified in this case; for we literally replaced the head of the femur in the acetabulum with the hands.
13. 1861, October. Dislocation on to dorsum ilii; a female, aged 31.
14. 1863, March. Dislocation on to dorsum ilii; a male, aged 47.
15. 1864, March. Dislocation on to dorsum ilii; a male, aged 66, knocked down in the streets, and complicated with simple fracture of the left clavicle and several of the ribs on the left side. The patient, however, completely recovered.
16. 1864, September. Dislocation into ischiatic notch; a very muscular man, aged 52.

All these patients were under the influence of chloroform at the time of the reduction of the dislocation.

Thus, six dislocations of the femur on the dorsum ilii; five into the ischiatic notch; four into the foramen ovale; and one on the ramus of the pubes; were reduced by manipulation without the aid of pulleys during the last eighteen years. I am, etc.,

John Birkett.

59, Green Street, Grosvenor Square, Oct. 27th, 1866.

INJECTION OF ACETIC ACID IN CANCER.

Letter from John Barclay, M.D.

Sir,—In the report given by the *Medical Times and Gazette* for October 20th of the late meeting of the Pathological Society, I notice a discussion on the "Treatment of Cancer by the Injection of Acetic Acid". Mr. Moore takes to himself the credit, and I believe most deservedly, of first treating cancerous tumours by injection, having "for a year and a half treated cancerous tumours by the injection of different fluids." But it is what follows in his remarks that I take the liberty of trying to correct; namely, this: "But it had been," he said, "reserved for Dr. Broadbent to suggest the material which seemed likely to be most useful." Now, a reference to dates will, I think, make the matter sufficiently clear as to who was the first to suggest the use of acetic acid. By referring to the number of the British Medical Journal for April 21st, 1866, it will be found that I began to employ citric acid in the treatment of cancer in the beginning of September 1865, though this was by no means the first time that citric acid had been so used; that a few weeks afterwards, "remembering the solvent power of acetic acid over cancer cell-walls," it occurred to me to try the effect of this substance; and lastly, that on December 28th, 1865, the use of carbolic acid was first begun (proposed by Dr. Manson of this place). The details of treatment by all these acids are given in said paper. By turning now to Dr. Broadbent's pamphlet, I find that this gentleman did not begin the acetic acid treatment till the 18th of May, 1866, nearly four weeks after the appearance of my communication in this Journal; and that he did not employ carbolic acid until the 14th of July, about two months later. So that, as far as I can discover, the facts of the case, as regards priority of suggestion, are as follows. Mr. Moore was the first to suggest the treatment of cancer by injection, "a year and a half" ago; I first suggested the treatment of cancer by acetic acid on April 21st, 1866; and Dr. Broadbent made a combination of the above suggestions, and brought them to a more practical result on May 18th, 1866. I do not deny, however, that Dr. Broadbent deserves more credit for what he has done than either Mr. Moore or myself; and I hope that the first named gentleman will soon be able to give us a further list of cases as satisfactory as those he has published in his admirable pamphlet. I am, etc.,

John Barclay.

Banff, October 25th, 1866.

LADY NURSES IN HOSPITALS.

Sir,—In the Journal of October 20th, you take notice of a report from the *Times* of the introduction of lady nurses at the Woolwich Hospital, which you conceive to be an invention of the "enemy", because it is stated that our *braves* object to the attendance of female nurses. I do not perceive the slightest occasion for alleging that such complaints from our sick soldiers need be an "invention".

There is no medical man who is not ready to acknowledge, because he has too frequently to lament, the want of good nursing to his patients; but I think it will be admitted that properly trained male nurses are in most cases superior to nurses of the other sex; and I can readily enter into the feelings of the soldiers who have expressed themselves dissatisfied with the change.

The movement for establishing hospital sisterhoods, lady nurses, etc., has for a length of time been fashionable; but I think, from a feeling of de-

ference to the *fair sex*, the opinions expressed have been too much on one side.

There was an illustration given in the JOURNAL two or three weeks ago as to what occurred in a hospital in Spain, where the "sisters" not only acted in opposition to the instructions of the physicians, but also showed a great want of ordinary humane feelings. We frequently hear of complaints from our brethren in France as to the interference of "sisters" with their patients; and is it not possible that our lady nurses, backed as they are by the clergy, will not in time, when they have obtained a firm foothold, become troublesome and obstructive to ourselves?

The great value attached to the services rendered by lady nurses to our soldiers in the Crimea, and which I do not wish to depreciate in the slightest degree, has given rise to this nursing movement; but it did not originate, so far as I am aware, from any want of efficiency or demoralisation on the part of what male nurses could be obtained to attend upon their sick comrades; and the only occasions on which I consider females may be admissible into military hospitals arise when there is a paucity of male attendants.

During the late war in the United States of America, lady nursing was found to be inoperative, and that in a country where women can with propriety assert their *rights*, and are at liberty to maintain them too, if they can hold the "position".

I may observe, that I for some time attended the practice of the large civil hospitals in New York, and I do not recollect having seen a female nurse (or female doctor!) in attendance at any of them.

I am, etc., N. Y.

October 22nd, 1866.

DR. HASSALL. Her Majesty has granted a pension on the Civil List to Dr. Arthur Hill Hassall for his public and scientific services. We are happy to learn that Dr. Hassall's health has somewhat improved.

THE CATTLE-PLAGUE. A brief return tells that the cattle-plague is all but "stamped out." Only a very few sparks now remain, and they get fewer every day. There were only six attacks last week, one in Essex, one in Shropshire, and four at Northwich, in Cheshire. There have been more than 250,000 attacks; more than 200,000 animals have died, or been killed, and only about 33,000 recovered. The return observes that "since the commencement of the disease 51 in every 1,000 of the estimated ordinary stock of cattle in Great Britain are returned as having been attacked." This is more than one in twenty for the whole island, one of its chief characteristics is the want of uniformity. Cheshire has been the principal sufferer, having had 67,000 cases.

QUEKETT MICROSCOPICAL CLUB. The ordinary monthly meeting took place in the library of University College, on the 26th inst.; Ernest Hart, Esq., President, in the chair. Mr. Highley, F.G.S., read a paper on Shore Collecting; wherein he described the dress and implements most suited for such explorations; how to search the sands, seaweeds, clefts in rocks, ledges, rock-basins, and under boulders, and what animals, microscopic or otherwise, were most likely to be found in each of these several retreats for the ocean's inhabitants. A *Conversazione* followed, in which many objects of interest were exhibited, amongst which was a new form of microscope of novel construction, by Mr. Cole. Nineteen members were proposed, and twenty-eight new members were elected.

Medical News.

APOTHECARIES' HALL. On October 25th, 1866, the following Licentiates were admitted:—

Bowen, David, Newport, Pembrokeshire
Coombs, Rowland Hill, Bedford
Cremonini, John, Tettenhall, Staffordshire
Denton, Frederick George, Claycross
Grime, John, Blackburn, Lancashire
Hall, John Henry Wynne, Barking Road, E.
Heelas, Martin Luther, The Holt, Wokingham, Berks
Levick, George, West Ham, Essex
Marriott, Osborne Delano, Sevenoaks, Kent
Wilkinson, Alfred George, Aston Road, Birmingham

APPOINTMENTS.

ROYAL NAVY.

ELKINGTON, Staff-Surgeon A. G., to be Battalion-Surgeon Grenadier Guards, *vice* Surgeon-Major C. R. Nicoll.

GILBORNE, Surgeon R., 6th Dragoon Guards, to be Surgeon-Major, having completed twenty years' full-pay service.

MADDEN, Surgeon J., 8th Foot, to be Surgeon-Major, having completed twenty years' full-pay service.

MANDEVILLE, Surgeon E. W. T., 7th Foot, to be Surgeon-Major, having completed twenty years' full-pay service.

NICHOLSON, Staff-Surgeon B., M.D., to be Surgeon-Major, having completed twenty years' full-pay service.

VOLUNTEERS, (A.V.=Artillery Volunteers; R.V.=Rifle Volunteers):—

BAKEWELL, R. H., M.D., to be Assistant-Surgeon 3rd Staffordshire R.V.

JEAFFRESON, C. S., Esq., to be Assistant-Surgeon 1st Warwickshire R.V.

BIRTHS.

EVANS. On October 26th, at Northampton, the wife of *Charles Jewel Evans, Esq., of a daughter.

RIDINGS. On October 21st, at Walmer, the wife of W. G. Ridings, Esq., Surgeon R.N., of a daughter.

MARRIAGES.

DAVSON, Smith Houston, M.D., of Carlton Terrace, Kilburn Park, to Rose Annie, second daughter of Henry CHAPMAN, Esq., of Lee, Kent, on October 27.

EVANS, Thomas Hornby, Esq., to Emily A. F., second daughter of W. WEBBER, Esq., Surgeon, at St. George's, Hanover Square, on October 25.

WALKER, I. William, Esq., of St. Arnaud, Victoria, eldest son of *Thomas Walker, M.D., of Peterborough, to Charlotte Henrietta, eldest daughter of the late Herbert CORNEWALL, Esq., of Delbury Hall, Shropshire, at Clewer, Windsor, on October 23.

DEATHS.

*BURNETT, C. Mountford, M.D., at Alton, Hants, aged 59, on October 25.

CONQUEST, John T., M.D., at The Oaks, Plumstead Common, Kent, aged 77, on October 24.

TESTIMONIAL TO MR. WILKINSON OF HARTHILL. A testimonial, consisting of a claret-jug and cup and a pair of grape-scissors, has been presented to Mr. Wilkinson of Harthill by the ladies of Barlborough, as a mark of their sense of the manner in which he has discharged his professional duties more than thirty years. The claret-jug bears the following inscription: "Presented to William Wilkinson, Esq., by the inhabitants of Barlborough, as a token of their regard, October 1866."

THE BIRMINGHAM HOSPITALS. Sunday last was the annual occasion when, at all the churches and other places of public worship in Birmingham, a collection is made in behalf of the local charities, two of the principal of which take the fund in turn, and the third year the amount obtained is divided among the miscellaneous charities. It is tolerably certain that the aggregate will considerably exceed £4000. This year the proceeds go exclusively to the Queen's Hospital.

Victorian Medical Benevolent Association. The first annual meeting of this Association was held in the board-room of the Melbourne Hospital, on May 9th ult. The committee stated that a large measure of success has followed the establishment of the association. They had received many replies, all expressive of satisfaction at the formation of the association, and enclosing subscriptions and donations.

Medical Students. From the following return it will be seen that the number of entries at the eleven metropolitan hospitals, namely, Guy's, St. Bartholomew's, University College, King's College, St. Mary's, St. George's, St. Thomas's, Middlesex, London, Charing Cross, and Westminster, is this year above that of preceding sessions. In 1863 there were 354 new entries, or first year's men, making, with old students, a total of 1,020. In 1864 there 309 freshmen; total at all schools, 995. In 1865 the new entries had increased to 321, total, 1,013. In the present October session, 362 new students have registered their names at the Royal College of Surgeons, making a total of 1,027 gentlemen now pursuing their medical studies in this metropolis. Guy's, St. Bartholomew's, University and King's Colleges still take the lead. The return from the provincial schools has not yet been compiled, but it is stated that the new entries in Ireland are satisfactory. As the Scotch session does not commence until November, it is imposible to ascertain at present what the number attending the northern schools will be. The number of qualified members of the profession in Great Britain has decidedly diminished during the past few years, but this is due more to the openings for young medical men in India, the colonies, the government emigration, peninsular, and other services, than from any dearth in the supply of medical students, since, with over a thousand pursuing their studies in London alone, the vacancies in the profession must be rapidly filled up.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

Tuesday. Pathological Society of London, 8 p.m.—Anthropological Society of London, 8 p.m.

Wednesday. Obstetrical Society of London, 8 p.m. Dr. Braxton Hicks, "On the Pathology of Puerperal Eclampsia"; Dr. Madge, "On the Relation of the Mother and Fœtus"; Dr. Shortt, "On Criminal Abortion"; and other papers.

BOOKS RECEIVED.

1. Cholera: its Seat, Nature, and Treatment. By Charles Shrimpton, M.D. London: 1866.
2. Contributions to Medicine and Midwifery. By T. E. Beatty, M.D. Dublin: 1866.
3. The Study of Botany in Connection with Pharmacy. By R. Beasley, Esq., F.L.S. 1866.

OPERATION DAYS AT THE HOSPITALS.

Monday.....Metropolitan Free, 2 p.m.—St. Mark's for Fistula and other Diseases of the Rectum, 9 a.m. and 1.30 p.m.—Royal London Ophthalmic, 11 a.m.

Tuesday. .... Guy's, 1½ p.m.—Westminster, 2 p.m.—Royal London Ophthalmic, 11 a.m.

Wednesday... St. Mary's, 1 p.m.—Middlesex, 1 p.m.—University College, 2 p.m.—London, 2 p.m.—Royal London Ophthalmic, 11 a.m.—St. Bartholomew's, 1.30 p.m.—St. Thomas's, 1.30 p.m.

Thursday.....St. George's, 1 p.m.—Central London Ophthalmic, 1 p.m.—Great Northern, 2 p.m.—London Surgical Home, 2 p.m.—Royal Orthopædic, 2 p.m.—Royal London Ophthalmic, 11 a.m.

Friday..... Westminster Ophthalmic, 1.30 p.m.—Royal London Ophthalmic, 11 a.m.

Saturday.....St. Thomas's, 9.30 a.m.—St. Bartholomew's, 1.30 p.m.—King's College, 1·30 p.m.—Charing Cross, 2 p.m.—Lock, Clinical Demonstration and Operations, 1 p.m.—Royal Free, 1.30 p.m.—Royal London Ophthalmic, 11 a.m.

TO CORRESPONDENTS.

*** *All letters and communications for the* Journal, *to be addressed to the* Editor, 37, *Great Queen St., Lincoln's Inn Fields, W.C.*

Communications.—To prevent a not uncommon misconception, we beg to inform our correspondents that, as a rule, all communications which are not returned to their authors, are retained for publication.

Correspondents, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

The Publisher begs to intimate that orders for Journals sent by post must be accompanied by stamps for the amount. Price of each number is, by post, *sixpence.*

COMMUNICATIONS have been received from:—Dr. C. Handfield Jones; Dr. Waters; Dr. T. Fox; Mr. C. J. Evans; Mr. Henry Greenway; Mr. A. B. Steele; Mr. T. E. Clark; Dr. John Barclay; Mr. E. Mackey; Dr. Wade; Mr. Birkett; Mr. J. R. Humphreys; Dr. Gidley; Dr. E. Lawford; Dr. Frederick J. Brown; Dr. J. V. Bell; Dr. E. Andrew; The Honorary Secretary of the Obstetrical Society; Mr. J. P. Cæsar; Mr. Startin; Mr. Aubin; Mr. Jones; and Mr. T. H. Bartleet.

ADVERTISEMENTS.

Diabetes. — Blatchley's Bran BISCUITS and BRAN POWDER for making Dr. CAMPLIN'S BRAN CAKES, carefully freed from starch, and finely ground by steam. Prepared, and sold as supplied to all the Hospitals in England, by E. BLATCHLEY, 362, Oxford Street, W. 1s. 6d. per lb., or in boxes at 5s., 10s., and 20s. each, with directions for use. (See Dr. Camplin's work on Diabetes, p. 58.)

"Mr. Blatchley supplies prepared bran powder of a very superior description."—Dr. Hassall on Diabetes, 2nd Edition, p. 179.

Surgical Instruments.— Arnold & SONS continue to supply Instruments of the best workmanship at moderate prices, manufactured on the premises under their own superintendence.

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Clinical Lecture

ON

CHOLERA AND ITS TREATMENT.

Delivered October 8th, 1866.

BY

GEORGE JOHNSON, M.D., F.R.C.P.,

PHYSICIAN TO KING'S COLLEGE HOSPITAL; PROFESSOR OF MEDICINE IN KING'S COLLEGE; ETC.

I AVAIL myself of the very earliest opportunity to give you the results of my experience of cholera during the present epidemic. Our experience here within the walls of the hospital has been very limited. We have had only twenty cases of actual cholera, and twelve of these have been fatal cases.* A mortality of sixty per cent. appears sufficiently unsatisfactory. I scarcely need tell you, that our cases have been too few to afford a trustworthy average of the results of treatment. When the numbers are small, the accidental concurrence of a few intractable cases gives an entirely fallacious result.

We had two large wards ready for the reception of cholera patients; and we were prepared to put our plan of treatment fairly to the test in a large number of cases, but the opportunity has not now been afforded us. We have had very few cases, and most of them have been beyond the reach of any remedial treatment.

With regard to the question of the treatment of cholera, we have advanced beyond the point at which mere statistics can render us much assistance. Our knowledge of the natural history of cholera is now so far complete that we have the key which will unlock most of the pathological intricacies of the disease. We have freed ourselves from that delusive and mischievous theory which attributes collapse to the mere drain of fluid from the blood. That death may occur in spite of the discharges, nay that it may directly result from the profuse discharges excited by the amount or the virulence of the morbid poison, we have never doubted or denied; but, nevertheless, we know that a continuance of the discharges from the alimentary canal is an essential condition for recovery from collapse; while an entire cessation of these discharges during collapse is a fatal sign. Death may occur in collapse without discharges; recovery never. It is a mere mockery to say that in cases of *cholera sicca* the morbid secretions are found in the digestive canal. The amount thus collected is far too small to cause death by exhaustion; and we know that the symptoms of collapse are not such as a drain of liquid from the blood in any quantity would occasion.

I maintain, then, that our knowledge of the natural history of cholera and of the natural process of cure, enables us to judge of the influence of treatment in each case; that a few cases carefully observed are far more instructive than a large number imperfectly noted, and that our failures may be as instructive as our successes.

The careful study of our twenty cases, with twelve deaths, has not in the slightest degree diminished, but rather tended to confirm, my conviction that, as the natural cure of cholera in all its stages occurs by a process of elimination, so the business of the physician is to avoid all such means as tend to impede that process, and to assist it, when necessary, by all available means. I shall presently show you in what way death occurred in the twelve fatal cases. But, first, I have to say of the cases of recovery, that they were all in collapse of varying degrees of severity at the time of admission. All were treated by castor oil. In each case, the vomiting and purging continued until reaction occurred; then the discharges gradually ceased; and convalescence was quickly established. There were besides some cases of choleraic diarrhœa in the wards, which quickly recovered.

To return now to our twelve fatal cases. Of these twelve cases, six died during the stage of collapse, six during the period of reaction. All were treated by repeated doses of castor oil. One had two doses of croton oil, and one took two doses of calomel; and we have to inquire whether there is any reason to suppose that this evacuant treatment was injurious. Now, in the first place, it is remarkable that, in four out of the six cases fatal during collapse, there was neither vomiting nor purging after the patients were admitted; and, in two of these four cases, death occurred within an hour after admission, and after a single dose only of castor oil had been given. In these four cases, it is manifest that our treatment was evacuant in intention and not in effect. It was simply ineffectual, and could not be considered in any way injurious.

The fifth case of death during collapse occured in a very feeble woman, aged 62, and having the look of being 70. She had been living badly, and had been profusely purged for three days before her admission. She was in collapse when admitted. She was ordered to have castor oil at first every three hours, then every four hours. At length, as the purging went on very actively, the oil was discontinued. She died in collapse, sixty-three hours after her admission. Looking back at this case, and considering the amount of purging which was going on spontaneously, I think it would have been well if no oil had been given, or at the most only an occasional dose at long intervals. It happened that I did not see her until the second day after her admission, and then I discontinued the oil. When the discharges from the intestinal canal are profuse, and when there is no evidence of accumulation within the bowel, no evacuant medicine is required, and therefore none should be given. I am sure, however, that no treatment could have saved this poor woman. She was very aged; and she was greatly enfeebled by a poor diet and by three days of profuse purging before she fell into collapse. In such a case there was no ground for a hopeful prognosis.

The sixth and last case of death during collapse occurred in a man, 35 years of age, who had been purged from ten to twenty times daily for three days before his admission on Sept. 16th. When admitted, he was in full collapse; pulse extremely feeble. Temperature 94$\frac{4}{5}$°. The face was blue, and the eyes sunken. He was ordered to have the oil at

* Another fatal case has occurred since this lecture was given. The history of that case will be found in a postscript.

first every two hours, then every three hours. Several doses were vomited, but it brought away a moderate amount of rice-water secretion. His face became less dusky, and for a time he felt relieved; but he relapsed into profound collapse, and died twenty-seven hours after admission.

Now, with respect to this case, I would remark, that the most unfavourable circumstance was the fact that he had been profusely purged for three days before his admission. This must have weakened him, and rendered him less able to bear up against the disease when he fell into collapse. The same source of exhaustion had occurred in the case of the old woman last mentioned.

I have sometimes been asked how it happens, if the vomiting and purging be a conservative eliminative process, that a patient falls into collapse after having been profusely purged for several days. This question is a reasonable one, and it is not difficult to answer. In the first place, the transition from prolonged diarrhœa to collapse does not occur in the case of patients who from the first are treated within the hospital. I have not yet seen one instance of the transition from choleraic diarrhœa to collapse under the evacuant treatment in the wards of the hospital, although many of the cases in 1854 appeared to be on the very verge of collapse when they were admitted. The continuance of a diarrhœa day after day in the cases under consideration is probably to be explained by the fact that the patient is continually exposed to the exciting cause of the disease, either in his home or in his place of labour. He daily breathes the same poisoned air or drinks the same poisoned water, and thus the symptoms are perpetuated by renewed doses of the poison, just as in those notorious cases of slow poisoning by arsenic or antimony mixed with the food. At length, when the accumulative effect of the poison has induced collapse, the patient, exhausted by his prolonged diarrhœa, has less power to combat the disease, than he would have had if a single dose of the poison had sent him at once into collapse. The only safeguard for a patient in whom a diarrhœa is kept up by a continual recurrence of the exciting cause, is to discover and to avoid the cause, whether in the air, or food, or drink. To give astringent and repressive drugs, while the patient is constantly inhaling or imbibing the poison, is only to increase the peril. It is like closing the safety-valve of the boiler while the furnace is fiercely burning below. With such opposing forces in continual operation, it is manifest that sooner or later an explosion must occur.

Passing on now to the six cases of death during the reaction stage.

The first case was that of an infant 15 months old. The child rallied from extreme collapse; then quickly became drowsy, with hurried breathing; then convulsions occurred, and death forty-eight hours from the commencement of the illness. Such a result in a child of that age is very common, and very difficult to avert.

The second case occurred in a woman, aged 47, who had for years been a great invalid. For seventeen hours before admission there had been profuse vomiting and purging. When admitted, she was pulseless. Temperature 94⅗°. Vomiting and purging had ceased; but the bowels became painfully distended, and it was with great difficulty that any evacuation could be obtained. First, an enema brought away a very offensive rice-water stool, after four doses of castor oil had been given without effect. As the bowels were becoming more distended, we gave two doses of croton oil, two minims for a dose, combined with castor oil. The result was seven scanty stools, with some relief; but the bowels remained distended, and during the last seven hours of her life there was no further purging. The last stools were bilious, and the temperature rose to 98⅗; but there was an evident want of rallying power. The respiration became gasping; and she died twenty-six hours after her admission.

The next three cases were sisters, aged respectively 5, 6, and 9. The parents had come from the country two years ago, and lived in a dirty court in Newport Market, and the whole family had been ill-fed. In the youngest child, the collapse was moderate in degree; in the two elder girls, there was extreme collapse with pulselessness for many hours. In all three cases, the purging was very moderate in amount and frequency. All three rallied from collapse, and the stools became bilious; and they all passed into the same condition. There was drowsiness, grinding of the teeth, with hurried breathing. The youngest died thirty-six hours after admission, the second in sixty-four hours, and the third in forty-eight hours.

In the two youngest there was extreme fatty degeneration of the kidneys. I have not for a long time seen so much oil in the kidneys. The glands were white and wax-like, and the degeneration was evidently of long standing. In the youngest there were, in addition, patches of local fatty degeneration in the liver; and the lungs were much gorged. Reaction had occurred, and there was bile in the intestines in each case. In the eldest child, the kidneys were healthy; but many of the mesenteric glands were considerably enlarged.

In these three cases, it is evident that the poor children, being ill-fed and strumous, had not the requisite rallying power to carry them through the disease.

Our last case was an equally unsatisfactory subject—a young man, aged 23, of weak intellect, who had a chronic ulcer on his leg in a most offensive state. He had no regular occupation. He lived in a lodging in Clements Lane; and was dependent on his parents for supplies of food. His mother said that he got meat once a week, and sometimes it might be twice. He was in extreme collapse for many hours; and repeated doses of castor oil excited only a very moderate purging. We made an unsuccessful attempt to inject hot water into his veins. He made an imperfect rally, and died twenty-four hours after his admission.

These are the six cases of death after reaction. An infant, 15 months old; a sickly woman, who had been profusely purged before she came in; three half-starved, strumous children; and an ill-fed, unhealthy young man. It would appear as if the choleraic influence in this part of London, being very feeble, had seized chiefly upon those whose weakness and unsoundness had rendered them least able to resist the poison.

Now, gentlemen, I am not here to apologise for the deaths of these twelve patients. My object is to place before you the facts upon which you may base your own judgment. Is there any reason to suppose that our treatment was injurious? Would a different,

would an opposite mode of treatment, would a let-alone treatment, have been attended with more favourable results? I think not; but let each man form his own opinion after a careful weighing of the evidence.

With regard to this question of the treatment of cholera, we stand upon very firm ground. We maintain that no drug has any direct antidotal or curative influence in cholera; that there is only one method of cure for the disease in all its stages, and that is the method by which Nature herself accomplishes the cure. The most that art can do is to assist and, if need be, to regulate the natural eliminative process.

I will not here stop to inquire whether there *is* an eliminative effort in cholera. The denial of this doctrine appears to me to involve merely a discussion about words and terms. There are, at any rate, foul morbid secretions which in cases of recovery are cast out of the bowel, and which are poisonous to others. This fact must suffice for plain practical men, whose business is not that of hair-splitting.

The mortality from cholera will vary greatly at different times and in different localities. At one time the deaths may be eighty per cent., at another twenty per cent.; but be the recoveries few or be they many, and whatever may be the method of treatment employed, it is indisputably true that the actual cure is effected by the same natural eliminative process in every case. I have asked for a detailed history of any case of recovery from collapse in which there has not been a continuance, more or less, of discharges from the alimentary canal while reaction was taking place. I believe that no such case has ever been seen; certainly, none has been recorded. Yet, if collapse were caused by loss of fluid, an arrest of the discharges must necessarily precede recovery from collapse in every instance. Happily, there are now few pathologists who defend the theory, that collapse is a result of the fluid drain from the blood. It is now very generally admitted, that the facts of the disease are utterly inconsistent with that theory; and with the abandonment of this theory, there is of necessity implied the condemnation of the brandy and opium treatment of collapse.

But now we are told by some that the best that we can do for a patient in collapse is nothing, but to let him lie in bed, drink cold water, and recover if he can. I have seen something of the treatment of cholera by coloured water. I have seen patients thus treated lying in full collapse, having had neither vomiting nor purging for hours, and suffering agonising pain from over-distension of the bowels. It was evident that all the natural expulsive efforts had ceased, and that without some artificial aid death was inevitable. It appears to me that to look on at a patient in such mortal agony, and to make no attempt to relieve him, is as unjustifiable and as cruel as it would be to leave a patient with retention of urine unrelieved. This routine system of *laissez-faire*, when there is such an obvious indication for treatment as distention of the bowels by offensive morbid secretions, is an abuse of the so-called "expectant method", which threatens to extend itself to the treatment of more than one acute disease. A routine system of doing nothing in acute diseases is unscientific and, it may be, as mischievous as a routine abuse of active drugs.

The advocates of the do-nothing system in cholera, to be consistent, should adopt this method from the commencement and in all stages of the disease. It is thoroughly inconsistent and unreasonable to treat choleraic diarrhœa by opiates and astringents, to arrest the discharges, thus induce collapse, and then say to the unhappy victim, Now you shall be left alone to recover—if you can. This is like pushing a man from a shallow into deep water and telling him to swim for his life. He who did this would certainly not deserve the medal of the Royal Humane Society. This combination of a constringing practice in choleraic diarrhœa with an expectant treatment in collapse is like repressing the rash of scarlatina by exposure to cold, and then treating the renal disease and the dropsy which are thus provoked by rest in bed, and nothing more. The *vis medicatrix* may suffice to cure the patient, but he will owe small thanks to his doctor.

There are some cases of cholera of so malignant a type, that no treatment can be of any avail—they are obviously hopeless; there are others of so mild a character that they will recover by the unaided efforts of Nature. Then there is an intermediate class of doubtful cases in which the result may be much influenced by the treatment employed; and it is only in the management of cases of this kind that the actual effect of treatment can be determined. Mere statistics are quite useless; they give only the deaths and recoveries; but what we have to learn is the actual influence of treatment upon the progress of the disease and upon the mortality. This knowledge we can acquire only by the careful observation of each case that comes before us.

If we cannot ascertain the real influence of treatment on the progress of this disease by the careful observation of each individual case, we shall never arrive at this knowledge by the careless noting of a large number of cases. What would a chemist say to the proposal to determine the ultimate composition of a substance by taking the average results of a large number of incomplete and inaccurate analyses? The attempt to ascertain the influence of treatment in cases of cholera by a mere statistical statement of results is in no degree less absurd than would be such a proposal. We ought to be able to determine, and I believe that we can determine, with some degree of probability in each case, whether our treatment has been beneficial or the contrary, or whether it has been simply inefficient.

I am quite sure that I saved at least one life during the present epidemic.

At the beginning of August, I attended with Dr. Halse a youth aged 15, who had been only a few days in London, and who had drunk water from one of the pumps in the Temple. He had diarrhœa, which was stopped by two doses of opium. Then, after a few hours' cessation of diarrhœa, he was seized with cramps and purging, and he rapidly passed into collapse. When I saw him, his pulse could scarcely be felt; his eyes were sunk; his skin and tongue were icy cold; the cramps very severe. There had been no purging for a considerable period, yet his intestines were full of liquid. There was evidently no natural effort to expel the contents of the bowel; and I believe that, under a merely expectant treatment, he would have died with distended bowels. He got about eight half-ounce doses of castor oil in twenty-four hours. The bowels acted freely, the discharges being at first fœtid rice-water, then bilious.

He rallied; had slight drowsiness for a few hours; then an abundant rash of roseola; but he made steady progress towards complete recovery. I consider this life to have been as unquestionably saved by the treatment, as if we had pulled him, in a state of unconsciousness, out of deep water.

Henceforth no reports of the results of treatment in cases of cholera will be of any value which do not give some particulars as to the character of the cases, the age and general condition and habits of the patients, the degree and the duration of the collapse, and the actual operation of the remedies employed. In my work on *Epidemic Diarrhœa and Cholera*, published in 1855, I have given all these particulars respecting fifty-four cases which were under my care during the last epidemic. I take this opportunity of correcting a misstatement which has frequently been made, to the effect that the evacuant treatment was tried here in 1854 only towards the close of the epidemic. The first case thus treated was admitted on the 10th of August; and the same plan of treatment was continued during the whole period of the epidemic, which reached its height in the early part of September.

To tell us that the evacuant treatment of cholera has failed in any set of cases is worse than useless, unless we are informed whether the cases were such as afforded hope of benefit from treatment of any kind; also whether medicines were given in such a way as to ensure their evacuant action; and what other means were employed at the same time. During the height of an epidemic, it would be easy to select twenty cases or more, which, under any plan of treatment, would certainly give a mortality of 100 per cent. Some time since I saw, in one of the hospitals, a very old woman, pulseless, voiceless, and toothless. She was evidently dying; but she had been ordered to have a dose of castor-oil on admission, to be repeated in four hours. It was certain that she would not live to take the second dose; but the case would probably be returned as one unsuccessfully treated by castor-oil. I am told that, in one hospital, a considerable number of cases were treated by castor-oil, but with the addition of brandy and hot baths. Now, according to my experience, this would not be a fair trial of the evacuant method. I am sure that brandy, even in small doses, is injurious during collapse; and I believe that warm baths, in spite of the great temporary relief which they may sometimes afford, are, on the whole, rather hurtful than wholesome.

Dr. M'Cloy has given in the *Lancet* (Aug. 18th) some interesting particulars of cases of cholera treated in the Liverpool Parish Infirmary. He has compared the results of what he calls the "eliminative" treatment, chiefly by means of castor-oil, with other methods of treatment. He declares that "*the eliminative treatment has been most successful.* It has been a success which those only who have seen and compared the relative severity of the cases can appreciate—a success which statistics cannot show." Out of fifty cases thus treated, there were seventeen deaths; and of these seventeen, "nine were cases in which there was no radial pulsation, *and in which neither emesis nor purgation could be produced.*" I learn that this method of treatment has since been continued in the same institution with equal success, and that at one dispensary in Liverpool about two thousand cases of diarrhœa have been treated on the evacuant plan with uniform success. I hear, too, that many private practitioners, in various parts of the country, have had most favourable experience of the plan. A highly intelligent gentleman in large practice, who had been very sceptical about the evacuant treatment of diarrhœa, was induced to give the plan a trial. I met him a few days since, and he was enthusiastic about its success. He said to me: "Well, you have established one grand principle; that is, in the treatment of diarrhœa, to free the bowels from morbid secretions before you lock them up by astringents." My reply was: "Common sense would have taught us this, if we had not permitted ourselves to be blinded by an erroneous theory."

Amongst the out-patients of the hospital, many hundred cases of diarrhœa have been successfully treated during the last few weeks, and in nearly all of them a single dose of castor-oil has been the only medicine given.

I should detain you for another hour, if I were to narrate to you my recent experience of the ill results of the abuse of opiates and astringents in the treatment of diarrhœa and cholera. I trust that before long practitioners who have had experience of the evacuant method of treatment will publish the results. I find, however, that some men, whose experience has been most favourable to the plan, are unwilling publicly to face the tide of prejudice which sets in against this safe and simple method of treatment—prejudice as unreasonable and as violent as that which, two hundred years ago, opposed the admission of cool and fresh air into the rooms of small-pox patients. The simplicity of the treatment appears to the minds of some men to be its great fault; they believe in no remedy which does not, as they suppose, exert some specific curative influence. It has been said by some that, if castor-oil have any good effect in choleraic cases, this is due, not to its evacuant action, but to some "alterative" influence on the mucous membrane. A facetious friend remarked to me, that many practitioners, who are now sceptical, would believe in castor-oil, if they could be assured that it exerts a peculiar "castor-oilative" influence.

Postscript. Since this lecture was given, another fatal case of cholera has occurred in the hospital. A woman, L. B., aged 48, was admitted on October 12th. She was a widow, and had worked very hard to support her seven children. She had been ailing for a fortnight. For five days there had been very frequent vomiting and purging; but there had been no action of the bowels since 1 P.M. on the day of her admission. She was admitted at 6 P.M. She was in extreme collapse, pulseless, and cold; temperature 96⅔; features much sunk. There was great dyspnœa, and severe pain, at each inspiration, over the bottom of the sternum. When I saw her at 8 P.M., I found that four half-ounce doses of oil had been given; these had excited neither vomiting nor purging. There was evidence of a moderate amount of liquid in the intestines. She was still pulseless; the dyspnœa very urgent; and each inspiration was abruptly stopped by a sharp pain apparently having its seat in the over-distended right cavities of the heart. After watching her for a time, I felt sure that to assist the circulation by hot injection into the veins afforded the only hope of rescuing her; and accordingly we slowly injected

forty-two ounces of water, at 118°. During the injection, the pulse became perceptible, the temperature rose to 98°, the pain over the heart and the dyspnœa somewhat diminished; but the relief was much less than I had hoped for, and I suggested that probably a clot had formed in the right side of the heart. She vomited several times after the injection. No more medicine was given; and there was no action of the bowels from the time of her admission until her death, which occurred at 4 A.M. on the following day—*i. e.*, ten hours after her admission.

Shortly before her death, there had been some appearance of improvement in her condition; and, on examination *post mortem*, there was evidence that reaction had just commenced. The evidence was great engorgement of the lungs, such as we have not seen in any case after death in the stage of collapse; and the upper part of the small intestines, for a length of about eighteen inches, contained bright yellow bile. The secretion of bile, then, had recommenced just before death. The small intestines below contained a considerable amount of the usual choleraic secretions, but tinged of a dirty pink colour by admixture with blood which had escaped from the abraded mucous membrane. The stomach contained a small quantity of the castor-oil, but none had passed on into the bowel. In the right ventricle of the heart there was a firm decolorised clot attached near the apex of the heart; it was of considerable length, and extended in a tapering form about four inches into the pulmonary artery. This clot had evidently formed during life, and probably before we injected the vein; it must have obstructed the circulation, not only by the space which it occupied within the artery, but by preventing the closure of the semilunar valves. Hence, probably, the painful distension of the right side of the heart, and the small amount of relief which the hot injection afforded.

Our treatment in this case was thoroughly inefficient. Would any other treatment have been more efficacious? I know of none that would. It was evident after death that, if she had completely rallied from collapse, she would have died exhausted by hæmorrhage from the bowels.

The Climate of Podolia is probably the healthiest in the world. During the last five years 354 persons have died at from 95 to 110 years of age, 320 of whom were under 100 years old, 27 between 100 and 105, and seven between 105 and 110. Of these 141 were women.

Death of Dr. Conquest. The death is reported of Dr. Conquest, at Shooter's Hill. The deceased, who was 77 years of age, was formerly lecturer on midwifery at St. Bartholomew's Hospital. He wrote a pamphlet on *The Use and Abuse of Money*, the publication of which led to his giving a prize of a hundred guineas for the best essay on the subject. This resulted in the publication of *Mammon*, by the Rev. Dr. Harris, a work which excited some interest and obtained a large sale. He also published a work entitled *Outlines of Midwifery*, which has passed through six editions in this country, and has been translated into the French, German, and Hindustanee languages. Dr. Conquest was also the author of a revised edition of the Bible, generally known as *The Bible with* 20,000 *Emendations*.

Original Communications.

TWO CASES OF FURUNCULAR ACNE IN WHICH THE URINE CONTAINED AN INORDINATE QUANTITY OF UREA, "AZOTURIA."

By Thomas Balman, M.D., Liverpool.

In the first edition of his work on *Stomach and Renal Diseases*, published in 1821, Dr. Prout has directed attention to a peculiar condition of the urine characterised by a superabundance of urea, the quantity of water and other ingredients being unaltered. Subsequently, Willis mentioned a similar disorder, to which he, I think not inappropriately, has given the title of azoturia. (*Urinary Diseases and their Treatment.* By Robert Willis, London, 1838.) As the independent existence of this malady has since been called in question by some more recent authorities, and believing that it is of no unfrequent occurrence and entitled to a more prominent position in our nosology than it has yet obtained, I have ventured to bring before the members of the British Medical Association the two following cases, which I take to be examples of the disease in question. Both of the cases which I shall presently read to you, and in which this condition of the urine was observed, were suffering from a somewhat severe cutaneous affection, "follicular acne."

Dermatologists have described several forms of acne. Acne simplex, though oftentimes of trifling importance, is known to be of very frequent occurrence, especially in young and phlegmatic persons of both sexes, and is generally amenable to treatment. The cases in which I have noticed ureous urine have, however, seemed to belong to the third species of Willan's classification, viz., Acne indurata; though it has a strong resemblance to, and is doubtless often taken for, the next species, acne rosacea. The several forms of acne, originating as they all unquestionably do in the sebaceous follicles of the skin, I agree with Mr. E. Wilson might severally be classed under two heads: Acne simplex, and acne rosacea; the first three species, acne simplex, acne punctata, and acne indurata, being mere modifications of the same form of disease. Acne rosacea, however, independent of the erythematous rash, which is its main characteristic, often leads to a dilated and tortuous condition of the superficial capillary bloodvessels of the face, is generally met with in persons of more advanced ages, and is more frequently the result of intemperance, when not of hereditary origin, than the cases I am about to mention. Acne furunculus would convey a more exact idea of the anatomical element of the eruption, and as the term is not altogether new in connexion with the disease, I propose to retain it in this place.

The different forms of acne, affecting as they invariably do the face, are known to be sometimes of an extremely obstinate character, resisting for years the most skilful treatment even of some of our most eminent physicians. The disfigurement these eruptions often occasion, and the mistaken and erroneous notions commonly entertained as to their origin, are a perpetual source of annoyance to females especially, who are ready to make any sacrifice of personal comfort that may seem to hold out the slightest prospect of cure. These complaints, therefore, should have the best attention of the medical practitioner.

The first case occurred in 1852, and the following

is an abstract of the notes I then made of it. W. H., aged 21, unmarried, clerk in a merchant's office, and of most temperate habits, consulted me on Nov. 4th, 1852. He stated that he had suffered from slight symptoms of indigestion for several years, though not sufficiently urgent as to require medical assistance. About two years previous to his coming to me, a few red pimples first appeared on his forehead, which, to his great dismay, gradually spread over the whole face; as soon as one set of pustules subsided, others made their appearance in a more aggravated form, so that his visage was literally seamed and furrowed with indelible scars and cicatrices caused by this rapid recurrence of the disease. Both cheeks still exhibited a copious display of vari of an irregular and slightly ovate form, and of different degrees of consistence.

The skin and integuments over the whole extent of the eruption were observed to be thicker than natural, and to present occasionally a dark livid appearance, evidently arising from the intense congestion, both of the glandular as well as of the subcutaneous cellular textures in the immediate vicinity of the eruption. The pustules softened very slowly, without pointing as in ordinary pustular inflammation, and the contents had consequently every now and then to be discharged by the aid of a lancet. Sometimes two or more vari would coalesce, and thus form a tumour of the size of a horse-bean or small hazel-nut.

Nov. 4th. Examined the first specimen of his urine, it was slightly turbid from lithates, and had a strong acid reaction to the blue litmus. Its specific gravity was 1·035, nitric acid, without concentration of the urine, quickly converted the portion so treated into a solid crystalline mass of nitrate of urea.

This unusually great density, dependent as it manifestly was upon an excess of urea, at once attracted my attention, and led me afterwards to examine the urine of this patient carefully for a considerable time. During the subsequent four weeks the specific gravity was found to oscillate from 1·020 to 1·033. The night specimen, *urina cibi*, having always the greatest density averaging 1·031, and the morning specimen, *urina sanguinis*, 1·025. It was now bright in colour and without any perceptible deposit. The quantity passed in twenty-four hours was about 44 ounces. Oxalate of lime was present in almost every specimen. He was ordered a mixture with ten grains of the bicarbonate of potash in the compound infusion of gentian, twice a day, and an aloetic and steel pill at night.

Dec. 9th. As he was no better, and the urine in no degree changed, I requested him to abstain altogether from animal food, and to live upon a diet as free as possible from nitrogen, that I might ascertain whether this surplus urea was due to food, or to ulterior tissue changes. He was likewise ordered to take ten minims of the tincture of colchicum in some bitter infusion, thrice a day.

Dec. 23rd. A fortnight afterwards a marked improvement had taken place in the eruption, he also expressed himself as feeling as strong and well as when taking his usual diet of meat and beer once or twice daily. The specimen of urine he brought with him was of a pale straw colour, perfectly bright, and its specific gravity was very little above the average standard: the night specimen being 1·021, and that passed in the morning 1·018. Finding he was so much better, he begged hard to be allowed to return to his usual routine of living, he was accordingly allowed animal food, once daily, with a glass of bitter ale if he chose.

Feb. 25. Two months from the beforementioned date, during which he had rigidly adhered to this very simple diet, he returned to me as bad as ever, his face covered with boils, and altogether in a most unsatisfactory state, the urine had returned to its former great density 1·035, and darker in colour than I had ever before seen it. Prout describes the urine in such cases as being sometimes so dark as to resemble a mixture of porter and water. Unfortunately I was obliged about this time to leave Liverpool for some months, and I therefore saw him no more.

Two other cases have more recently occurred to me in the practice of the Dispensary for Diseases of the Skin, one of which I have carefully watched for several months.*

Eliza G., aged 25, unmarried, had suffered from furuncular acne for above seven years. She had tried various modes of treatment without deriving the slightest benefit. She was of a sanguine and excitable temperament, and whilst these notes were being taken, an uncomfortable scarlet hue seemed every now and then on the slightest emotion to mantle her otherwise mottled and already highly tinted cheek. Her general health was nevertheless tolerably good. She, however, complained of a slight feeling of lassitude and fatigue after walking, and was also subject to occasional attacks of indigestion. There was a dry clammy taste of the mouth, and the tongue I thought looked larger and more flabby than natural. The saliva was acid; the menstrual flow was healthily and regularly performed, but her face, she observed, was always worse about these periods.

The urine differed slightly from the previous case. Its specific gravity being of a more uniformly high character, from 1·028 to 1·035; in no instance below 1·028. In appearance it presented nothing unusual, perhaps a little darker in colour than natural, very acid, and showed the same characteristic increase of urea. Oxalate of lime was occasionally present, and traces of sugar in one of the specimens examined. She suffered every now and then from slight dysuria, and urgent calls to relieve the bladder, chiefly in the daytime. The quantity very rarely exceeded three pints in the twenty-four hours, more frequently under two. She took a variety of tonics, including quinine with small doses of opium, from which I have found the greatest benefit in several similar cases, without any very decided results. A mixture containing the alkaline carbonates, magnesia and potash, with colchicum, and five minims of the tincture of opium, did her the most good. Cod-liver oil, which is reputed to have a marked effect in lessening the quantity of urea in the urine, she could not take. Acetate of potash with ammonia, and the bicarbonate of potash were tried, without producing the slightest change in the eruption, nor did it appear to diminish in any marked degree the quantity of solids in the urine. Benzoic acid was also tried with no better results.

I saw this young woman about a month after relinquishing all treatment. The cutaneous affection in the whole was decidedly better, the skin being clearer and of better colour, and the vari fewer in number than formerly. The condition of the urine, however, remained unchanged, the specific gravity of the last specimen examined being still as high as 1·033.

General Remarks. It is well known that the quantity of urea in the urine may be temporarily increased, both absolutely as well as relatively under a great variety of circumstances. In health, free action of the skin, a full meal with wine in moderation will

* This case is one so exactly similar as regards the local cutaneous affection to that I have just related, that it is needless to dwell upon this feature of it.

cause the urine to be secreted of a deeper colour than usual, and the solid matters consequently in considerable excess. In several diseases the same thing may happen. In pneumonia, several dyspeptic and febrile affections, when the urine becomes highly concentrated, it is of frequent occurrence, and depends upon a diminishing secretion of water only. In Typhus, Dr. Parkes found as much as 883 grains in twenty-four hours, and in a case of pyæmia, Vogel detected 1240 grains or nearly three ounces of urea within the same period. A case is recorded in the third volume of the *Medico-Chirurgical Transactions*, by Dr. Bostock, of a patient, a female, discharging five quarts of urine daily of a specific gravity of 1·034, not saccharine, which on analysis was found to contain nine ounces and a half of solids, seven ounces and a half being urea, and two ounces salts.

This would be rather more than six times the average quantity for a healthy man. The patient recovered completely under the use of chalybeates.

The condition of the urine I have described, differs materially from all these cases: 1st, In the more or less persistent character of this secretion; 2nd, In the relative as well as absolute quantity of urea, as compared with the other ingredients, the quantity of water being normal, or only in slight excess. They correspond, therefore, with the first form alluded to by Prout, excess of urea without diuresis.

Sometimes the quantity of water, together with the urea and other products of the urine, are simultaneously increased. Excess of urea with diuresis: in such cases the quantity of urine discharged is described by Dr. Prout as being excessive. The quantity of renal urea in any given specimen may under such circumstances be relatively less than in health, but owing to the increase in the quantity of the urine, absolutely much above the natural standard. Prout considered these affections to be of rare occurrence, so much so indeed, that, where he had seen one case of this last form of the disease, he had seen twenty cases of diabetes. Parkes says, "I have never seen a disease of this kind; all the cases of excessive urea I have seen have been either connected with pyrexia, or with some peculiarity of diet, excess of nitrogenous substances, or have been examples of diabetes insipidus, with excess of urea." Willis, who in his valuable work devotes several pages to its consideration, seems only to have noticed the second and more uncommon form of the disease. Most of the more recent cases I have read of, independent of the cutaneous affections with which both of my cases were associated, differ in some other respects.

The case mentioned by Dr. Sieveking in the JOURNAL for June 1865, was 53 years of age, had jaundice, diarrhœa, and was otherwise extremely nervous and debilitated. Prout's cases all occurred in middle aged men, of thin, spare habits, and one likewise unusually nervous and depressed. Dr. Prout only met with one instance in the female. The cases recorded by Dr. Parkes and Roberts were also men of about 50. The daily flow of urine in Parkes's case amounted to ninety-six fluid ounces, in that of Dr. Roberts only thirty-four ounces, and the quantity of urea was never more than five hundred and fifty grains daily. Dr. Handfield Jones, in the October number of the JOURNAL for 1861, under the title "Baruria," gives six additional cases, five males and one female. Three were under 25 years of age, the others between 45 and 50.

They were all persons evidently much out of health, and suffering from a variety of anomalous nerve symptoms; one was epileptic and died of dementia, the others yielded apparently to treatment.

The question of most importance to determine in connexion with the cases I have recorded, is the pathological relation of this condition of the urine to the cutaneous affection from which they both suffered; and, granting this supposed connexion, to trace the organ or function at fault in its production. The first case seemed to show there was a very obvious connexion between the two phenomena. By cutting off the supply of nitrogen from his food, in the instance of the young man first noticed, the density of the urine was immediately reduced, and the disease appeared to yield in a very striking way, but returned on his assuming his ordinary diet of meat once or twice daily, showing, apparently, as if a portion at least of the nitrogen taken as food is converted directly into urea in the blood, and eliminated by the kidney without becoming fixed in the general textures of the body. It would hardly be safe, however, to build up a theory of this disease from a single isolated case, as the main facts are unfortunately negatived in the second case. Similar restrictions, perseveringly carried out for many weeks, producing no such corresponding results.

This over-production, if I may use such an expression, of one of the most important and essential constituents of the urine, can have, I presume, but three sources. 1. It may originate from some defective or perverted action of the primary assimilating processes of digestion or chylification, whereby, as I have already stated, a portion of the alimentary materials are at once transformed into urea in the blood. 2. From that mysterious and more distant function of the animal economy by which the old and used up materials are unceasingly being carried away, and new ones deposited, and known to physiologists as the hystolitic process of disintegration, or metamorphosis of tissue; this is probably the main source of urea in a healthy individual. 3. From that less probable and scarcely recognised channel, a morbid or excited condition of the kidney itself, analogous, perhaps, to what some of the older writers regarded as a state of erythism of the organ, but which more advanced pathologists would, with perhaps greater propriety, call paresis of the renal plexus of nerves, with its attendant results, dilatation of the bloodvessels and consequent increase of blood, and when there is more blood sent to an organ than usual, we may expect temporary increase of function. This is probably the condition of the kidney in cases of diabetes insipidus, and some nervous affections, in which such an enormous quantity of water is sometimes discharged, and which is often so effectually controlled by opium. In either case, we should probably have an abnormal quantity of urea very constantly circulating in the blood, spoiling, just as an excess of water is known sometimes to do, the red particles, and thus unfitting this vital stream for the healthy performance of nutrition, upon the due integrity of which the physiological well being of the individual must depend.

ETHER-SPRAY IN THE REDUCTION OF HERNIA.

By A. B. STEELE, M.R.C.S.E., Liverpool.

THE account of Dr. Barclay's case, published on the 20th ult,, induces me to mention, that some months ago I used the ether-spray with success in the reduction of a rather large inguinal hernia in a boy about 4 years old, who had worn a truss from early infancy. The hernia had remained down sufficiently long to cause vomiting and other early symptoms of strangulation.

Having persevered with the taxis in the ordinary

way for some time, I applied the ether-spray, and ultimately succeeded in returning the bowel. I did not carry the frigorific effect so far as to produce complete congelation and blanching of the surface; but short of that condition, which might possibly have been injurious, the excessive coldness materially aided in the reduction of the hernia, and in all probability saved the patient from a capital operation.

While on the subject, I wish to communicate my experience with different kinds of ether. I have tried the ether sold by Mr. Robbins, that manufactured by Howard, and also methylated ether, and can discover no difference of effect in either of the three.

It is desirable that attention should be carefully directed to the relative efficiency of ether obtained from various sources; because if, as I strongly suspect, it be found that the only essential matter is the rapidity of evaporation, as determined by specific gravity, the successful use of methylated ether, at a fourth of the price of other ethers, will be no small boon to those who desire to avail themselves of Dr. Richardson's valuable discovery in many cases where the expense of material falls upon the practitioner.

My first experiments with the ether-spray were uncertain, and often unsatisfactory; and, on appealing to Dr. Richardson for an explanation, was told by him that it was all a question of ether, and that none except that sold by Robbins could be depended upon. Subsequent experience, however, has led me to believe that my previous want of success depended partly on some defect in the instrument, the wire in the nozzle having become encrusted with a deposit, and partly perhaps upon my own want of skill in manipulating. I find that I can now freeze the skin with ether prepared from methylated spirit quite as readily as with that sold by Mr. Robbins.

In the early days of chloroform, great stress was laid upon the importance of the purity of the chloroform; and some people believed that the right article could be obtained nowhere except from Duncan and Flockhart of Edinburgh.

I have used extensively, and for a long period, chloroform made with methylated spirit, which I find produce precisely the same results as any other; and I believe it is chemically and therapeutically identical with that prepared with alcohol, the only difference between the two being that one is more than double the price of the other.

NOTES FROM PRACTICE.

By J. Birchenall, Esq., Macclesfield.

In forwarding the subjoined notes for insertion in the British Medical Journal, I would simply premise that the allusions therein contained are not designed to convey the slightest imputation on the professional competency of the gentlemen concerned.

As I have myself a reasonable share of the mental infirmities of our common humanity, I have learnt to be very chary in my reflections upon others; and I have lived long enough to know that, as the wisest of men are sometimes at fault, a point of practical importance may incidentally be overlooked even by those whom we are accustomed justly to regard as among the most cautious and discriminating of our medical brethren.

The cases occurred many years ago, and I write from memory, but can vouch for the accuracy of the reports.

Case i. Rev. Mr. —, residing in a populous town in Yorkshire, was in the act of raising a teakettle full of boiling water from the fire, when it slipped from his hand, and fell upon his foot, which was thereby severely bruised and scalded.

When the injury to the skin was repaired, he found that he could not walk without considerable pain; but, as the medical gentleman in attendance (who was a respectable practitioner) regarded the case as a purely hyperæsthetic condition, it was treated accordingly.

After the lapse of some weeks, as there was no improvement, Mr. —, at the instance of some of his friends, visited a hydropathic establishment, but, returning unrelieved, he subsequently took the advice, at different intervals, of two or three eminent surgeons in succession, who thought that the inconvenience complained of was owing to chronic inflammation of the tarsal articulating surfaces, or was the result of an arthritic diathesis. Several months had intervened during the treatment suggested without any relief, when Mr. — being on a visit to some of his friends in this town, who were my patients, I was requested to look at the case. I found the inner cuneiform bone, which was the seat of pain, enlarged; pressure on the part giving to the patient a sharp pricking sensation; and, by grasping the scaphoid bone with one hand, and by forcible pressure with the other, attempting a rotatory movement of the metatarsal bone of the great toe upon its tarsal articulation, I detected a distinct crepitus in the enlarged cuneiform bone.

After submitting to the patient and his friends, that six or eight weeks of perfect rest would be required for the successful treatment of the case, arrangements were made for this purpose. The foot was closely enveloped in a starched bandage, over which a roller was applied, and the limb maintained in a state of perfect repose. At the end of six weeks, as the tenderness was gone, an elastic sock was substituted for the previous appliances, and gradual exercise allowed.

Mr. — returned home in two or three weeks more, nothing further being required but the use, for a time, of a boot of easier adaptation than ordinary, and he has since prosecuted his duties with unremitting activity, without the slightest inconvenience.

Case ii. Rev. Mr. B., aged 63, of robust frame, of nervous sanguine temperament, fair and florid complexion, and of perfectly regular and active habits, came to reside in this town about fifteen years ago. His health, previously uniformly good, had been failing for some time. He complained of lassitude, weariness on slight exertion, with loss of appetite, and occasional nausea. The head was free from pain, the intellect clear; there was no vertigo, or any disturbance in the organs of special sense; no cough or dyspnœa; the action of the heart was normal; the belly soft, no tenderness on pressure throughout its whole extent; no glandular or other enlargement; the bowels a little torpid; the tongue pretty clean and moist; but the sleep was disturbed; the spirits, ordinarily buoyant, began to droop; and there was a brooding presentiment that "this sickness would be unto death."

In the absence of all indications of positive disease, I was induced to regard the case as one of purely climacteric decay, and had recourse mainly to hygienic means for its relief.

There was one inconvenience of which my patient early complained; namely, a difficulty in emptying the bladder. The urine was clear, and free from deposits, flowed in a full stream, after an effort of a few seconds, and was discharged in moderate quantity; but there was always a lingering consciousness that the relief was incomplete. I expressed a suspicion that there might be some enlargement of the pro-

state, and proposed the introduction of the catheter: to this, however, Mr. B. had an insuperable objection, and as there was no incontinence he could not be brought to entertain the propriety of the suggestion. In a few weeks from my first interview he was compelled by languor and increasing debility to retire from his public exercises, into the privacy and quiet of the domestic circle. Perfect freedom from all exertion, physical and mental, combined with the exhilarating influence of the bright days of a dry and temperate autumn, arrested the downward course of the complaint for a time; but, as winter approached, this was materially accelerated.

At the end of the year he was importuned by his daughters, who kept a ladies' seminary in a neighbouring town, to pay them a visit. Though the journey was short, it exhausted him so much that he was obliged to remain in bed; and the medical attendant of the family was called in, in consultation with another professional gentleman of acknowledged repute. I was informed that a tumour had been detected in the abdominal cavity, which, it was very naturally supposed, might have been insidiously undermining the general health. I could not question the accuracy of diagnosis of two such respectable witnesses, although I was a little annoyed at the astonishment expressed by the friends residing here, that so prominent a feature in the case should have been unnoticed by myself, and I could only aver in reply, my thorough persuasion that no such tumour existed a few weeks previously.

Mr. B. returned home in two or three weeks more, to succumb to the force of disease. My first visit naturally turned upon the tumour in question. It was plain, palpable, and persistent, firm and well-defined, occupying the centre of the hypogastric region, during the sitting posture, and that of the umbilical in the recumbent. There was no tenderness, no vomiting, no gastric or gastro-enteric disturbance, beyond the prior occasional nausea; there had been no accession of continuous dull or throbbing pain, during the intervening period, nor any rigors. On questioning my patient, I gathered that on his arrival in M— he had experienced more than usual difficulty in relieving the bladder, with increased uneasiness after every natural effort. I therefore again urged the use of the catheter, but could not by any mode of reasoning obtain his acquiescence. His strength now rapidly declined, his nights were restless, insomnolency supervened, and this was aggravated by febricular excitement, there was a gradual loathing of every kind of food, and he died in about a month after his return.

I obtained permission to open the abdominal cavity.

There was no trace of organic disease. The viscera presented a somewhat anæmic appearance, but were all otherwise healthy. There was marked indication, however, in the hypogastric region of a *quondam* inflammatory condition. Portions of both the smaller and the large intestines were agglutinated by old standing adhesions, and both the ascending and descending colon were firmly bound by false membrane to the iliac fossæ. In addition to this, there was a firm semitendinous band stretching across from these attachments, from right to left, by which the bladder, in its previously over distended state, had been compressed into a double sac, the fundus thereby permanently enlarged by its fluid contents into a round ball, whilst the lower pelvic portion, by which the expulsive efforts had been recently maintained, was also over-loaded, though in a less degree. I now passed the catheter, and drew off about a quart of clear high coloured urine, this was quickly followed by collapse of the bladder into the pelvic cavity, and total disappearance of the tumour. There was but little deviation in the state of the prostate from its normal size.

On inquiry of the widow of the deceased, I ascertained that her late husband had laboured under acute peritonitis about thirty years before.

Case iii. I had a somewhat extraordinary case of retention of urine from mechanical obstruction about thirty years ago, and it is worthy of note, as illustrative of the amount of distention of which the bladder is capable. I was sent for to a woman of stout appearance, but of rather loose and flabby fibre, aged about 45. She had a family of several children, was again in a state of pregnancy, between the fourth and fifth month as she supposed; she had all the outward appearance, however, of a woman at the full period of utero-gestation, and had strong bearing down pains at intervals. On examination, I found a round solid tumour, occupying the lower cavity of the pelvis, which, on closer investigation, I perceived to be the fundus of the uterus, the os, which was thin and elliptical, resting upon the margin of the pubis. On inquiry I learnt that my patient had passed no water for a week or more; I therefore introduced the catheter, and emptied the bladder. The quantity contained (fourteen pints) might appear almost incredible, if it had not been accurately determined by me at the time, by measurement. The recumbent posture was maintained, and the catheter used twice daily for upwards of a week, until the uterus had recovered its normal position, when the case went through its natural course.

I was summoned to the same patient about three years afterwards, who supposed herself to be again in labour, but when I arrived, I found she had just expelled an enormous mass of fleshy substance, thickly studded with hydatids. There had been considerable hæmorrhage, which ceased with the expulsive effort, and the woman quickly recovered. After this I saw her no more, as she lived out of town, so that I am unable to state whether there was any recurrence of the catamenial function, or whether this was the last in the series of intrauterine phenomena.

Dr. Gibbon, medical officer of health for the Holborn district, has reported to the local board of works that whenever a death or removal of a cholera case has occurred, he has instructed the inspector to retain the key of the sick chamber until every article of bedding and clothing has been plunged into a mixture of boiling water and carbolic acid, and he "considers this method of disinfection more effectual than the somewhat costly one recommended by the Order in Council of burning every article. In order to burn you must generally remove the article, and every removal is attended with more or less risk of spreading the disease.

A Good Move. A Bill has passed the Legislative Assembly of New South Wales, and is under discussion in the Legislative Council, that any habitual drunkard who has been thrice within the preceding twelve months convicted of being found drunk in the highway, may, if found drunk and disorderly in public, be committed by the magistrate to the workhouse, and there kept until the Governor, with the advice of the Executive Council, shall order his discharge. The superintendent of the workhouse is to have the power of punishment, not exceeding seven days' close confinement, in order to maintain discipline. It was intimated that in committee a system of official visitation of workhouses would be proposed, in lieu of leaving these inmates to appeal to the Council.

Reviews and Notices.

SURGICAL APPLIANCES AND MINOR OPERATIVE SURGERY. By THOMAS ANNANDALE, F.R.C.S. Edin., Lecturer on Surgery, etc. Pp. 246. Edinburgh: 1866.

IN the eight chapters of which this book consists, Mr. ANNANDALE describes the Duties of House-Surgeons and Dressers; the Instruments required by them; the Application of Heat and Cold, and of Counterirritants; Injuries and their Treatment; the Operating Theatre, and the Treatment of Patients after Operations; Minor Operations; Case-taking; and the Preservation of Pathological Specimens. The book is, in our opinion, calculated to be very useful to students and young practitioners, especially those who are entrusted with the care of surgical patients in hospitals.

It has, we are aware, been said that Mr. Annandale has availed himself, in a manner not altogether fair, of the excellent *Manual of Minor Surgery and Bandaging*, of which Mr. Heath of the Westminster Hospital is the author. An accusation of this kind is one which we are very unwilling to believe, unless on the strongest internal evidence; and, in such works as those of Mr. Heath and Mr. Annandale, it must be very difficult to describe many of the injuries or operations in two ways. Still, there is sufficient similarity in the plan of Mr. Annandale's book to give some colour to the statement to which we have alluded; and we therefore think that it was an oversight on the part of Mr. Annandale, if he considered the production of his book really necessary, not to recognise the labours of Mr. Heath in the same field, and to acknowledge, at least generally, his obligations for such information as the perusal of Mr. Heath's book might have afforded him.

A PRACTICAL TREATISE ON APOPLEXY (CEREBRAL HÆMORRHAGE); its Pathology, Diagnosis, Therapeutics, and Prophylaxis: with an Essay on (so-called) Nervous Apoplexy, on Congestion of the Brain, and Serous Effusion. By WILLIAM BOYD MUSHET, M.B.Lond., University Medallist in Medicine; M.R.C.P.; Physician to the North London Hospital for Consumption, etc. Pp. 194. London: 1866.

DR. MUSHET'S object in writing this book is, he says, "to extricate Apoplexy as a substantive disease from an assemblage of symptoms, *i.e.*, from the multiform phases of coma."

"I am," he says, "strongly impressed that the main obstacle to a proper and simple understanding of the affection has been its confusion with every malady attended with unconsciousness, irrespective of pathological conditions; coma (the order) and apoplexy (the genus) having been almost invariably regarded as metonyms, loosely expressing a deeper or more pronounced degree of cerebral torpitude than their obsolete and less definite congeners—carus, cataphora, and lethargus."

He defines apoplexy as

"A more or less sudden impairment of the functions of the brain and nervous system—of consciousness, motion, and sensation—from extravasation of blood into the substance, or upon, or between the membranes of the brain, arising from internal causes." (P. 4.)

After giving the classification of apoplexy adopted by various writers, Dr. Mushet examines into its pathology. In doing this, he first discusses the question whether the quantity of blood within the cranium is subject to variation. He notices and comments on the opinions of Drs. Burrows, Kellie, C. J. B. Williams, Kirkes, Copland, Todd, Hughes Bennett, Carpenter, and Neil Arnott; and arrives at the conclusion thas the quantity of blood in the cranium may vary, even in physiological states, both relatively in the arteries, veins, and capillaries, and also absolutely, as shewn especially in the experiments of Mr. Durham on the state of the brain during sleep. He also refers to the modifications in the force of the intracranial circulation from various causes; and concludes, "that simple modification in the supply of blood to the brain does not *singly* exercise any influence on the causation of apoplexy."

The author discusses very fully, but in a rather discursive manner, the question of the relation of atheromatous degeneration of the arteries and disease of the heart to apoplexy. Neither of these conditions is, according to him, competent *per se* to produce effusion of blood within the cranium. Changes in the coats of the vessels he believes to be almost universal after a certain age, while cardiac diseases are frequent in youth and middle life; but it is a combination of the two pathological states that constitutes the proclivity to apoplexy.

In the second part of the work, Dr. Mushet argues against the doctrine that congestion of the cerebral vessels is a cause of apoplexy. His remarks on this point, though diffuse, like those to which we have already referred, will be read with interest. He has evidently thought deeply on the subject on which he has undertaken to write, and has, before coming forward in public, made himself master of the opinions that have been expressed by the numerous writers on the subject of apoplexy.

A MANUAL OF THE OPERATIONS OF SURGERY, for the Use of Senior Students, House-Surgeons, and Junior Practitioners. Illustrated. By JOSEPH BELL, F.R.C.S.Edin.; Lecturer on Surgery; Assistant-Surgeon, Clinical Wards, Royal Infirmary; etc. Pp. 267. Edinburgh: 1866.

MANY practitioners must have felt the want of a manual, which should give them, in a concise and at the same practically useful form, a description of the most approved methods of performing the various operations of surgery. Such a work has been prepared by Mr. JOSEPH BELL, a former house-surgeon and present assistant of Mr. Syme; and he has performed the task undertaken by him in a manner creditable both to himself and to the school to which he belongs.

The book consists of thirteen chapters; viz., 1. Ligature of Arteries; 2. Amputation; 3. Excision of Joints; and Operations on—4. The Cranium and Scalp; 5. The Eye and its Appendages; 6. Nose and Lips; 7. Jaws; 8. Mouth and Throat; 9. Air-passages; 10. Thorax; 11. Abdomen; 12. Pelvis; and 13. Tenotomy.

The author, while there is apparent throughout

his book a tendency—which can only be considered as natural—to prefer Edinburgh methods of operation, yet very fairly draws his information from all reliable sources. One operation which he describes is one rarely if ever mentioned in English surgical works: it is that of amputation at the elbow-joint.

"In cases where it is found impossible to save any portion of the forearm, disarticulation at the elbow-joint may be easily performed. This operation was proposed and performed so long ago as the days of Ambrose Parè, was much approved by Dupuytren, Baudens, and Velpeau, had fallen into disuse for a time, but is now again recommended by some excellent surgeons, especially by Gross of Philadelphia.

"It is tolerably easy to perform, and does not involve any sawing of bones, but the flaps are apt to be cut too short, unless care be taken, from the manner in which the trochlea projects downwards beyond the line of the condyles, so that if the base of an ordinary-shaped flap be made on a level with the condyles, it will prove insufficient to cover the bone. It may be performed either by the circular method (Velpeau), oval (Baudens), or by a long anterior and short posterior flap (Textor and Dupuytren). Probably, the best method is by a long anterior flap when it can be obtained, thus:—The arm being placed in a slightly flexed position, the surgeon transfixes in front of the joint, in a line extending from the level of the external condyle to a point one inch below the internal condyle; the tissues should be held well forwards at the moment of transfixion. This flap should be at least two and a half inches deep at its apex, which must be rounded off. The two ends of this flap may then be united behind by a semilunar incision, which will separate the radial attachments. The ulna must then be cleared, and the triceps divided at its insertion." (P. 52.)

Mr. Carden's method of amputating at the condyles of the femur, Mr. Bell describes as "most excellent", and regards it as preferable to all others when it is required to amputate at the lower third of the thigh, and where the skin over the patella is available. He has, he says, slightly modified it by making a slightly convex posterior flap of skin, which he allows to retract before dividing the muscles by a circular cut.

In amputation at the hip-joint, Mr. Bell informs us, the application of Lister's aorta-clamp has enabled Mr. Syme to follow out a new method, less rapid indeed than the ordinary one, but very easy, and resulting in good flaps.

"He cuts an anterior flap in the usual manner by transfixion, then makes a straight incision from its outer edge down to about two inches below the great trochanter, thus exposing it fully, and from the lower end of this incision transfixes again, cutting a posterior flap nearly equal in size to the anterior; a few strokes of the knife round the joint finishes the disarticulation. The resulting flaps come together with great accuracy, and are not burdened with the great unequal masses of muscles so often noticed in the posterior flaps which are made by cutting from within outwards *after* disarticulation." (Pp. 91-2.)

Besides describing the several operations, the author gives sketches of the history of some of them, and intersperses his descriptions with brief but judicious practical remarks. Thus, the chapter on Excision is opened with an historical sketch of the operation: after which, are given some directions as to the kind of cases in which excisions are suitable; the reasons, in regard to excision for disease, for and against excision as compared with expectant treatment and with amputation—the points considered being the difficulties and dangers of the operation, and the results on the usefulness of the limb.

The work is illustrated by a number of diagrammatic woodcuts; and on four plates of the human figure, placed at the commencement, are drawn the lines of operation in the ligatures of arteries, in amputations, and in excisions.

Progress of Medical Science.

ANATOMY, PHYSIOLOGY, & PATHOLOGY.

Development of Epithelial Cancer in Internal Organs. Dr. C. Otto Weber says that secondary cancroid deposits are found in internal organs much more frequently than is believed. His researches have been made chiefly in the liver and lungs. The epitheliomata in internal organs, he says, are developed at the expense of the nuclei of the interstitial connective tissue and not of the proper epithelial cells of the organs. He gives several instances of the coexistence of epithelial cancer and tubercle in the same organs. From experiment on animals, Dr. Weber is led to conclude that these secondary cancers are developed like metastatic abscesses. They do not arise from cells detached from the original cancer and carried along in the circulation; but the embolus exerts some inexplicable catalytic influence, and its presence determines the excessive growth of nuclei of connective tissue, with the result of forming a secondary cancer. (*Virchow's Archiv;* and *Gaz. Méd. de Paris,* June 16th, 1866.)

Structure of the Kidney. M. Chrzonszcewsky combats Henle's ideas on the structure of the kidney. He injects carminate of ammonia into the jugular vein of a rabbit; the carmine passes into the vessels and thence into the uriniferous tubes and the urine. To colour the vessels alone, he ties the renal veins immediately after injecting the jugular, then the artery; to colour the uriniferous tubes only, he ties the ureter and injects through the renal artery a saline solution, which removes all the colouring matter deposited in the vessels of the kidney. The principal results at which he has arrived are the following. The uriniferous tubes end in three ways: in anastomoses, in *culs-de-sac,* and in the Malpighian corpuscles. The anastomoses, which are very numerous in man, in the calf, and in the pig, are met with chiefly in the cortical substance. The termination in *cul-de-sac* is very rare; but there is no doubt of its existence. The Malpighian corpuscles (or rather capsules) are continuous with the tortuous tubes alone, and each with only one. The Malpighian capsule is lined with pavement-epithelium; the internal surface of the glomerulus of vessels is also covered with epithelium, but of larger cubic cells, more resembling the tortuous tubes. The Malpighian capsules communicate with the flexuous tubes, and through them with the straight tubes; and all may be injected through the ureter. In the looped canals described by Henle two kinds are to be distinguished: 1. Some described already by Ferrein, found in the peripheral portion of the medullary substance, are merely loops of flexuous tubes burying themselves in this substance. 2. Others, reaching the summits of the pyramids, are merely vessels. (*Gaz. Méd. de Paris,* June 23rd, 1866.)

ELECTION OF EDITOR.—DR. MARKHAM *having resigned the Editorship of the* BRITISH MEDICAL JOURNAL, *the* COMMITTEE OF COUNCIL *will meet at Birmingham on Thursday, the 22nd of November next, to fill up the vacancy. Communications on the subject will be received by the Secretary,* MR. T. WATKIN WILLIAMS, 13, *Newhall Street, Birmingham.*

British Medical Journal.

SATURDAY, NOVEMBER 10TH, 1866.

VENOUS INJECTIONS IN CHOLERA.

DR. PARKES, in his admirable treatise on *Cholera*, stated, as the conclusion of his close and clinical observation of a fearful epidemic, that, in his opinion, the only reasonable hope we have of combating the disease is by the aid of injections into the veins. Whatever may be the real value of such a means of cure, this much is certain, that every succeeding epidemic of the disease has only too surely proved the inefficiency of all ordinary therapeutical agents hitherto employed to combat it—shows, therefore, that, at all events, we ought, as rational men of medicine, to try thoroughly, for once and all, a remedy which *primâ facie* admittedly produces most remarkable temporary benefits. We brought this subject earnestly before the profession when this present epidemic of cholera was imminent over us—before it had broken out. We pressed upon the notice of our brethren the already too oft proven inefficacy of drugs as remedies in cholera. We suggested that there was reason to believe more harm than good was often done by the powerful drugs employed; and we therefore urged the profession to take up systematically the subject of venous injections, and prove or disprove their value. For a reasonable and hopeful solution of such a question, it was evident that certain well performed preliminary experiments were required. It was necessary, first of all, to decide and to lay down rules for the safe and proper performance of the operation itself as such; and then it was necessary that physiologists should endeavour to learn experimentally what kind of injections are most likely to undergo assimilation, or to be received innocuously into the circulation of the blood. We urged that, at all events, the subject was worthy of formal discussion in our societies, that we might at least hear the arguments which could be adduced in excuse of not trying the remedy, and fairly weigh the arguments which could be adduced in favour of it. But nothing of all this has been done. Remedies, whose utter inefficacy has been again and again proved to demonstration, have been again largely resorted to; but, with an apathy strange and remarkable, this one, which alone holds out a hope of cure, faint though it may be, we have passed by in negligence, as if it had been proved to be useless. Once again have we allowed a great occasion of trying the experiment to slip away—contented with the hopeless administration once more of the drugs which have again and again been proved powerless to stay the plague. True, in some few cases, venous injections have been employed; but only in those in which the elements of probable success were wanting. The selected were, as usual, hopeless cases; and the main great element—the nature of the injection and the mode of injection—not properly determined. And yet, we put it to the profession, is there any known remedy which has such wonderfully revivifying influence as hot injections? And ought not this marked temporary influence induced by hot injections to give us hopes of cure, and point this out as the true line of treatment? Will any member of the profession venture to affirm, *à priori*, that it is impossible to discover an injection of a kind which shall not only revivify, but which shall also sustain, the animal functions, and long enough, perchance, to preserve life through the deadly struggle? Surely, in such a desperate case as this, so hopeful and powerful an agent is worthy of full and complete trial. Surely the public may fairly ask, How comes it that, amidst so much *hopeless* and energetic drug-administering, there has been no attempt made, by systematic and well-considered means, to try the value of this *hopeful* remedy?

We urged also, and in vain, that venous injections should be tried in even a still more hopeful case—the cattle-plague. We urged it as an experiment which might have led us to perhaps great discovery in the treatment of human febrile diseases. But this great occasion, also, has been let slip. We were met by the argument: of what use to inject healthy blood into the veins of a diseased animal, when, as Dr. Sanderson's experiments show, the new blood will rapidly become tainted like the old?—the objector totally forgetting that the diseased blood of the animal was still the blood which nourished it—still the blood which kept it alive, and, if it lived, which still sustained it through the struggle; forgetting, also, that the animal mainly died from want of blood—from exhaustion—and because its digestive organs were unable to convert food into blood; that the animals died, not from the altered condition of the blood, but from want of new blood. The alteration of the blood was the *result* of the disease, not the cause of the diseased condition. But, as we have said, this one remedy, which we urged, and, as we think, with the most unanswerable arguments, as giving full (*à priori*) reasonable hopes of success, was ridiculed and argued down by such arguments as these, whilst at the same moment a whole battery of pharmaceutical drugs were being hopelessly discharged into the bowels of the diseased animal.

We must candidly say that, in both these cases, the profession has much to answer for at the bar of public opinion. Will any one venture to defend the apathy of the learned societies who represent the profession in this matter?

MEDICAL ETHICS.

A HOMŒOPATH, called in to treat a patient during the absence of the usual medical attendant, thought it not wrong to treat the case allopathically, as he called it. We said of the proceeding, amongst other things, that so treating a patient is to treat him like "a bale of goods". The homœopathic practitioner in question defends the course he took, and asks to give his reasons in our JOURNAL.

"I was called in," he says, "suddenly, to see a child in an epileptic fit, the usual medical attendant being from home. I found that the parents were allopaths. The usual medical man was also an allopath, and was expected home within an hour or so. The patient had for some time been under his charge; and his opinion was, that the fits always occurred when the stomach was overloaded. I saw no reason to doubt the correctness of this conclusion.

"I admit that there were several courses open to me in this case; but there was only one which I could consistently follow as a gentleman and as a Christian; viz., to 'do unto (these) others as I would that they should do unto me' under similar circumstances. In accordance with this 'golden rule' of ethics, I prescribed in such a way as could do the patient no harm, and at the same time accorded, or at least did not oppose, the course of treatment adopted by the usual medical adviser of the family, and which met the wishes of the family. How otherwise could I have acted? The case was one involving no danger to life; the patient *fortuitously* came under my treatment for one short hour. Was I to prostitute this opportunity to the purpose of shaking the confidence of these people in their family doctor? Suppose a physician, believing in bleeding and calomel, were accidentally called in to take one hour's charge of a patient with pneumonia, whose regular attendant was pursuing the opposite mode of treatment—*e. g.*, that of stimulation: do you mean to uphold that it would be his duty to reverse the whole treatment, and to employ his hour's opportunity in bleeding the patient, and in dosing him with calomel—doing also all in his power to undermine the confidence of the patient?

"The difference between the treatment I should have adopted, had the case of the epileptic been my own, and the treatment which I prescribed in deference to the proclivities of the patient's friends and his doctor, were not so diametrically opposed as are the relative methods of the 'bleeders' and the 'stimulators' of the allopathic school. The medicine I prescribed, though allopathic, involved no 'life-destroying business'.

"I do not contend that it is our duty to our brother practitioner (when accidentally called to one of his cases) to go the length of prescribing, *in any event*, according to his supposed wish or proclivity; but that we should always do so *as far as is consistent with the safety of the patient.* If the case were one of extreme danger, and if we believe that we hold, as it were, the keys of life and of death in our hands, then we manifestly are bound to apply that key which we believe will assure life; but even then the greatest care should be taken not to injure the absent practitioner."

We give this expression of homœopathic *credo;* but we can assure our correspondent that it will have little effect in convincing our readers. We can, *à priori*, assure him that he will find no member of our profession who will reciprocate his liberality of sentiment in this particular; that is, who, called in to a homœopath's patient, will prescribe homœopathic globules, or, as one might say, will set a thief to catch a thief, in the shape of letting loose *similia* on *similibus.* The ethics to be pursued by a medical practitioner in such a case are plain and simple. He would say to the patient: "I don't practise or understand the thing; I believe it to be a dangerous delusion, and a mockery of science. If you want my services, I will give them you as best I may, and in accordance with my lights and conscience. I totally disagree with the confession of faith adopted by your homœopathic adviser, as you well know; and therefore you will hardly ask me to practise his method. The whole thing is, in my view, simply nonsense. Were I to do so, I should be deceiving you, and doing an injury to my own conscience." This, undoubtedly, would be the argument of a medical practitioner in such a case. We neither understand nor appreciate the generosity of our correspondent in consenting for the time, and under the special circumstances, to substitute for homœopathic treatment the practice which he has forsworn and denounces as bad. His logic, we must assure him, is sadly at fault in the comparison of cases which he supposes. They differ *toto cœlo.* In our opinion, the duty of every medical man, when called in to a patient, is to do his very best for him, without fear or favour. We answer without hesitation, that, if called in legitimately to attend another practitioner's case of pneumonia, and if we thought bleeding was required, we should unhesitatingly perform the operation, whatever might or might not be the opinion or the actual treatment of the regular medical attendant. It is quite clear that the ethics of homœopathy differ from the ethics of medicine.

THE College of Surgeons would do a service in obtaining a new Charter, if it were only to relieve us from falling into errors of details, in matters touching the anomalous and complicated constitution of its governing body. Messrs. South, Cæsar Hawkins, and Luke, are not, as we hinted, subject to quinquennial re-election—for the reason, that they were elected before the last Charter of the College was obtained. *They hold office during the will of the Council.* The Council can, therefore, at any moment conclude their term of examinership; and, after the vote which they lately came to, they will, of course, stultify themselves if they fail to do so—

unless they be saved the necessity of performing the ungracious duty by the resignation of the examiners in question. Mr. Lawrence, the oldest examiner, having been elected before both the last Charters were obtained, cannot be removed. He is a life member. The other six examiners under the last Charter are subject to quinquennial re-election; and up to the present time this quinquennial re-election has been made (contrary to the express spirit of the Charter, as we have so often said) virtually a life election. But the resolution of the Council, if it means anything, will put an end to all this. Its only error is in not distinctly stating that no examiner shall hold office for a longer period than five years. The good of the College and fair play to the Fellows at large demand such limitation.

Dr. Gibbon is, we learn, a candidate for the Coronership of the City of London. We need, we hope, hardly enforce upon our brethren the supporting of a medical man for such an office.

The treatment of cancer by the injection of acetic acid, brought forward by Dr. Broadbent at the meeting of the Association at Chester, is exciting great interest and promises to be of real service. The object aimed at by Dr. Broadbent, as stated by himself (*Cancer: A New Method of Treatment*), was "that the vitality and nutrition of cancerous growths might be so far modified as to check or arrest their progress without necessarily causing their suppuration"; and this has actually been realised. A cancerous gland was exhibited by Mr. Moore at the Pathological Society, in which the malignant structure had been completely disintegrated by acetic acid injected into it; and small tumours have been made to disappear entirely by this process, a single injection sufficing. The treatment is being tried at most of the hospitals in London, and we may expect to have soon further evidence as to its value.

A Medical Congress will meet in Paris on August 16th, 1867, under the auspices of the Minister of Public Instruction. It will sit for two weeks. French medical members will pay twenty *francs* subscription. Foreign medical members will be admitted without fee. The following is the programme of subjects to be discussed. 1. Anatomy and Pathology of Tubercle—Tuberculisation in different Countries, and its Influence on Mortality; 2. The Ordinary Causes of Death after Surgical Operations; 3. Can different Governments unite in Measures for Preventing the Spread of Venereal Diseases? 4. The Effects of the Food of different Countries in the Production of certain Diseases; 5. The Influence of Climate, Race, etc., on Menstruation; 6. The Acclimatisation of European Races in Tropical Countries; 7. Entozoa in Man. Medical men wishing to become members must apply to Dr. Jaccoud, 4, Rue Druot, Paris. Members desirous of making communications on any of these questions, or on any other, must forward them to the Secretary three weeks before the opening of the Congress. The Committee will decide as to their admission, etc. The meetings will take place morning and evening—the day meeting from 2 to 6 p.m., and the evening meeting from 8 to 10 p.m. Each question will occupy only one day. No paper shall take longer than twenty minutes reading. All the papers will become the property of the Congress. Students will be admitted, but not allowed to speak. Doubtless the British Medical Association will arrange that its annual meeting do not clash with this important Congress. We would suggest that our Association might well open a communication with the Congress, and send a deputation to attend it. Also, the Association might invite a deputation to attend our next meeting in Dublin.

The Duke of Cambridge, as Commander-in-Chief, appears to have lapsed into a chronic condition as snubber of doctors. Who can be his advisers in matters medical? Whose influence is it which operates in thus misdirecting the Commander-in-Chief's medical operations? Advertising curers of consumption have, we believe, influence at the Horse Guards; and we have heard that even homœopathic priests are not without power there. In one sense, at all events, the Duke is happy. He has medical advisers who, whether they direct his conscience or not, at all events throw the mantle of their high medical authority over his ducal ultimata. Royal dukes, of course, cannot err; and it is perhaps too much to expect that the Medical Department of the army should venture to suggest to his Royal Highness that he could order medical matters amiss. The Duke, however, is not without wisdom in the carrying out of his anti-doctors' schemes. In the present case, he has resorted to the strategy of delay. He has won the victory by playing a waiting game. He has bowled the doctors over; not boldly and at once, but slowly, *gradatim*, and, as one might say, sneakingly—on the quiet—when there was no Parliamentary eye to watch him. He has chosen his time well; viz., about half way between the last out-going and the next in-coming Parliament—just at the time when, as might be supposed, the public had forgotten the dispute in the last Parliament, and when the matter might again be forgotten before the next Parliament meets. If the thing were right in itself, why had not his Royal Highness courage enough to do it before last Parliament broke up? But the profession knows how this Commander-in-Chief carries on the military affairs of the nation. It has not forgotten and will not forget that his Royal Highness the Duke of Cambridge secretly upset the terms of a public

royal warrant by a private Horse Guards memorandum—which to this day he has neither had the courage nor (shall we say?) the honesty to publish; that he secretly and illegally took away from medical officers by a private memorandum, privately issued to commanding officers of regiments, privileges which had been given them by royal warrant. His last—the performance to which we now allude—is thus described.

"Staff-Surgeon Elkington is gazetted as Battalion-Surgeon, Grenadier Guards," says the *Pall Mall Gazette*. "The Duke of Cambridge has thus made an appointment which he was besought by the almost unanimous voice of all the military members of the House of Commons not to make, and has inflicted an injustice on the medical officers of the Guards, which was explained, admitted, and regretted by the Minister for War. The course which the Commander-in-Chief has pursued is worthy of notice for many reasons; one is, the curious policy of delay with which he has met expostulations. This appointment was to have been made seven months ago; it was postponed when the Parliamentary debate occurred, and twice subsequently, but, after a period of absolute quiescence lasting over some months, the obnoxious step is taken, as though no remonstrance whatever had been made. The wording of the *Gazette*, too, is very curious. Instead of gazetting the promotion as 'Assistant-Surgeon Elkington, from the Fusilier Guards, to be Battalion Surgeon, Grenadier Guards' (over the heads of half-a-dozen officers, senior to him in the regimental order) he is called 'Staff-Surgeon.' Having been gazetted first out of his regiment on to the staff, with superior rank, he is then transferred to the Guards by the Director-General. It is a great pity that to carry so small a point the whole medical service should have been annoyed and injured and public opinion defied. No one doubted that the Duke could promote a man out of his turn; but there were many who hoped that in this case he would not."

We most earnestly call the attention of our readers to the appeal from the Chairman of the Medical Benevolent Fund, published at page 533. This excellent institution, which, indeed, may be called the noblest of the offsprings of the Association, deserves far more support than has hitherto been afforded it, however great this has been. It works in the true spirit of charity and goodwill. Managed by a Committee of well-known and upright men, it invites the distressed members of our profession and their widows and orphans to apply; and when they have done this, it grants them aid, after inquiry, without ostentation, and without putting the recipients of bounty to the pain of public exposure of their circumstances. With all the good that the Fund has done and is doing, there is yet much distress that it is powerless to relieve, simply because the supply of money is far less than the demands for aid. We, therefore, earnestly call on all our fellow-associates, and on all members of the profession, to add whatever may be in the power of each to the resources of the Fund. Large subscriptions are not asked for. A few shillings annually from each of some hundreds of men would raise a sum that would enable the Committee to relieve much distress that they are now obliged to overlook. Subscriptions and donations may be paid to the Treasurer, Dr. Sieveking, 17, Manchester Square; the Honorary Secretary, Dr. Broadbent, 23, Upper Seymour Street, W.; or Mr. W. Self, 216, Richmond Road, Hackney.

The advertising columns of this day's Journal contain the first list of subscriptions to the Richardson testimonial. We call the attention of our readers to the fact, in the hope that they will add their names to the list. As has already been repeatedly said, the services rendered by Dr. Richardson to the profession deserve some practical recognition of an honourable and substantial kind.

The Mayor of Inspruck has forbidden smoking amongst Tyrolese youths attending the schools in his district, as well as amongst apprentices. Parents and medical men and the clergy are requested to preach against the use of tobacco.

The Parisian medical students have their opening day in November. This year, as on several previous years, it has been a very uproarious one with them. M. Wurtz, the Dean, began the proceedings. The report says that the invited present were few, and the seats of many of the professors empty. But the students were there in crowds, uproarious, agitated, impatient; applauding with frenzy, and murmuring with anger; interrupting the orators with noises, apostrophes, and divers kinds of demonstrations; filling the amphitheatre with their clamour and laughter, shouting bravo for this one, and down with that other! Into the midst of this company entered the Faculty on the 3rd of November, whereupon arose the applause of some, whilst others, in formidable chorus, gave forth the opening canticle of religious festivals, "*Sanctus Spiritus*, descend upon us!" Professor Jarjavay struggled valiantly for three-quarters of an hour against this impassioned auditory, delivering his eulogy on Malgaigne. And of all this uproar no one, says *L'Union Médicale*, can give an account. "The scene was afflicting. We hear much of liberality; but of its practice we here see but little."

By decree of November 3rd, MM. Andral, Cruveilhier, Piorry, and Trousseau, Professors of the Faculty, have been permitted to claim their superannuation. On the same day, M. Jobert was also permitted so to do. M. Piorry has been nominated Officer of the Legion of Honour. MM. Andral, Cruveilhier, and Trousseau, have been nominated Honorary Professors.

PRESENTATION OF A MEMORIAL TO SIR THOMAS WATSON, BART., M.D., BY THE FELLOWS OF THE COLLEGE OF PHYSICIANS.

On the 7th instant, in accordance with a resolution passed at a meeting of Fellows of the College on the 29th ultimo, a deputation, consisting of Dr. Alderson, Dr. Burrows, Dr. Tweedie, Dr. Sibson, Dr. Jackson, Dr. Buchanan, and Dr. Markham, waited upon Sir Thomas Watson, at the College of Physicians, to present him with a memorial, signed by 189 Fellows of the College.

Dr. Alderson, in presenting the memorial, said: It is a great satisfaction, Mr. President, to us whom you see around you to have been nominated, at a large meeting of the Fellows, to present to you a memorial requesting you to sit to some celebrated artist for your portrait; the picture to be placed within the College by the side of those of the other distinguished men whose portraits now grace our walls. The memorial bears the signature of nearly every Fellow of the College; and may be considered an heirloom document, to be transmitted to your family as an evidence of the warm feeling of respect and attachment entertained for you by all the Fellows of the College.

Dr. Pitman then read the memorial, as follows.

"We, the undersigned Fellows, request you will do us the favour to sit for a portrait to be placed within the College walls, as the expression of our regard and esteem, of our high appreciation of your character and learning, and of our grateful sense of the many services you have rendered to our College."

Sir Thomas Watson replied, that it would be difficult, if not impossible, for him to express in adequate terms his feelings of gratitude at a memorial thus presented to him by so large a body of men whom he deeply esteemed. More than forty years had he been connected with the College, and five years as its President; and the culminating compliment, the highest which could be paid to him, was the request he had now received from the Fellows. "It is always a matter of pride," said Sir Thomas, "to receive marks of esteem from those whom we esteem—from gentlemen of social position; but especially is it so from members of our own profession. I hope the deputation will let the Fellows at large know that I consider this mark of their esteem as the greatest honour which could be paid to me. Fame and good repute are ofttimes fleeting, and may be soon forgotten; and few are the men of our profession who carry their names to posterity in connexion with literary labours. So changing ever is medicine, that neither style nor matter can avail to keep our memory alive; but to be associated thus with the College by our effigies is to be assured of a kind of earthly immortality, of which I may well be proud—and especially proud when the honour is received from the hands of such a distinguished deputation. It is the greatest honour which could be paid to me in my old age. I beg the deputation will themselves receive, and communicate to the Fellows at large, my warmest thanks." [In making these remarks, the worthy President spoke with marked emotion.]

Dr. Burrows then said: Sir Thomas, Dr. Alderson having so completely and appropriately expressed the feelings of the meeting of the Fellows who have deputed us to present their memorial, I have now to call your attention to another resolution passed at the meeting of Fellows. It is the wish of the Fellows to pay you every additional compliment on this occasion, and they express a hope that you will select the artist whom you would prefer to paint your portrait. We feel it is very important that some artist should be selected who would not only give us a good picture, but that it should be one who is familiar with your features and well acquainted with you, and who would transmit to posterity a faithful representation of one who has filled the presidential chair with so much dignity, ability, and urbanity.

In answer to the resolution conveying this request, the President replied that, however much he felt this additional proof of the confidence reposed in him by the Fellows, he should gladly be excused from making the choice. Such choice, indeed, would be difficult and perplexing to him. Far better that the selection should be made by the Fellows themselves. He begged that the Fellows would allow him to forego the request contained in this resolution.

[In consequence of the wish of the President not to name an artist, another meeting of the Fellows will be called for the purpose.]

CHOLERA DEATH-RATE.

During the past quarter 116,826 deaths were registered in England, and the annual rate of mortality was 2.182 per cent. This exceeds the average mortality, the excess on the population being equivalent to 10,720 deaths. The deaths returned from cholera amounted to 10,365; the deaths from diarrhœa, also due in great part to the same cause, to 9570.

The mortality was at the rate of 25 per 1,000 in the large town districts, and 18 in the village and small town districts. The mortality in the town districts was considerably above its usual summer average; while in the rest of the country the increase was slight.

The three months of July, August, and September are usually the healthiest; and their average annual rate of mortality per 1,000 is 20; but their mortality during these months in the present year was at the rate of 22.

The mortality of London was at the rate of 29 in 1,000; of the north-western division, 27; in the two northern divisions and in Wales the mortality was at the rate of 22.

The mortality was at the rate of 19 in Birmingham, 21 in Bristol, 22 in Hull, 24 in Sheffield, 26 in Salford, 31 in Manchester, 32 in Newcastle-upon-Tyne, 50 in Liverpool. In Edinburgh the rate of mortality was 23, in Glasgow 25, in Dublin 24. The high rates of mortality are generally due to the invasion of cholera.

It is well known that this epidemic raged around us in France, Belgium, and Holland, earlier in the year, and during July it established itself in England, where it put the sanitary defences of nearly every district on the coasts to the test.

The mortality of Birkenhead on the south side of the Mersey, was at the rate of 24 in 1,000, while in Liverpool it was 50.

The cholera has prevailed, as on former occasions, in particular fields. The London cholera field, by extension down the Thames, reached Ramsgate. The second considerable field lies round the Solent along the coast from Portsmouth and Southampton to Newport in the Isle of Wight. The Exeter field extended beyond Torbay, to Totnes and Brixham. The Liverpool field extended to Chester, Wigan, and Bolton, but scarcely touched Manchester. The Swansea field was visited with extreme severity; and

although the mortality was concentrated mainly on Swansea, Neath, and Llanelly, it was felt all over Glamorgan, Carmarthen, and Pembroke, as far as Haverfordwest.

The epidemic has been most fatal on the sea coast in the chief ports of the kingdom. It is by no means capricious, says the Registrar-General, but obeys definite laws. It never destroys the people to any extent where the water supply is pure, or where the hygienic conditions are good, when the authorities adopt judicious and well organised measures of early treatment and systematic disinfection. Those districts which are supplied with bad water, have no effective system of sewage, have no health officer, and have no precautions in force, should immediately set their houses in order, as they are still in imminent danger.

THE MEDICAL CLUB.

A NUMEROUSLY attended meeting of members of the medical profession to consider the propriety of forming a medical club in London, was holden at the Hanover Square Rooms on Thursday last. The chair was taken by Sir William Fergusson, Bart.; and Dr. Lory Marsh acted as Secretary.

The CHAIRMAN, in opening the proceedings, said that the object in view was to form a club for the profession on the plan of those large institutions which had sprung up in London during the last half century. It was remarkable that the proposal had not before been made seriously. Suggestions had indeed been from time to time offered, but had never been carried out. Now, however, the formation of a club was proposed in earnest, and he hoped it would be carried out. It would be strange if, out of the 15,000 members of the profession within reach of London, 500 or 1000 could not be obtained as members of the club. He commented on the value of such an institution to men who, having passed some years in practice, were able to relax somewhat from their labours, and were desirous of enjoying social intercourse with their brother practitioners and with men of science and literature. No class of men, he thought, more required such an institution, and none more deserved it, than the members of the medical profession.

Dr. LORY MARSH reported the progress which had been made towards the formation of the Club. There were more than three hundred members; most of whom had paid their fees. These fees would after a time be necessarily raised; but it was usual to offer advantages to those joining the Club at first. Membership would be attended with no pecuniary liability beyond the entrance fee and subscription. It was intended that members should always have the privilege of introducing their friends; that sleeping accommodation should be provided for country members; and that rooms should be set aside for the use of members desirous of holding professional consultations. There would also be a library, reading-room, refreshment-rooms, etc.

The following resolutions were then proposed, seconded, and carried.

1. Proposed by the CHAIRMAN, and seconded by Mr. ATKINSON, of Iver, Berks.

"That, in the opinion of this meeting, it is desirable to establish a Club in London for the social intercourse of members of the medical profession, British and foreign; to promote and maintain a mutual interest and fellowship between men of art, science, and letters."

2. Proposed by Dr. B. W. RICHARDSON, and seconded by Sir CHARLES MCGRIGOR—

"That the club be called 'The Medical Club'; but that it be competent to elect as members gentlemen connected with literature, science, and art, as well as members of other scientific societies: the election in all cases to be by ballot."

3. Proposed by Mr. ERASMUS WILSON, F.R.S., and seconded by Dr. WEBSTER of Northampton—

"That a Committee be formed, consisting of the following gentlemen, with power to add to their number; viz., Sir W. Fergusson, Bart.; Dr. Farquharson, Coldstream Guards; Mr. Clement, M.P., Shrewsbury; Mr. Propert, London; Sir Charles McGrigor, Bart.; Dr. Bell Fletcher, Birmingham; Mr. Grigg, R.N., Greenwich Hospital—to settle the rules; to determine the amount of the future entrance-fee and subscription; and to take the necessary steps for opening the Club as soon as practicable; it being distinctly understood that, previous to their adoption, the rules shall be revised by counsel, so that members shall not, under any circumstances, be rendered liable to pay more than the amount of their entrance and subscription."

4. Proposed by Dr. WARD of Huntingdon, and seconded by Dr. FARQUHARSON, Coldstream Guards—

"That a copy of the resolutions now adopted be forwarded to the members of the Club, with a request that they will circulate them among their friends."

A vote of thanks to the Chairman was proposed by Mr. Propert, seconded by Dr. Chevallier of Ipswich, and carried unanimously. In acknowledging the vote, Sir W. Fergusson took occasion to express the thanks of the meeting to Dr. Lory Marsh; who stated that the idea of forming a club for medical men had originated in a suggestion made to him three years ago by the late Dr. Babington and Dr. Spurgin.

Special Correspondence.

LIVERPOOL.

[FROM OUR OWN CORRESPONDENT.]

THE cholera epidemic in this town has now so much abated, that the provisional arrangements instituted by the parochial authorities, consisting of a temporary hospital, cholera wards in the workhouse, additional dispensaries, extra medical officers, and lay house-to-house visitors, have been dispensed with. The present invasion, when compared with that of 1849, has neither lasted so long, nor has it become so generally prevalent amongst the population at large, as in that year. As to the rate of mortality, it will probably be found, when the returns of this epidemic are complete, that it has varied but very little, if at all, from that of former epidemics of cholera. The average number of deaths seems to have been somewhere about 50 per cent. of the seizures; that is, when only such cases are included as present undoubted symptoms of confirmed cholera, as indicated by collapse more or less profound.

The treatment has varied in the practice of different practitioners; but I believe that the eliminative principle has been that most generally adopted, calomel in small repeated doses being a favourite remedy. All appear now to be agreed as to the inutility and even the injurious effects of alcoholic stimulants during the stage of collapse. One practitioner, who has had considerable opportunities of

treating cholera in 1849, as well as during the present year, is still convinced of the importance of checking the premonitory diarrhœa at once; and his favourite remedy, which, he asserts, scarcely ever disappoints him, is acetate of lead. He believes that he has by this means prevented many cases from passing on from diarrhœa to cholera. This is, however, opposed to the views of others, who treat the cases from the commencement without astringents. These conflicting opinions are embarrassing, and we must hope that future observation and further inquiry may afford a solution of the difficulty. It is possible that the diarrhœa which always prevails in cholera times may, after all, be a disease quite distinct in its essential character from cholera; and, in fact, the very interesting Report of the garrison surgeons at Malta, which formed the subject of a leading article in your columns a short time since, almost conclusively proves that such is the case. If that be so, the supposed anticipatory cure of cholera is really nothing more than the checking of simple diarrhœa, which, if left to itself, instead of passing into the severe malady, would run the ordinary course of the milder disease.

Although it must be admitted that we are still as far as ever from having discovered a specific for this disease, we may congratulate ourselves upon having ascertained pretty clearly that certain remedies, which were formerly used and relied upon, are to be avoided as positively injurious—an important step towards placing our treatment on a sound basis.

One useful lesson has been gained from this epidemic; and that is, the undoubted efficacy of preventive measures. To the prompt and efficient means taken by the local authorities we may fairly attribute the shortened duration and the less general spread of this, as compared with other invasions of the disease. As an illustration of the extensive scale upon which sanitary precautions have been carried out in Liverpool, we may mention that not less than £1,000 has been spent upon carbolic acid alone. It is true, that the disease has not been so thoroughly stamped out here at the commencement as it appears to have been at Bristol, where, owing to the energetic means carried out in accordance with the directions of Dr. W. Budd, the disease was completely checked in its origin; but there may be local peculiarities in this town which present difficulties not existing elsewhere. With the best intentions, and with the utmost vigilance, it is perhaps impracticable entirely to prevent the introduction of a contagious disease into this overgrown seaport, amidst the complicated circumstances of almost unlimited intercommunication with all parts of the world, and the various conflicting interests of extensive commercial operations, and with a dense mass of pauperised and unenlightened people, who may readily baffle and embarrass the wisest and most complete sanitary arrangements.

The departure of cholera has afforded to the believers in the delusions of Hahnemann a safe opportunity of extolling the alleged superiority of their system over that of scientific medicine. At a public meeting recently held in this town, a clergyman is reported to have boldly stated that "the percentage of deaths from cholera under homœopathic treatment has not been over ten." The assertion of such unprecedented success in the treatment of a disease universally acknowledged to be so fatal, *if* we could only believe it, would encourage us to hope that by a still further dilution, or by more repeated potential agitations of the marvellous globule, the ten per cent. might be reduced to *nil*, and "the rider on the pale horse" banished from his most productive hunting-grounds.

The most noteworthy events of recent occurrence in our medical world are the opening of the School of Medicine, and the commencement of the meetings of the Medical Institution for the ensuing winter session. The former has commenced with a larger number of new students, and with better prospects of success, than have been the case for several years, attributable, no doubt, to increased efficiency in the management, and a more liberal expenditure, with a view to develope the resources of the establishment, than has hitherto characterised its operations; and there is every reason to anticipate that the result of these judicious arrangements will be to raise the Liverpool School of Medicine from the secondary position it has for some years occupied to the foremost rank as a provincial school. So far as resources and *matériel* are concerned, there is no reason why Liverpool should not possess a school of medicine of the most efficient character. The Royal Infirmary affords opportunities of clinical study, especially as to surgical disease and the capital operations of surgery, which are exceeded by few, if any, similar institutions, either in the metropolitan towns or in the provinces. The Northern and Southern Hospitals, situated in the immediate vicinity of the docks, comprise a wide field of observation, in the treatment of fractures and almost every variety of injury, and also the special diseases of sailors and foreigners, with which the wards are constantly filled. In addition to these are the Ophthalmic Hospital, the Lock, and the Lying-in Hospital; and, at an easy distance, an extensive pauper Lunatic Asylum, each of which is available for students. An almost unlimited supply of subjects in the dissecting-room offers every facility for the study of practical anatomy. The several chairs are filled by lecturers whose heart is in their work, and who are earnestly desirous of doing all in their power to enable the students to avail themselves to the utmost of the ample opportunities afforded them in every department of medical study.

The members of the Medical Society, in their inauguration of the session, have likewise evinced a desire to "set their house in order". Dissatisfied with their present constitution and laws, originally designed to meet the requirements of the amalgamation of two distinct societies, but which are found to be unsuited to the advanced and improved position of the institution, they are, at the suggestion of Dr. Gee, one of the vice-presidents, considering a plan to remodel and consolidate the existing code of laws, with a view of assimilating it more nearly to those of kindred societies of a high character in the metropolis and elsewhere.

Association Intelligence.

COMMITTEE OF COUNCIL: NOTICE OF MEETING.

The Committee of Council will meet at the Queen's Hotel, Birmingham, on Thursday, the 22nd day of November, 1866, at 3 o'clock P.M. *precisely*.

To elect an Editor of the Journal, in the place of Dr. Markham; and other important business.

T. Watkin Williams, *General Secretary*.

13, Newhall Street, Birmingham, November 5th, 1866.

MEDICAL BENEVOLENT FUND.

At a Special General Meeting of subscribers to the Medical Benevolent Fund, held on Tuesday, October 30th, the following gentlemen were elected to the office of Trustee.

H. W. Acland, M.D., F.R.S., Regius Professor of Medicine in the University of Oxford.

James Paget, Esq., F.R.S.

Edward H. Sieveking, M.D., Physician to H.R.H. the Prince of Wales.

The following Biennial Appeal has been issued.

"The time has arrived at which the Committee of the Medical Benevolent Fund usually address their professional brethren for renewed aid in carrying on the charitable work in which they are engaged, and they adhere to the plan of circulating an appeal as more consistent with the unobtrusive character of their operations than a public dinner.

"The Committee believe that no stronger claim for support can be urged than a simple statement of what the Fund is doing. There are now thirty annuitants between 67 and 88 years of age, and in most instances in feeble health, who are saved from want in their declining years. In addition to these, in the year 1865, £770 was distributed among eighty-eight cases of distress, some being of the most painful and urgent character; and already in the first seven months of 1866, sixty-five applicants have received relief amounting in the aggregate to £680. Very few of these could have been reached by any other existing charity; and, besides the alleviation of misery, it has frequently happened that the grants have been the means of enabling the recipient to regain a self-supporting position.

"The Committee would, as on previous occasions, call attention to the inexpensive mode in which the charity is administered. All its agencies are voluntary, all its offices honorary, a room for the meetings is generously furnished by a member of the Committee, and the only expenses are the indispensable ones attending the collecting of subscriptions, the printing, and postage. Thus, the money goes directly to those for whom it was intended, without the heavy deductions too frequently witnessed.

"Again, the applicants are put to no expense beyond such as is necessary to furnish evidence of their need and worth. They have not to parade their poverty by a public canvass. The relief reaches them promptly, and is proportioned, as far as the means at the disposal of the Committee will permit, to their necessities.

"At the present moment, the Medical Benevolent Fund has a special claim upon the support of the profession, inasmuch as it has been recently deprived of several of its warmest friends. The names of Mr. Newnham, Mr. Toynbee, and Sir Charles Hastings, have long been identified with this charity, and their loss is felt to be a serious drawback to its prosperity. The sudden and untimely death of Mr. Toynbee especially demands a tribute from all friends of the Fund. The Committee are fortunate in having obtained the consent of Dr. Sieveking to act as Treasurer; and they hope for a continuance of the generous support which has placed the Fund in its present position. Great as its usefulness now is, it is still far short of the limits of its application. As the area of its operations is extended, more cases of distress are brought within its sphere, and the demands for assistance multiply, rendering necessary an increase in the number of subscribers. It is impossible to imagine more legitimate objects of charity than the aged, afflicted, or unfortunate of one's own profession, and on their behalf the Committee again invoke the sympathy and aid of their brethren."

SHROPSHIRE SCIENTIFIC BRANCH: ANNUAL MEETING.

The Annual Meeting of this Branch was held in the Museum, Shrewsbury, on October 24th; Edward Burd, M.D., President, in the Chair; William Newman, M.D., Vice-President.

The Secretary read the minutes of the quarterly meetings.

Election of Officers. Samuel Wood, Esq., was elected Vice-President for the ensuing year; Dr. Oakley, Treasurer; Dr. Burd, Dr. Johnson, and the Honorary Secretary, Representatives on the General Council.

President's Address. The President then delivered an eloquent address, reviewing the more recent advances in medical and surgical science; and showed that a steady onward progress characterised the work of the profession at large; that although to the metropolitan schools and workers new theories and proposals of fresh treatment were mostly due, the provincial men were not wanting in fruit, gathered from the vast fields of research which were being explored; whilst the busy country practitioner was, from his daily familiarity with disease occurring in denizens of towns and country districts, the most fit arbiter of their value. Submitted to the touchstone of practical experience, the worthier were either welcomed with avidity or laid aside with regret.

Contributions. 1. Dr. Newman read a very practical paper on a singular Case of Hernia occurring in his practice.

2. Mr. Holmes Coote contributed a series of skulls and casts of brains, accompanied by an explanatory paper.

3. Mr. Morris and Mr. Wood contributed papers.

5. A number of new instruments, including the Sphygmograph, were exhibited.

Several papers had to be omitted from want of time, among which was a valuable one on Water and its Impurities, by Mr. T. B. Blunt, M.B.Oxon. These and others will be read at the January quarterly meeting.

New Members. Mr. Holmes Coote was elected an honorary member. Four new members were balloted for and elected.

Dinner. The members and visitors then adjourned to the Raven Hotel at six o'clock, where thirty-four sat down to an excellent dinner, and a most agreeable evening concluded the meeting.

A New Village Hospital, called the Capel, has been established by the liberality of Mrs. Broadwood. It is fitted up for the accommodation of five males and five females.

Reports of Societies.

LIVERPOOL MEDICAL INSTITUTION.

THURSDAY, OCT. 18TH, 1866.

J. CAMERON, M.D., Vice-President, in the Chair.

Specimen. Mr. BICKERTON showed a sixth month Fœtus, one of Triplets, enclosed in its membranes. Movements were observed for three-quarters of an hour after separation from the placenta.

Mr. M'CHEANE gave the following history of a piece of Nut-shell expelled after six months from the Trachea of a Child, which he exhibited. Six months ago, whilst cracking an ordinary brown nut, half the shell slipped into the larynx and threatened suffocation. It was dislodged immediately by external manipulation, and passed into the trachea, being firmly fixed in the right bronchus. Acute pain was felt just about the right nipple on drawing a full breath. Inflammation intervened; for which he was under medical treatment. He had frequent spasmodic cough, with frothy mucous expectoration streaked with blood. His general health has suffered materially. At present there is dulness on percussion over a circumscribed space below the right nipple, where there is also absence of respiratory murmur and increased distinctness of the sounds of the heart, indicating consolidation of lung.

Mr. HAKES showed a specimen of diseased knee-joints which he removed, one for disease and the other for injury. Excision was performed for the former and amputation at the joint for the latter.

Mr. HARRISON showed the lower half of a femur he had removed for necrosis in a child aged 9 years; the epiphysis at the lower end of the bone was free from disease.

The Forceps in Midwifery. Mr. STEELE read a paper on the use of the midwifery forceps; in which he advocated an earlier and more frequent recourse to them in tedious or powerless labour than is generally recommended in the writings of obstetric authors. [Mr. Steele's paper has been received for publication in the JOURNAL.]

Correspondence.

TREATMENT OF BOILS AND CARBUNCLES.

LETTER FROM JAMES STARTIN, ESQ.

SIR,—If the enclosed letter on a subject concerning which I have received numerous inquiries from professional *confrères*, is deemed worthy of a corner in your JOURNAL, I have Mr. Solly's permission to make this use of it.

I am, etc., JAMES STARTIN.

October 29th, 1866.

"MY DEAR SOLLY,—In reply to your inquiry respecting the practice I have for many years adopted in the treatment of boils and carbuncles, I may briefly state, that it is to regard these maladies as having frequently or constantly a parasitic origin, and to treat them accordingly. I should mention that this opinion is rather borne out by the success and efficiency of the practice in the cure of these ailments than by microscopic verification, though in an example or two, amongst very many failures, this test has demonstrated cryptogamic vegetation resembling what is found in sycosis. But the opinion cited may rather be said to be grounded upon the frequently observed contagious nature of boils, as evidenced not only by their being extended to different parts of the body by the fingers of the patient, but occasionally transmitted to others by very close contact, as in the case of a bedfellow, where probably, as in the former case, by scratching, the integrity of the cuticle becomes broken, so as to allow inoculation of the secretions; a fact which is further verified and exemplified by the appearance of boils on the hands or body of the surgeon or dresser where abrasions of the cuticle are present, or from a chance puncture by the lancet, or imperfectly cleaned instrument, previously employed in operations on these maladies. In one instance, this occurred on my own hand; and I have several times observed a like manifestation on the hands of others. Boils very frequently appear in the vicinity of carbuncles, which are exaggerated boils modified by a peculiar constitutional cachexy; and the appearance of boils beneath poultice applied to boil or carbuncle which serves to retain the morbid secretions in close contact with the skin, may also be cited. But, as I before mentioned, my opinion of the parasitic nature of these complaints is chiefly influenced by the rapidly curative effect of the application of parasiticides to the apex of the boil or carbuncle. These may consist of various agents having the same end in view; as iodine, nitrate of silver, caustic potash, chloride of zinc, blistering liquids, the mineral acids, etc.; but I give the preference to *the acid nitrate of mercury of the Skin Hospital Pharmacopœia;* for the reason that it acts deeply, and combines with the slough by endosmose or absorption into its structure, as well as superficially, by blistering and destroying the surface to which it is applied. The extent to which this caustic is to be used must be measured by the size of the boil or carbuncle; in the case of boils, a small point, of the size of a watch key, augmented according to the case to the size of a threepenny piece, will be sufficient; in the case of carbuncles, the size of the cauterisation may vary from a quarter of an inch to two or more inches in diameter. The caustic is best applied by means of a spun glass brush; and it will generally be found better and more agreeable to the feelings of the patient to surround the boil or carbuncle with a piece of opium plaster spread upon wash leather, large enough to cover the entire induration, with a cross or hole, of the size of the cauterisation, cut in its centre. A poultice may be applied over this plaster, in or over which poultice half a drachm to a drachm of the unguentum hydrargyri mitius, P.L., may be mixed or spread, but this may be varied by any other parasiticide. The constitution is to be supported by a generous animal diet, with a full allowance of wine or brandy (not malt liquors), and full doses of iron; four-grain doses of the sulphate for example, combined with bitters and saline aperients, is the medicine chiefly to be relied on: of course, there are cases where the knife may be needed to divide bands of integument, sloughs, etc., in the advanced stages of carbuncle, or in boils where suppuration has far advanced; but, as a rule, during the last fifteen years, or longer, that I have adopted this plan of treatment, I can scarcely recollect a single case, in a wide public and private practice, where I have not found the treatment herein advocated sufficient, or where recovery has not followed its adoption.

As I have not, according to my intention when leisure permitted, published this method of curing boils and carbuncles, beyond the mention of it in my clinical instructions, perhaps you will state this circumstance to your class, and if you think well, as you have had some personal experience of this plan of

treatment, permit me to publish this letter as addressed to you, in one of the journals.

"I am, dear Solly, yours sincerely,
"JAMES STARTIN."

P.S. Whilst correcting this proof, a case has presented itself which reminds me that I have omitted to mention, that the boils of India and the East—even the Aleppo boil—I have found yield to the same plan of treatment.

THE TREATMENT OF CHOLERA.

LETTER FROM JOHN COCKLE, M.D.

SIR,—May I ask your indulgence for the insertion of a few remarks upon the treatment of cholera? It would hardly have been necessary to have troubled you in this matter at present but for the daily occurrence of fresh cases and their excessive fatality. I witnessed the very earliest outbreak of the present epidemic at the east end of London, and am still treating cases at the Royal Free Hospital, without perceiving the slightest tendency to diminution in the virulence of the disease. In many of the most recent cases, a few hours have sufficed for a fatal termination.

Those who have had much to do with cholera, either in the present or former epidemic, are aware not only that the cases vary almost infinitely in point of intensity, but that a single symptom is occasionally greatly preponderant, and that the remedy thereby indicated may not only check this, but the other symptoms also; for example, a woman living in one of the most infected courts near Gray's Inn Lane, with but moderate watery vomiting and purging, suffered such violent and agonising cramps of the upper and lower extremities, that her screams actually frightened her neighbours from the spot. She was brought by a policeman to the hospital. In this case, two grains of solid opium given at once checked not only the cramps, but almost the vomiting and purging. This woman rapidly convalesced; there was not, however, any very serious amount of collapse. In other instances, for the most part of children, where fortunately the sickness and purging abated, unusually marked symptoms of gastro-intestinal irritation remained; in these examples, very small quantities of mild nourishment, sinapisms to the abdomen, and lemonade for drink, seemed of much apparent service. These are somewhat exceptional forms; and I only allude to the latter because the children came from the most infected places, their parents having, in several instances, already died of the disease.

Of the more ordinary cases of actual cholera, there are two primary stages, and of these only I write, standing in tolerably direct causal relation the one to the other; the excessive watery vomiting and purging, violent cramps, faintness and exhaustion, if persistent, leading generally, after a very varying interval, to the second stage, that of *true* collapse; but it must be admitted that such a contingency may occur fearfully early without any unusual amount of vomiting or purging, at least without the peculiar draining having any outward issue. Many examples of this form have been observed in my hospital practice.

Of these two stages, the first may be a recoverable one. Each practitioner, in accordance with his views of the pathology of the disease, adopts a corresponding treatment. Those who consider cholera to be a blood poison regard the gastro-intestinal discharges as an effort of nature to eliminate the *materies morbi*, and hesitate to interfere; while others, equally persuaded of the existence of some deleterious agent, though acting principally upon the gastro-intestinal tubing, and noting how often with sure step collapse follows the outward or inward draining, believe that the chances of recovery are greatly dependent upon the arrest of this discharge, by measures either intended to act upon the large viscera (as calomel, etc.), or to modify directly the congested and over-acting structures of the gastro-intestinal canal. How frequent the insuccess of these various measures, the most recent results painfully prove. I, at least, can speak from my own former experience, and have long since resolved if I again had to treat cholera to venture upon a different plan. The cases thus treated are far too small to warrant the slightest scientific conclusion; indeed, like most others, such plan may signally fail upon more extended trial; the present results, however, justify its continuance. For want of a better term, it may be designated as the *substitutive method*, in other words, that which consists in the attempt to induce an altered vital action in a morbidly acting track of mucous membrane. To effect such change, I employ the old tincture of hellebore, in doses and at intervals proportioned to its apparent effects, and to the intensity of the disease. In one very bad case, the peculiar vomiting and purging speedily yielded, and both liver and kidneys recommenced their functions. In another case equally serious, excellent results apparently followed; here, however, the remedy seemed to induce some cerebral disturbance for a time, but which gradually disappeared, and the woman completely recovered. Such a plan neither excludes nor renders less necessary the application of turpentine epithems to the abdomen and spine, or constant friction of the extremities by relays of attendants when the temperature of the body begins steadily to fall. These measures, whatever else of good they may achieve, often much diminish the violence of the spasms, which are partly direct, partly reflex, and partly dependent on spinal venous congestion. It is more particularly to the management of the collapse stage that I would direct attention. I do not mean, of course, the transient coldness, faintness, sense of sinking, etc., which may attend even common English cholera, and which is often speedily relieved by ordinary stimulants, but to that algide stage—the stage of true capillary palsy—in which all ordinary stimulants fail. Here—the general aspect is almost pathognomonic, the eyes often upturned, leaving the whites exposed, a very unfavourable sign; the hands and feet are clammy, cyanosed, and of corpse-like coldness, though in a few cases warmth has been partially restored before death; the pulse is gone, yet the breath comes tolerably free, blowing cool upon the hand; the tongue is also cold; the heart's action is confused, and its sounds dull and toneless. Even now, the patient may be quite conscious and docile, though, sometimes, extremely restless; at others, lying apparently indifferent to the outer world, or wandering at intervals, yet sensible when roused. All this time there may go on, at intervals, slight draining from the bowels. This stage may last some hours, but from it, I never yet saw a single patient emerge; and it is here, sir, I earnestly solicit trial of a plan you yourself have advocated, I mean, transfusion of blood: indeed, it is for this purpose most particularly I address you, to ascertain how best one might efficiently carry out the plan. Numerous difficulties have been hitherto in my way. It is hardly fair or right to ask the immediate attendants on the sick to be the medium, and volunteers outside hospital doors are, even in such a cause, most difficult to find. Even with regard to mammalian blood, to secure a ready supply is a matter of great practical difficulty.

I do trust the subject will attract the further

attention of your readers and yourself, and that a fair trial may be given to the plan.

I am, etc., JOHN COCKLE.

TREATMENT OF CHOLERA.

LETTER FROM J. J. D. BURNS, M.D.

SIR,—From the varied remedies, and the unsatisfactory reports of the treatment of cholera, I am induced to send you a few remarks, which, I trust, may interest the profession, anxious as we must all feel to discover some reliable course to be pursued to check the fatal progress of the epidemic, when every known remedy is reported to have been tried in vain.

During the epidemic of 1849, I had opportunities of trying the treatment proposed by Dr. Ayre, of repeated doses of calomel, but without any marked success. I then tried large doses of calomel, with an equally unsatisfactory result. The saline treatment was then employed, and then sulphuric acid. The latter was found to be most objectionable, from precluding the use of other remedies, when stimulants seemed so urgently called for, though I have known cold water alone restore the circulation. The combination of opium in the remedies was decidedly injurious, and nearly every case proved fatal in which it was employed. I may also mention that the use of the warm bath was found to be prejudicial, from its debilitating effect, which was manifest in all cases in which it was employed, as well as from the exertion and exposure which it involved.

Finding the ordinary remedies useless, chiefly from the difficulty of getting them retained on the stomach, on the recurrence of the epidemic in 1854, towards its close, I adopted the following treatment; and from those to whom I suggested it a most favourable report was given. I visited five patients consecutively under the care of Dr. Richardson of Woolwich (who was a strong advocate of the calomel treatment), who all died; and, from witnessing my success, he was induced to change his treatment for mine; and he told me he never after had a fatal case.

The treatment I adopted was this: I placed the patient in bed between the blankets, applying hot bottles to the surface of the body and extremities, using a hot-air bath by covering the body with a wicker frame, and using a spirit of wine lamp with a tube entering at the foot of the bed between the blankets; administering a scruple of carbonate of ammonia in an ounce of water. After vomiting, I gave a mixture containing a drachm of aromatic spirits of ammonia, two drachms of compound tincture of lavender, and six ounces of water: one-sixth part to be given every half-hour. Then mustard applications to the calves of the legs, dry rubbing having been previously used; and also to the inner side of the thighs and abdomen, if necessary. As soon as the stomach can retain it, arrowroot and brandy. As soon as there is any secretion of urine, or even before, I give five grains of calomel.

In the use of this treatment I was rarely unsuccessful. Though the epidemic was rather on the decline, and the virulence of the disease might have in some degree abated, yet it gave me every inducement to rely on it for the future, and I beg most strongly to recommend it for a fair trial.

The object of this mode of treatment was to rouse the system by an emetic, which should stimulate rather than weaken the vital powers, and procure heat on the surface by restoring the circulation; to introduce an alkali as a substitute for the bile, and keep the blood fluid, that, when reaction is produced, the natural secretions may be facilitated. I may add, that the stomach would retain the carbonate of ammonia in a state of effervescence with citric acid, when it rejected everything else, given in six-grain doses. Cold or iced water was given as a drink, to relieve thirst.

I am, etc.,
JOHN J. D. BURNS, M.D.

New Brompton, Kent, November 1st, 1866.

In 1849, we had 27 deaths in about 30 cases. In 1854, we had 38 cases and 13 deaths.

Medical News.

APOTHECARIES' HALL. On November 1st, 1866, the following Licentiates were admitted:—

Bonney, Wm. Augustus, Elm House, Queen's Elm, Brompton
Crew, Eli, Tetbury, Gloucestershire
Dyer, Thomas Birch, Guy's Hospital
Ireland, Edward, Kendal, Westmoreland
Stokell, George, Guy's Hospital

At the same Court, the following passed the first examination:—

Litteljohn, Saltern G., St. Thomas's Hospital
Maybury, Augustus Constable, St. Thomas's Hospital
Molecey, Octavius Twigge, King's College Hospital
Munden, Charles, Guy's Hospital
Weldon, Richard, St. George's Hospital

APPOINTMENTS.

EVANS, George, Esq., elected Surgeon to the Hospital for Diseases of the Throat.

ARMY.

SPARROW, Staff-Assistant-Surgeon J., to be Staff-Surgeon.

ROYAL NAVY.

BARTLETT, Walter F. C., Esq., Surgeon (additional), to the *Cumberland*,
BEAMISH, Richard, Esq., Acting Assistant-Surgeon, to the *Rinaldo*.
BREAKEY, John, M.D., Surgeon, to the *Rinaldo*.
DANN, Edward, M.D., Assistant-Surgeon, to the *Reindeer*.
DICK, James N., Esq., Surgeon, to the *Satellite*.
DUNN, Edward, M.D., Assistant-Surgeon, to the *Reindeer*.
EASTGATE, James C., Esq., Surgeon, to the *Reindeer*.
EASTCOTT, James C., Esq., Surgeon, to the *Reindeer*.
FASKEN, William, M.D., Surgeon, to be Staff-Surgeon.
FINNEAUL, David, M.D., Surgeon (additional), to the *Royal Adelaide*.
FINUCANE, D., M.D., Surgeon (additional), to the *Royal Adelaide*.
HUMPHREYS, Robert, Esq., Surgeon (additional), to the *Frederick William*.
LAURENSON, George R., Esq., Assistant-Surgeon, to the *Medusa*.
MEADE, Edward, Esq., Assistant-Surgeon, to the *Satellite*.
NOBLE, John, Esq., Assistant-Surgeon, to the *Cumberland*.

BIRTHS.

WARDEN. On Oct. 31st, at Hagley Road, Edgbaston, Birmingham, the wife of *Charles Warden, M.D., of a son.
WESTMACOTT. On November 1st, at St. Mary's Terrace, Maida Hill, the wife of John G. Westmacott, M.D., of a son.

MARRIAGES.

BECKER, Herman F. V. J., M.D., of Carthilian House, the Lizard, Cornwall, to Mary Julia, daughter of the late John KIRBY, Esq., of Talgarth, Monmouthshire, at Chepstow, on October 25.
BICK, Alfred, L.R.C.P.Ed., to Mary Harriet, only daughter of W. S. FLINDERS, Esq., of Dalston, at Hackney, on October 31.
SHAPLAND, John Dee, Esq., Surgeon, of Croydon, to Mary Anna, eldest daughter of G. WESTACOTT, Esq., of St. Mary Axe and South Norwood, on November 1.
SMITH, James Thomas, Esq., Surgeon, Sutton Coldfield, to Mary Turner, eldest daughter of Edward KENDRICK, Esq., of Wreford, on October 31.
SWINDALE, John, Esq., Surgeon, of Binfield, Berks, to Matilda, second daughter of Henry ASTON, Esq., of Dalston, at Hackney, on October 31.
VEALE, Richard, M.D., of Hampsthwaite, Yorkshire, to Laura, second surviving daughter of Henry DE PAIVA, Esq., of Heckmondwike, Yorkshire, at Canonbury, on November 1.
WILSON, Thomas, Esq., Surgeon, of Wallsend, to Sarah Hassall, second daughter of the late — HUNTLEY, M.D., of Howden, on October 29.
YOUNG, Henry Jas., M.D., of Bridgnorth, to Ellen Martha, daughter of the late Thomas JAY, Esq., of Daneford, near Bridgnorth, at Worfield, Shropshire, on November 1.

DEATHS.

BLENKIN. On October 30th, at Inverness Road, Hyde Park, Grace, widow of I. T. Blenkin, Esq., Assistant-Surgeon Madras Army.
BOND, Henry H., Esq., Surgeon, at Barnsbury, aged 61, on Nov. 1.
BURNE. On October 30th, at Bath, aged 71, Anna Louisa, wife of John Burne, M.D.
BURRELL, William H., M.D., Deputy Inspector-General of Hospitals, at Exmouth, aged 71, on October 31.
DAVIS. On October 29th, aged 3 years, William Edward, eldest son of the late Wm. Davis, Esq., Surgeon, at St. George's, Salop.
HOLLAND. On November 2nd, at 25, Lower Brook Street, Sara, wife of Sir Henry Holland, Bart., M.D.
HUGMAN. On November 1st, at Guilford Street, aged 11, Mary Beatrice, youngest child of W. C. Hugman, Esq., Surgeon.
HUNTER, George Yeates, Esq., Surgeon, at Margate, aged 71, on November 2.
*LESLIE, Andrew, Esq., Surgeon R.N., at Cowley, near Exeter, aged 89, on October 31.
PRICE. On November 1st, at Brixton, Louisa Ann, wife of James Price, M.D., late Army Medical Staff.
RAYNER. On November 1st, at Quadrant Road North, Highbury New Park, Emily, wife of John Rayner, M.D.
THORNTON. On October 30th, at Uxbridge, Matilda, widow of Wm. Thornton, Esq., Surgeon H.M.'s 99th Regiment of Foot.
WATSON, S. Key, Esq., Surgeon, at Jersey, on October 20.

A NEW OPERATING THEATRE is under course of construction at Guy's Hospital.

LADY HOLLAND died on the 2nd inst. Her ladyship was the daughter of the late Rev. Sydney Smith.

NAVAL APPOINTMENT. The situation of surgeon and agent of sick and wounded at Southsea and Langston harbour, has been given to Dr. Elliott, of Warwick House, Southsea.

THE CONTAGIOUS DISEASES ACT. In pursuance of the above Act. It is certified by Her Majesty's Principal Secretary for War that the London Lock Hospital is useful and efficient as a hospital for the purposes of the said Act.

A REAL LEVELLER. The *Nobles' Gazette* of Moscow contains this curious phrase: "Until now, thanks to the visible protection of Providence, the cholera had only attacked the lower classes; but at present the terrible scourge attacks the middle classes, and even the nobility."

TESTIMONIAL TO DR. COTTON. Last week, a splendid testimonial was presented to Dr. Cotton by the Society of Loyal United Brethren—a benefit society of which Dr. Cotton has been Consulting-Physician for the past ten years. The testimonial consisted of a large massive and handsomely chased silver vase.

APOTHECARIES' HALL. At the competitive examinations, held on the 17th and 19th ultimo, for the prizes offered annually by the Society for Proficiency in the Knowledge of Materia Medica and Pharmaceutical Chemistry, the successful candidates were—first, Mr. Albert Henry Baines, of Guy's Hospital; second, Mr. James Goodridge Anderson, of St. Mary's Hospital.

ACCIDENTS IN FACTORIES. The Report of Inspectors of Factories for the six months ended April 1866, record 2576 accidents from machinery. Of these, twenty-eight were fatal, and six of the fatal cases were children. Thirty children also suffered amputation of part of right hand, and twenty amputation of part of left hand. Sixteen got fractured limbs and bones of trunk; thirty-two, fracture of hand or foot; and sixteen, injuries to head and face.

DEATH OF DR. G. Y. HUNTER. This gentleman died on the 2nd inst., at his residence in Margate in the seventy-second of his age. He was the first Mayor of Margate elected to that honour under the local act of incorporation, and so highly were his services appreciated by his fellow townsmen, that he was elected for the third time to the Mayor's chair, in November last.

EXTRAORDINARY LONGEVITY. The obituary in the *Times* last week contained some rare illustrations of prolonged existence in the case of three ladies and three gentlemen, whose united ages amounted to 522 years, giving an average of exactly 87 years to each. The fair sex, as usual, take the lead, the eldest having arrived at 94 years and the youngest at 84; of the opposite sex the eldest was 89 and the youngest 82 years of age.

QUARTERLY RETURN. The registers of the United Kingdom show births of 239,748 children, and the deaths of 151,054 persons of both sexes, in the three months ending Sept. 30th. The death-rate of the United Kingdom is less than that prevailing in England and Wales. The population of England, Scotland, and Ireland in 1866, is estimated at 29,945,404. The corrected death-rate of the quarter is 2.085 per cent.

THE CATTLE-PLAGUE. The cattle-plague returns for the week ending the 27th ult., show that 15 attacks were reported to have occurred, being an increase of 9 on the previous return. Since the commencement of the disease, 51 in every 1,000 of the estimated ordinary stock of cattle in Great Britain are returned as having been attacked. The total number of sheep reported to have been attacked up to the date of this return is 6,826.

THE FRENCH SENATE. It has been remarked that nearly every profession but that of medicine was represented in the Senate. This anomaly has struck the Emperor, it would appear, as the *Evenement* announces that his Majesty's physician, Dr. Conneau, is to be promoted forthwith to a seat at the Luxembourg. Dr. Conneau has one point in common with the late Dr. Orfila, he is remarkably fond of music.

ROYAL COLLEGE OF SURGEONS. At the primary or anatomical and physiological examination on Tuesday last, twenty-two candidates presented themselves for examination, when only five were referred to their studies for three months. Dr. Sharpey and Parkes, and Mr. Cooper, visited the examinations on the part of the Medical Council. The next *pass*, or pathological and surgical examination will take place this day (Saturday) and extend to Tuesday, Wednesday and Thursday next.

DEATH OF DR. BURRELL. Dr. W. H. Burrell, Deputy-Inspector of Hospitals, died on the 31st ult., at Exmouth, aged 71. In 1849, Dr. Burrell sat as one of the members of a board appointed by the War Office to make inquiries concerning yellow fever, and contributed a valuable paper on the subject, which was afterwards published by the General Board of Health, with their second report on quarantine. Subsequently Dr. Burrell, while principal medical officer at Malta, drew up an elaborate account, from official records then at his command, of the plague, which ravaged that island in 1813. On the appointment of the Barrack and Hospital Commission, Dr. Burrell was appointed by Lord Herbert to act in conjunction with Dr. Sutherland and Captain Galton, and he contributed in no slight degree to the success of an inquiry which has since led to so great an improvement, as regards the comfort and sanitary well-being of the soldier.

UNIVERSITY COLLEGE, LONDON. The Council held its first session for the academical year 1866-7 on the 3rd inst. It was resolved that the vacancies consequent on the recent appointment of Mr. Marshall to the Professorship of the Principles and Practice of Surgery in the offices of assistant-surgeon at the hospital, of instructor in bandaging, and of practical instructor in operative surgery, should be advertised. On the recommendation of the examiners, Professor

Wilson Fox Dean, Professor Sharpey, and Professor Ringer, the Filliter exhibition of £30 was awarded to Mr. Henry Carter Wigg, of Geelong. The report of the Rev. Philip Smith, examiner for the medical entrance exhibitions, was received, and exhibitions, each tenable for two years, were conferred as follows: one of £30 on Mr. Charles H. Carter, of London; one of £20 on Mr. Alfred H. Carter, of Pewsey; and one of £10 on Mr. William Hammond, of Hastings. Certificates of honour were awarded to Mr. W. S. Greenfield, of London; Mr. Lewis Lewis, of Plymouth; and Mr. James B. Ball, of Dublin.

Too Particular. In consequence of the large number of applicants for admission to the Royal navy who have been rejected by the stringency of the existing medical regulations, the Inspector-General of Hospitals and Fleets has called for a nominal list from the medical department of the *Fisgard*, at Woolwich-dockyard, of the number rejected, with a statement of the causes. They are as follows: Muscular debility, weakness of intellect, palpitation, dyspepsia, deformed chest, rupture, and tendency thereto, varicocele, impediment of speech, delicate aspect, indifferent eyesight, flat chest, deflective feet, cataract in the eye, shallow chest, and other distortions of frame, small and emaciated, under and over age, round-shouldered, eruption, scars, loss of fingers, chronic enlargement of tonsils, pigeon-breasted, defective nutrition, enlarged glands, etc. As but very few of the applicants were found totally exempt from one or more of the above-named impediments, an amended list has received the sanction of the Lords Commissioners of the Admiralty submitted by the Medical Department.

The Medical Act. In pursuance of the 29th section of the above Act, to regulate the qualifications of practitioners in medicine and surgery, which recites that, "If any registered medical practitioner shall be convicted in England or Ireland of any felony or misdemeanour, or in Scotland of any crime or offence, or shall, after due inquiry, be judged by the General Council to have been guilty of infamous conduct in any professional respect, the General Council may, if they see fit, direct the registrar to erase the name of such medical practitioner from the register." Acting on this power the General Council of Medical Education and Registration of the United Kingdom has just published the following list of delinquents, with the causes which gave rise to the punishments now inflicted on these persons, viz., John Edward Protheroe, name erased in consequence of the entry of it having been fraudulently obtained; Richard Organ, for infamous conduct in a professional respect; John Burton, the entry of his name having been fraudulently or incorrectly made; John Broatch, in consequence of false declaration; John Kearney, for infamous conduct in a professional respect; Daniel de la Cherois Gourley, in consequence of his having been convicted of a misdemeanour; David Griffiths Jones, in consequonce of his having been convicted of a misdemeanour; Evan Thomas, in consequence of his having been convicted of perjury; Robert Wrixon, having been convicted of forgery; Samuel La Mert, for infamous conduct in a professional respect; Robert Jacob Jordan, his qualification of M.R.C.S.England erased in consequence of his name having been removed from the list of members of that College, and his qualification as licentiate of R.C.P.Edinburgh for the same reason; John Carter Barrett, having been convicted of forgery; William John Cumming, having been convicted of felony; Robert Abercrombie, his qualification of M.R.C.S.England erased in consequence of his having been removed from the list of members of that College; Thompson Whalley, having been convicted of a misdemeanour; and John Permewan, having been convicted of felony.

The Treatment of Cholera. The views of Dr. George Johnson and other opponents of the astringent treatment of choleraic diarrhœa have received a strong confirmation by the report of the Army Medical Department on the late outbreak of cholera at Malta. An abstract of that report is given in the British Medical Journal, and, though of course we express no opinion on the matter ourselves, yet a brief reference to that abstract cannot fail to be interesting to the general reader. There exists a vehement controversy in the medical world with respect to this premonitory treatment, each side maintaining that the system which it condemns is not merely useless, but positively injurious in a very high degree; and the more clearly the professional doctor perceives that this antagonism is well known to the non-professional world, the less prone will he be to adopt either view without a more careful study of the whole question than most apothecaries and physicians think it necessary to give to the subject. A pestilence like cholera, concerning which nothing is theoretically known, while the only practical thing about it is that no remedy has yet been discovered, is just one of those diseases about which doctors are apt to be careless, from their utter bewilderment in its presence. As they cannot cure the disease, too many of them forget that a remedy may not only fail to stop it it, but may frightfully aggravate its intensity. And this is the conclusion which the British Medical Journal draws from the report of the army department on the outbreak at Malta, where the diarrhœa was very severe owing to the drunken and dissipated habits of the English soldiers, and the large consumption of fruits by the poorer Maltese, who were tempted by the low prices consequent on the abstinence of the better classes during the epidemic. The report states that while the ordinary diarrhœa thus produced was very tractable in its nature, the astringent system utterly failed to check the real choleraic diarrhœa. The only remedies that appeared to be of any effect were emetics, and the population who were treated by the civilian practitioners on the mild system exhibited a much lower per centage of deaths than the military who were treated by the army doctors. On the whole, the British Medical Journal is decidedly of opinion that, whether or no the emetic and castor-oil system be advantageous, there is every reason to believe that the astringent practice tends to retain in the body that deadly poison which is the cause of death. It points to a fact stated in the report to which we think the utmost attention ought to be given, namely, that "the extent of the collapse was in no way commensurate with the amount of discharges. Invariably it was found that the more severe the disease the less was the quantity and the frequency of these ejections." Surely, if these facts are of general occurrence in cholera, they supply suggestions as to the proper treatment of the highest importance. (*Pall Mall Gazette.*)

COMMUNICATIONS have been received from:—Dr. Morell Mackenzie; Dr. Mayo; Mr. S. Wood; Dr. E. Burd; Dr. Broadbent; Dr. Sieveking; Dr. Burns; Dr. C. Warden; Mr. William P. Swain; Mr. A. B. Steele; The Honorary Secretary of the Epidemiological Society; Mr. H. Greenway; Dr. George Johnson; Dr. Cockle; Mr. Moore; The Registrar of the Medical Society of London; Mr. T. M. Stone; The Honorary Secretaries of the Royal Medical & Chirurgical Society; Mr. J. Robertson; Mr. G. Davis; Mr. E. Wyllie; Dr. Thomas Skinner; Dr. Sansom; Mr. W. Smith; Dr. Samelson; Mr. James Startin; Mr. W. E. Poole; Dr. Garrod; Dr. J. Hughlings Jackson; and Mr. R. W. Dunn.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....Metropolitan Free, 2 P.M.—St. Mark's for Fistula and other Diseases of the Rectum, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TUESDAY. .... Guy's, 1½ P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.

WEDNESDAY... St. Mary's, 1 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.

THURSDAY.....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Great Northern, 2 P.M.—London Surgical Home, 2 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.

FRIDAY. ..... Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

SATURDAY.....St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1·30 P.M.—Charing Cross, 2 P.M.—Lock, Clinical Demonstration and Operations, 1 P.M.—Royal Free, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY. Medical Society of London, 8 P.M. Dr. Victor De Méric, "On some of the Sequelæ of Syphilis."—Epidemiological Society, 8 P.M. Dr. Jenner, F.R.S., "Address opening the Session."

TUESDAY. Royal Medical and Chirurgical Society, 8.30 P.M. Mr. Spencer Wells, "Ovariotomy Twice Successfully Performed on the same Patient"; Mr. Solly, "Case of Fracture of the Ribs, with Peculiar Tympanitic Resonance."

THURSDAY. Harveian Society of London, 8 P.M. Debate will be on Cholera.

TO CORRESPONDENTS.

*** *All letters and communications for the* JOURNAL, *to be addressed to the* EDITOR, 37, *Great Queen St., Lincoln's Inn Fields, W.C.*

COMMUNICATIONS.—To prevent a not uncommon misconception, we beg to inform our correspondents that, as a rule, all communications which are not returned to their authors, are retained for publication.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

THE Publisher begs to intimate that orders for JOURNALS sent by post must be accompanied by stamps for the amount. Price of each number is, by post, *sixpence.*

THE FEMALE CASUAL AND HER LODGING, by Dr. Stallard, is a re-publication of articles which appeared in the *Standard.* Dr. Stallard found a respectable widow woman, who consented to visit the female casual wards of various workhouses in the metropolis. Her narratives give us a somewhat sensational picture of casual wards. As casual wards contain the dregs of London life, it is hardly to be expected that a visitor would find in them the elegancies of drawing-room society.

LIMITS OF PRACTICE.—A correspondent writes: "I am about to take a partner; and a question arises as to the distance I should be prohibited from practising in, on retiring after a certain term of years. If you will kindly give me your idea of what an average distance should be, I shall feel much obliged."

[The question is clearly a local and a legal one—about which we should imagine there ought to be no dispute. EDITOR.]

DR. B. FOSTER'S INTRODUCTORY LECTURE was necessarily condensed. We fear the report hardly did justice to the author. The gist of his conclusions may be given as follows:—1, Pointing out how medicine must be founded on three experimental sciences, Physiology, Pathology, and Therapeutics. and cultivated purely on "positive" principles, Dr. Foster argued that, in order to obtain such a state of things, our preliminary education must be altered, and men taught in chemistry and physics the methods of research that may advance medicine as a science. Further, following Comte's notion, he pointed out that these workers in science must be carefully distinguished from the practitioners, who should only apply to practice the laws discovered by their colleagues. The abstract makes him appear to be only a follower of Bernard's notions; while, in truth, he entirely disagrees with Bernard's estimate of positivism, and would place the study of all physiology and pathology, if possible (with reference to investigation), not in the hands of practitioners, but in the hands of a special class of students.

EXTRACTION OF CATARACT BY SUCTION.—SIR: I have just read, in your "Notice of Correspondents" in this day's JOURNAL, Dr. Davey's letter of explanation. I would beg to assure that gentleman that I was not at all singular in labouring under "a mistaken impression" on reading his letter in the JOURNAL of the 13th. Without this explanation, I should still have the same impression, although I have again read his first letter with *more* than "ordinary care". I could not have imagined that the "suction-instruments" referred to in the first paragraph of that letter had any connection with the barbarous operation mentioned in the second and third paragraphs. It is the first time I have heard of the *mouth* being included amongst surgical instruments, even "of a kind". I thought, and naturally so, Dr. Davey might have referred to certain rude instruments used by the ancient Persians ("not in Great Britain nor in Europe"); and then by way of *further* showing that the idea of removing cataracts by suction, although *without* the medium of an instrument, was very old, related the story of the Cingalese operation.

If Dr. Davey, when commenting on correspondence relative to a surgical appliance, says that "suction-instruments, of a kind, for the removal of cataracts have been for generations in use", he must, in all fairness, pardon those who do not understand him to mean simply the human mouth, although he may instance its "use" in the same letter. He might have added—the invention of the "instrument" was co-eval with the creation of Adam.

As the quotation from Dr. Browne's address was not intended as applicable to myself, I accept Dr. Davey's explanation. I have not met anyone who thought of applying it to Mr. Swain.

I am sorry again to trouble you, but I think it right Dr. Davey should know there were others, as well as myself, who laboured "under a mistaken impression" on reading his first letter.

I am, etc., HENRY GREENWAY.

Plymouth, October 27th, 1866.

INJECTION OF ACETIC ACID IN CANCER.—SIR: With respect to the letter of Dr. John Barclay, which appears in the JOURNAL of the 3rd inst., I need scarcely do more than state that, in my communication to the meeting of the Association and in my pamphlet, I gave as one of my reasons for selecting acetic acid for injection into cancerous tumours, that "it had been applied with advantage to open cancer and cancerous ulcerations." Dr. Barclay having apparently read the pamphlet, it would have been more candid in him to have mentioned this.

I might demur to the position Dr. Barclay assigns to me, of a mere adaptor of suggestions; but credit has been so largely and generously awarded me by Mr. Moore and others, that I feel ashamed to enter upon anything like self-vindication.

I am, etc., W. H. BROADBENT.

Upper Seymour Street, November 6th, 1866.

SUBCUTANEOUS INJECTIONS OF CANCER AND OTHER GROWTHS.—SIR: As there seems to be at least more than one claimant for priority in regard to the injection of, or rather the enucleation or destruction of tumours by caustic or irritating fluids, I beg to add one more to the list; namely, Sir James Y. Simpson, Bart. Early in the year 1857, I assisted him in instituting a number of experiments on simple, benign, and malignant growths; the nature of which was to effect the destruction and subsequent disintegration of the tumour and its ultimate removal through as small an opening in the integument as possible, and without incisions of any kind. I saw Sir James remove a *fatty* tumour on a girl's shoulder, the size of a small orange, through an opening not larger than would admit a goose-quill, and it never returned; nor was it possible to believe from the minute cicatrix left that such a tumour could ever have existed. The fluids used were—concentrated solutions of sulphate and chloride of zinc, bichromate of potass, bichloride of mercury, perchloride of iron, creasote, glacial acetic acid, chromic acid, etc. By way of experiment, the healthy muscular fibre of recently killed oxen and sheep were acted upon by these agents, and the effects observed were recorded. I do not think that all the facts which transpired were published; but certainly the main facts—which give priority of claim to Sir James—will be found in the *Medical Times and Gazette* of February 7th, 1857. I am, etc., THO. SKINNER, M.D.

Liverpool, November 3rd, 1866.

[Glacial acetic acid acts as a powerful caustic. The dilute acetic acid as used by Dr. Broadbent does not act as a caustic. It dissolves the cancer-cells, and disperses the tumour, without producing sloughing or destruction of tissues. The action of the two acids is, therefore, essentially different. Surgeons, it is true, had previously applied acetic acid to cancerous ulcerations; but no one (we believe), before Dr. Broadbent, injected the cancer-tumour with acetic acid, so as to produce the special and remarkable effect above mentioned. The surgeons who have already tried Dr. Broadbent's method, appear surprised and satisfied with its results, and the operation bids fair to become a most important aid in the cure of cancer. That the merit of the practical application of acetic acid by injection belongs to Dr. Broadbent, is proved by the simple fact, that it was not in practice when he brought the subject before the profession. This much we feel bound to say, in justice to that gentleman. EDITOR.]

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"Mr. Blatchley supplies prepared bran powder of a very superior description."—Dr. Hassall on Diabetes, 2nd Edition, p. 179.

Retreat for the Intemperate,

HILLGARDEN HOUSE, COUPAR ANGUS, N.B.

Dr. DEAN FAIRLESS, formerly Medical Superintendent of the Old Royal Asylum, Montrose, will shortly have Vacancies for Two Gentlemen.

Hastings Memorial Fund.—At

the recent meeting of the British Medical Association, held at Chester, it was resolved to raise a special fund to be called, in memory of Sir Charles Hastings, "The Hastings Memorial Fund," the produce of which shall be devoted to provide, and supplement with a sum of money, the "Hastings Medal," which shall be awarded for distinguished labours in medical science to any member of the profession in any country. Gentlemen desirous of contributing, whether members of the Association or not, are requested to forward their donations to the Treasurer, Dr. FALCONER, of Bath, or to the Secretary,

T. WATKIN WILLIAMS, General Secretary.

13, Newhall Street, Birmingham, August 20th, 1866.

Royal College of Physicians

OF LONDON.—FIRST PART OF THE PROFESSIONAL EXAMINATION FOR THE LICENCE. The next Examination of Students who have completed two years of Professional Study at a recognised Medical School will commence on Tuesday, December 4th.

SECOND PART OF THE PROFESSIONAL EXAMINATION.—An Examination of Gentlemen who are eligible for admission to the Second Examination for the Licence will commence on Tuesday, December 11th.

Registered Medical Practitioners, qualified before January 1861, are admitted to Examination under special Bye-Law.

Candidates are required to give fourteen days notice in writing to the Registrar of the College, with whom all Certificates and Testimonials required by the Bye-Laws are to be left at the same time.

Pall Mall East, 1866. H. A. PITMAN, M.D., Registrar.

Epsom College Exhibitions.—

Notice is hereby given that a Committee of Council of the ROYAL MEDICAL BENEVOLENT COLLEGE will meet at the Office of the College in Soho Square, on Friday, the 23rd of November inst., to receive applications for the admission to the College of boys between the age of eight and fourteen, as Exhibitioners, at the reduced terms of £30 per annum. Such boys must, by the 2nd Bye-Law of the College, be "sons of some of the less fortunate members of the medical profession".

The parents of Candidates must make a confidential statement as to their income, the number of their children, and their means of educating them. Forms for the purpose will be furnished on application at the office, and must be returned filled up by the morning of the 23rd inst., at latest. The Committee will make a list of the Candidates whom they consider to be eligible, and the Exhibitioners will be selected from that list according to the result of a Competitive Examination, to be held on a fixed day in December. The successful Competitors will be admitted on the opening of the College in January.

All particulars may be obtained from the Secretary at the Office.

By order of the Council,

ROBERT FREEMAN, Secretary.

Office, 37, Soho Square, London, W., 6th November, 1866.

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THE

Jacksonian Prize Essay

FOR 1865.

ON DISEASED CONDITIONS OF THE KNEE-JOINT.

BY

WILLIAM PAUL SWAIN, M.R.C.S.,

SURGEON TO THE ROYAL ALBERT HOSPITAL, DEVONPORT, ETC.

SECTION III.—OPERATIVE INTERFERENCE.

(*Continued.*)

Cases where the Bones are Primarily Diseased, or where they have become Extensively Involved as a Secondary Result. In considering the question of excision as applied to cases of diseased cartilage, we have of necessity also considered that extension of the disease which involves simply the articular surfaces of the bones. The application, however, of excision to cases where the bones are primarily involved, or where there exists a considerable amount of disease in their structure, is a question upon which there is a very wide divergence of opinions.

Much of the success of excision of the knee, when undertaken in cases where the bones are involved, depends upon the ability of the surgeon to determine as to the condition of the cut surfaces of the bones after the articular surfaces have been removed. If the diseased conditions be restricted to the immediate neighbourhood of the joint, or if, although extending somewhat more deeply into the spongy portion of the bone, the disease be yet circumscribed; then, if the constitution admits, there is no more reason why excision of the joint should not be performed, than there was in those cases of disease of cartilage which we have just been considering.

Allusion has already been made to the condensation of the bone which takes place in the earlier stages of inflammation, and which was well illustrated by Preparation 2 sent in with the essay, where, in fact, simple hyperæmia is just merging into inflammation. On sawing through a bone thus affected, we find the cavities of the cancelli diminished and their walls thickened, and the whole surface presents a reddish pink hue from the colour of the serum exuded. This condition of the bones, whilst it demonstrates the fact that serious mischief has not extended deeply, is also a warrant to the surgeon to proceed with the excision, and gives the greatest hope of a successful termination of a case. It is not often the good fortune of the surgeon to meet with a case thus uncomplicated. It is more usual to find this condition alternating, as it were, with other and less favourable states of bone. Thus, we may find spots of ulceration, named by Barwell "caries circumscripta", or pieces of necrosed bone, "caries necrotica," surrounded by indurated tissue. The surgeon will have to decide in such a case, whether the amount of indurated tissue surrounding these diseased conditions is sufficient to warrant perseverance in the excision. The softened and necrosed portions, if not in excess, may easily be removed with the gouge, and thus a surface obtained well calculated to ensure after success. It is a question to be decided at the time, to how great an extent gouging should be carried. I have certainly seen admirable results after the very free use of the gouge; but it is a fact that abscess of the bone occasionally follows, causing severe suffering to the patient, and ultimate destruction of the parts involved.

I cannot go the entire length that the late Mr. Price has, in stating that, if

"One of the condyles and a mere shell of the tibia remain after the articular surface and synovial membrane have been removed, sufficient consolidation will admit the recovery of a useful though considerably modified limb." (Price, *On the Knee-Joint*, p. 136.)

He quotes a case of his own, which turned out well; but certainly, in the generality of cases, such an advanced state of disease would be better treated by amputation, than to run the risk of entire failure in the results of the excision, or at best recovery with a "considerably modified limb." Circumscribed collections of matters are sometimes found in the spongy textures of the bones, which, if of moderate size, need not impede the operation. A case of excision of the knee performed by Mr. Wood at King's College Hospital (see Appendix) well illustrates this. In the accompanying preparations of the ends of the bone, an abscess is shown in the head of the tibia. This case also shows an example of the extension of disease from the end of one bone through the intervening joint structures to the end of the other bone.

Another diseased deposit in the ends of the bones we have already discussed—viz., "the tuberculous matter" insisted on by Price. I have stated elsewhere my reasons for not thinking this deposit to be analogous to tubercle of the lung. Its actual nature has, however, little bearing on the question of excision. The diffuse variety of this disease is entirely unfitted for the operation of excision. The earthy constituents of the bone are very much diminished, and there is little or no chance of repair after the operation. In addition to this, as Barwell justly remarks—

"A diffuse inflammation, wherever it be situated, and whatever be its products, always marks so low a constitutional state, that we should give the system as little reparative labour as possible." (Barwell, *On Diseases of the Joints*, p. 423.)

In the circumscribed variety, there is no reason why the same treatment should not be applied as in cases of circumscribed caries or necrosis. In fact, I am inclined to think that better results may sometimes be expected; for it is often found that the surrounding bone is more healthy and capable of repair than when a carious or necrotic condition is present.

If, upon making the section of the bone, large diffused extravasations of blood be present, or if it present a dirty yellow appearance from diffuse suppuration, the operation of excision is not admissible.

Excision of the Joint for Traumatic Injury is a matter for very careful consideration. I do not think it has obtained that amount of attention from writers on the subject of excision of the knee which it deserves. This, perhaps, arises from the fact, that our opportunities in civil practice of performing the operation for injury to the joint are few and far between. We have, however, staring us in the face

the fact that the mortality following amputation of the thigh in the lower third after traumatic injury is in military practice 56.6 per cent. (Macleod's *Surgery of the Crimean War*); whilst in civil practice it is 60 per cent. for primary amputations and 75 per cent. for secondary amputations. (Bryant.) It is hardly possible to imagine that any proceeding can show much worse results than these; and I cannot help thinking that there are very many cases of extensive wounds of the knee-joint which have hitherto been treated by amputation, which might have a better chance of recovery if the articulation were removed by excision. I do not wish at the present moment to enter into any comparison between the two operations of excision and amputation; but I simply now make this statement, which I hope hereafter to substantiate, *that the shock after excision is less than that after amputation.* Now, severe injury to a large joint like the knee is a source of severe shock to the patient; and it appears to me that, as a primary proceeding, the operation which adds the least to the existing shock is the one that gives the best chance of immediate rally to the patient. I can see no difference between the after conditions of an excision thus performed and one undertaken for a diseased articulation, except that in the former case we have in all probability a robust constitution to back up the operation, whilst in the latter the ravages of long standing disease detract very much from the reparative powers of the patient. I believe that there are many cases of severe lacerated wounds of the joint happening to young robust subjects, now treated by immediate amputation, which would do very well, and have a better chance of recovery, if excision were practised. We cannot, of course, draw any very strong inferences from a single case; but I append the history of a case in which Mr. Kempe of Exeter acted on this principle, and had the extreme satisfaction of saving both the limb and the life of his patient.

"June 10, 1862, John Fewings, Exwick, aged 13, was admitted under the care of Mr. Kempe, with a lacerated wound of the right knee freely communicating with the joint, the result of an accident. Excision of the joint was performed about one hour after the receipt of the injury. Great constitutional disturbance and some delirium followed the operation, which were subdued by opium, etc. A large abscess formed on the right hip, apparently arising from some extravasated blood which took place at the time of the accident.

"He was made an out-patient in September, with a very firm union of the bones, but with one or two small sinuses.

"I saw this young man, about twelve months after his discharge, loading a railway-van, apparently with as little inconvenience as if he had suffered no loss of the joint."

In cases of gunshot wounds, where severe damage is done to the osseous structure, I think, from the slender information we have, that the proceeding is of very doubtful utility. Hodges has collected the history of twelve cases; and of them only three recovered, and one of these only at the end of twenty months, during which time dead bone was constantly exfoliating.

The two cases of excision performed by Mr. Canton of the Charing Cross Hospital, although not primary operations for injury to the joint, were yet undertaken for a condition which was the immediate result of an accident; viz., the forcible separation of the lower epiphysis from the shaft of the femur. In both cases, an attempt was made to procure union; but it failed, and inflammation attacked the joint. In the first case, the patient made a good recovery, with a useful limb; and, by the kindness of Mr. Canton, I am enabled to give illustrations both of the parts excised and of the subsequent condition of the limb twelve months afterwards. (Figs. 14, 15.)

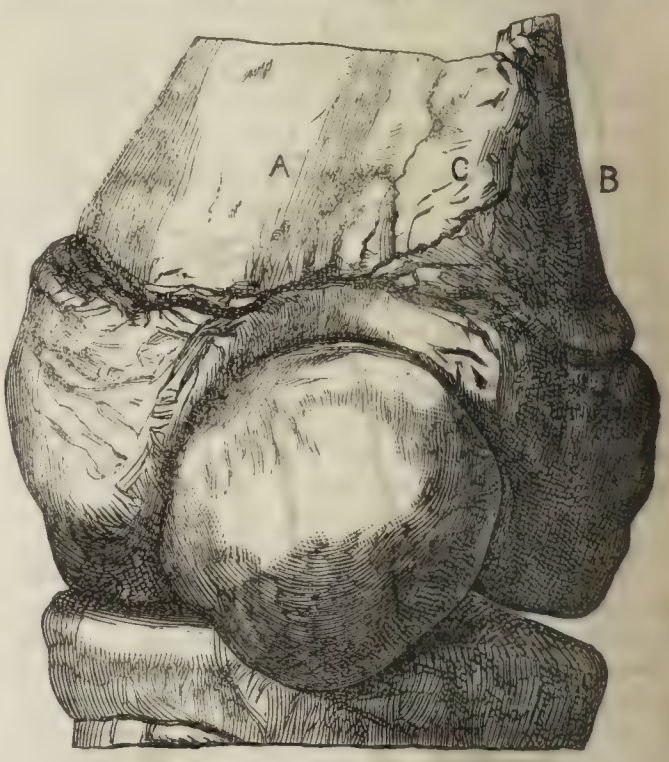


Fig. 14.

In the second case, the patient was exceedingly restless, and an inch of the femur protruded and had to be removed with the saw. Fibrous ankylosis resulted; and, as the limb proved useless to the patient, Mr. Canton amputated the thigh, and the patient did well. (*Dublin Quarterly Journal of Medical Science*, February 1861.)

I am permitted to send in an unpublished drawing belonging to the late Mr. Price, which shows, in a very beautiful manner, the excised portions of the bone in this latter case, and the after condition of the joint.

Deformity of the Limb resulting from old Disease in the Joint is the last condition requiring excision which we have to consider. I believe this proceeding to be open to very grave objections. I am perfectly aware that the results have in many cases been most brilliant. Many surgeons have performed the operation, and restored to their patients useful limbs; but there is to my mind this grave drawback to its general adoption; viz., that the life of the patient is endangered without the actual necessity having arisen for its being so. It is every one's experience with what facility the unfortunate possessors of the most deformed knee-joints move about with the help of some simple apparatus. Is it right, under these circumstances, to subject the patient to the extreme danger of a capital operation? And, even supposing the patient recover with a fair limb, is he so very much better off than he was before? To both questions, I am bound to give a negative answer.

With regard to the after condition of the limb, it

must be remembered, that old and long-standing disease has rendered the leg and foot stunted and ill developed. And, supposing the most favourable result, there must of necessity be considerable



Fig. 15.

shortening of the limb, requiring very likely an apparatus even more cumbersome than the one before in use. Hodges gives an account of nineteen cases of excision for deformity, eight of which terminated fatally, from circumstances directly connected with the operation, and one came to amputation, osseous union being long delayed.

At the earnest desire of patients or their friends, I think the surgeon may be justified in undertaking this operation; but I cannot think that he is justified either in suggesting the proceeding or pressing it on the patient. I excised a knee-joint for deformity, partly at the earnest desire of the boy's mother, and partly (I was more influenced by this latter consideration) because I found that, although the disease was quiescent, every now and again the boy fell on his knee and set up active inflammation in the joint. The case made a satisfactory recovery; but there is considerable shortening of the limb, carious bone in the head of the tibia, and at present only fibrous ankylosis, although that is pretty firm. I have once removed some carious bone from the head of the tibia, after which the condition of the limb much improved, and I have great hopes that in time he will have a useful limb. The ends of the bone are sent in, together with photographs of the case before the operation and at the present time. The following is the history of the case.

Case. Henry Hearle was admitted under the care of Mr. Swain, with disease of the knee-joint, on June 16th, 1864.

History. Five years ago, while playing on the ice, he fell, and injured his knee. Apparently he recovered from this; but a fortnight afterwards, during a walk, he was seized with pain and inability to move the limb. He was treated for a sprain, but received no benefit. Two months afterwards, he was an out-patient under Mr. Swain at the Dispensary. At that period, the knee was as swollen and contracted as at the present time. He left off attending at the Dispensary about four years ago. He had had no medical treatment since. Abscesses formed in the joint about eighteen months before his admission, and discharged for nine months; since which period the sinuses healed. His father and mother are living. He had been a very healthy boy, and not subject to a cough.

On admission, he was a healthy looking boy, but of rather strumous aspect. The glands in the neck were slightly enlarged. He was in good condition; pulse 80, of fair strength, regular; skin and bowels acting well; no cough. The left leg and thigh were much wasted. The leg was flexed to its utmost extent upon the thigh; the hamstring tendons were contracted and tense. In the lower third of the thigh were the cicatrices of five sinuses—four on the outer, and one on the inner side of the limb. The left knee-joint was greatly increased in size, and of an oval form. The internal condyle of the femur was



Fig. 16.

considerably enlarged. The external condyle was also enlarged, but to a less extent. The patella was inclined to the outer side, and ankylosed to the external condyle. The head of the tibia did not appear to be enlarged to any appreciable extent. There was little or no pain, except on manipulation of joint. There was a little antero-posterior motion, with rather free lateral movement of the joint, showing destruction of the ligaments.

July 2nd. To-day, the child being put under the influence of chloroform, Mr. Swain proceeded to perform excision of the knee-joint. A semilunar incision was made across the front of the joint, and the flap resulting dissected back from the patella and the end of the femur. The lateral ligaments were divided; the bone was cleared for the saw, and forcibly

flexed. About one inch and a half of the articular surface was sawn off. A slice was then taken off *obliquely* from the tibia, about one inch in thickness. An abscess in the head of the tibia, opening into the joint, was gouged out. The cut surfaces were then approximated; the flap laid down; and the limb put up in a resection splint. There was no hæmorrhage of importance; and no arteries required ligature.

8 P.M. During the afternoon, the child had been very restless and noisy. The effect of the chloroform had not passed off; and the sickness of the stomach prevented morphia draughts from being kept down. When seen, he was easy, and dozed at intervals.

July 3rd. He had a quiet night, sleeping at intervals until the morning. Skin cool; pulse 104, quiet. He suffered but little pain. The knee was not disturbed. He was upon a water pillow, the leg being put up on an excision-splint, and swung in a Salter's swing.

July 4th. He slept well through the whole night. This morning he was quiet, and suffered but slight pain. Pulse 126; skin dry, warm; tongue furred, with enlarged papillæ; bowels open. The knee was dressed this morning; the outside bandages were saturated with blood. The wound appeared healthy; water dressings were ordered. Ten minims of solution of hydrochlorate of morphia were ordered.

July 7th. Last night he was very feverish, and had a rigor. To day he was quieter. Skin cooler; tongue very furred; bowels confined. He took an egg and wine for dinner. When the leg was dressed to day, a large quantity of grumous pus was squeezed out.

July 11th. He was much improved. Skin cool; pulse quiet. He slept well at night without a morphia draught. He had a fair appetite. The leg was in a good position. The flaps were healing by granulations, leaving an open large pouch at the outer corner of the wound for free escape of discharge. The wound looked healthy; and the discharge was very free. The wound was dressed with myrrh lotion.

July 20th. He slept at night without a draught. There was not much discharge from the wound, as a small sinus and opening in the popliteal space effectually drew away the discharge.

Sept. 5th. The excision-splint, having galled him, had been left off, and the leg put up in gutta-percha splints. The leg was two inches and a half shorter than the sound one. Two or three sinuses remained about the knee-joint; and a gall on the inner side of the knee and one on the heel, from the pressure of the splint. He got up, and was dressed; was in good spirits, and took his food well.

Sept. 19th. The patient was up and about on crutches. The wounds on the leg had not yet healed; but they did not inconvenience him, except when dressed. A gutta-percha splint was to day moulded to fit the whole limb.

Oct. 10th. Three wounds on the leg still remained unhealed. There was a sinus leading to the head of the tibia, from which a thick pus, and a few days previously a small bit of dead bone, came. There was firmer union between the bones. A slight tendency of the tibia to bow out was obviated by a straight splint on the outer side of the limb. A straight splint was applied also to the under surface of the thigh and leg. He walked about on crutches.

Oct. 17th. Dead bone could be detected in the tibia; a small spiculum came away to day in the discharge.

Nov. 19th. All the wounds were healed, excepting the sinuses leading to dead bone around the knee-joint. The leg was in very good position. Union was becoming firmer. The shortening was two inches and three quarters.



Fig. 17.

Dec. 31st. Mr. Swain removed some carious bone from the head of the tibia, leaving a moderately large cavity there.

Jan. 31st, 1865. The cavity was still discharging a quantity of offensive pus. The general health was very fair. He was discharged.

[At the present time this patient is much improved, and is able to walk very well on his high-heeled boots with the aid of a stick.]

[*To be continued.*]

THE LEEDS INFIRMARY. This handsome building which has just been completed at an expense of £100,000, is about to be appropriated for a short time for an exhibition of treasures of art, products of industry, and processes of manufacture, on a scale not hitherto attempted in the county. To accomplish this end a guarantee fund of £50,000, was solicited, and in less than a fortnight £85,000, was raised. It is expected that the fund will reach £100,000.

THE WEEKLY RETURN OF DEATHS in the metropolis up to Saturday last, shows an improvement of the public health. The mortality from cholera and diarrhœa was about the same—100 as compared with 101. The deaths from the two forms of the epidemic in the last five weeks respectively were 254, 199, 144, 101, 100. The majority of the deaths from cholera have lately occurred in Woolwich, where 73 persons have been cut off in three weeks. The Registrar General describes the peculiar circumstances of Woolwich, and attributes the outbreak to the insufficient water supply, the dirty and dilapidated condition of the houses of the labouring classes, and the unhealthiness of their sites. Cholera retreats but slowly from the large towns it has visited. Last week the deaths were respectively in Dublin, 82; Edinburgh, 36; and Liverpool, 14.

Remarks
ON
EXTREMES IN MEDICAL SPECULATION.

BY
THOMAS MAYO, F.R.C.P., F.R.S.

At the present moment, when cholera is subsiding in this country, and we may be expected to take account of the progress that may have been made towards its successful treatment, I will endeavour, not to express any opinion of my own, or to bring forward critical views, but, if possible, to lay down principles which ought to govern our inquiries. And it is expedient to review this aspect of the subject, not only in reference to cholera, but also to disease in general, if I am correct in my supposition that it is neglected to an extent most damaging to medical research.

All physicians embrace this view of therapeutics with a leaning in one of two directions, unless they fortunately take both. One of these is, the making good the remedies adapted to successful treatment, on a presumption that they form groups varying with different cases of disease, in relation to circumstances of season and place and prevailing *temperies aeris*, but with a strong expectation that their inquiry will end in the disclosure of specific remedies. The other method is a more seductive one, admirable indeed when successful; and the energy of hopefulness, which it suggests, certainly has some tendency to ensure its success. He who treads the path which I am now describing, whether as author or reviewer, *enters* through the same line of investigation as the first described; his remedies are grouped, and, if he can reason at all, he has some reason for each of them; but in the mind with which I am now dealing, often one endowed with conceptions stronger than perceptions, some one remedy occupies a larger share of his confidence than the rest in relation to its apparent claims; the question then ought to be present to his mind, what right the remedy so circumstanced possesses to be considered specific.

These remarks seem obvious, and may be called commonplace. They are not so; they point to a difficulty of immense importance in the inquiry which each physician has to make into the results of practice, both his own and that of others. I am anxious to avoid quoting remedies that have been brought before the public as more or less claiming the character of specifics in cholera, and have become, as such, the subjects of dispute.

In my own mind there rests a strong impression, that scarcely a single remedy has been propounded by wise and considerate men—and large is their number in the profession—which does not deserve a distinct placing and assignment in reference to cases in which it has done good, with cautious avoidance of overpraise. This lesson is, in truth, taught us by the smallness of number of those remedies which time has, in different degrees, constituted as truly specific.

Such are the considerations which enter into an adjustment of the value of the remedies lately found useful in one important disease. But analogy dictates some cautions in regard to principles which lie at the base of our general pathological estimate of treatment, which I think may well find a place here. If we are tempted by a laudable ambition to be easily satisfied that we have found specific remedies, it is not unnatural that we should occasionally maintain principles of practice with undue earnestness and exaggeration through successive epochs. And has not this been the case? Has there not been in the present century a most unphilosophical precipitancy in the medical rush out of a system of extreme depletion into a system of extreme stimulation? This is, I believe, widely felt by many, who feel also that it shackles the practice of nonconformists, and damages the practice of those who embrace the reigning excess. I believe it is also felt that the assertion of a change of type in disease does not explain the difficulties in which the rush from one principle of practice to its diametrically opposite involves our character as a scientific body. I have lived through one of the periods alluded to, and have witnessed its antagonist period; and I am strongly tempted to believe that, when the next change on this subject takes place, physicians will find it difficult to recover those *nuances* and shades of distinction, through which the sthenic and asthenic forms of disease were once distinguished by those out of the herd of *heroic* practitioners who recognised with any logical tact appropriate cases for the use of the lancet.

The Cattle-Plague. The *London Gazette* contains an order in Council directing the Archbishop of Canterbury to issue a form of public thanksgiving for the cessation of the cattle-plague and the abatement of the cholera, to be used on November 18th.

Statue of Sir Henry Marsh. On Friday week, the ceremony of presenting the statue of the late Sir Henry Marsh to the King and Queen's College of Physicians in Ireland, took place in the grand hall of the institution before a numerous and distinguished assembly. The President, Dr. Stokes, occupied the chair. Dr. Banks, in an appropriate address, presented the statue on the part of the subscribers, the President of the College signifying its acceptance in suitable terms. The statue is the work of Mr. Foley, and in its execution he seems to have eclipsed all his previous efforts. It is placed in the hall of the College, in which it forms a very attractive feature. The statue has been purchased by subscription, and has been presented by the body of subscribers to the King and Queen's College in Dublin, with which Sir Henry Marsh had been intimately connected during a great portion of his lifetime. The statue when unveiled formally was seen to be of life size. The figure appears in academic costume, and the likeness is excellent, the attidude being suitable and graceful, the only want being that which the art of the sculptor cannot supply—the brilliant eye, so well remembered as a feature of the living man. The occasion was rendered as imposing as it was interesting by the presence, in their robes, of the President of the College, Dr. Stokes, and the Fellows, nearly all the eminent medical men of Dublin being present to do honour to the memory of the physician commemorated. The body of the hall was crowded by members of the profession resident in Dublin and various parts of Ireland.

Illustrations
OF
HOSPITAL PRACTICE:
METROPOLITAN AND PROVINCIAL.

BIRMINGHAM GENERAL HOSPITAL.

TWO CASES OF PARAPLEGIA: FROM DISEASE CHIEFLY CONFINED TO ONE-HALF OF THE SPINAL CORD, AND FROM THE EXTERNAL IMPRESSION OF COLD.

Under the care of JAMES RUSSELL, M.D.

THE former of the two following cases is interesting from the accordance it exhibits between the effects of disease and the results of experiments on living animals. Dr. Brown-Séquard, in his well-known *Lectures*, has collected a considerable number of similar cases in confirmation of the conclusions he derives from his experiments; and, although there was no *post mortem* examination in the present case, the symptoms agree so entirely with those observed in the cases and experiments just quoted as to justify a pretty decided opinion upon the seat of the disease; viz., that it was chiefly limited to one-half of the cord. The opposite half, however, was not entirely spared; and the interest of the case is thereby increased, from the relation observed between the paralysis and anæsthesia in the opposite limbs, in relation to the side of the cord chiefly affected, being strictly maintained also in relation to the opposite half of the cord, which had suffered to a minor degree.

It can hardly be necessary to observe that Dr. Brown-Séquard has proved that disease or injury limited to one-half of the cord is followed by paralysis of the corresponding limb, and by anæsthesia of the limb on the opposite side. Sensation is usually exalted in the paralysed limb; this was not the case here, because the other half of the cord was not perfectly healthy.

The lesion, whatever it was, no doubt penetrated to the grey matter; since, according to the same authority, sensation does not suffer unless the grey matter is implicated. The presence of exalted reflex action in the affected limb renders it probable that the posterior columns of the cord shared to some extent in the disease; alteration of the posterior columns, together with the grey matter, being stated by the authority I have quoted to occasion, besides paralysis and anæsthesia, increased reflex acts also in the affected part (p. 137). On this supposition, it would seem that the extent of lesion was very limited in a longitudinal direction also; since, if the whole of the lumbar swelling be affected in its posterior columns, reflex acts are annihilated. It is only with a very limited extent of lesion that they are exalted.

I would also notice another point of agreement between my case and Brown-Séquard's experiments. It will be observed that, in the senseless limb, the anæsthesia affected the thigh to a less extent than the leg. The same state has been observed when division of the cord has been effected *very* little above the place where the roots of the nerves which supply the posterior extremities emerge from the cord; the fibres of the roots of the nerves going to the remote parts of the limb, probably entering the cord below the section, whilst certain of those supplying the nearer parts of the same limb probably pass into the cord at the level of the division, and thus still transmit the sensative impressions (p. 27). This explanation accords with the probable seat of the lesion in the present case, as derived from other symptoms; and also with its probably limited extent in a longitudinal as well as in a transverse direction.

As respects the precise nature of the disease, all the evidence which can be obtained points to an inflammatory origin. The patient had suffered exposure to wet and cold—a circumstance well known as the frequent precursor of meningeal inflammation of the cord. I forbear to speculate on the cause of the singular limitation observed in the seat of the disease; venereal thickening, which occurs to the mind most readily, not obtaining any support from the patient's history, though still not beyond the limits of possibility.

CASE I. C. B., aged 31. The following was his condition when admitted. He was well made, muscular, and apparently in good health. The right lower extremity presented a considerable amount of paralysis. He could only drag his foot along the bed, and was quite unable to raise it. He could just creep along by the help of two sticks, swinging the affected leg forward by the action of his body. The left leg also was somewhat, but slightly, enfeebled. Attempts to move his limbs, especially the right one, caused violent tremors. He spoke of severe startings, chiefly of his right leg, which took place especially during the night, raising the limb from the bed. They were frequently noticed whilst he was in the hospital, especially during the process of dressing a blister. He said that he could not walk at all with his feet bare; because, when the feet were scraped along the floor, the startings of his legs nearly threw him down. However, we could not excite these reflex acts, neither by tickling, by twitching the hairs, nor by the current.

As regards sensation, the degree of its impairment was exactly conformed to the amount of paralysis in the *opposite* limb. The right being the limb principally paralysed, in the left, sensation was very feeble, as tested alike by contact, by tickling, by warmth, and by electricity; tickling the sole of the left foot caused a "curious sensation", quite unlike tickling, entirely contrasting, in this respect, with the opposite foot. The anæsthesia was less marked in the thigh than in the leg; it ceased entirely at the region of Poupart's ligament in front, and at the upper margin of the gluteal region behind.

On the right side, the anæsthesia of the lower extremity was slightly marked, in perfect accordance with the small amount of motor paralysis in the left limb. The patient could appreciate two points of the compasses at three inches distance, and soon after his admission at one; and slight contact was felt very distinctly. Over the inside of the thigh, where the anterior crural nerve is distributed, sensation was quite normal.

He had slight difficulty in micturition. His urine was quite healthy. The spinal column was healthy; in passing a hot sponge down the column, it was felt hotter above the sacral region.

The history which we received from the patient was the following. He is a gasman. He was in perfect health up to one Saturday night about fifteen months ago, when he was greatly heated by working for two hours charging his retort; and afterwards he was exposed to wet for five hours. He worked all the following night (Sunday), and went to bed at 6 A.M. on Monday, believing himself quite well; but at noon of the same day he was "that stiff and painful in his loins, that he could not stoop." He went out, but it was as much as he could do to drag himself home. Next morning, he found himself unable to use his right leg, and his left leg was numbed. During the following two months, the left

leg was weak, but subsequently regained strength. Coeval with the loss of power were the startings in his legs, chiefly in the right, already referred to. No further important change took place until his entrance into the hospital, where all treatment failed in effecting more than very slight improvement. There was no evidence of venereal infection.

The second case appears to be one of the class of paralyses in which the disease is to be referred to the impression of cold upon the peripheral extremities of the nerves. Cases of this description have lately been regarded with interest, on account of the theories which they have been cited to support. By some pathologists, among whom Dr. Brown-Séquard is to be distinguished, the paralysis is explained by a reflex influence exerted upon the vaso-motor nerves supplying the vessels of the cord, whereby contraction of those vessels is induced, and interference with the nutrition of the nervous tissue results. By others, among whom Dr. Handfield Jones is to be specially mentioned, an inhibitory influence exerted through the afferent nerves upon the ganglion-cells of the cord is adduced in explanation. To both, however, the starting-point is common; viz., the impression of cold upon the afferent nerves of the paralysed limb.

It must be admitted that the connexion of cause and effect is not complete in this particular case. The patient was unable to refer the attack immediately to a special exposure. The alternative explanation would be a subacute form of meningitis produced by exposure; and the history of the preceding case lends support to this view of the case. The symptoms, however, and the result of treatment, seem to me more consistent with the hypothesis I have adopted; and I would especially draw attention to the entire absence of any affection of sensation, though I am aware this is not conclusive.

Case II. E. W., aged 18. He was a healthy-looking young man. He was quite unable to raise his feet from the bed, and could just creep along when supported by two persons. The girth of the left leg was half an inch less than of the right. Sensibility of the limbs was perfect as to contact, discrimination of the points of the compasses, heat, and electricity. Electro-contractility of the right leg was rather augmented, of the left was rather lessened. He had been entirely free from all abnormal sensations in his limbs, and from cramps and startings; only he had a sense of pricking when crossing his legs.

The sphincters were quite unaffected. The vertebral column was healthy, nor was any unusual effect produced by percussion, nor by the application of a hot sponge. His urine was perfectly normal.

His history was the following. In the course of his work, he has frequently to enter furnaces, for the purpose of repairing, very soon after they have been used, and whilst they are still hot. He gets much heated and wetted by the steam, and feels the cold very much when coming out. About six months before admission, he was at work all night in his wet clothes; but I do not trace any special consequence as the immediate result. About three days after, he was again wet through. Two or three days afterwards, he was obliged to leave work one morning on account of weakness in his legs; he walked flat-footed, and could not bend his feet. The left leg suffered the most. The paralysis steadily increased until it had assumed the condition observed at his admission. He had never had any venereal affection, and firmly denied having masturbated.

He was admitted on November 11th. He was ordered a warm bath on alternate nights, and active friction of his legs, with a stimulating liniment. On December 5th, his feet and legs were directed to be immersed nightly in mustard and water, and a mustard plaster was applied nightly to the loins. One-sixteenth of a grain of strychnine was added to the steel mixture which he had been previously taking. Galvanism was continued (the date of its first employment is omitted). On December 16th, it is reported that he was able to support himself in a kneeling position. On that day the power of the current was increased; the dose of strychnine was increased to one-tenth of a grain; and a blister was ordered to be placed on each calf alternately for the space of three hours. Cod-liver oil was also added to his prescription. On December 26th, he stood with some help. The blisters to the calves were repeated for two hours, and the dose of strychnine was further augmented to one-eighth of a grain. On the 28th, he could walk a little; on January 20th he walked easily about the ward without crossing his legs; and on March 12th, he walked from the Convalescent Hospital, a distance of three miles. He was subsequently discharged cured.

SALOP INFIRMARY.

CASE OF OVARIOTOMY.

By J. R. Humphreys, Esq., Surgeon to the Infirmary.*

J. N., aged 30, a thin and pale domestic servant, had always enjoyed good health until two years ago, and had menstruated regularly. She had an attack of erysipelas of the head and neck two years since; and when she was recovering from it, she felt a pain in the left side, and some weeks afterwards she noticed that she was larger than usual. This enlargement increased steadily, but slowly. She had no pain, excepting when she took a long breath, when she felt a dragging in her left side near the edge of her ribs. She had felt more or less uneasiness in this side during her illness. The abdomen presented the usual appearance of ovarian tumour. I tapped her in May, and gave exit to about two ounces of thick and dark grumous fluid. At a consultation, it was decided to remove the tumour.

Ovariotomy was performed on September 18th, under chloroform. An incision was made from the umbilicus to the pubes. The sac was found to be generally adherent; it was tapped with the large trocar, but nothing escaped. The incision was carried on to the ensiform cartilage. The tumour was surrounded with omentum at the upper part, to which it was adherent; it was with some difficulty separated from the omentum and from the walls of the abdomen; and, on lifting it out of its bed in the pelvis, the tumour fell over the right side, and tore the broad ligament close to and running into the body of the uterus. Blood was poured out freely from this rent, and from another higher up the pedicle. A clamp was put on, and the tumour separated. The actual cautery was applied freely and deeply to the rents before the bleeding was stopped; the end of the pedicle was also seared with the cautery; and, after the clamp was removed, it was returned into the pelvis. Some vessels in the omentum were twisted. The peritoneal cavity was cleaned out, as well as the surface of the liver. The left ovary was found to be healthy. The sides of the belly were closed with fourteen silk sutures, deep and superficial alternately; pledgets of lint were applied over the part, and plaster surrounded by a flannel bandage.

* Read at the meeting of the Shropshire Ethical Branch, on October 1st, 1866.

The tumour consisted of two cysts, one large, and a small one with solid matter at the base; it weighed 18¾ lbs., and was filled with a dark thick fluid, very like boiled glue.

She was sick, pale, and very much depressed, for some hours after the operation; and complained of pain in the back.

5 P.M. Pulse 129; respirations 60 in the minute. Ice and champagne were ordered. A suppository of a grain of muriate of morphia was administered.

9.30 P.M. She felt more comfortable, was less sick, and had less pain. Pulse 114; respirations 40; skin moist. A catheter was used.

Sept. 19th, 8 A.M. She was very comfortable; slept well during the night; was not sick. Pulse 120, small; skin moist. She was not in much pain. Her countenance looked less anxious. She took wine, ice, and grapes.

9 P.M. She had had a comfortable day, but had slight hiccup to-night. Pulse 132; respirations 36. She was ordered to have a suppository.

Sept. 20th, 8 A.M. She had been in pain in the night. The abdomen was distended and tympanitic. She vomited once, and had hiccup. Her countenance was anxious. Pulse 106; respirations 34. She was ordered to have brandy and water in small quantities frequently, and a grain of solid opium every three hours.

9 P.M. She had been very uncomfortable during the day, sick, and in pain; the abdomen was very much distended. The suppository was administered in the afternoon, and she was easier to-night. She had slept soundly, and was perspiring freely, and was not so sick. She took gin and water. Pulse 114; respirations 30. The countenance was less anxious; hiccup troublesome; urine plentiful.

Sept. 21st, 8.30 A.M. She had passed a quiet night, slept well, and perspired freely. She had been sick once. Pulse 114. She began to menstruate last night.

Vespere. She was in more pain in the bowels, which were tympanitic. An injection with brandy, beef-tea, and opium, was ordered, which came back, and the bowels acted. Half a grain of muriate of morphia was injected subcutaneously, which secured a good night. The hiccup was troublesome.

Sept. 22nd. She was better, and was ordered to have the injection repeated, and to take the opium every fourth hour.

Sept. 23rd. She had a comfortable night. Pulse 100; respirations natural; skin moist; belly natural. She had an egg and coffee for breakfast. The sutures were taken out. The wound healed by first intention, excepting two inches at the top, which had been torn open by the retching, the suture having been torn through one side. She had fowl for dinner, and a glass of wine.

Sept. 25th. She was doing well, and took her food, with beer for dinner. She was ordered to take the pill every six hours.

Sept. 27th. She was comfortable, and was ordered to take the pill three times a day.

Sept. 29th. She had her bowels moved three times last evening; was awakened in the night with pain in the bowels, which was relieved by an opiate. To-day she was very comfortable, and had a chop and wine. She was ordered to take the pill twice daily.

Oct. 1st. She was going on very well. The bowels acted last night.

Oct. 5th. She rose from her bed for a short time; took nourishment well.

Oct. 6th. She sat up.

Oct. 11th. She walked out.

Oct. 14th. She was well; and the next day she left the infirmary.

Original Communications.

THE TREATMENT OF CANCER BY INJECTIONS.

By CHARLES H. MOORE, F.R.S., Surgeon to the Middlesex Hospital.

THE ingenious method of treating certain cancerous tumours communicated to the Association at its last annual meeting by Dr. Broadbent, could not fail to awaken very great interest, because of the singular nature of the novelty and of the success attending it. It is strangely novel, inasmuch as it chemically dissolves the cancerous cell in the midst of the tissues; and it is strangely successful, for it has effected the absolute dispersion of small cancerous tumours, without destroying, as caustics do, the natural textures in which the tumours lay. Both these facts I happened to have the opportunity of demonstrating; and I took occasion to bring them before the Pathological Society of London at its first meeting in the present session.

The introduction of this method constitutes a most important epoch in the treatment of Cancer; for the acid is as nearly a specific against the disease as anything can well be—a specific, happily, which is, in a great degree, intelligible in its action, a specific without a mystery.

Like all new remedies, its value needs exact estimating. It is capable of doing certain good; its applicability is still uncertain. There are situations in which difficulties of manipulation may prove insuperable, and the remedy cannot be brought into action against the disease. There are conditions of bulk in some cases, which we do not yet know that a remedy so slow in its action can overcome. There are also misconceptions in our own minds as to the extent to which the disease is diffused; for disappointment consequent on which no remedy is answerable. Acetic acid dissolves cancerous tumours, and the absorbents may remove the inert remnants of it; but the acid does not change the disseminating power of the disease. If fragments be left beyond the limits of a tumour, they will grow again, whether the main mass have been cut away with the knife or dissolved away with the acid.

Again, there are dangers to the reputation of the acid as a local remedy which are incident to its misuse. If employed too strong, it acts as a caustic, and produces sloughing; only in a certain degree of dilution is the proper action obtained which was contemplated by Dr. Broadbent.

I have been led into these remarks by the present interest of the subject; but my intention in writing was to refer to the questions raised in the letter of Dr. John Barclay of Banff. Who originated, in whole or in part, the method of treating Cancer by injection of acetic acid? No one can deprive Dr. Broadbent of the credit of the treatment as a whole. He devised it; he employed it; he published it. But others are answerable for the parts; for detecting the action of acetic acid on cancer-cells; for employing it in the living patients; for the invention of the syringe and cannula for subcutaneous injections; and for adapting them to throw remedies into the substance of a cancerous tumour.

Dr. Barclay claims to have originated the use of acetic acid in Cancer; and he assigns to me the

credit of having first treated Cancer by injection. I do not know whether either claim can be substantiated.

That Dr. Barclay's suggestion was independent and original, I have no question; it needs only to peruse the account of his valuable comparative experiments with the citric, acetic, and carbolic acids, to perceive that he had obtained good results from the use of acetic acid in Cancer in the living subject. I was aware of his observations, having carefully read his paper at the time of its publication, and afterwards employed the carbolic acid, according to the form he recommended, on some of my patients at the Middlesex Hospital. Nothing was further from my intention than to ignore Dr. Barclay's work, of which I do not doubt that, as it certainly contributed to our knowledge of the use of acetic acid, it may also have led up to the choice of it by Dr. Broadbent. It was in connection with the method of injecting cancerous tumours, not with the superficial treatment of them when ulcerated; and it was in contrast with my own injections of other substances, that I referred to Dr. Broadbent's happy selection of the acetic acid.

This acid had, in fact, been thought of, and actually used, in the treatment of Cancer before 1866. My former colleague at the Middlesex Hospital, Mr. Mitchell Henry, when he had not yet condescended from Surgery to Politics, was in the habit of giving it to his Cancer patients as an internal remedy, on this very account of its action on the cells under the microscope. Mr. Henry retired from the profession in 1862. And I was once informed by Mr. Charles Hawkins, that Sir Benjamin Brodie used this remedy in the local treatment of an open Cancer of the breast. Dr. Barclay has had the satisfaction which always accompanies the exercise of ingenious and original thought, and that of extending our knowledge of the action of acetic acid; but it does not appear that he has the additional pleasure of having been the first to discover its usefulness in Cancer.

My own connection with this treatment is not that of an originator. At least, I did not, in my remarks on October 16th, intend to make that claim. I said that, "as the hypodermic injection-syringe was so much in use at present, it would be surprising if it were not employed in the treatment of Cancer." And I said, speaking inexactly, that I had for a year or two, or a year and a half, been trying various remedies introduced in this manner in the treatment of that disease.

Whether I really first used injections in the treatment of Cancer I do not know. In a London hospital our proceedings are so public, that that which we originate may be adopted by others as usual treatment, and may be afterwards published without reference to the inventor, and certainly without the intention of depriving him of the credit of his thought. But Dr. Barclay's letter has led me to refer to my notes, and to cull from them the following history of my doings.

In a clinical lecture on Surgery, which I delivered on June 30th, 1860, I detailed a case of Lupus exedens in a young woman, which had destroyed the tip and one ala of the nose, had split the lip, and extended far into the nostril. After failing to arrest the disease by ordinary treatment and superficial caustics, I injected, at Mr. De Morgan's suggestion, perchloride of iron into the tissues beneath the disease. At that part the Lupus was stopped; elsewhere it went on. In the same lecture, I suggested that the plan was applicable to the treatment of Cancer. My first application of the method of injection to Cancer is thus due to advice from Mr. De Morgan in what was practically a similar disease. And I am disposed to attribute to this hint from him the direction of my thoughts to that treatment of Cancer by zinc after incisions, which I adopted first in a vast Rodent Cancer of the face, and which has been since frequently practised for those gigantic ulcers with surprisingly successful results. My first patient so treated lived in comfort for three years, until the age of 75; and I presented her before the British Medical Association at its meeting in the College of Physicians in London. The same hint, and its result in the cases of Lupus and Rodent Cancer, led me on to apply solid zinc and zinc paste to the wound after removing a cancerous breast; but, in Mr. De Morgan's mind, his thought produced the more practically and widely useful plan of treating all wounds, cancerous or not, with the zinc in solution.

I next find in my notes sundry thoughts on the Treatment of Cancer, from which I extract the following.

"*Treatment of Cancer.* It seems to me clear that our methods of treatment for cure fail for want of quantity and continuousness of application. Some medicines cannot be administered in more than a small dose; and we already know that within the limits of their tolerance by the system they are useless for the cure of Cancer. Of this kind is arsenic, which influences solid new growths, but kills without curing.

"But if we would alter cell-growth in the body, we must have a long continued stream of the medicinal agent flowing through the Cancer. It might be introduced through the skin, as by a long residence in a bath of it, or by wearing it inside a caoutchouc dress. It might be made to saturate the liver by profuse and repeated enemata. It might be inhaled. Only, whatever the substance chosen, there should be enough of it, and it should be long continued.

"Whether the Cancer be at first local or constitutional, it is usually already diffused through the system when Surgeons operate. From its earliest existence, a cancerous tumour contaminates the system and invades adjoining tissues. These are its first victims, and glands next, which have no power to eliminate its surplus or refuse. Are we then upon the right track in merely extirpating the tumour? We know nothing of a constitutional remedy; have we the completest local one? Subcutaneous injection might do with local deposit what other organs could not—neutralise, dissipate, render it innocuous.

"We want not merely to extirpate the tumour, but to remove adjoining blastema. Could acetate or perchloride of iron, or chloride of zinc, or chlorine, or what not, much diluted, be driven into the tissues all round a growth, beneath it, into it? The tumour might be injected with undiluted, the tissues with diluted solutions. And, after a cutting operation and cicatrisation, could the same be done with the whole region?

"Slow daily injection, as diffuse as emphysema, to wear out the propensity to the disease or to destroy the material of it.

"What is wanted to destroy the tendency to recur in tissues and in glands, is a cutaneous and subcutaneous application of the chloride of zinc. The skin should be soaked in it; the subjacent tissues flooded with it, until the Cancer growing elements wear out. The whole region leading to the axillary gland should be acted on, and the tendency of Cancer of the breast to grow towards the clavicle should be observed.

"Should this seem effective, some less painful way of arriving at the same result might be discovered.

"If it saved from recurrence, it might also be of service to destroy a young growth, when extirpation

was objected to. The progress to glands by the natural circulation would be the means of acting on them, if not diseased; but if diseased they also should be punctured.

"In the beginning of such treatment of the primary tumour, would any advantage come from underbinding the absorbent vessels below the edge of the pectoral with a wire ligature; so only as to interrupt the current, but not to obliterate and cut through them, as in varicocele? The changes in the primary tissues would perhaps be more complete, if the injected liquid or gas did not so readily run off by those vessels."

Though these suggestions were committed to paper from time to time as they occurred to me in 1859-64, I did not put my thoughts into execution until 1865, when I had some syringes and sharp-pointed cannulæ prepared for the purpose. I first injected into an advanced case of epithelial Cancer of the face a solution of twenty grains of the chloride of zinc to the ounce of water. The effect was severe pain, which was over in an hour and a half, and œdema around the diseased parts which were infiltrated with the liquid. I have not kept the date of this operation.

The next case was one of Cancer of the breast, sent me by Dr. Rowe of Margate. The disease was in an advanced stage, and unfit for ordinary operations. My report of the injection is as follows.

Nov. 10th, 1865. The parts being all quiet, though the dull vascularity of the skin towards the sternum continued, I made the first injection to-day. Having a long silver cannula, steel pointed, screwed on a vulcanite syringe, and in order, I filled it with a solution of chloride of zinc in distilled water, of the strength of one grain to one ounce. Then, introducing the cannula about an inch from the middle of the sternum below the red part, I slowly thrust it up in the subcutaneous tissue for two inches. I held it steady for a minute or two, that the bleeding in the track of the puncture might cease, and then slowly injected three drachms of the solution. No hæmorrhage occurred; the fluid formed a long bulging prominence, which soon spread out and lost its tension; and, on withdrawing the cannula, no fluid escaped. I dressed it with collodion. The puncture hurt a good deal; and she complained of the stinging of the solution the instant I began to inject it. This latter pain was at once relieved when the cold collodion was laid on, but it returned, and then gradually lessened.

Subsequently, within a brief time, the pain recurred and became severe. It kept her awake till 3 A.M.

Nov. 11th. There was swelling over the injected spot and along the chest for two or three inches towards the axilla; redness of the skin from the same spot over the fold below it to the furrow next adjoining; much tenderness over the spot and soreness to the mesial line, the inner end of the right clavicle, and rather beyond the redness outwards. No inconvenience in the armpit or tumour. She had suffered so much that she determined to leave to-day. Lest the injected spot should suppurate, I ordered a lead lotion, and requested her to show it on Monday.

Nov. 13th. She returned to the hospital to-day before going to the country. The redness and swelling had much diminished, and they were now chiefly concentrated over the small remaining swelling from unabsorbed injection. This part was still, but much less, tender; and the integument over it seemed a little more supple than before the injection was made. There was now no more appearance of suppuration.

This excessive and long continued pain, which had led to the patient's abandoning the plan of treatment, may have been simply due to the chloride of zinc as such. Or it may have been more than usually severe on account of the contact of such a liquid with the deep surface of over-vascular and over-sensitive integument. Or it may have been the result of throwing in a quantity so large as to keep too much in contact with the tissues, and for too long a time.

In the first case, it is remarkable that the pain should have continued so long with one grain to the ounce, whilst with twenty grains to the ounce the pain was over in an hour and a half. In this latter, however, I threw in two drachms of the liquid, of which not more than one drachm remained. The result, both in that and in this case, was inflammation, without suppuration, and in each patient it far exceeded what I desired to produce; namely, a modification of the nutrition of the local textures. Nevertheless, I have confidence in the zinc, if it be reduced to a bearable strength. I had a solution of pure chlorine prepared, hoping to try it in Mrs. P.

In the second case, the pain may be evaded by making the injection under uninflamed skin, and parts having no tenderness. It is worthy of special notice, that though so irritating, the solution was not of a kind to produce suppuration; a fact closely corresponding with Mr. De Morgan's observation of the result of applying zinc on raw surfaces. It prevented the formation of pus, even by a tissue already prone to it.

The third suggestion refers also to what may be avoided in future. Whatever liquid I may throw in, which is capable of producing irritation, must be in quantities not exceeding a drachm, and half a drachm might be better. By one puncture in the skin half a drachm might be thrown in in different directions, the north, east, south, and west, of the compass. When thus brought into contact with more tissue, there is more probability, both of its early diffusion and of its speedy chemical union with the albumen of the tissues.

Feb. 10th, 1866. Mrs. P. was sent back by Dr. Rowe. She had lately lost some sloughs from deep parts of the breast, which she extracted through the chinks. At the bottom of these were now deep clean cancerous ulcers. She suffered much during their detachment. The whole mass was smaller than it had been, and looked quiet. There was no increase of the axillary disease, and she suffered little at present. The injected spot was not now larger than an almond, was red on the surface, was tender, and fluctuated.

After this, I made trial of a still stronger solution of the chloride of zinc. The case was one in which Cancer was recurrent in the cheek after an operation. I extract from my notes the account of so much as relates to the injections.

Dec. 21st, 1865. The wound was granulating healthily in all but two parts; at the lower lip and along an inch of its lowest edge. At both these parts, the granulations are prominent, the skin firm, and the appearance cancerous. I injected chloride of zinc, forty grains to the ounce, into and beyond the cancerous parts; introducing the sharp fine cannula on the granulating surface and injecting in various directions a few drops of the liquid. Very sharp pain (he compared it to an adder's sting) immediately came on, and continued more than two hours. The next day there was whitening of the cancerous granulations without slough, and some œdema and trifling swelling of the lips and cheek, and of the neck near the lower injected edge. The day following it had nearly subsided.

Dec. 25th. The injected parts had dried, shrunk, and apparently sloughed.

Jan. 4th, 1866. I removed a thick large slough, the remains of tissue killed by the injection.

Jan. 8th. I endeavoured to inject into the healthy tissues of the lower lip, through the doubtfully diseased granulations of that part, a little of the filtered sediment of liq. calcis. Through one aperture, I pushed in two directions half a drachm or less; but the third puncture was useless, as the cannula became clogged, and the clear liquid oozed through at the joint under the pressure I used against the piston. None of the material passed into the tissues.

Jan. 15th. Little result; only trifling swelling. Cancer remains in the anterior part and rather increasing. I injected a saturated solution of sulphate of iron, which stung, but in a different way from, and less severely than, the chloride, and continued more than an hour. The result was an ink-black slough of the injected part.

Since writing the principal part of this communication, I have become aware, by a letter in another journal, that Sir James Y. Simpson must be regarded as the author of the method of injecting medicinal substances into tumours, as he actually practised it with success about ten years ago. This announcement renders further discussion of the priority in originating that method unnecessary. My observations on the subject may nevertheless appear to you worthy of consideration for their own sake.

Progress of Medical Science.

ANATOMY, PHYSIOLOGY, & PATHOLOGY.

Pathology of Cerebral Softening. Two Parisian hospital *internes*, MM. Prevost and Cotard, have diligently availed themselves of the opportunities afforded them during their residence at the Salpetrière, of studying the pathology of cerebral softening. In addition to noticing the appearances presented in the brains of persons dying with softening of the brain, they have, by the advice of M. Vulpian, produced artificially in animals some of the symptoms attending this morbid condition. Their researches, and the conclusions derived therefrom, were last year communicated to the Société de Biologie, and have appeared in various numbers of the *Gazette Médicale de Paris* for the present year. Their object, they state, has been to determine the true relation of obstruction of the blood-vessels to cerebral softening. No one, they say, denies in the present day, the part which obliteration of the vessels plays in the production of softening of the brain; but are all cases of softening to be attributed to this cause? Having related and commented on a number of experiments and *post mortem* examinations, and given a general summary of the results, MM. Prevost and Cotard remark, that they have not studied every point in the history of cerebral softening. This was not their intention; their purpose has been to offer some new considerations, and to elucidate some still obscure points. They have taken no notice of the various kinds of inflammatory softening. The following are the principal conclusions at which they have arrived.

Experiments on animals (consisting in the injection into the vessels of lycopodium or snuff) has enabled them, by means of these artificial emboli, to produce softening identical with that which is observed in man, and to follow its progress through various stages. In this way they have been able to study the hyperæmia which is first produced, the necrobiotic* degeneration which follows, and, finally, the production of connective tissue and the formation of yellow patches which belong to the third period of softening. Analogous experiments have already been made by MM. Virchow, Cohn, Panum, etc.; but the procedures employed by them have produced death too rapidly to allow them to study softening in its different phases. From their experiments, MM. Prevost and Cotard have ascertained that ordinarily a distinct congestion is produced at the points where the obstructed artery is distributed. The cause of this hyperæmia it is difficult to determine at present; but, whatever may be its mechanical cause, the hyperæmia of red softening must be considered as of an entirely different nature. As early as the third day, there are present well defined granular bodies, and a large number of fatty granulations not yet agglomerated; these are collected around the capillaries, forming, as it were, a sheath to these vessels. In some instances, the walls of the capillaries have presented consecutive granular and fatty degeneration; and, in one case, dissecting aneurisms were formed. In a dog which survived the experiment fifteen days, a true yellow patch was found in the cerebral convolutions.

The study of cases at the Salpêtrière, in which cerebral softening has been found after death, has led the authors to consider the process very analogous to that which they have artificially induced in animals. The necrobiotic process has appeared to them almost always to depend on arrest of the cerebral circulation, varying in origin; and they have observed a certain relation between the various forms of disturbance and the characters of the softening. The disturbance of the circulation sometimes arose from obstruction of an artery by a thrombus or embolus; sometimes from atheromatous degeneration of the cerebral arteries; sometimes, perhaps, from more or less general capillary embolism. In two cases, no cause could be ascertained; but perhaps the arterial obstruction escaped notice. None of their observations have led them to infer with certainty that softening has been due to atheromatous degeneration of the capillaries; this degeneration may be consecutive.

Phenomena of irritation are sometimes added to the process which essentially constitutes softening. In some instances, inflammation and suppuration took place around the infarctus formed in dogs; and the authors endeavour to trace a relation between these phenomena and the production of false membranes on the dura mater at the level of old foci of softening.

In speaking of the symptoms, they point out that the attacks of vertigo and the apoplectiform paroxysms followed by rapid death without lesion of the nervous centres, which most authors have ascribed to congestion, are due to impeded cerebral circulation. They endeavour to establish a direct relation between the intensity of the attack and the extent of the interference with the supply of blood; and they show that both thrombosis and embolia may give rise to sudden death. Regarding paralysis, spasm, and other symptoms of softening, they have but little to add to what has already been said by other authors. The paralysis, they find, most frequently sets in suddenly, and rarely follows a progressive course; hence no diagnostic value can be attached to this symptom. Examination of the temperature of the rectum in some instances, and the information on this point which the authors have derived from M. Charcot, leads them to conclude

* Necrobiotic (Fr. *nécrobiotique*), from νεκρος, dead, and βιος, life, a term denoting the death of tissues during the life of the individual.

that the temperature of the body is not essentially raised during cerebral softening; and hence that, if inflammation have any share in the process, it must be altogether secondary. It would, they observe, be interesting to make a similar series of observations in cases of inflammatory softening. (*Gaz. Méd. de Paris*, 14 Juillet, 1866.)

Cervical Fistula. Dr. Heusinger relates two unusual cases of this malformation. One was met with in a girl, aged 15. The cutaneous orifice of the fistula, having a diameter of about one-fifth of an inch, was situated at the upper edge of the sternum, near the sterno-clavicular articulation, and the inner edge of the sterno-mastoid muscle. It was hidden by a kind of flattened dentated cutaneous lid, nearly a quarter of an inch long, directed downwards and outwards. The canal of the fistula was nearly nine-tenths of an inch long; it was directed vertically upwards and ended in a *cul-de-sac* having a diameter of two-fifths of an inch. Behind the canal was a long projection from the upper part of the sternum, close to its articulations with the clavicle, nine-tenths of an inch long. In a second case, occurring in a little girl 7 years old, the external ears, especially the right, were slightly malformed. On the left side, nearly one-fifth of an inch above the thyroid cartilage, was a small orifice, surmounted by a projecting crest of skin three-fifths of an inch in length, in which there was a particle of bone or cartilage, thick posteriorly, where it was attached to the sterno-mastoid, and pointed in front. The orifice led into a canal which proceeded towards the pharynx, above the hyoid bone; no internal opening could be found. (*Virchow's Archiv;* and *Gaz. Méd. de Paris*, June 16th, 1866.)

SURGERY.

Ankylosis of the Lower Jaw: Resection of a Wedge of Bone. In 1860, M. Boinet operated on a little girl for immobility of the lower jaw, following gangrene of the mouth. The operation performed was that of Rizzoli, which consists in making a simple incision in the jaw. Matters appeared at first to go on well; but at the end of three months, the divided portions began to unite, and in eight months there was complete consolidation. A new operation was then performed, being a modification by Esmarch of that of Rizzoli, and consisting in the removal of a wedge-shaped piece of bone, with the base at the lower border of the jaw, and the apex at the alveolar ridge. The operation was performed in June 1863; and, six weeks or two months afterwards, the patient could eat any kind of solid food. In the beginning of September 1866, she died of phthisis, having up to the time of her death retained the mobility of the jaw. On examination of the bone, which M. Boinet exhibited to the Surgical Society of Paris, it was found that there was false ankylosis between the two divided portions of the bone. The fragment on the side where the excision had been made was much arrested in development, and the muscles inserted into it were atrophied. (*Gazette Médicale de Lyon*, October 1st, 1866.)

Prolapsus of the Urethra in Children. M. Guersant says that prolapse of the urethra, although scarcely if at all described in surgical works, is not a very rare affection in female children. During twenty years of practice, he has seen it in at least twelve or fifteen patients, aged from 2 to 12 years. The causes of the prolapsus have appeared to him to be, the paroxysms of hooping-cough, or the frequent cough of bronchitis, or constipation demanding violent and frequent efforts at defæcation; and also general debility, as during prolonged convalescence from acute diseases, and often in the course of chronic diseases. The patients make but little complaint. Sometimes, however, the desire to pass urine is frequent, and some scalding is felt during the flow. When the labia are separated, the vulva is generally seen to be of higher colour than is normal. At the urinary meatus, there is a small rose-coloured mucous tumour; it appears to proceed from the interior of the canal, and has in its centre an opening, into which a catheter can be introduced, on doing which its nature is at once recognised. The tumour may remain stationary a long time; but sometimes it enlarges slowly, and discharges a sanguineous exudation, afterwards a purulent serosity. It increases in size, and sloughs superficially: the neighbouring parts become inflamed, and vulvitis is produced. The exudation may increase without causing much pain; but the child has heat and smarting in passing urine. M. Guersant has not seen any of these tumours which had been left to their own course for a very long time; but he believes that, at length, they would sphacelate in whole or in part, and give rise to a sero-purulent discharge. The tumour may be confounded with urethral polypus; but, on attentive examination, it will be found that the polypus presents itself in the form of a more or less pedunculated tumour, the pedicle of which reaches within the canal, while the prolapsus has the form of a very small swelling surrounding the meatus urinarius—resembling, on a small scale, prolapsus of the rectum. The only method of giving prompt relief is excision. It is not necessary to use an anæsthetic, unless the child be timid and difficult to manage. The patient is placed at the edge of a bed; the thighs are held apart, and the labia are separated so that the surgeon can plainly see the tumour, and draw it down gently by means of a loop of thread. It is then cut off by means of curved scissors. There is little hæmorrhage, and it is easily arrested by the application of cold water: if not, an aqueous solution of perchloride of iron may be applied for a few moments. Cold water dressing, and a few applications of solid nitrate of silver, are sufficient to produce cicatrisation. The patients have for a few days some pain in passing urine; but this subsides. In one case, the hæmorrhage could not be arrested by perchloride of iron; but M. Guersant succeeded by applying ice for twenty-four hours over the hypogastrium and to the vulva. (*Bull. Génér. de Thérap.*, 15 October, 1866.)

Treatment of Cephalhæmatoma by Collodion. M. Dumas of Montpellier treats cephalhæmatoma by the application of collodion. After puncturing the tumour when it is large and several days old, or even without this, a thick layer of collodion is laid over the whole surface and a little beyond. In drying, the collodion exercises a moderate and equal pressure over the entire mass. On the next and following days, fresh layers of collodion are applied over the old ones. The tumour soon diminishes, and the collodion becomes loosened, and may be removed. A fresh dressing of collodion is applied, and is renewed every day until the tumour has completely disappeared, which generally takes place before the fifteenth day. The children bear the application very well, notwithstanding the painful impression of cold, and the slightly irritating action of the liquid used. The greatest inconvenience attending the treatment is, that the hair falls off where the collodion has been applied; but it soon grows again, and in a short time no trace of the disease is left. (*Bull. Génér. de Thérap.*)

ELECTION OF EDITOR.—DR. MARKHAM *having resigned the Editorship of the* BRITISH MEDICAL JOURNAL, *the* COMMITTEE OF COUNCIL *will meet at Birmingham on Thursday, the 22nd of November next, to fill up the vacancy. Communications on the subject will be received by the Secretary,* MR. T. WATKIN WILLIAMS, 13, *Newhall Street, Birmingham.*

British Medical Journal.

SATURDAY, NOVEMBER 17TH, 1866.

THE INTERNATIONAL SANITARY CONFERENCE.

HAVING considered the early history of the Asiatic cholera, its probable origin in India, where it is permanently endemic; its aggressive character as regards not only the neighbouring, but far distant countries, since 1817; its very frequent recurrence in Persia; its yearly importation by pilgrims into the Hedjaz; its constant existence in the endemic form in the delta and some portions of the valley of the Ganges; and the inadequacy of the causes commonly assigned in explanation of its habitual prevalence there,—the Conference proceeded to inquire into *the circumstances which favour its development and propagation in India.* Baffled in their endeavours to ascertain and single out any such exciting causes in the endemic foci, where, *à priori*, their isolation promised to be most easy, but where, in point of fact, the endemic and epidemic dovetail so inextricably into each other, that it is impossible to determine which conditions favour the one, and which the other; and convinced that no special part in the development of epidemics can be assigned to the unwholesome emanations from the alluvial deposits of the Ganges, inasmuch as the same development takes place elsewhere under exactly opposite conditions of soil and climate,—they directed their attention to the influence of *season.* The result of their inquiries is that—except in the north-western provinces, where the greatest epidemics, particularly that of 1861, have raged from July till the beginning of winter—the cholera prevails epidemically during the hot season (from April to August). In Calcutta, Bombay, and Madras, at the present day, as at Chittagong, Patna, and Kishnagur in 1817—in short, over the greater part of India, as indeed everywhere else, *the hot season exercises an influence favourable to the epidemic development of cholera.* This, however, as liable to many exceptions, cannot be regarded as the actual cause of its epidemic extension.

Declining the profitless task of discussing a multitude of conditions more or less favourable to the epidemic spread of cholera in India, the Conference next inquired into the influence of *great assemblages and migrations of people*, and especially of those *pilgrimages* which take place at fixed periods in various parts of the peninsula. Among the most sacred of those places where "holy fairs" are held, are Hurdwar, Ramdeo, Muttra, Ajudhia, Allahabad, Mirzapoor, and Gya, in the North; Balasore, Mahadeo, and Poorie or Juggernath in Orissa, between Calcutta and Madras; Trivellore, Tripetty, Conjeveram, Seringam, and Ramiseweram, in the Madras Presidency; and Dakoor, Kodunpoor, Sholapoor, and Sungum, in the Presidency of Bombay. A glance at Hurdwar, Juggernath, and Conjeveram, which are the most important of these holy places, will show the connexion that subsists between these vast periodical gatherings and the development of epidemic cholera.

On the banks of the Ganges, about ninety miles to the south-east of Simla, stands the small town of Hurdwar. Just there the sacred river breaks forth from its Himalayan cradle, and sweeps along through the spacious plain. The spot, which is called the "Gate of Vishnu", is one of surpassing sanctity, healthiness, and beauty. To it, as to another Bethesda, multitudes of halt, maimed, and withered, repair each April, to bathe in the hallowed waters as they issue from their mountain home. But these, great as is their number, form but a small proportion of the enormous throng, which is made up not only of worshippers, but of traders, from all quarters of India, from the Punjab, Affghanistan, Turkistan, Bokhara, Tartary, Persia, and Arabia. The most propitious season for the festival occurs, according to the astrological calculations of the Brahmins, every twelfth year, when the concourse greatly exceeds the ordinary attendance. In the year 1783, on one of those auspicious occasions, between one and two millions of people were congregated together. "An easterly or land wind," says Jameson in the Bengal Report (p. xvii), "springing up during a hot night, soon after the commencement of the ceremonies," the disease suddenly broke out among those assembled myriads, and spread with lightning-like rapidity on every side, converting the whole encampment into one vast lazar-house, and cutting off, in less than eight days, above twenty thousand victims. "But so confined was its influence," adds Mr. Jameson, "that it did not reach the village of Juwalapoor, only seven miles distant; and *ceased immediately upon the concourse breaking up on the last day of the festival.*" There is now an outbreak of the disease almost every year on occasion of the fair, but it no longer subsides so rapidly as in 1783.

We cannot refrain from adducing two instances not referred to by the Commission, on account of the very striking points both of resemblance and of contrast which they present. At Tutocrin, situated about seventy miles from Cape Comorin, a vast mul-

titude assembles every spring for the pearl fishery. In March 1822, the pestilence made its appearance there while more than 100,000 persons were collected together. "Many of these," says Mr. Scot (Madras Report, p. xiii), "were travellers from distant parts, most of them exceedingly poor and badly fed, miserably accommodated in temporary huts, exposed to great heat during the day and to heavy dews at night; the water of the place was brackish; and the opportunities for intemperance numerous, and pretty generally within their reach. The occupation, too, of a considerable proportion of these people, as boatmen, fishermen, and divers, would seem peculiarly to have exposed them to attacks of cholera; yet, notwithstanding all these circumstances, the disease did not gain much ground: not more than 187 died of it out of that immense multitude, about 443 persons having been attacked; *it disappeared in April, with the breaking up of the fishery.*" On the other hand, Mr. Coates, who accompanied Mount-Stuart Elphinstone and his retinue (amounting to about 1,200 persons) on a tour into Kandeish, during July and August 1818, when the disease was ravaging the whole of that country, states (Bombay Report, p. 150) that "at Punderpoor it made its appearance at the time of the Great Jatra, *and was spread at once in all directions by the pilgrims returning to their homes.* The poison," he adds, "would seem to have been more concentrated there, from there being so many sources of production; the number of deaths in a few days was estimated at 3,000, and the patients are described as having been knocked down dead, as if by lightning." In reference to the same epidemic, Captain Sykes writes (Bombay Report, p. 116): "I have seen the malady under three distinct shapes: first, where the victim, in previous robust health, is struck senseless; of this I had five cases in my camp. . . . When the disease first commenced its ravages at Punderpoor, it must have been under this form, for 350 poople are described to have died in one day, tumbling over each other lifeless in the public streets."

Juggernath or Poorie is situated on the flat coast of Orissa, at the north-western portion of the Gulf of Bengal. The lofty pagoda is used by our sailors as their principal sea-mark in guiding them to the mouth of the Ganges. The ordinary population of the town of Poorie, which is about 35,000, is swollen during the months of June and July to a hundred and fifty or two hundred thousand by the influx of pilgrims and religious mendicants, who have come from all quarters to worship the "Moloch of the East". Of this worship, which for vice and horrid cruelty, for moral and physical uncleanness, has long been a proverb and a byword among civilised nations, we need only say, that all its depressing accompaniments of self-inflicted austerities and torments, and the self-immolation of not a few of the devotees, are so many causes which powerfully predispose to the rapid spread and extensively fatal issue of the cholera, which breaks out every year two or three days after the arrival of the worshippers, and ceases only with their dispersion after the conclusion of the ceremonies.

The facts connected with the annual epidemic of cholera at Conjeveram have been made familiar to us, as well as to the Conference, by the singularly lucid and able paper of Dr. Montgomery (*Medical Times and Gazette*, January 27th, 1866). Situated forty-five miles south of Madras, the town of Conjeveram is large and regularly built, with wide streets, a good supply of water, and, in ordinary times, a healthy population. It is famous for its great pagoda or temple, and is a noted stronghold of Hinduism in the south of India. The festival, which is held in the month of May, lasts ten days, and draws together from the surrounding country at least two hundred thousand pilgrims, vast numbers of whom are filthy in their persons, and either exhausted with fatigue, or prostrated by debauchery and excess; while the streets, previously to 1864, were littered over with the excreta of men, women, and children, bullocks, horses, and cattle of all kinds, which lay festering and decomposing under a tropical sun, till devoured by the pigs, the natural scavengers of an Indian town. Need we wonder that, under such circumstances, there should be a yearly outbreak of cholera during the festival at Conjeveram, whence the disease is regularly transmitted by the returning pilgrims to Madras itself? In 1864, however, the Government took active measures for the abatement of the more crying evils attendant on this annual festival. "Cattle," says Dr. Montgomery, "were as far as possible removed from the strict limits of the town. Public places of convenience were erected, and their contents removed twice a day. The main streets were swept and watered; and supplies of good water were made available near places of public resort for the use of the native visitors." Since the adoption of these simple sanitary precautions, the festival has passed over without its usual accompaniment of an epidemic of cholera. In 1864, this might have been ascribed to the general healthiness of the season, during which there was but little cholera in the south; but the result was equally favourable in 1865, "although the year was notoriously unhealthy."

It is with other places of pilgrimage as with those to which special reference has been made. In all, horrible accumulations of garbage and filth, bad food, bad water, unwholesome beverages, vicious excitement, debauchery, exposure, a shockingly tainted atmosphere, all tending to the production and rapid spread of cholera, which slays its hundreds or its thousands on the spot, and is carried by the dispersing multitudes far and wide over the country.

As in India on the grand scale, so on a smaller scale at Mecca, where the arrival of the pilgrims is the signal for the annual outbreak of the pestilence, which they carry with them as they return to Persia, Egypt, and the surrounding countries. The Conference, being of opinion, as we have seen, that the cholera is always *imported* into Mecca, and *not generated* there, by the assembled pilgrims, indicates the great importance of ascertaining whether, in the places of pilgrimage in India, it is generated without previous importation; and, if not, whether it has been imported by persons coming from an endemic focus. Meanwhile, judging from analogy, they think it probable that in India, as everywhere else, beyond the limits of endemic foci, the importation of the cholera is essential to (*la condition nécessaire*) its epidemic development. But, however this may be, it is clear that in India the pilgrimages, and also (though in a much less degree) the movement of troops, have a large share in the development and spread of epidemic cholera. And is there not reason to fear that, as communication by means of steam and railways becomes more rapid and easy, so much more frequent will be these epidemics in India, and so much greater the danger of their importation to Europe? The Commission, therefore, came unanimously to the conclusion, that *the pilgrimages are, in India, the most powerful of all the causes which concur in the development and propagation of the epidemics of cholera.*

On the whole, we think that the Commissioners, in treating this subject of the production of cholera, have allowed their attention to be too exclusively occupied by the epidemic of 1817 and its consequences. All the endemic foci of cholera seem *then* to have been in the Madras Presidency, where it had been a familiar resident long before the great outbreak on the Brahmaputra and Ganges forty-nine years ago, and whence destructive epidemics occasionally spread northwards to Bengal. Staff-Surgeon Hay, to whom we have already referred, writes from Travancore, at the southern extremity of India, in October 1818 (Madras Report, "Narrative," p. xvi), that *the epidemic* had not yet made its appearance, though, at Trivandrum and at Quilon, many had fallen sick and died of "the *endemic* veshoogeka (poisonous air) or neer-comben (gush of water by stool) which is perfectly familiar to all here." He repeats again and again the distinction between the well-known endemic and the approaching epidemic wave from Bengal, for which they were anxiously on the outlook. The Commission should have inquired diligently whether the disease is still endemic in the towns and villages of Travancore. From their singling out Arcot near Madras as the only place in the south of India where it is endemic, it would appear that it is so no longer in Travancore, Mysore, and the town of Bellary. If so, this is, to our mind, quite as interesting and important a fact as any stated in the Report. If most of the old endemic foci in the south are extinct; if Bengal now occupies the place which Madras did eighty or a hundred years ago; and if, as we know, the disease has of late years become endemic in Cawnpoor and Allahabad, and seems now to be fixing its residence in Agra,—may it not before long cease to be endemic in Calcutta, and take up its head-quarters in the Presidency of Bombay?

The climatic conditions that preceded for some time the outbreak of 1817 were very remarkable. During the two years following Midsummer 1815, the accustomed regularity of the tropical seasons was entirely interrupted. The hot season was either prolonged to twice its usual length, or broken up by piercing winds and torrents of rain, and curtailed by the unusually early commencement of the rains. The rainy season, again, was either condensed into an autumnal deluge, which caused a greater and more general flooding of the country than any one living could call to mind, or spread over the whole months of summer; and the ordinarily clear, shining, cheerful countenance of the Indian winter was often ominously shrouded in mists and gloom. Low fevers began to prevail in the summer of 1816; "and before the end of August (Bengal Report, p. xlvi), a bilious remittent fever of a violent inflammatory type, accompanied, like the yellow fever of the West Indies, with suffusion of the skin, was raging epidemically in almost every town between Patna and Saharunpoor. It seized equally Europeans and natives, and as readily entered the open and spacious house of the officer and civil servant, as the crowded barrack of the soldier and the filthy hovel of the native." The stations affected "wore a gloom scarcely to be conceived; all social intercourse was suspended; many of the shops were shut for want of people to attend them; and the banks of the river were covered at all times with the dead or the dying. Throughout Upper Hindustan, it was observed that horned cattle were very sickly at this period; their bodies could be seen strewed in vast numbers in the pastures by passing travellers."

We cannot agree with the Commissioners in their anticipations of evil from the establishment of railway communication. It is well known, and Dr. Montgomery gives a graphic description of it, that the mode of travelling in common use among the Indian pilgrims is eminently fitted to prepare the victims for the slaughter. They perform journeys of many hundred miles, "either on foot, walking almost incredible distances under a burning sun, or closely packed in a stifling cart, from which every breath of air is carefully excluded," and in which they sleep, if they are not exposed on the ground, to be chilled by dews or damp, or subject to the influence of the land wind." If the use of railways shall put an end

to a mode of transport so fruitful of mischief, it will be productive of unmixed good. The question of *generation*, as against *importation*, of cholera, at the places of pilgrimage, seems to us conclusively settled in favour of the former, so far, at least, as Conjeveram is concerned. The fact stated by Dr. Montgomery, that, after the adoption of sanitary precautions in 1864, "*not one case of cholera occurred during the festival*," forbids the idea of importation. And if at Conjeveram, why not at Poorie, and also at Mecca? A paper by Dr. Christison, read at Chester, seems to prove that it may also be generated spontaneously in Scotland. Not that we deny the transmissibility of cholera—very far from it; but our exclusive contagionists seem to forget that one of the most frightful pestilences of the middle ages—the sweating sickness—*originated* in the Earl of Richmond's army on the banks of the Severn, whence it set forth on its errand of destruction, to fill all England, and forty-five years later, a large portion of Europe, with "lamentations, and mourning, and woe."

A WORKHOUSE PARADOX.

The inquiries which have lately been made touching the condition of sick paupers in metropolitan workhouses, have brought forth unexpected results; which will, we venture to prophesy, provoke another—a sort of reactionary—inquiry, as to whether the space given to the beds of the ordinary sick in general hospitals is not in some cases more than is necessary. Such a question *primâ facie* will appear strangely contradictory in the face of all we have heard of late about the benefits and necessity of abundant space and ventilation, and especially in the face of what we have been told of the dreadful consequences of over-crowding in workhouses. Nevertheless, as the old saw runs, "facts are stubborn things"; and we must deal with them as such, even when they contradict (or, at all events, seem to contradict) our best convictions and strongest prejudices. Now, it would appear, on evidence very difficult to contradict, that, in reference to the case alluded to, we have to deal with a stubborn thing of the following sort; viz., that, whatever the over-crowding of the sick in workhouse infirmaries may effect prejudicial to the pauper behind the scenes, it does nothing overtly injurious to his health; that, if the over-crowding be baneful, we cannot put our finger on the tangible bane. Our modern ideas of free ventilation and large space naturally lead us to jump to the conclusion, that the moderate amount of space given to the workhouse sick must be hurtful to them; but then, curiously enough, when we would support *à priori* conclusions by some sensible fact, we find that it is hardly to be had.

Instead, in truth, of finding facts to back us, we find facts that throw us back. Thus, medical gentlemen who deal with the workhouse sick, and who ought, if any, to know something of the matter, assure us that they have nothing to tell of ill effects resulting to their workhouse sick from over-crowding. We inquire further, and they tell us that in workhouse infirmaries they have happily little or no acquaintance with those *bêtes noires*, those "hospital diseases", which are often the despair of the hospital surgeon and the dread of the physician—of erysipelas, gangrene, phlebitis, etc. So that, in truth, here in their narrow space we actually find amongst workhouse sick as clean bills of satisfactory progress as in our best ventilated hospitals. Stranger still are the facts which the midwifery departments of these workhouses present to us. They give us results which, compared with those of our lying-in hospitals, may fairly be called astonishing, if not incomprehensible. Deaths after delivery are most rare, and puerperal fevers, comparatively speaking, almost unknown, in workhouse lying-in wards. A comparison of the per centage mortality of workhouse puerperal women with that of women in lying-in hospitals would, if stated in figures, we fear, be really an odious comparison. We may be at first doubtful, and we may be more than surprised, when we are told that women in the comparatively small and ill ventilated workhouse wards lie more securely on their puerperal couch than do women in our luxurious hospitals. But still, if the facts be so, we must face and deal with them, unpleasant though they may be to the pride of our private charities.

But we shall be naturally asked, Is there any clue whereby to explain this mysterious freedom of the workhouse sick from what we regard as the ordinary evils attendant upon hospital life? To this question, one answer—whether sufficient or no—at once presents itself for consideration. We find, as a rule, that infectious fevers and surgical diseases are not admitted into workhouse infirmaries. And, if this solution of the fact should be accepted as correct, then another question will naturally press upon the profession for solution; viz., ought not the ordinary sick of our general hospitals to be entirely separated from all the possible contaminating influences of fevers and surgical diseases?

Then, again, how are the remarkably successful results of the workhouse lying-in wards to be explained? Why is the mortality after delivery so much less in workhouses than in lying-in hospitals? Why are puerperal fevers so rare? Perhaps it would be well to speak, in answer, reservedly on this point. It may be enough for the moment to simply state the fact—to call the attention of the profession to the startling fact, that the crowded lying-in wards of crowded workhouses are productive of results incomparably superior to the results obtained in our comparatively sumptuous lying-in hospitals; that the

life of the puerperal pauper is far safer, *quoad* her parturition, than the life of the hospital puerperal inmate. The question demands, and will doubtless have, serious study. In its true answer are involved the issues of life and death.

The other statement, again, to which we have alluded—viz., that, in the crowded wards of crowded workhouse infirmaries, ordinary cases of diseases "do well", as the saying is, and that "hospital diseases" are almost unknown—is one, strange and startling though it be, whose significance the profession will, sooner or later, have to deal with. Facts like these cannot long lie hid under a bushel. They were first, as far as we know, brought inferentially to light in a Report called for by Lord Carnarvon at the close of last Parliament, and published some months ago by order of Parliament. The Report contains answers to a number of questions put to medical officers of the metropolitan workhouses. It is from these answers, as well as elsewhere, that we obtain the facts here stated. It is impossible to over-estimate their importance in reference to the question of hospital hygiene. They are of a kind which, as Hamlet says, "must give us pause".

COTTAGE HOSPITALS AND PROVIDENT DISPENSARIES.

Among the numerous small hospitals springing up throughout the provinces is one recently devoted to the poor of Rugeley, in Staffordshire. It is on a more modest scale than that founded by Mrs. Broadwood at Capel, and can boast of but six beds; but it cannot fail, we think, to prove a great boon to the limited population of which the town of Rugeley is the centre. The liberality of a lady, the late Mrs. Levatt, five years since, devoted this small house to the purposes of a Convalescent Home, and in that period upwards of fifty poor patients from the London and other hospitals have found comfort and benefit in it. Her daughter has now kindly consented to attach this miniature hospital to a Provident Dispensary established in the town in July last, to be conducted on Mr. Napper's Cranley Village Hospital plan.

The promoters of the said Dispensary adopted the self-supporting provident principle; the weekly payments of its members being annually divisible among the medical officers, in proportion to the number of cases attended by each; an honorary fund being raised by donations and subscriptions to supplement the efforts of the medical officers and enable them to distribute comforts, necessaries, and adjuvants, to the sick members needing them. It is satisfactory to know that these efforts are appreciated, and that the institution already numbers several hundred members of the working class.

A very striking proof—may we not so call it?—of what may be done by scientific precision in warding off disease is afforded us in the fact that Bristol has hitherto escaped cholera, whilst in a little village near that city the disease played great havoc.

"The cholera has broken out," the *Times* reports, "severely in the village of Pill, near Bristol. There are only two pumps to supply a population of about 1500, and the unfortunate inhabitants are driven to the constant use of brook water, which is impregnated with sewage. Few of the houses are provided with privies, the drains are choked up, and the filth escaping from beneath the floors of the houses impregnates the whole atmosphere. Large quantities of excrementitious matter are daily thrown out on the banks of the river, and remain there for hours untouched by the tidal water. Near the slip is a public urinal in a disgusting condition, the whole of the filth from which flows into the cellar of an adjoining occupied house. The outbreak has stirred the authorities into something like activity. The services of Dr. Tibbitts, who was lately employed under the Diseases Prevention Act in Bristol, have been secured, and the measures which proved so successful in that city are being put in force. There are, however, difficulties in the way of their employment, arising from the almost entire absence of sanitary arrangements, and also, it must be added, from the prejudices of the people. Three nurses from the Bristol Nurses' Training Institution have been engaged, and are working with admirable devotion."

May we not draw the conclusion from this tale, that Dr. Budd's influence in Bristol has been a most happy one for his fellow citizens; and that his scientific views touching one source, at all events, of the spread of cholera have found plenary justification in the actual freedom of Bristol from the disease? The contrast between the little village of Pill and the large and thickly populous city in its vicinity in this case gives a lesson which is worthy of study. We believe the Health Officer of Bristol, in his energetic action, has been guided by the belief which he has in Dr. Budd's views of cholera. We may safely say that, whatever be the correctness or otherwise of these views, this much is certain, that the conclusion to which they lead, if practically carried into action, is admirable and pregnant with benefit to society.

The "Royal Medical and Chirurgical Society"—or "Medico-Chir."—opened the session by a very full meeting on Tuesday night. The only paper was by Mr. Spencer Wells on a case of "Ovariotomy performed Successfully Twice on the same Patient." The case excited a good deal of interest; but the discussion turned almost entirely upon the use of the cautery in dividing the pedicle. It took this direction after a speech from Mr. Baker Brown, who was among the visitors present on the occasion. It was elicited from this speaker, and from Mr. Harper, that in several cases the cautery alone had been insufficient to stop bleeeding, and that ligatures had also to be used. Of eight cautery cases, Mr. Harper

had been obliged to use the ligature in two. Mr. Brown did not say in what proportion he had found it necessary to do likewise. He said, however, that he had had 105 completed ovariotomy cases, with 33 deaths and 72 recoveries, and 25 incomplete or exploratory operations, 16 of which proved fatal.

The case of Absolon *v.* Statham will have been under the notice of all our readers. The defendant was charged with assaulting the plaintiff, and administering to her chloroform, and extracting six of her teeth. The unsatisfactory result of the long trial was, that the jury were discharged at ten o'clock on Tuesday night, without giving a verdict. Our brethren will not read the case, as recorded in the papers, without sympathising with Mr. Statham. There does not appear to be the slightest blame in any way attaching to him in the matter. He operated in the presence and with the consent of, and was assisted by, medical men. He exercised his skill and talents benevolently and gratuitously for the benefit of an hysterical female; and his reward is an action at law and a demand of damages. Cases of this nature, where the medical man persecuted is plainly free from any kind of blame or imputation of negligence, are the cases which demand something more than the mere passive sympathy of the profession; and it is for the express purpose of saying this, that we now call attention to the case. Mr. Statham has doubtless been put to large legal expences, and has suffered much personal annoyance and other injuries in consequence of the action thus brought against him by the nervous, excitable, and hysterical woman, who was married before 16, had been sixteen years separated from her husband, and had been ailing for about as many years. Dr. Kelly had known her for sixteen or eighteen years—as a patient, we conclude. We are satisfied, from the readiness with which our calls upon the profession in like cases, where we deemed them to be right and just calls, have been met by our medical brethren, that the friends of Mr. Statham will not make a vain appeal to the profession in asking for a substantial mark of sympathy at their hands.

A new periodical has just appeared, under the title of the *Journal of Anatomy and Physiology*. It is conducted by Professors Humphry and Newton of Cambridge, Mr. W. Turner of Edinburgh, and Professor Perceval Wright of Dublin; and is edited by Mr. J. W. Clark, superintendent of the Museums of Zoology and Comparative Anatomy in Cambridge. The first number contains the following articles:—an Address in Physiology by Professor Humphry; Dr. Lightbody on the Anatomy of the Cornea; Mr. Wood on the Comparative Anatomy of the Muscles of the Shoulder; Professor Huxley on Human Crania; Mr. Turner on the Gestation of Arius, and on Variations in the Buccal Nerve; Dr. Cleland on the Actions of Muscles; Mr. Hulke on the Retina of Amphibia; Dr. Foster on Amylolytic Ferments; and Dr. Norris on Rigor Mortis; also, Reviews of Owen on the Anatomy of the Vertebrates and of Todd, Bowman, and Beale's Physiological Anatomy; Reports on Anatomy and Physiology; Translations from Professor Donders, etc. The work is well got up, and is illustrated by several plates; and we have no doubt that it will meet with favour in the scientific world.

Mr. H. Thompson differs from the statement of Mr. Heath, that there is in healthy urethras a vermicular contraction of the wall of the canal passing towards the bladder. Mr. H. Thompson is compelled to believe, from what he has seen, that the contraction is really in the opposite direction, and that foreign bodies in the urethra have a tendency to pass not towards the bladder but towards the meatus.

The *Moniteur* announces that for some days past there have been no cases of cholera in Paris.

Professor Natalis Guillot died at Nice on the 9th instant. His body has been brought to Paris for burial. In accordance with his express desire, no discourses will be delivered at his interment.

At their last meeting, the General Committee of l'Association de Médecins du Rhône, appealed to by one of the members, unanimously adopted the principle, as conformable to usage no less than to equity, that the practitioner who calls in for consultation a colleague residing in the same locality, has a right to claim the same remuneration as the latter. The Committee opine that, by acting differently—*i. e.*, asking or accepting a lesser fee—the medical attendant, with a show of disinterestedness, commits an act contrary to the spirit of equality before the diploma, which is the best guarantee of medical dignity. (*Gaz. Méd. de Lyon* and *L'Union Médicale.*)

Some recent numbers of *Deutsche Klinik* bring a series of articles, in completion of a former set published in 1864, under the title, "Klimatologisch-therapeutische Aphorismen aus Nizza," from the pen of Dr. Heinrich Lippert of Hamburg, a physician of great practical experience and established repute, who has for some years past been residing at Nice. These articles are concerned with the treatment of chronic diseases; and, as far as published, deal with the affections of the heart, intestinal tract, liver and spleen, rheumatism and gout. Useful information may be derived from their perusal.

The Contagious Diseases Act. The Secretary of State for War has appointed Dr. W. Stuart to be Visiting Surgeon for Woolwich and the London Lock Hospital.

THE LATE ROBERT JONES, Esq., OF CARNARVON.

We have the painful duty this week to announce the sudden death of the above gentleman, which occurred on Wednesday morning, the 7th inst., in the 54th year of his age, at his residence, Bron Hendre, Carnarvon. He was an old and zealous member of the British Medical Association.

After completing his medical studies in London, Dublin, and Paris, he commenced practice in Carnarvon in the year 1836, and had therefore resided there for upwards of thirty years. During that time he earned for himself a successful medical career, and was universally respected and esteemed by all classes. He took an active part and great interest in the proceedings of the North Wales Branch of the Association; and in 1858 filled the office of President, when the annual meeting of the Branch was held in Carnarvon.

For some time past he had not enjoyed such good health as he was accustomed to. On Wednesday morning, the 7th inst., one of Mr. Jones's sons, Mr. Arthur Jones, surgeon, had only a few hours before arrived home from Huntingdonshire; and, as the latter had not got up to breakfast, Mr. Jones, after he had finished his, proceeded to his son's bedroom and sat by his bedside, and talked and laughed cheerfully for fully a quarter of an hour. He then went to his dressing-room to wash his hands before going to a consultation (the carriage was at the door), and told Mrs. Jones, his wife, who was with him, that he felt faint. Upon this, she immediately called her son (Mr. Arthur Jones), who ran to him, and in less than half an hour he expired in his son's arms. His disease was angina pectoris.

It may be truly said, that his loss will be severely felt not only by his sorrowing relatives, but by a large circle of medical friends and other acquaintances.

His remains were deposited in the family grave at Llanfair, about two miles from Carnarvon. The funeral, which was strictly private, was followed by a large number of the carriages of the neighbouring gentry. During the mournful procession, all business in the town was suspended. The shops were closed, and the blinds of all private houses were drawn down; thus testifying the regard and respect in which he was held by all classes of the community. He was, indeed, an affectionate husband, fond father, and steadfast friend.

GOOD ADVICE.

[*Communicated.*]

Mr. J. D. Coleridge, Q.C., M.P., has delivered an address to the Articled Clerks' Society so full of high principle and sound advice, that every man in every profession may benefit by it.

It is in many respects as applicable to medicine as to law. For the main point which Mr. Coleridge insists on in speaking to lawyers is that, besides their own profession, they should *assiduously cultivate their minds.* "Make yourselves" (he tells them) "thoroughly masters of your work. It is the truest gentleman, as well as the best attorney, who thinks no detail too small and no labour too great which may enable him to become master of the profession he has selected as the calling of his life." But, beyond this, he insists with earnest eloquence, it is of the greatest importance to themselves and to their profession that they should attain a wide and general cultivation of mind. He does not mean to say that, by cultivation of mind alone, a man will obtain the first place in a liberal profession; but he does say, "It makes success greater; that it gilds the laurel of the conqueror; and that it pours some precious drops of consolation into the cup which many of the defeated have to drain." "I cannot" (he continues) "adequately express the strength of my feeling upon this matter. Most of us have, I fear, at some period of our lives wasted time; but we have not wasted a single hour that has been spent in familiarity with and in study of the works of the great men of our own and of other countries—hours that have been spent with Homer and Aristotle, with Cicero and Virgil, with Dante and Montaigne, with Shakespeare, with Milton, with Wordsworth, and with Bishop Butler. There we may learn that there are things better than professional success, things much worse than professional failure. From them we may arrive at sound and sober judgments about ourselves and other people; we may come to know what poor creatures most of us are side by side with the great giants of our race, which from time to time it has pleased God to permit to come among us; and thus we may learn to avoid that vulgar vanity and that tiresome egotism and self-display which is commonly charged by men of the world upon men of our profession."

And may not we profit by this hint? Our vanity and tiresome egotism and self-display in talking openly and covertly of our successful cases is not so glaring as in the law; but it is as common and as vulgar, and is a temptation to be shunned by every man who cultivates the refinement of his mind and morals.

Mr. Coleridge continues in a high and solemn strain. "In this, as in all matters, there is a solemn duty upon you to aim high, to do the best you can, to strive to elevate your own characters, and the characters of all those with whom you have to deal.

'Aude, hospes, contemnere opes, et te quoque dignum
Finge Deo.'

"So far as man's nature admits of it, he should aim at being an immortal god, says Aristotle. The Christian church has put this thought in the simple aspiration, *Sursum corda.* Lift up your hearts."

And this is the advice of a man still young, who has already, at the bar and in Parliament, proved himself by common consent to be worthy of the very highest place in the law; one whose speeches and writings on so many occasions and subjects of general interest indicate that he has practised his own precepts by assiduously and largely cultivating his mind without neglecting his professional duties. And he is the son of Sir John Coleridge (the correspondent and dear friend of Arnold) who also is a high example of this great type, who, in his retirement from his more active duties as a judge, proves by his speeches on all social questions that a great lawyer, of stainless honour and of spotless purity of mind, is distinguished also by the greatest and highest cultivation.

Our profession is especially adapted for the cultivation of the whole mind. Its science, if studied scientifically, is one of the highest schemes for cultivating the understanding in the knowledge of truth;

whilst our incessant intercourse with our fellow-creatures in all their sufferings, is a daily living commentary on the great lessons we should learn from the great poets and moralists which Mr. Coleridge recommends for study. And, thank God, there are quiet, inconspicuous men, scattered over the country, who unobtrusively are cultivating the highest powers of their mind from the love of it, whilst attending (like gentleman, as Mr. Coleridge says) to the small details of the sick management of the poorest as well as of the richest; and these quietly but very powerfully support the social status of our profession.

But there is a strong current the other way. The "go-ahead" system coarsens men's minds, "et sinit esse feros."

Association Intelligence.

COMMITTEE OF COUNCIL: NOTICE OF MEETING.

The Committee of Council will meet at the Queen's Hotel, Birmingham, on Thursday, the 22nd day of November, 1866, at 3 o'clock P.M. *precisely*.

To elect an Editor of the Journal, in the place of Dr. Markham; and other important business.

T. Watkin Williams, *General Secretary*.

13, Newhall Street, Birmingham, November 5th, 1866.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT MEDICAL MEETINGS.

The next meeting of this Branch will be held at the Fountain Hotel, Canterbury, on Thursday, November 29th, at 3 P.M. Dinner 5s., exclusive of wine.

Members desiring to bring forward papers, should communicate with the Honorary Secretary without delay.

R. L. Bowles, L.R.C.P., *Honorary Secretary*.

Folkestone, November 14th, 1866.

SOUTH-EASTERN BRANCH: EAST SURREY DISTRICT MEETINGS.

A meeting of this Society was held on Thursday, October 11th, at the White Hart Inn, Reigate. C. Holman, M.D., of Reigate, was in the Chair; and twenty-seven members and visitors were present.

Communications. 1. Mr. Christopher Heath exhibited the Endoscope, and illustrated its action on a patient who was supposed to be suffering from an affection of the bladder.

2. Dr. Anstie gave a brief lecture on the use of the Sphygmograph in cardiac and aneurismal affections, and concluded by exhibiting the instrument, and showing its mode of action.

3. Mr. W. T. Sargent of Redhill read a case of Ununited Fracture of the Femur, in which an attempt at resection failed, and amputation of the limb had to be resorted to.

4. Dr. Down of Earlswood Asylum read a paper on the Influence of the Sewing Machine on Female Health, which he was requested to forward to the Journal for publication.

5. Dr. Fuller of Shoreham read the report of a case of Cæsarean Section which had occurred in his practice.

6. Mr. Napper read some Remarks on the Action of Mercury combined with Iodine.

Next Meeting. It was arranged that the next meeting of the Society should be held on Thursday, December 13th; and Dr. Ray of Dulwich was requested to act as chairman.

New Members. Six new members were added to the Society.

The Dinner took place at 6.30 P.M., and was attended by nearly all who were present at the meeting.

BATH AND BRISTOL BRANCH: ORDINARY MEETING.

The first ordinary meeting of the session was held at the Victoria Rooms, Clifton, on November 1st, at 7 o'clock P.M.; J. S. Bartrum, Esq., President, in the Chair. There were also present fifty members and visitors.

The minutes of the last meeting were read and confirmed.

Letter from Dr. Armstrong. The Secretary read a letter of acknowledgment from Messrs. Armstrong, of the vote of sympathy passed at the last meeting, and of the subscription then made.

Communications. 1. Mr. Green read a paper on Delirium Tremens.

Dr. Herapath observed that, amid a large experience, during four years he had not given opium; indeed, he now omitted it, and had been more successful than before. His treatment consisted in clearing out the bowels first, giving nourishment, and prohibiting alcohol. On the third day, sleep comes, and the patient recovers.

Mr. Stone confirmed the results of the expectant treatment.

Dr. E. L. Fox had advocated Dr. Laycock's views in a paper read to this Association some years ago. Nine-tenths of the cases of delirium tremens were the results of the too free use of stimulants. In medical wards, almost all were from excess of stimulants, both from sudden debauch, and from being taken in too large quantity. There could be no absolute rule for treatment; for, while the medicine seems to be doing nothing, the patient is excreting the poisonous source of disease. Dr. Fox gives a patient a warm bath as soon as possible, and plenty of nourishment. The term "inflammatory" could not properly be applied to any phase of delirium tremens. As regarded the use of digitalis, a patient took a drachm every four or five hours, when, without any apparent cause, he died, leaving no trace of disease. When a patient is under the influence of opium, he could not be poisoned by stimulants.

Dr. Brittan had dreaded digitalis. He had never known uncomplicated cases of delirium tremens to end fatally. While recognising the forms of the disease as suggested by Mr. Green, he acted in each case as the circumstances demanded. He had tried to do without opium, but had too often regretted that he had not begun it earlier. It must be remembered, that the patient had for some time been under a state of excited condition of nerve-centres, which opium controlled.

Dr. Marshall had seen, in Edinburgh, many cases where expectant treatment was adopted; but was surprised that no mention had been made of Indian hemp, which he had seen followed by very satisfactory results.

Dr. Martyn stated that three patients of his in the Bristol General Hospital had been treated with half-drachm doses of tincture of digitalis, whereby the pulse was reduced quickly from 120 to 60 per minute. These three cases did well. In the sthenic cases, perfect rest was ordered, but could not be obtained without many assistants.

Mr. Collins narrated a case in which a man, after

very violent struggling and restlessness, awoke well after taking opium.

Mr. Board mentioned a case of a steward who had been daily drinking thirty-two glasses of beer, and also brandy, recovered at once from delirium tremens after taking opium.

2. Mr. W. Mitchell Clarke narrated the case of a young woman who came under his care more than two years ago at the General Hospital for extensive Scrofulous Disease of the Right Elbow-joint. Mr. Clarke excised the joint; and, as the wounds were healing, disease showed itself in the left knee-joint. Considering the low condition of the patient's health, Mr. Clarke and his colleagues did not feel justified in either excising the joint or amputating the limb. He therefore performed the operation of making a deep incision on each side of the joint, passing his finger freely under the patella. The disease soon disappeared. The patient was present, and showed to the meeting that she had very good action in both the elbow and knee.

3. Dr. Rowe of Ramsgate kindly exhibited some Bone-Forceps of peculiar form, which had proved extremely useful in the removal of diseased bone at the Ramsgate Sea-Bathing Infirmary.

The late Dr. Snow. Dr. Falconer proposed, and Dr. Herapath seconded—

"That the President, retiring President, and the two Secretaries, sign a memorial to the Government urging the claims of the sisters of the late Dr. Snow to an annuity on account of the great benefit arising from his investigations in cholera and chloroform."

This was unanimously agreed upon.

New Members. The following gentlemen were elected members of the Association and of this Branch:—Dr. Belcher, of Bristol (proposed by Mr. Coe, and seconded by Dr. Swayne); Dr. Chas. Irving Smith, of Bath, Inspector-General of Hospitals, Madras Army (proposed by Mr. Stone, seconded by Mr. Fowler); Dr. Heginbotham, of Bruton (proposed by Mr. Stockwell, seconded by Mr. Lansdown).

Several papers had to be postponed until the next ordinary meeting.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.

The Second General Meeting of the present session was held at the Midland Institute, November 8th, at 3 o'clock; T. Carter, M.D., President, in the chair; with twenty-three members and three visitors.

Communications. 1. Dr. Steele exhibited the following specimens.

A part of a Tibia in which was an Abscess communicating with the Knee-joint, and also opening externally.

Two examples of Human Horns, removed by himself. The one had been growing for twenty years, and had attained a length of about three inches. It was attached to the true skin, and was probably a hypertrophied papilla.

An Enchondroma of the Testicle, which had been forming eight years. Microscopic examination showed it to consist of nodules of cartilage lying in fibrous tissue.

The Internal Genital Organs of a woman who died in the General Hospital of bronchitis. These presented the peculiarity of an ovarian cyst, a fibrous tumour of the uterus, and a polypus uteri, all occurring in the same case.

2. Dr. Wade read a paper on some Fallacies in the Diagnosis of Phthisis. He divided them into fallacies of omission, in which phthisis being present was not detected; and of commission, in which it was wrongly diagnosed as present. The author stated that pleurisy was the most frequent cause of fallacy; the sounds of a dry pleurisy at the apex being most difficult to distinguish from the *quasi*-moist sounds dependent upon deposition of tubercle; while in acute pleurisy, the lung being pushed upwards and compressed, an examination which was confined to the apex of the lung, would very probably lead to an erroneous view of the case. Dr. Wade insisted upon the necessity of a complete examination of the whole of the chest, and also of taking into consideration the rational as well as the physical signs of disease. He alluded to the difficulties placed in the way of physical examination of the chest by feeble and "nervous" breathing, and to the fallacies which frequently occurred through the subclavian murmur, the muscular *bruit*, and the stridor, which occurred in the laryngeal complication of pulmonary phthisis. Dr. Wade concluded an interesting paper by calling attention to the assistance to be derived, in the diagnosis of phthisis, from the use of the thermometer and the microscope.

3. Mr. J. Vose Solomon read a paper, entitled "Notes on Acute Rheumatic Iritis". The author stated that acute iritis, as a complication of rheumatic fever, was exceedingly rare. The relation of iritis to the disease in question was more often that of a "sequela"; but this was uncommon. In gout, iritis was more frequently met with as a complication of the attack; in some instances it was the first symptom, and spontaneously subsided on the development of the disease in the toes or hand. The cases of acute rheumatic iritis coming most frequently under the notice of Mr. Solomon, had been associated with subacute deltoid or lumbar pains; in very many, the inflammation of the iris was preceded by flashes of light in the dark, fatigue, and temporary obscuration when the patient read or wrote. Most of the subjects had been exposed to depressing causes, as over-work, mental anxiety, or fatigue. Rheumatic iritis, occurring in a fairly healthy subject, when judiciously treated, runs its course in about ten, fourteen, or twenty-one days. The author condemned the use of free depletion, mercury, and strong purgatives; and advised moderate local bloodletting, the free use of atropine drops to the eye, and internally, morphia, turpentine, and aperients, with alkalies.

The General Hospital, Birmingham. A donation of £50 to the General Fund has been given by Messrs. Franks, of Liverpool, in recognition of the attention and kindness received by Mr. J. H. Franks in the Hospital, after meeting with an accident which caused his death. Dr. Steel, the house-surgeon, has also received a valuable silver tankard with the following inscription, viz.: "In remembrance of the kindness received during a period of great trial, this cup is presented to Dr. Steel, by the members of the family of the late John Hallen Franks, August 5th, 1866."

Death oe Dr. Kennedy from Cholera. A melancholy case of death from cholera is reported from Leven. Dr. Neil Alexander Kennedy, who since the disease broke out in the central district of Fife, had been most assiduous in his attendance on the sufferers, was seized with the malady early on Saturday morning, and died after twelve hours' illness. Dr. Kennedy was widely respected, and his death has caused a profound sensation of grief over a great portion of the county. Since the outbreak of the disease he had scarcely ever, we are informed, been in bed. (*Edinburgh Courant.*)

Correspondence.

VENOUS INJECTION IN CHOLERA.

LETTER FROM J. H. GRAMSHAW, M.D.

SIR,—I cannot allow your remarks on the subject of Venous Injection in Cholera to pass unnoticed; because, in the two epidemics preceding the present one, I have tried it in many instances. Saline solutions made with distilled water, answering as nearly as they could be made to the inorganic portion of the blood, and distilled water by itself, seemed to produce no other effect than rapid—indeed, almost instantaneous—dissipation of the alarming symptoms, return of pulse, temperature, and mental faculties, only to be followed, more rapidly than would have otherwise been the case, by all the symptoms of toxæmia.

The transfusion of blood itself, although I have never tried it, seems likely to produce the same symptoms, in consequence of the large proportions of solids which would then be thrown into the vessels, which have only lost their fluids, and not their constituents. Serum alone, derived from a strong and healthy individual, seems most likely to answer the purpose; as it will have been formed by nature herself, whom art can only so imperfectly imitate, and will thus be less likely to produce the symptoms of blood-poisoning. I do not think we need be generally in great strait as to obtaining it, as the anxiety of friends will generally be sufficient to ensure its readiness. Still, there are one or two points which, as far as circumstances will allow, should be attended to. If possible, the transfusion should take place from a member of the same family, of the same sex, and, as nearly as may be, of the same age.

The medicines I have found most beneficial are the following. Calomel in half-grain doses should be given every half-hour, and washed down with a small quantity of water in which dissolved from five to ten grains of chlorate of potash, to which are added a minim or two of chloroform and a little mucilage. Iced-water, by teaspoonfuls, as often as the patient likes, may also be given.

These remedies I would not neglect. I was following out the other plan; and, though I have not had an opportunity of putting injection of serum to the test, I yet hope it may prove successful.

When my last case of cholera occurred, a fortnight since, I obtained the blood; but, whilst the clot was separating, which must necessarily take some time, medicine seemed to have such an effect, that I did not consider it necessary to resort to injection; and my patient recovered. Previous cases had taught me that this resource was only to be a final one.

I am, etc., J. H. GRAMSHAW.

Gravesend, Nov. 12. 1866.

THE PATHOLOGY OF ACNE.

LETTER FROM THOMAS HUNT. ESQ.

SIR,—Dr. Balman's observations, in the JOURNAL of the 10th November, on the connexion of furuncular acne with the condition of the urine, are highly interesting; and the diligence with which the urine was examined, in the cases rehearsed, is highly commendable. Nevertheless, these cases (if we allow ourselves to draw general conclusions from them) are liable to mislead us; and of this the writer seems to be aware. For he remarks that "the main facts" of his first case "are negatived in the second case."

Having treated many hundred case of acne, both in private practice and at the Western Dispensary for Diseases of the Skin—a practice extending over more than forty years, I think I may be justified in saying that this disease has, as a rule, no connexion with the state of the urine. I once thought otherwise; but careful examination has convinced me of the error.

Acne has certainly some mysterious connexion with the state of the generative organs. It never occurs before puberty, seldom in married men, and still more seldom in married women while they are bearing children. The exception is in acne rosacea, which is a very different disease from acne simplex, and ought not to be called by the same name. Acne is generally met with in very healthy subjects, commencing commonly in the *teens*, and sometimes disappearing spontaneously about the age of twenty-one, sometimes on the marriage of the patient (male or female), and sometimes persisting for many years (in the unmarried) unless it be treated perseveringly by the only remedy—*arsenic*. This will, as a rule, never fail; provided, *first*, that every functional disorder be first rectified—costiveness by purgatives, anæmia by tonics, amenorrhœa by steel and aloes, plethora by a restricted diet, etc.; *secondly*, that great pains be taken to ascertain the exact dose of arsenic suited to the case; and *thirdly*, that this dose, modified by the varying signs of its action from time to time, be persevered in for months, or even for years, if necessary. I have so carefully described the symptoms of an over-dose in my little book on skin diseases (which must, I think, be in the hands of almost every practitioner), that I will not further intrude on your space. I conclude with one remark. Medical truths can only be demonstrated by generalising from *an immense number of cases*. Scores of cases go for nothing: we want hundreds and thousands.

I am, etc., THOMAS HUNT.

Hinde Street, Manchester Square, Nov. 9, 1866.

DR. MONCKTON'S CASE OF CHOREA.

SIR,—I think all who are interested in the study of diseases of the nervous system, will agree with me in looking upon the case of chorea, given by Dr. Monckton in the JOURNAL of last week, as one of the most interesting and important lately published. There is, however, a singular omission (accidental, no doubt), which I trust Dr. Monckton will kindly supply; it is as to the side affected by hemichorea. I presume it was the right; but facts are safer than conjectures in nervous affections. I should be glad, also, if Dr. Monckton would inform us whether the ventricles of the brain contained, or appeared to have contained, much fluid.

I differ from Dr. Monckton in considering that this case supports the hypothesis which associates chorea with the great ganglia at the base of the brain. If the softened patch had been *in* the thalamus, there would have been paralysis. Hæmorrhage or softening, in the situation and of the size described, would of itself give rise to no distinctive symptoms; but the blocking of the vessel which caused it, no doubt also deranged the supply of blood to the adjacent thalamus and corpus striatum, and thus induced the condition to which chorea was due.

Dr. Hughlings Jackson has recently broached an idea, not yet adequately appreciated, but which I believe to be pregnant with great results. It is the relation of cerebral symptoms with "arterial regions". It gives an entirely new direction to investigation, and throws light upon some of the most obscure nervous affections; reducing a chaos of phenomena

to order. The case of Dr. Monckton is peculiarly instructive, studied under this idea; and it further seems to complete the chain of evidence which connects chorea with embolism—a connexion again suggested, so far as I know, by Dr. Jackson.

I am, etc., B.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND. The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at a meeting of the Court of Examiners, on November 13th.

Addenbrooke, Edward Homfray, Smethwick
Bosworth, John Routledge, Clapham Road
Brookes, Robert Charles, Westminster Bridge Road
Buck, Joseph Randle, Dudley, Worcestershire
Dowson, Christopher Henry, Bristol
Harvey, Thomas, L.S.A., Baldock, Herts
Hedley, Charles, Richmond, Yorkshire
Hewer, Edward, Winchester
Iliffe, William, Nuneaton
Jackson, John James, Jersey
Lewill, Henry Ezekiel, L.D.S., R.C.S., Clifton Gardens
Massiah, Clarence Henry Nathaniel, Clifton, Bristol
Nutt, Charles, Newton Abbot, Devon
Ockenden, John, Bayswater
Perrin, Charles Beswick, Wigan
Renshaw, Edwin, Lee, Kent
Reynolds, Frederick, Woburn Square
Rigley, George Cardwell, Chorley, near Preston

ROYAL COLLEGE OF SURGEONS, EDINBURGH. The following gentleman passed their final examinations, and were admitted Licentiates of the College during the October sittings of the examiners.

Black, Donald Campbell, Argyllshire
Carmichael, Thomas, county Antrim
Hay, George William Robertson, Roxburghshire
Hume, George Haliburton, Berwickshire
Laing, James Anderson, Edinburgh
Macalevy, Robert Peel, Scarva
M'Caw, John Dysart, Portglenone
Mullan, Andrew, Baubridge
Ross, John Ralph, Drumbrain
Stirling, Stewart, Kilsyth

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS, EDINBURGH. (Double Qualification.) The following gentlemen passed their first professional examinations during the recent sittings of the examiners.

Bain, Benjamin, Caithness-shire
Conway, James S., Limerick
Heagerty, Daniel, Cork
Macdonald, Roderick, Skye
Murray, John, Drung
Sullivan, Richard, Bandon
Walsh, James, Castlebar
Warren, Philip S., Cork

The following gentlemen passed their final examinations, and were admitted L.R.C.P.Edinburgh, and L.R.C.S.Edinburgh.

Bath, Henry, Glastonbury, England
Boyd, John Stewart, county Tyrone
Brownrigg, Henry Thomas, Waterford
Cane, James Butler Norris, Kilkenny
Dods, George, Haddington
Garde, William Henry, Australia
Masson, William Herbert, India
Nason, Henry Wilson, Dublin
Riddell, John, county Monaghan
Sinclair, George Murray, Tranent
Stockwell, James, Musselburgh

APOTHECARIES' HALL. On November 8th, 1866, the following Licentiates were admitted:—

Bainbridge, George, Harrogate
Meadows, Charles John Walford, Otley, Ipswich
Tayler, William George, Broadstairs, Kent

At the same Court, the following passed the first examination:—

Williams, Essex Thomas, University College Hospital

APPOINTMENTS.

BOASE, Francis, Esq., Surgeon, elected Mayor of Penzance.
*CURME, George, Esq., elected Mayor of Dorchester.
LUSH, John A., M.D., elected Mayor of Salisbury.

ARMY.

HYDE, Assistant-Surgeon R. A., 29th Foot, to be Staff-Assistant-Surgeon, *vice* J. Atkinson.
THOMAS, Staff-Assistant-Surgeon J. R., to be Staff-Surgeon.

ROYAL NAVY.

FERGUSON, Robert, M.D., Surgeon, to the *Rinaldo*.
SWEETHAM, Stephen, Esq., Assistant-Surgeon, to the *Cambridge*.

BIRTHS.

BARKER. On November 6th, at Ivy Lodge, Hornsey Road, the wife of *Alfred J. Barker, M.D., prematurely, of a daughter, stillborn.
BARLOW. On November 5th, at Norfolk House, Dalston, the wife of Robert Barlow, Esq., Surgeon, of a daughter.
BRITTON. On November 4th, at Acacia Road, St. John's Wood, the wife of *W. S. Britton, Esq., of a daughter.
CURREY. On November 3rd, at Lismore, Ireland, the wife of *J. E. Currey, M.D., of a son, stillborn.
DICKSON. On November 5th, at 14, Trinity Square, Tower Hill, the wife of Walter Dickson, M.D., R.N., of a daughter.
ROE. On November 6th, at the Royal Naval Hospital, Plymouth, the wife of Thomas A. Roe, M.D., R.N., of a son.

MARRIAGES.

BAINES, Charles William, M.D., of Dursley, Gloucestershire, to Anne Isabella, eldest daughter of John BAINES, Esq., of Melksham, Wilts, on November 8,
LOVERDO, Dionysius Constantine, Esq., of Sydenham, to Edith, daughter of Thomas W. CHALDECOTT, Esq., Surgeon, of Addlestone Hill, Surrey, on November 7.
MANTELL, Alfred A., M.D., Civil Surgeon of Burdwar, Bengal, to Sarah Louisa, youngest daughter of the late Lieutenant-Colonel OSBURNE, Bombay Fusiliers, at Walcot Church, Bath, on Oct. 4.
MASON, Charles Ignatius, M.D., of Surbiton, to Sarah Henrietta, second daughter of the late Rev. C. T. DAWES, of Dilhorne, Staffordshire, at Surbiton, on November 8.
PENNELL, John W. C., M.B., formerly of Rio de Janeiro, to Elizabeth Fanny, eldest daughter of Swinfen JORDAN, Esq., of Clifton, on November 6.
STUART, John, Esq., Assistant-Surgeon 78th Regiment, to Sarah F. F., eldest daughter of Philip HEDGER, Esq., of Woolston, Hants, on November 6.
WINSLOW, the Rev. Forbes Edward, of Chesham, eldest son of *Forbes Winslow, M.D., to Octavia Ellenor, youngest daughter of the late Thomas Forbes WINSLOW, Esq., of Montague Place, Russell Square, at St. John's, Notting Hill, on November 5.

DEATHS.

*ARROWSMITH, John Yerrow, Esq., at Shrewsbury, aged 71, on November 6.
BASSETT. On November 8th, at Hockley Hill, Birmingham, Hannah, the wife of *John Bassett, Esq.
COLLYNS. On November 5th, at Ford, Drewsteignton, Devon, aged 65, Elizabeth, widow of *William Collyns, Esq.
HOWARD. On November 13th, at Linton, Cambridgeshire, aged 24, Charles Edward Howard, late student of St. Mary's Hospital, Paddington, and eldest surviving son of *F. C. Howard, Esq., of Linton.
*JONES, Robert, Esq., at Carnarvon, aged 53, on November 7.
JULIUS, G. C., M.D., formerly of Richmond, Surrey, at St. Leonards-on-Sea, aged 91, on November 6.
THOMPSON, John, M.D., at Whitehaven, aged 45, on October 28.

PROVINCIAL STUDENTS. From a return just made to the Government Inspector of Provincial Anatomical Schools, it appears that there are 258 students of medicine in the undermentioned towns; Birmingham, Manchester, Leeds, Newcastle-upon-Tyne, Liverpool, Bristol, Sheffield, and Hull. Last year there were 267, showing a decrease in the number this year of nine.

HOMŒOPATHY. The Winchester Dispensary of Homœopathy has issued its third annual report. The "relieved" were most of them patients unable to obtain relief under the "Allopathic" process. The report says, "that Homœopathy is making rapid progress in the civilised world;" and "that several assurance offices are prepared to accept the lives of persons who have adopted Homœopathic treatment at premiums 10 per cent. lower than the usual amount."

Cholera. On October 29th the number of cases officially known to have occurred in Berlin, during the present epidemic, amounted to 8,173, of which 5,373 ended fatally; 2,379 recovered, and 403 remained under treatment. For the last few weeks preceding the above date, the disease had been losing ground, and appears now to be waning fast. (*Deutsche Klinik*, November 3rd, 1866.)

Bequests. Mr. Falcke, of Gloucester Place, Portman Square, has bequeathed nineteen guineas to each of the following institutions; the Jews' Hospital, Norwood; the Middlesex Hospital; the Yarmouth Hospital; the Jews' Asylum for the Blind; the Consumption Hospital; the Metropolitan Hospital; the Royal Free Hospital; the Cancer Hospital; St. George's Hospital; and the Baroness Rothschild's Lying-in Institution. Mr. Thomas Fair, formerly of Buenos Ayres, has bequeathed £100 to the Royal Infirmary, Edinburgh, £100 to the Infirmary for Sick Children, and £50 to the Convalescent Home.

Prosecution for Illegal Receiving of a Lunatic. A summons last week was issued against James Aldous, of Notting Hill Terrace, on a charge of receiving a lunatic in his house as a boarder without attending to the regulations imposed in the statute. Mr. Poland referred to the Act, which required that in the case of one lunatic patient being received as a boarder or lodger, a certificate and an order from one of the nearest relations of the patient should be put in. He said that he purposely avoided mentioning the name of the patient. The defendant was formerly an assistant in an asylum, and more recently a greengrocer; but he had retired from that business within the last year. In March last the patient in question, who had hitherto resided with his friends, was found to be in a condition in which he was obviously unfit to remain at home, and he was then, by the advice of his medical attendant, Mr. Traer, sent to the defendant's house. There he remained until September, when some communication was made to the Commissioners, one of whom went to the house of the defendant and saw him. The patient was evidently a proper person to be confined, and was accordingly removed to Dr. Munro's establishment. The Commissioners felt that this was clearly a case in which proceedings ought to be taken. Sir T. Henry said the patient was kept at the house without the required order and certificate, after the insanity had been manifested. He committed the defendant for trial, but accepted bail in two securities of £40, and his own recognisances of £80.

The Medical Military Service. We have accounts from the Army Medical Training School at Netley, which are rather unpleasant than surprising. The continued unpopularity of the military service with the medical profession, while it has led to the dearth of intelligent candidates and ludicrous displays at examinations which we lately noticed, has not apparently otherwise improved the tone and character of the candidates for the right of "treating" Her Majesty's officers and soldiers. For some few years it has been hardly possible to obtain any English students, and not many Scotch. The Irish schools have been swept freely. The present batch of students at Netley exhibits this peculiarity of national distribution in common with others of the last few sessions, but it seems to have a greater variety of *mauvais sujets* than usual. Two of these medical gentlemen have lately been expelled for drunkenness, and one publicly reprimanded. The recent snubbing of the medical officers of the Guards has not increased the popularity of the service. The medical journals have constantly protested against the injustice of sweeping away the claims afforded by distinguished service, and it will be necessary to take some decided steps to restore the *prestige* of public medical services. Medical officers have the sole charge and control of their battalions, and it is intolerable that the important service should become the refuge for the destitute and the disappointed. A committee was appointed last year, which included Lord Paulet, Captain Galton, and other representatives of the War Office, to consider the position and remuneration of medical officers, and the causes which impeded the supply of efficient medical men for the army. That committee made a number of recommendations, none of which have yet been carried into effect by the Commander-in-Chief. To secure efficiency in the medical department, even at a considerable increase of pay, would be the most economical reform yet attempted, as the preventible disasters in the Crimea, the preventible mortality in India, and the recent histories of sacrifices to preventible disease at Hong Kong and Bermuda, sufficiently prove. (*Pall Mall Gazette.*)

The Medical Officers of the London Workhouses. A meeting of the medical officers of the metropolitan workhouses was held on the 6th inst., under the auspices of the Metropolitan Poor-Law Medical Officers' Association; Dr. Joseph Rogers in the chair. The President stated that the medical officers were fully aware of the necessity for all the reforms which had been advocated in workhouse management. The medical officers maintained that the *minimum* space of the sick wards should be 1,000 cubic feet, and 80 feet of floor space to each. They desired that the aged and infirm should have a diet suited to them. There should be a uniform diet. He dwelt upon the position of Poor-Law medical officers, and the manner in which they had lately been treated by the guardians. It had been urged upon the Poor-Law Board that the medical officers were overworked while they were underpaid, and the central authority had urged the appointment of resident medical officers for the workhouse in place of the present generally insufficient attendance. Several medical officers detailed the ungenerous treatment they received from the guardians they served. Resolutions were passed, and expressed opinions to the effect that the only way of securing independence to the medical officer was by making his appointment for life (except, of course, in the case of misconduct or incapacity), that resident resident medical officers should be appointed to workhouses as the assistants of the visiting medical officers, and that the medical officers should be *ex officio* members of the guardians' Board, in order to assist the guardians by their practical knowledge.

Dr. Conquest. The medical profession has just lost one of its oldest members. Dr. Conquest died on the 24th ult., at the age of 77. His life reached back to the days of Cooper, Babington, the two Clines, Pott, Curry, Denman, and Abernethy, men of mark, whom he counted among his friends, and among whom he was not the least distinguished. He was the son of Dr. Conquest, of Chatham, and entered the profession early, obtaining his degree as member of the College of Surgeons at the age of 18, and on a vacancy occurring in the Military Medical Depôt at Chatham, Dr. Conquest received in his 19th year the appointment of assistant-surgeon. Shortly afterwards he was made assistant-surgeon of Royal Marines, Brompton, whence he went to Edinburgh, etc., graduated in the year 1813, when that University, adorned by the great names of Gregory, Hamilton, Hope, Munro, and others, possessed a European reputation. He commenced practice in London in 1814. In those days comparatively few men rose to

eminence; indeed, so few, that their names may be readily recounted; and most are "household words" at the present moment. Dr. Conquest's talents soon attracted attention, and he was called upon to succeed Dr. Gooch in the chair of obstetric medicine at St. Bartholomew's Hospital. Here he successfully taught one of the largest classes of students in the metropolis, and a manual which he wrote for their use became so greatly famed that it was soon translated into most of the European languages, and ultimately into Hindostanee and Chinese. The direction of his aims was varied and catholic, the promotion of the welfare of his species being the object for which he deemed himself intrusted with whatever gifts or other means he had at his disposal. While taking the lead as a physician, and especially as a physician accoucheur, in the metropolis, he found time to cooperate zealously with Mr. Alderman Hale and others in the establishment of the City of London School, and created an annual prize for competition among the pupils. His infirmities obliged him to withdraw from public life about three years since. From that time his fine frame and powerful intellect gradually yielded to the encroachments of natural decay, and he passed away without suffering, as a "shock of corn in due season."

Death Registers of England for the third quarter of this year, show as follows:—"Godstone.—12 deaths from cholera, 10 of them at the railway works at Oxted, where the huts are built in a very damp situation." "Westbourne, Sussex.—15 deaths from cholera, 10 of them within a radius of 25 yards, and wholly accounted for by the nuisances existing in the premises." "Ely.—2 deaths of children from diarrhœa; man, wife, and five children, aged respectively nine, seven, six, five, three, occupied one sleeping room. No chimney opening. Entrance by ladder and opening in floor with covered flap, which, for 'protection' was let down at night! Cubic contents of room 616 feet, or 88 feet per head, or, reckoning five children as two adults, 154 cubic feet. All the children suffered from diarrhœa, with rice-water stools and other symptoms characteristic of epidemic cholera. The man also had diarrhœa, after some of the children (not before), but was able to continue at work. No other cases in same locality. In the same district there were two deaths from cholera, one a pauper of intemperate habits, the other in a house where eight persons occupied one bedroom, man, wife, and six children; cubic contents of room only 180 feet for each person; formerly scarlet fever and typhus in the same family." "Epping.—Three deaths from cholera. A man went to London to see his children who were ill there with cholera, caught the disease, returned home and died; two of his neighbours divided his clothes and bedding between them, and in each family a child died." "Colchester, First Ward.—This district has been singularly free from diarrhœa. We have an abundant and apparently inexhaustible supply of excellent water from an artesian well. Colchester is as perfectly drained, too, as any town in the kingdom, only the drainage is into the river, and the passage of the sewage is retarded by two water-mills. In the streets near the river we have always more or less fever." "Britford, Wilts.—Two deaths from cholera; one had been attending the funeral of a man who died from diarrhœa, and the other drank freely and partook of cucumber the evening before her death." "Salisbury.—One death from cholera, that of a man who came here from Hythe, Southampton, where he had been eating raw cockles." "Chester Cathedral Subdistrict.—Eight deaths from cholera. The water supply is very indifferent. The whole of the borough is supplied by the Chester Waterworks Company with water taken the river Dee; the river cannot, perhaps, be considered particularly pure at the best, inasmuch as it receives the sewage of Llangollen, Wrexham, Farndon, Holt, and a variety of smaller places before it reaches Chester; but, unfortunately, the part of the river from which the water is taken is further contaminated by being the receptacle of the sewage of the whole of the eastern half of the borough of Chester itself. This part of the river is formed into a sort of lake about one mile in length by some 60 to 80 yards broad, bounded at the lower end by a stone causeway erected for the purposes of holding up the water to supply the mills, and at the upper end by the shallows of Broughton Ford; into this basin the drainage of the town is carried by at least four several sewers at different points, and in its depths lie the accumulated filth of generations, but from it is daily taken the whole supply of water for the city. The waterworks company are now constructing works to obtain water free, at least, from the Chester sewage." "Yarm, Durham.—One death from Asiatic cholera, a sailor from Hamburg; he drank a quantity of bad water on board the steamer, and when the vessel arrived at Middlesborough went to a beerhouse and got drunk: he was then suffering from diarrhœa." "Newcastle-on-Tyne, All Saints.—6 deaths from cholera, and 23 from diarrhœa. In consequence of the borough magistrates having ordered a number of houses to be closed as unfit for human habitation, and a very large number having been pulled down to make way for a new railway from the quay side to the centre of the town, and as there is no provision made for the working classes, the number of houses in my district is on the decrease, and the population on the increase. So much overcrowding must eventually have an injurious effect on the public health." "Llanelly.—Cholera has raised the mortality from the average, which 64, to 255. Out of this number 189 deaths are from cholera and diarrhœa, the disease proving fatal to rather more than one per cent., or about 1 in every 87 of the estimated population. The health of the town previous to the outbreak of cholera was very unsatisfactory, and this was universally attributed to inefficient drainage, and to the impurity and scanty supply of water during the summer months; that these are fruitful sources of evil has been proved by the fact that cholera has been most fatal in those parts of the district in which the drainage is most defective and the water supply most deficient." Other registrars note that the cholera has visited overcrowded places and places noted for the nuisances that afflict them.

BOOKS RECEIVED.

1. Animal Magnetism and Magnetic Lucid Somnambulism. By Edwin Lee, M.D. London: 1866.
2. Clinical Histories, with Comments. By Henry Day, M.D. London: 1866.
3. The Queen *v.* Beaney. Extraordinary Charge of Murder against a Medical Man. By C. E. Reeves, B.A., M.D. Melbourne: 1866.
4. On Provision for the Insane Poor of the State of New York. By C. A. Lee, M.D. New York: 1866.
5. The Endoscope, as a Means for the Diagnosis and Treatment of Urethral Disease. By C. Heath. London: 1866.
6. On Temperature in Acute Disease. By T. A. Compton, M.D. London: 1866.
7. The Tropical Resident at Home. By E. J. Waring, M.D. London: 1866.
8. Epidemic Cholera and Diarrhœa. By W. Camps, M.D. London: 1866.
9. The Use of the Laryngoscope in Diseases of the Throat: with an Appendix on Rhinoscopy. By M. Mackenzie, M.D. Second Edition. London: 1866.
10. Histological Demonstrations. By G. Harley, M.D., and G. T. Brown. London: 1866.
11. Sanitary Measures and their Results. By Thomas Shapter, M.D. London: 1866.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....Metropolitan Free, 2 P.M.—St. Mark's for Fistula and other Diseases of the Rectum, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TUESDAY. .... Guy's, 1½ P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.

WEDNESDAY... St. Mary's, 1 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.

THURSDAY.....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Great Northern, 2 P.M.—London Surgical Home, 2 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.

FRIDAY..... Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

SATURDAY..... St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1·30 P.M.—Charing Cross, 2 P.M.—Lock, Clinical Demonstration and Operations, 1 P.M.—Royal Free, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

TUESDAY. Pathological Society of London, 8 P.M.—Anthropological Society of London, 8 P.M.—Ethnological Society of London, 8 P.M. Professor Huxley, "On the Skull of a Patagonian"; Dr. Mann, "On the Zulu and other Caffre Tribes of Natal"; Mr. Crawfurd (President), "On the Ethnological Results of the Arabian Conquest of Spain."

WEDNESDAY. British Archæological Association, 8.30 P.M.

TO CORRESPONDENTS.

*** *All letters and communications for the* JOURNAL, *to be addressed to the* EDITOR, 37, *Great Queen St., Lincoln's Inn Fields, W.C.*

COMMUNICATIONS.—To prevent a not uncommon misconception, we beg to inform our correspondents that, as a rule, all communications which are not returned to their authors, are retained for publication.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

THE Publisher begs to intimate that orders for JOURNALS sent by post must be accompanied by stamps for the amount. Price of each number is, by post, *sixpence*.

WE regret that we cannot find space for Dr. Woakes's remarks. The exposition of his theory of cholera-collapse appears to us to be already well given in his former paper.

AN OPPORTUNITY.—The *Dublin General Advertiser* offers the following great opportunity: "Doctors and Surgeons in high practice throughout the United Kingdom may, by conferring a real public benefit, materially increase their incomes; confidential. Address Mr. D....."

MEDICAL ADVICE GRATIS.—A correspondent asks for information relative to the medical advice referred to in the following notice, under the head of Cambridge University. He is curious to know the value and history of the charity; and how it is distributed.

"The distributors of Crane's Charity for the Relief of Sick Scholars, give notice that they intend to meet at Christ's College Lodge, on Tuesday, the 20th inst., at 2 o'clock P.M., for the purpose of considering and determining the claims of applicants for the benefit of this charity. Grants will be made on account of medicine, medical attendance, nursing, diet, and other necessaries in sickness. N.B.—The applications of scholars must be made by the tutors of their respective colleges, and contain full particulars both of the medical and other charges and of the circumstances of the applicants."

COMMUNICATIONS have been received from:—Mr. ALFRED BAKER; Dr. BULLAR; Dr. SYMONDS; Dr. WATERS; Mr. THOMAS HUNT; Dr. H. MONCKTON; Mr. J. R. HUMPHREYS; Dr. THOMAS SHAPTER; Dr. GRAMSHAW; Dr. S. W. D. WILLIAMS; Dr. TILBURY FOX; Mr. STEELE; Mr. R. T. HUNT; Dr. ROBERTSON; Dr. JAMES RUSSELL; Mr. WM. P. SWAIN; Mr. T. M. STONE; Mr. CHARLES H. MOORE; Dr. BURD; Dr. R. L. BOWLES; Mr. PARKER; THE HONORARY SECRETARY OF THE HARVEIAN SOCIETY OF LONDON; Dr. LANCHESTER; Dr. WOAKES; Dr. EDWARD WILLIAMS; and Mr. HOWARD.

ADVERTISEMENTS.

Royal College of Physicians OF LONDON.—FIRST PART OF THE PROFESSIONAL EXAMINATION FOR THE LICENCE. The next Examination of Students who have completed two years of Professional Study at a recognised Medical School will commence on Tuesday, December 4th.

SECOND PART OF THE PROFESSIONAL EXAMINATION.—An Examination of Gentlemen who are eligible for admission to the Second Examination for the Licence will commence on Tuesday, December 11th.

Registered Medical Practitioners, qualified before January 1861, are admitted to Examination under special Bye-Law.

Candidates are required to give fourteen days notice in writing to the Registrar of the College, with whom all Certificates and Testimonials required by the Bye-Laws are to be left at the same time.

Pall Mall East, 1866. H. A. PITMAN, M.D., Registrar.

Royal College of Surgeons of ENGLAND.—Notice is hereby given that the next MIDWIFERY EXAMINATION will be held at this College on Wednesday, the 12th of December. Particulars relating to this Examination may be obtained at the College.

14th November, 1866. EDWARD TRIMMER, Secretary.

Epsom College Exhibitions.—Notice is hereby given that a Committee of Council of the ROYAL MEDICAL BENEVOLENT COLLEGE will meet at the Office of the College in Soho Square, on Friday, the 23rd of November inst., to receive applications for the admission to the College of boys between the age of eight and fourteen, as Exhibitioners, at the reduced terms of £30 per annum. Such boys must, by the 2nd Bye-Law of the College, be "sons of some of the less fortunate members of the medical profession".

The parents of Candidates must make a confidential statement as to their income, the number of their children, and their means of educating them. Forms for the purpose will be furnished on application at the office, and must be returned filled up by the morning of the 23rd inst., at latest. The Committee will make a list of the Candidates whom they consider to be eligible, and the Exhibitioners will be selected from that list according to the result of a Competitive Examination, to be held on a fixed day in December. The successful Competitors will be admitted on the opening of the College in January.

All particulars may be obtained from the Secretary at the Office.

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THE

Jacksonian Prize Essay

FOR 1865.

ON DISEASED CONDITIONS OF THE KNEE-JOINT.

BY

WILLIAM PAUL SWAIN, M.R.C.S.,

SURGEON TO THE ROYAL ALBERT HOSPITAL, DEVONPORT, ETC.

SECTION III.—OPERATIVE INTERFERENCE.

(*Continued.*)

The Constitutional Conditions admitting Excision of the Knee.

THE condition of the patient after excision of the knee is such that great demands are made upon his reparative powers, and upon his ability to resist the severe suppuration that frequently follows. It really seems so reasonable, that it should be a *sine quâ non* for the patient to be free from any other exhaustive visceral disease, that one is surprised to find surgeons advocating the practice of excision when visceral disease is present. There can be no doubt that, if we could agree upon this one point, to give up the satisfaction of excising a knee-joint when the joint-disease is complicated with other serious constitutional lesions, we should materially reduce the mortality following the operation. It should be a golden rule—one of the few without exceptions—*that tubercle of the lung contraindicates excision of the knee.* The extraordinary case quoted by Price, in his appendix, is just a solitary one, where the immediate success of the operation may perhaps lead us to hope for similar results in phthisical patients; but, on reading over the case, I am inclined to think that it was a condition of very incipient tubercle in the lung. By good luck, and good management too, the case made a rapid recovery; but, if any mischance had happened, I can have no doubt that the lung-mischief would have been increased, and the patient would have fallen a victim (as another case is reported to have done) to acute phthisis.

In cases of rheumatic disease of the joint, great care should be taken to ascertain the condition of the heart; and it should also be borne in mind that an atheromatous condition of the arteries sometimes exists, which, if present, would be a grave objection to excision of the joint. The urine should be tested, and if Bright's disease be present, it will materially interfere with the after progress of the case.

There can be no doubt that, as a rule, recovery from excision is a much longer process than recovery from amputation of the thigh. Of course, there are rapid cases of complete recovery from excision; as, for instance, one which I well remember, under the care of Sir W. Fergusson at King's College Hospital, where the man walked into the theatre six weeks after the operation; but this is quite exceptional. When, then, the constitution is enfeebled by other disease than that in the joint, I think that the procedure which holds out the best chance of rapid recovery should be adopted. If, for instance, a strumous joint have reached that stage of disease in which it is a constant source of trouble and annoyance, and if it seem to increase, as no doubt it frequently does, the irritation of tubercle in the lung, it should be removed; but rather by amputation of the limb than by excision of the joint.

The age of the patient is a point of great importance. Hodges states that excision of the knee has been performed as early as three years and as late as sixty-eight. The former case recovered, but with what condition of after-limb is not stated; the latter died, as one would naturally have expected. The average age of the patients who died after the operation, according to Hodges' curiously minute calculation (Hodges on *Excision of Joints*, p. 150), was $25\frac{2}{2\frac{2}{3}}$ years, and of those who recovered $19\frac{22}{32}$. There can be no doubt that the more fully developed the limb is, the more favourable is it for excision of the knee. The removal of the epiphyses, and the consequent loss of growth in the limb, have been fully discussed elsewhere; and there can be no doubt that, if a portion of the epiphysis can be saved, a very great advantage is gained. I believe, however, that this can rarely be done, and we must, therefore, calculate upon almost entire arrest of growth after the operation. Now, I think that this point has been made too much of; and, although I am adverse to excision in very young cases, because in after years the limb assumes most absurd and useless proportions, yet, even supposing at an early age that the entire epiphyses are removed and growth checked, surely the shortening of the limb a few inches more is no argument against excision of a diseased joint rather than amputation of the limb. The case has been so well put and fairly argued out by Professor Fergusson, in his lecture on Excision of the Knee, that little remains to be said on the matter. If the shortening after a case of excision amounts to, say, three inches, we are not disposed to quarrel with the result, and a high-heeled shoe well supplies the deficiency. Surely a mechanical appliance, twice this length, or even two-thirds longer, is vastly superior and more manageable than a wooden leg of three or four times the length. And it is also worth considering that, as this operation is one more frequently performed on persons of the poorer class, it becomes a matter of importance that the apparatus they are condemned to wear for life should be as simple and cheap as possible. I have known cases where, after amputation of the thigh, the patients have never been able to obtain a wooden leg on which they could walk; principally because they were unable to afford a good one. Now, it is within the reach of every one to obtain a high heeled shoe, or a shoe with an iron peg fastened to it, with which the patient can walk with the utmost facility.

The shortening of the limb is in many cases very considerable. In the case of Mr. Pemberton, so often quoted, he removed three inches and a quarter of bone; but, at the end of six years, the limb was nine inches shorter than its fellow.

In a case of excision of the knee performed by Mr. C. Heath on June 29th, 1858, on a boy aged $11\frac{1}{2}$, the whole joint, including the epiphyses, was removed; and the following measurements were taken in June

1860, two years after the operation. (*Lancet*, July 7th, 1860.)

Height, 4 feet 6 inches.

Right Side.

From anterior superior spine of ilium to lower border of patella	13	inches
From thence to inner malleolus	10½	„
Total	23½	„

Left Side.

From anterior superior spine of ilium to lower end of femur	11	„
From thence to inner malleolus	10	„
Total	21	„

Showing a difference of exactly 2½ inches.

I was able to obtain the measurements of this case on Dec. 11th, 1865.

Height, 4 feet 9½ inches.

Right Side.

From anterior superior spine to patella	16½	inches
From thence to inner malleolus	12¾	„
Total	29¼	„

Left Side.

From anterior superior spine to lower end of femur	12½	„
From thence to inner malleolus	12¼	„
Total	24¾	„

Showing a difference of 4½ inches.

Thus, in a case where the entire epiphyses were removed, the loss of growth has been only two inches in five years and a half.

This case also illustrates the fact, that the tibia, having lost its upper epiphysis, yet grows more longitudinally than the femur which has lost its lower epiphysis. Here the femur, as compared with its



Fig. 18.

fellow, has lost four inches; whilst the tibia, compared with *its* fellow, has only lost half an inch.

The cause of this has been fully explained, in a former portion of this essay, when treating of the growth of the bones after excision of the knee. I append woodcuts of this case, showing the condition of the limb two years after the operation and at the present time. (Figs. 18 and 19.) A cast of the knee, taken at the present time, was sent in with the essay.



Fig. 19.

As a pendant to this case, I may refer to one reported in the *Medical Times and Gazette* of Jan. 5th, 1861, by Mr. Henry Smith, where, on April 28th, 1855, the limb was reported to be exactly two inches and a quarter shorter than its fellow. In January 1861, the shortening amounted to four inches. Thus, in six years, the limb had only lost an inch and three quarters in length. (See also letter of Mr. H. Smith, *Medical Times and Gazette*, Jan. 19th, 1861, p. 79.)

In corroboration, I may refer also to a letter by Mr. A. M. Edwards, quoting a similar case, in *Medical Times and Gazette*, Feb. 16th, 1861.

Results such as these are, I think, sufficiently favourable to encourage the surgeon to excise the joint at an early age. The question in such cases to be decided is, at what period of life is the limb sufficiently developed to provide an useful limb after excision, supposing its growth to be very materially checked? And, in deciding this point, we must bear in mind that the entire limb shares in the after atrophy. I take it that the preservation of the foot is one of the great aims of excision of the knee. Now, if this member be so small and stunted as to serve little purpose in sustaining the weight of the body, it is hardly worth preservation.

There are, of course, many reasons which would influence the surgeon as to his decision; but, as a general rule, I do not think that excision of the knee should be practised on children *under the age of ten years*. It is generally the case that, where disease requiring excision is present, the limb has already been much checked in its growth. And if excision be performed on a limb already smaller than its fellow, and growth still further arrested, the result must be, in children under the age of ten, a limb of very little service in after life.

Before leaving this portion of my subject, I will refer to a paper written by Mr. Holmes Coote in the *St. Bartholomew's Hospital Reports*, 1865, p. 194.

"I maintain that too great importance is attached to the exclusive influence of the epiphyses upon the growth, and that, in whatever region of the body the operation of resection is performed, the great danger consists primarily in the nerve-shock to the patient, and secondarily in the consequences of extensively opening the cancellous tissue of the bone and in the prolonged period of convalescence. In all cases, or nearly so, the limb is withered, small, and weak; and in many instances it is useless, or nearly so. When performed on the young, growth only adds to the consequent deformity; when performed on the adult, the attendant dangers are immeasurably increased."

This is a very wholesale condemnation of the operation for excision of the knee; and the statements are really very much at variance with the general results of such cases. In referring to the quotation, I must point out the inconsistency of the writer, because I find that on April 18th, 1865, Mr. Holmes Coote excised the knee-joint of a female aged 15, and on Aug. 20th she is reported as being able "to leave her bed. *The result is satisfactory.*" On May 6th, 1865, he also excised the knee-joint of a boy, aged 13, who on August 21st is reported as being "convalescent, and he will soon be able to leave his bed." It appears to me that the author of the paper hardly practises what he preaches; and that, if he holds the opinions expressed above, he should refrain from so barbarous a proceeding as excision of the knee. Seeing, however, that he practises that operation with apparent success, I think he gives it but scant justice in his writings.

With regard to the age after which excision should be performed, I think it should never under any circumstance be undertaken in patients above the age of 45 years. I have here fixed what, in my own judgment, is the utmost limit. I would rather excise a knee-joint in a patient before the age of 40 than after. The powers of reparation in advanced life are not sufficiently strong to give the patient much chance of an useful limb, or to support him through the long after treatment.

In concluding my notice of the treatment of diseases of the knee-joint by excision, I would remark that, if the immediate effects of the operation be not as satisfactory as the surgeon could desire, a great deal of patience should be exercised in endeavouring to bring about a successful termination to the case. It is not always, unfortunately, that we can put our patients on their legs at the end of six weeks. Very many circumstances may combine to retard the ultimate cure. In young patients especially, the presence of caries in the heads of the bones often keeps open sinuses, out of which a copious purulent discharge is constantly issuing. In very many such cases, continuous rest, good diet, and change of air, will eventually bring about a perfect cure; but the surgeon may often expedite this by cutting down on the disease, and gouging out the carious bone, leaving a cavity surrounded by healthy tissue, which will soon be filled up by fibrous material, and in no way interfere with the after-results of the operation. This process may in the same case be resorted to more than once, until, as Sir William Fergusson has expressed it, by constant and patient *picking* at the disease, we eventually remove the entire mass, and the sinuses heal up. Or, if the surgeon have reason to believe that the ends of the bones are still diseased, he may adopt a yet bolder proceeding, and have recourse to re-excision of the diseased extremities. Thus it is possible to obtain healthy bony surfaces, and ultimately firm union. A case of this nature was lately under the care of Mr. Henry Smith at King's College Hospital. Finding that a number of scrofulous sinuses existed, he cut down, dissected away a large quantity of diseased tissue, and removed a slice from the ends of the bones. The case progressed rapidly towards a cure. In cases where the ankylosis is simply fibrous, and of so slight a nature as to prevent the use of the limb, time and change of air will work wonders; and very frequently, when both patient and surgeon are nearly tired of waiting, osseous union commences, and progresses rapidly. Great care must be taken during this period that no distortion of the limb takes place. A stout leather splint, carefully moulded and laced up in front, is the best preventive; but, even with it, a watchful eye should ever be kept on the limb, and any tendency to displacement immediately corrected by the application of appropriate apparatus.

One of the great arguments against excision of the knee-joint is this fact which we are now noticing; viz., the prolonged convalescence of the patient, and the frequent uselessness of the limb after all. I do not think that the first part of this objection is by any means a sound one. In the first place, it is proved that, in some cases, excision of the knee-joint makes as rapid a recovery as amputation of the thigh; and, on the other hand, there are very many cases of prolonged convalescence after amputation of the thigh; and it frequently happens, that a considerable period elapses after the so-called cure of the case before the patient can bear on the stump any apparatus, with which he can walk about. In addition to this, admitting that, in the ordinary run of cases, the time after excision is longer before the patient can walk on the limb, than after amputation before he can bear a wooden leg, yet surely the prolongation of convalescence in the former case is a good investment of time, for it promises a leg of flesh and bone, with a good foot at the end of it, instead of a wooden leg, which, under the very best circumstances, is a life-long encumbrance to the patient. With regard to the second part of the objection, as to the ultimate uselessness of the limb, I fear that many surgeons are too hasty in their condemnation of these after-excision limbs. Thus many are condemned to amputation, because they "hang like flails", before time has been given and every means used to procure osseous deposit in the fibrous tissue connecting the bones. Or, again, surgeons shrink from having recourse to such minor operative procedures as the removal of a small quantity of necrosed bone, whilst they rush headlong to the capital operation of amputation of the thigh.* We

* The report of a specimen exhibited by Mr. Holmes at the Pathological Society of London in 1860 (*Pathological Transactions*, XII) from the case, to which that gentleman refers in his paper in the *British and Foreign Medico-Chirurgical Review*, affords an excellent example of undue haste to amputate a limb after excision of the knee. The patient was aged 19; his right knee had been diseased six years, and was excised by Mr. Gant on October 31st, 1859. He was admitted into St. George's Hospital in August 1860, "in a state of great emaciation and weakness, with constant pain and discharge from numerous sinuses around the situation of the joint." The thigh was amputated on August 16th, and he recovered. The fol-

have yet to learn, in the treatment of these cases from the very first, some of those lessons of patience inculcated by Mr. Hilton, although I am sure that virtue will seldom be so severely taxed as he would have it to be.

Before proceeding to the consideration of amputation of the limb, I wish to call attention to what may be called a sort of intermediate step between the two operations. It has been very well remarked that, however deep may be our insight into disease, we may sometimes be mistaken as to its extent. Mr. Cadge of Norwich, in a letter to Mr. Price, published in his essay, states that he has frequently opened the joint and examined its condition before deciding to amputate. I think this plan of exploration an admirable one. There are very few cases of knee-joint disease, except where the constitutional condition of the patient demands amputation, where this plan might not be pursued with advantage. I would, however, proceed a step beyond the mere opening of the joint, and saw off the articular ends of the bone as well. There can then be no mistake as to our diagnosis: and it may sometimes happen, that we shall have the extreme satisfaction of saving a limb to the patient, which had previously been condemned to amputation. Certainly we should be saved the remorse (for such *should* be our feelings) of ever having removed a limb that might have been saved by the simple excision of the knee-joint. In the section on amputation will be found a case of this nature, in which I completed the operation by amputation. The condition of the bones shown in preparation No. 5 was a sufficient warrant for this proceeding. I may mention, without trenching on the latter part of my subject, that I consider a modification of Teale's rectangular amputation the best in these cases. The horseshoe incision, made as the first step of the excision, will make the base of a long anterior flap, which may be dissected upwards from the front of the knee and thigh: whilst a short flap may be cut behind quite high enough to secure division of the femur above the seat of disease. Of course, I am presuming that the soft tissues at this part are sound.

Appended is an admirable drawing belonging to late Mr. Price, showing the condition of ankylosis in a case of Mr. Mayo's of Winchester. The man had a most useful limb, but died in hospital of erysipelas. (See case reported in Price's *Essay*, p. 111.)

Another drawing, also belonging to the late Mr. Price, showing a false joint formed after excision of the knee, accompanied the essay.

[*To be continued.*]

lowing is an extract from the report of the specimen. "At the back part of the surface of the inner tuberosity of the tibia, was a deep carious cavity, in which two or three very small fragments of dead bone had been lodged. A large extent of the upper surface of the tibia around this was rough and exposed. Hardly any union existed between the bones at the back part; but a strip of ligamentous tissue passed obliquely upwards and inwards from one bone to the other. In front, the femur, which was slightly displaced inwards and advanced upon the tibia, was firmly soldered to it by a structure which was in great part bony, mixed with fibrous tissue; here and there, however, rounded nodules were seen in the uniting material, of a bluish colour when fresh, semi-transparent, and showing under the microscope very plainly the characteristic nuclei and intracellular substance of true cartilage, with ossification progressing in several parts... The union was found to be soft, so that a slight amount of flexion was still possible. The ends of both bones, but especially the femur, were much expanded, and the superficial laminæ so separated from the subjacent bone, as to crackle under the finger."

Illustrations
OF
HOSPITAL PRACTICE:
METROPOLITAN AND PROVINCIAL.

BOOTLE GENERAL DISPENSARY, LIVERPOOL.

CASE OF ABSCESS, ETC., IN CONNEXION WITH URETHRAL STRICTURE.

Reported by M. Hill, L.R.C.P., and L.R.C.S.Edin., House-Surgeon.

J. G., aged 44, married, and has a family; nervous temperament and scrofulous taint. I first saw him on the 2nd of February last. His appearance was most distressed and anxious; he was suffering acute pain; he had had severe rigors for two or three days previously, and was in mortal dread of their recurrence. There was an exquisitely tender spot about midway between the pubes and testicle of the left side, but no redness, tumefaction, or fluctuation, perceptible. He could scarcely bear this spot to be touched, so but a slight digital examination was imposed on him. He had no difficulty in passing urine; no tenderness along the course of the urethra, nor had he received any hurt in that neighbourhood. I ascertained that he had gonorrhœa at an early age, which left him, as a *souvenir*, a stricture or two in the bulbous and membranous portions of the urethra. These gave him but little trouble for a long time; however, year by year, they grew more callous and constricted, according as wet, cold, or excesses affected him, yet did not so far interfere with the passage of urine as to require the catheter until about twelve years ago; since when he had had to apply to the dispensaries and hospitals in Liverpool several times. He stated that very often the greatest difficulty was experienced in passing even the smallest sized instrument. He was told on one of these occasions by an experienced member of the profession that false passages had been made into the bladder—a statement I can readily believe. He got on well without the catheter for the last six years, but about eight months before now he was seized with rigors, without any apparent cause, which rigors continued to recur at intervals of from two to four weeks, until near Christmas, from which time to within a few days he had enjoyed an immunity from these shakes. I was in doubt. Was it a lumbar abscess pointing in this situation? or a collection of matter in connexion with stricture? The first hypothesis depended on the long standing rigors—eight months—his previous ill condition, the fact that heretofore he had large indolent abscesses near the shoulder, presumably of a scrofulous nature, and the absence of any uneasiness or pain which a lesion of the urethra would or ought to occasion in that tract, and the latter supposition had for grounds the present acute symptoms, inflammatory disturbance, and the presence of an old stricture, albeit he had at this time neither extravasation of urine, nor more than the usual difficulty of passing it. I was tempted to put in a grooved needle, and find out the position of the pus which I knew was within; but I refrained on account of the great pain it would occasion, at least, until I had the benefit of others' experience. I therefore ordered him a smart aperient, hot anodyne stupes, and an opiate to secure sleep, from the want of which he suffered greatly. Two leeches were applied next day, but with no remission of the pain or rigors. I had Mr. Sprakeling, one of the honorary

surgeons of our Dispensary, to see him, and the expectant plan of treatment was still further recommended.

Two days later, the scrotum and penis having greatly swollen, and there being the slightest possible softness in the tender spot, Dr. Bird, also of the Dispensary, who was with me, introduced a grooved needle, and finding pus at a depth of one and a half or two inches, opened the abscess to the same extent, much in the direction of the cord, whereupon a large quantity of flaky fœtid pus, and urine was liberated. A number of punctures in the swollen scrotum completed the operation. These I found next day discharging freely; nevertheless the left side of the scrotum presented a livid unhealthy aspect, which induced me to slit open the integument for several inches, given exit to much pus and urinous fluid; this did not prevent the scrotum from sloughing extensively, and the urine now made for itself a passage in the posterior raphé, irritating and inflaming all the textures. To prevent this, the introduction of a catheter became necessary, but this was no easy matter; several lacunæ, and one band of the stricture could be distinctly passed, but beyond this, even the smallest size would not go. The attempt was abandoned for a day or two, as he was very weak and shaky. At length we were driven to lift him out of bed, and support him with his legs on the floor, when the catheter which Mr. Sprakeling was manipulating slipped through the stricture, and was secured to a waistband round the body. Thenceforth he rallied; the irritability of system, which could not bear the slightest motion was calmed; the hard glazed tongue became moist and clean; the appetite, which nothing could tempt, revived; sleep, which he had previously owed but to exhaustion or opiates, now came naturally; in fact, he was rescued from the hectic that was consuming him, and which our iron, quinine, anodynes, etc., could not prevent. The catheter was not disturbed for sixteen days, by which time almost the whole of the exposed testicle had been covered in; showing the facility with which highly vascular parts will recover themselves if put in proper train. His urinary apparatus is now in better order than it has been for some years; and the cicatrix, although exhibiting some loss of substance serves but to bring the two sides of the scrotum on a level, the left testicle in ordinary cases hanging rather lower than the right.

In this case there must have been ulceration of the urethra; the extravasation of a few drops of urine; the consequent induction of an inflammatory process, and its results; the formation of pus and its confinement by plastic lymph; but most singular of all, these processes must have gone on without any perceptible pain in the urethra, nothing but the rigors indicating what mischief was present. The only hypothesis to account for this, that appears to me probable, is, that this ulceration of the urethra must have taken place at the bottom of one or more of the lacunæ which ran beside the urethra, probably the result of heroic catheterism and false passages. The urine in passing would act as a valve shutting off this sore spot from the action of itself, thereby saving him all the pain, smarting, etc., which it would otherwise induce. Moreover, it is well-known that ulceration in mucous membranes is often unattended with pain; however it be, it will be admitted the diagnosis was sufficiently obscure, and if it be my fate to meet with another such case, the patient will have but six days of bed instead of six weeks, by the prompt introduction of the catheter, and the prevention of extravasation and sloughing. The moral is, a correct and early diagnosis, and then leave nothing to "expectation."

Transactions of Branches.

SHROPSHIRE SCIENTIFIC BRANCH.

PRESIDENT'S ADDRESS.

By Edward Burd, M.D. and M.S.Cantab., etc., Senior Physician to the Salop Infirmary.

[*Delivered at the Annual Meeting, October 24th, 1866.*]

The task imposed upon one who has had the honour of being called to preside over a meeting such as this, is no light one. I must crave the kind consideration of my hearers whilst endeavouring to discharge, to the best of my power, the duty which has devolved upon me. The field of medical labour is so wide, the qualifications requisite for success in the prosecution of its several branches, so various, that there can be but few, if any, who are capable of taking in and understanding the whole, of perceiving the direction in which successive advances are leading us, and the lines of research which are destined to be the most fruitful; but if the prospect before us be embarrassing, it is so by reason only of its richness, and of its extent. It is one full of promise for the future, one which, even now, gives us ground for well deserved triumph over achieved success. If, however, this success is to be consolidated, and made still more complete, we all must take part in the work. The art of medicine, dealing, as it does, with man wherever he may be found, under all the varied conditions of race, soil, climate, and habits of life, can never in its entirety be brought to perfection at any one spot alone. However vast the opportunities of observation may be, however great the genius and energy of the men who head our medical schools, and mould their doctrines, whether in the centres of modern commercial activity, or in our ancient seats of learning, their labours must yet be supplemented and corrected by the results of experience gathered elsewhere. The tendencies of centralisation, the consequences of the aggregation of large numbers of men in cities, require to be recognised, and guarded against, not less in medical than in social or political science. Thus it may well be the case that in recent views as to the past history of disease, and the identity or non-identity of its type at the present, as compared with former periods, too little attention has been paid to the influence of causes of this nature. No one who has seen anything of the life of the poorer classes in our large towns, and of the unfavourable sanitary conditions under which they exist, can have failed to notice the marked inferiority in constitutional vigour, and the defective physical development of townbred as compared with country populations; and this too in spite of the constant infusion of fresh blood, which the former are always receiving. It must be matter of daily experience with many here, that diseases, which in the hospitals of the metropolis require a stimulating, or, in modern phrase, restorative treatment, would most probably be made worse by such treatment, when they occur in persons accustomed to sturdy labour in the pure air of the country. It would be difficult to believe that all the powerful causes of deterioration of race, which exist in cities, can have had no effect whatever; that the impure air, the impure water, the impure food, the excessive use of alcoholic drinks, adulterated by the most deleterious substances, the abuse of opium, the wide spread contamination of syphilis, can have been altogether unfruitful of evil; but when we actually see their effects in the stunted growth, the blanched faces, the puny forms of large and daily increasing masses of our population, it is

still more difficult to believe that diseases alone can have remained unchanged, that the treatment which is necessary for the feeble factory hand, or the artisan who follows some sedentary occupation in a close crowded court, would have been suitable for his vigorous ancestors. Now this question of change, or rather difference, of type, which has great but merely speculative interest, so long as it is looked at from an historical point of view, is in reality one of immediate practical importance. The right answer to it concerns most nearly a large number of the members of our profession, the hard worked and hard working country practitioners; men, whose constant labours rarely allow them any leisure to generalise their experience, but who find themselves not unfrequently obliged to act in opposition to the fashionable doctrines of the day. The rules of our art are laid down, its science is worked out in great measure by men who study disease principally as it exhibits itself among town populations. For this reason it is incumbent on those who have to deal with disease under different circumstances to test for themselves the principles and practice of the schools, to ascertain how far they must be modified to meet the requirements of particular cases. If this be done honestly, and without bias, it may be found that even in diseases such as pleurisy and pneumonia, the lancet is not to be quite discarded, and that the contents of the wine-merchant's cellar do not form a satisfactory substitute for the whole *Pharmacopœia*. But the adequate discussion of this topic would lead me far beyond the limits of the time at my disposal. Let me rather direct your attention, briefly to one or two points in the recent history of medicine with reference to its present state, its possible future.

We have learnt, and are still learning, to take wider views of disease; to consider it rather as the sum total of a perverted physiological condition, than as a distinct separate existence, a something added to the normal state of our patients, Thus, in practice, we no longer search vainly for specific remedies, but content ourselves by following, as best we may, the general indications of the case. We see that, not unfrequently, when those drugs which have the best claim to a specific action have failed, a rational treatment, hygienic and dietetic, may and often does succeed. For instance, syphilitic symptoms, which may have been with difficulty held in check by the most judicious use of drugs, will not unfrequently disappear, for a time at least, under the influence of sea-air, and of a carefully regulated diet. But it may be said that this treating of disease on general principles is, after all, but a confession of ignorance; that we have ceased to rely on so-called specifics, not because they do not exist, but because we have hitherto failed to discover them. Even if it be so, we have not the less made real progress. The confession of ignorance is at any rate the first, and generally the most difficult step towards the attainment of truth. Nor is it to be supposed that, because in our remedial measures we no longer seek to rival the miraculous virtues of a talisman, they are therefore useless, and have no influence on the mortality due to disease.

Whilst, however, in treatment we are often wisely satisfied with putting our patients merely into the condition most favourable to their recovery, with removing hindrances in the way of the *vis medicatrix naturæ*, the physician within the skin, we are daily acquiring a more extended and a more complete knowledge of the causes and natural history of disease, a knowledge which will most assuredly ere long bear good fruit in practice. It may be that many forms of disease are incurable, that we cannot expect ever to arrest their course, or even to retard their fatal termination; but there seems good ground for hoping that there are few or none which may not be prevented. Were it in our power to enforce upon the community the practical conclusions with which the knowledge we possess has even now furnished us, how great would be the diminution in the annual mortality, how many, and what destructive diseases would be all but erased from our nosologies! The origin of many of the most formidable maladies with which we have to contend, is no longer an inscrutable mystery; they do not arise from causes beyond our knowledge, and therefore beyond our control. The ravages hitherto caused by infectious diseases ought not to be repeated in the future. It is our own faults that the victims of typhus, typhoid, and scarlet fevers are still each year counted by thousands. We have, it cannot be denied, very much yet to learn as to the conditions which favour the development of diseases of this class, how far their virulence may depend upon atmospheric, or even upon telluric influences; but we do know that they rarely, if ever, arise spontaneously, that for instance, no known combination of circumstances can produce a case of scarlet fever, or of small-pox, apart from the presence of the poison peculiar to these diseases, and that this poison must have been derived from some patient already affected by it.

The argument that diseases must have had a beginning, and that the causes which gave rise to them at the first may still be in operation, has been answered, by experience, in the negative, all but as conclusively in the case of zymotic diseases, as in that of the spontaneous generation of animal or vegetable life, to which it is not less applicable. Now that the invaluable researches of the late Dr. Snow, of Dr. W. Budd, and others, have demonstrated the important part played by contaminated water in the diffusion of disease, the doubt and uncertainty which prevailed as to the causation of many diseases have been finally removed, and we have ourselves only to blame if this knowledge be not at once turned to good account even in the case of that destructive pestilence which is now among us. The history of the present epidemic of cholera, incomplete though it be, has yet put us in possession of two incontestable facts; one, that cholera is produced only by cholera; the other, that water, somehow polluted, most probably by the discharges of cholera patients, is the most efficient vehicle of the poison. If Mr. Glaisher's observations of the so-called cholera mist are to be relied on, it would even seem that a proof, amounting as nearly as possible to a demonstration, has been given of the impotence of mere atmospherical conditions to produce cholera. To estimate properly the immense service to humanity which the prevention of a plague such as epidemic cholera would be, we need but call to mind the destruction of life which it has caused, and might again cause, under circumstances favourable to its spread. To give but one instance out of many; when the army of the Marquis of Hastings, numbering in all 90,000 men, was attacked by it, in November 1817, we are told that it was a common occurrence for sentries to be suddenly seized at their posts, and, having been carried in, to have two or three successors before the two hours' duty was performed. The mortality at length became so great that there were neither time nor hands to carry off the bodies, which were thrown into the neighbouring ravines, or hastily committed to the earth on the spots where they expired, and even round the walls of the officers' tents. In the five days included between November 15th and 20th, the number of deaths amounted to 5,000. When the camp was moved, many of the sick were unavoidably

left behind; and, as many who left the carts, pressed by the sudden calls of the disease, were unable to rise again, and hundreds dropped down during every subsequent day's advance, and covered the roads with dead and dying, the ground of encampment and line of march presented the appearance of a field of battle, and of the track of an army retreating under every circumstance of discomfiture and distress. I can speak too, from my own experience derived from the practice in St. Bartholomew's Hospital in London, to which I had the good fortune to be attached, for the special purpose of superintending the cholera wards in 1849. Everything was there done which medical skill could devise to prevent the spread, and diminish the fatality of this pestilence, but I have seen as many as twelve die in a day, and there were nearly three hundred fatal cases within its walls during the epidemic. So rapid was the course it ran, that several times it happened that the friends of cholera stricken patients were attacked whilst carrying those affected to the hospital, and died in six hours, sometimes even before the very patients whom they in apparent health had helped to carry.

But although the greatest, the most enduring successes of medicine consist in the discovery of means by which health may be retained, and disease altogether prevented—and it is in this direction that the most marked progress is now being made—there is perhaps no department of our art in which we cannot point to an almost daily advance. Each year adds something to our power to diminish suffering, to preserve life. The employment of anæsthetics in surgery and in obstetric practice, the gradual improvements in the treatment of stone, of aneurism, and of ovarian disease, are after all but striking instances of a general progress, and of the methods to which it is due.

The great boon of insensibility to pain is sadly marred, more so perhaps in public estimation than in reality, by the fatal results which now and then follow the inhalation of ether and chloroform. The power of readily producing local anæsthesia, by the ether-spray jet, for which we are indebted to the genius and perseverance of Dr. B. W. Richardson, has relieved us in very many cases from the necessity of offering to our patients the choice between suffering the pain of an operation, or running a certain amount of risk, and this too in that very class of cases, viz., minor operations, in which the greatest number of accidents have occurred. Not only in the minor operations of surgery has it been of immense advantage, but it has been also used beneficially in some cases of capital operation where large superficial incisions are required, as in ovariotomy; and its application has been carried out with perfect success by our associate and vice-president Dr. Newman, in a recent case of Cæsarean section.

The introduction of sedatives into the system by their subcutaneous injection, where their administration by the stomach is impossible or contraindicated, has of late years been much used and of much service. The injections of morphia under the skin by Dr. Alexander Wood's syringe are most useful in cases of advanced phthisis, in neuralgias, as, for example, in sciatica, also in lead-poisoning and in some cases of delirium tremens. It is often easier of application, and gives more relief than any other sedative. In the London hospitals it is a remedy in every day use, but I do not think that it has been properly appreciated amongst us. The absorption is marvellously rapid, and the system is equally affected by much smaller doses when administered through the skin, than by the stomach. I see no reason why other potent remedies should not be thus introduced. At all events, the subject is worth more extended experiment.

By the introduction of lithotrity, and the determination of the conditions under which it ought to be preferred to lithotomy, we have been enabled to treat, with greatly increased success, one of the most painful and dangerous of diseases. Should researches such as those of Dr. Roberts, of Manchester, lead, as there seems good ground for hoping, to the discovery of some practical means of dissolving calculi in the bladder or in the kidney, this success would be rendered all but complete,

The history of the treatment of aneurism is not less instructive and hopeful. Great as was the advance made when the ligature was first employed, the successful treatment of so fatal a disease by external pressure alone, whether by the hand, by the tourniquet, or by simple flexion of a limb, cannot but be regarded as a still greater triumph of skill; and, as in all real advances in knowledge, we are thus, by the simplest means, enabled not only to treat with greater ease and safety, cases amenable to former methods, but even those which only a short time ago were completely hopeless are now brought within the scope of our art. The abdominal aorta is not, indeed, beyond the reach of the cautious boldness which distinguishes the modern surgeon; but there was little prospect of success in any operation that could be undertaken for the cure of an aneurism of that vessel. Now, however, we can point to patients who have been rescued from the certainty of a dreadful death by the application of long continued pressure under chloroform to that vessel above the tumour.

In the treatment of ovarian disease, the labours of Dr. Clay, of Manchester, Mr. Spencer Wells, and others, have enabled us to combat with a fair amount of success, a hitherto all but incurable and hopeless malady, and in so doing have added one of its brightest chapters to the history of British surgery; and here I must be allowed to indulge in an honest pride, that, more than twenty years ago, two cases of ovarian disease were successfully operated on by my father in our own County Hospital, and that too, at a time when the operation was unpopular with, and unfavourably received by London surgeons. When the case was read by Mr. Paget, at the Royal Medical and Chirurgical Society in 1847, the verdict, after discussion, was, that the remedy was barely justifiable.

Less than sixty years ago, Mr. Abernethy read a paper before the Royal Medical and Chirurgical Society of London, which is published in the first volume of their *Transactions*, On a Diminution (in consequence of disease) of the Area of the Aperture, by which the Left Auricle of the Heart communicated with the Ventricle of the same side; that is, on obstructive disease of the mitral valve. He begins his communication thus:—"I have thought this circumstance in morbid anatomy deserving the attention of the Society, as I do not find it adverted to in any books treating on that subject." In the present state of our knowledge of diseases of the heart, it is difficult to believe that such words could have been uttered so recently by such a man. Now, by the employment of the simplest and apparently most obvious means of investigation, we are enabled to ascertain the exact condition of the various orifices of the heart, and of its muscular structure, to predict the course and termination of diseases of that organ, and in many cases although the actual cure of organic disease is still beyond our reach, to alleviate the suffering it occasions to an extent unhoped for by our immediate predecessors.

Little more than thirty years ago, Dr. Latham was

prevented from publishing a work he had prepared, on the treatment of fever, by the sudden occurrence of what he regarded as a change in the type of that disease. He found, to his surprise, that the means he had employed, the remedies on which he had been accustomed to rely, were no longer of any avail, nay, were even injurious to his patients. The rules derived from his past experience seemed to be worse than worthless as guides for the future. To us, the mystery is explained by the establishment, principally through the labours of Dr. Jenner, of the diagnosis between typhus and typhoid fevers, We are no longer astonished that treatment successful with the one, should be inapplicable to the other; and, with anything like average care and skill, we can have no difficulty in ascertaining with which of the two we may have to deal. A diagnosis which baffled the skill of the greatest of modern physicians, can now generally be made with ease and certainty by any one who is not either culpably ignorant, or wilfully blind. It cannot be necessary to dwell at length on the importance of a correct diagnosis in this instance, on the greater confidence in prognosis, the larger success in treatment, which it confers.

From pathology, again, we are daily receiving fresh stores of knowledge; of knowledge whose importance and value can hardly be over-estimated. In some instances, indeed, our advances in this direction have not yet borne practical fruit; we have still to wait for the link between science and art, for the means of transforming our knowledge into power. Thus the establishment of the connection between hemiplegia of the right side depending upon injury to the anterior portion of the left hemisphere of the brain, and loss of language as distinguished from power of articulation, deeply interesting though it be to the physiologist and the psychologist, is as yet of no avail in practice; but very different is the case with regard to affections of the vascular system. Thanks to the researches of Virchow, Kirkes, and others, we are at no loss to explain symptoms which, but for this clue, would be most mysterious. Thus, in puerperal cases, we can now trace, almost, as it were, with our eyes, the formation of clots in the veins of the pelvis, or in the ovarian veins, their gradual extension into the larger venous trunks, the successive changes they undergo, their gradual alteration in colour, the softening of their centres, the discharge of their *débris* into the current of the circulation, or the sudden detachment of larger and firmer portions, with the effects of such an event upon the pulmonary circulation, viz., the obstruction, more or less complete, of the pulmonary artery, producing death, either on the instant, or after a few hours' agony; or again, in the case of the systemic arterial circulation, we have learnt how fibrinous accretions may be formed in the interior of the left chambers of the heart in consequence of inflammation, or other affections of the endocardium, and how these masses become detached, and, by their mechanical interference with the circulation, produce lesions of structure and function of the organs in the arteries of which they may have become impacted. The same cause thus gives rise to symptoms so widely distinct from each other as hemiplegia from dry gangrene of an extremity, or as this latter from hæmaturia.

Again, we owe a large debt to those who have made the thermometer available in clinical observation. The rise or fall of temperature, which accompanies nearly all serious forms of disease, enables us to detect at an earlier period the approach of danger to our patients; to distinguish at once, and with all but absolute certainty, between real illness and its counterfeits. We must all of us, at times, have met with difficulties in the diagnosis of hysterical affections, in determining to our own satisfaction whether the symptoms were altogether fictitious or only exaggerated. With the introduction of the thermometer, this difficulty has, in a large number of cases, ceased to exist. Symptoms of fever, or of acute disease of some large joint, for instance, unattended by any rise in temperature, can have but one interpretation. We may set ourselves at ease as to the safety of our patients, though we may still be at a loss for means of cure.

But we are met here to-day, not merely to take stock, as it were, of our knowledge, but to add something to it; not merely to reckon over the gains of our fellow-workers, but to emulate them. Though much has been done, far more remains to do. There is one way in which we may all of us help in the progress of our art—one way in which we can best fit ourselves for its practice. Medicine in its modern development, no less than other branches of human knowledge, is daily passing more and more out of the domain of theory and authority into that of fact. In the careful observation, the accurate record of facts is to be found the secret of past, the hope of future success. The daily practice of each of us supplies facts, which, if we knew them thoroughly, would enlarge almost indefinitely our knowledge of natural laws, our power over disease. It has been well said that ours is a poor trade, but a noble profession; in its scientific study, in its honourable practice, lies our best, our only road, to a larger knowledge, to social distinction, to substantial reward.

Reviews and Notices.

THE PHYSIOLOGICAL ANATOMY AND PHYSIOLOGY OF MAN. By ROBERT B. TODD, WILLIAM BOWMAN, and LIONEL S. BEALE, Fellows of the Royal Society; Former and Present Professors of Physiology and of General and Morbid Anatomy in King's College, London. A new Edition by the last-named Author. Part I. Pp. 155. London: 1866.

WE have here the first part of a new edition of Todd and Bowman's *Physiological Anatomy and Physiology of Man*—a work which has been before the profession for about twenty years, and which, both from the reputation of its authors and its own merits, has maintained a high place in our scientific literature. The first edition, as its parts successively appeared, represented the existing knowledge of general anatomy and physiology. But, as every one knows, great changes have since occurred in these departments of science; and therefore a new exposition of them was wanted. No one could be more qualified to give such an exposition than Dr. BEALE; both as the pupil, colleague, and successor of the former editors, and as a profound physiologist and painstaking investigator.

The part before us consists of an Introduction, and two Chapters—one on Structure and the other on Chemical Composition.

In the Introduction, after some preliminary remarks on the aim of natural knowledge, and on the means of conducting scientific inquiries, the Properties of Organised and Unorganised Bodies, and the Structure and Special Characters of Organised Beings, are discussed.

Under the latter head, Dr. Beale notices the doctrine of Spontaneous Generation or Heterogenesis, for the purpose of contradicting it. There is not, he says, sufficient evidence in its favour; for no one, even with the highest magnifying powers, has been able to *see* the particles of matter coalescing to form a living structure. Regarding Putrefaction, he adopts fully the doctrine that an essential part in it is played by living organisms, of which the germs —exceedingly minute—gain entrance from without. These germs of extreme minuteness certainly exist, he says, in mucous membranes and in glands; and they probably are present even in our blood, waiting only a favourable opportunity for multiplication.

"Nor are cases wanting in which the decomposition of tissues, and of the blood, and the multiplication of such low forms of life, have occurred in the living body itself—the change of course being soon followed by death. The matter, however, which is the seat of this change is dead. The life of the tissue does not become the life of the infusoria, as some have maintained, but the tissue becomes disintegrated, and the infusoria, derived from infusoria that lived before them, live upon the products, just as other organisms may live upon the matters derived from the death of the infusoria. Living matter never lives upon living matter, by the life of one organism being converted into the life of another, as some have speculated. Living matter must itself die ere it can pass as food to form part of any living organism." (P. 19.)

Speaking next of Force and Life, Dr. Beale adopts fully the doctrine of the correlation of the physical forces, as demonstrated by Helmholtz, Grove, Mayer, Joule, and others; but he denies the correlation of these forces with *life*. The so-called *vital forces*, he says, of those who advocate the doctrine of their correlation with physical forces, are nothing more than ordinary physical forces manifested in living beings.

"The sun is the source of all the physical forces operating in living beings.....All the work performed by our muscles, all the heat developed in our bodies, all chemical actions resulting from the union of oxygen with carbon, hydrogen, and other substances in the animal body, have their original source in solar energy." (P. 22.)

Fully admitting all this—that physical forces have an important share in the phenomena of organised beings—Dr. Beale denies that *life*, or *vital power*—the "self-constructing, self-maintaining, and self-propagating power"—is to be classed with the physical forces. Our own reflections on this subject lead us to agree fully with him on this point. There can be no question that the physical forces are the means by which the changes effected in living organisms are brought about; but still the exertion of physical forces does not explain fully the phenomena presented by living beings. By the action of these forces, the products formed in the body may be produced artificially; but they will want certain distinctive properties, and be incapable of manifesting those phenomena which, for want of a better term, we call *vital*. But what is this *vital power*, or life?

Dr. Beale, in discussing this question, notices first the various hypotheses that have been advanced. Aristotle believed in the existence of a series of animating principles, or ψυχαι. Harvey also assumed the existence of an animating principle, which he located in the blood as its special seat. Hunter believed in a *materies vitæ;* Müller in an organic force; and Prout in the existence of a powerful organic agent. On these hypotheses, Dr. Beale remarks that they are equally untenable with that which attributes the phenomena of living organisms to the action of physical forces alone; because they do not recognise the part which the physical forces unmistakeably take in the phenomena. Attempting to account for vital actions, he says that

"They can only be accounted for by attributing them to the influence of some peculiar power totally distinct in its nature from any form of ordinary force. This is not a power which exists as it were in a concentrated state in the germ, and gradually expends itself as the tissues are evolved, or as the development of the race proceeds; but it is a power which is temporarily associated with, and influences for a brief period of time, every particle of matter which becomes living. It is a power which may be transmitted infinitely through the infinite multiplication of living matter without any increase or diminution in its intensity. As soon as tissue or any of the peculiar compounds result from the changes occurring in this living matter, its wonderful vital powers have ceased for ever." (P. 29.)

Further on, he repeats the assertion that the connection of vital power with matter is only temporary, and observes that the particles influenced by it soon pass from under its control, and, if they be not soon succeeded by new particles, vital action must cease. The action, he says, is "not simply transferred from particle to particle, so that one gains what another has lost"; but the direction and control are exerted on particle after particle, as new particles come into contact with those which live already.

"The various particles are not placed in this or that place by a controlling power, ordering and influencing all, but each particle for the time being seems to direct and control itself, and its power is transmitted to new particles without loss or diminution in intensity, and sometimes with actual increase." (P. 35.)

According to Dr. Beale, physical forces, so far from being sufficient for life, are actually opposed to it.

"Certain physical conditions interfere with the manifestation of this power. The action of air, and various external circumstances, cause death. In fact, it would seem that inanimate matter, to become living, must come into contact with that which lives, only in exceedingly minute portions at a time. If much lifeless matter came into contact with living matter, the latter dies. Death is simply the cessation of the vital changes, and is due alone to the action of physical conditions. Physical forces invariably cause death, but they cannot give rise to life. Ordinary force and life seem to be opposed." (Pp. 35-6.)

Dr. Beale has very fairly described the hypotheses of others as to the nature of the vital power, and has well exposed their fallacies; but that he has himself succeeded in framing an hypothesis which shall bear investigation by other equally philosophical minds, is a matter on which we have great doubt. What he has done best in discussing the subject, is to separate the truly physical phenomena occurring in living bodies from those which cannot be explained by the action of physical forces.

In speaking, next, of the Diversity of Forms of

Living Beings, Dr. Beale notices the views put forth by Mr. Darwin on the origin of species by natural selection. Having given an outline of the Darwinian hypothesis, he admits that different forms may be and are the result of selective breeding; but, to the statement that "there is no limit to the continuance of augmentation of changes thus induced", he objects that, while the examples adduced by the advocates of the natural selection may be on superficial observation considered as hypothesis examples of different species, they differ from true species in one important particular.

"Members of different species seldom breed with one another; and in the few instances in which this does take place, the resulting mules or hybrids, if they are not absolutely barren, never breed with mules of the same kind; so that there is this most important fact opposed to the application of conclusions arrived at from observations of varieties of one or more domestic species to the production of the various and undoubtedly distinct species of animals and plants now existing. The offspring of mere varieties is fertile, and they breed one with another, and there seems no limit to the varieties that may be produced in certain cases; but for this reason they must be considered varieties, and not species." (P. 39.)

Again, admitting even that, on a broad view of the facts, there is much in favour of Mr. Darwin's view, Dr. Beale finds it more difficult to accept his conclusions when the structural changes that must occur in a single organ are considered. The changes affecting the organism, he says, are continuous, and appear due to some general cause acting from the very first, rather than to the action of external circumstances (although he admits that these have some influence). The matter from which tissues are formed is, he says, in its temporary state, undistinguishable at one period or in one animal from that of another period or in a different animal. Yet the anatomical and chemical differences between corresponding tissues even of closely allied species are very great.

"Such differences affecting the minute structure and chemical composition of every part of the organism of creatures closely allied, are strong arguments in favour of the doctrine of the independent origin of distinct species; for it is scarcely reasonable to assume that any divergence in a few particulars from the general characters of the common original stock should be accompanied by or should necessarily involve a change in *all* these points, unless such differences can be demonstrated to have occurred in the varieties of existing species; but this is a subject which has not yet been touched upon by Mr. Darwin or by those who have embraced his views. Animals may differ in many characteristics, but still maintain the most striking resemblance in all biological characters; or they may resemble one another in external form and general characters, but differ most materially in internal structure." (Pp. 41-2.)

The next topics treated of are, Plants and Animals, and the Functions; Anatomical Investigation; the Importance of Anatomy and Physiology to the Advance of Medicine and to its Study; the Use of the Microscope; and Physical and Chemical Investigation. To the Introduction is appended a description of the method employed by Dr. Beale for preparing tissues for Microscopical Examination with high power. On this point, Dr. Beale has already proved himself to be one of our most reliable authorities.

In the first Chapter, that on Structure, Dr. Beale embodies the peculiar views which he holds regarding the formation of tissues. The differences in the structure and composition of tissues seem, he says, to be due in part to chemical composition, and partly to peculiarities in what may be called "the build of the texture". Neither differences in the composition of the nutrient material from which they are formed, nor in its structural character, will of themselves account for differences in structure and properties of the textures; for these all arise from germinal matter having, as far as can be seen, the same characters.

"It seems, upon the whole, more probable that the masses of germinal matter of the different tissues produce from the same nutrient constituents substances differing in composition and in texture by virtue of some peculiar inherent power, than that each selects from a common fluid those peculiar materials most nearly corresponding to the substance to be formed, and causes them to combine. The constituents of the tissues are not constituents of the blood, which are merely selected and separated from it, but they are *formed* through the agency of the germinal or living matter. The formative power of this germinal or living matter seems to be of far greater importance than its power of selection. Indeed, this supposed selective power, considered by some sufficient to account for the observed facts, has been assumed rather than proved to be one of the most important properties of the cell." (Pp. 68-9.)

In speaking of the cell, Dr. Beale does not follow the ordinary division into cell-wall, nucleus, and nucleolus; but he regards it as consisting of matter in two different states of existence—"matter which *lives* (*germinal matter*), and matter which is *formed* and has ceased to manifest purely *vital phenomena* (*formed material*)." He traces out the development of these in the case of the cell of the common mildew-fungus.

"If the external membranous investment of a fully developed spore, or of any of the growing branches, was ruptured, the minute particles would be set free in vast numbers; and they constitute the living, growing matter, which may be coloured with carmine, while the envelope, or outer part of the cells, does not become coloured." (P. 77.)

When the surface of one of these minute living particles comes into contact with air or water, its exterior is changed into a transparent homogeneous layer (the cell-wall), which protects the matter within, and also allows nutrient matter to pass to the interior, and there become converted into living matter. Thus the matter increases in size from within; and at the same time the external wall is strengthened by the successive conversion of germinal matter into formed material. These phenomena are influenced by external circumstances. If nutrient matter be abundant, and temperature, moisture, etc., favourable, the increase of living matter goes on rapidly; while, in the opposite circumstances, the thickening of the wall from the death of the living matter is more rapid than the supply of pabulum. But, in proportion as the walls are thickened, the more completely is the germinal matter in the interior protected; so that, if a cell in this state be placed in circumstances favourable to growth, the hard tissue is softened, pabulum reaches the in-

terior, the proportion of living matter increases, and portions of it escape through pores or fissures, and thus give rise to the production of a large amount of vegetable tissue from what was only a small particle of living matter.

To develope tissue, then, there must be germinal or living matter preexisting, no matter in how small a quantity.

"It may be concluded that the smallest independent particle which exhibits vital phenomena consists partly of matter which is lifeless, but which at an earlier period was alive, and partly of matter which lives. If but the smallest particle of the latter remains in a living state, any amount of living matter, and afterwards of lifeless tissue or formed material, may result. But if, on the other hand, all the living matter be dead, and only formed material remain, this is quite incompetent to exhibit the phenomenon of increase. In fact it does not live, it does not manifest any vital properties or powers, and although it is certain that living matter must have existed a short time previously, the formed matter has ceased to live, and can never again acquire the properties it has lost." (P. 79.)

In the remaining part of the chapter, Dr. Beale applies the views which are here enunciated to the explanation of the development of epithelium, muscular and nervous fibre, etc., and of the changes which the cell undergoes in disease.

In the next chapter, he describes the Chemical Composition of the Body, the chemical changes occurring in the cell, the chemical changes which occur in the organism at different periods of development, the blood, the changes effected by oxidation, the formation of compounds in the tissues and organs from the blood, and the conversion of pabulum into blood.

We must here close our notice of this ably written book—one which might be called a new work, instead of a new edition of a well known treatise. It must, however, be regarded rather as containing the exposition of the special views of the talented editor, than as a text-book of the ordinary eclectic kind. No student of physiology or general anatomy can be said to know his science, unless he is acquainted with Dr. Beale's views, as explained in this book; but it alone, excellent as it is, is not sufficient to afford him an insight into all that is taught by the physiologists and histologists of the present day.

The work is illustrated by eight lithographic plates, containing seventy-eight figures; some of which, exhibiting the changes in germinal matter, are coloured. The figures have, it appears, been drawn by Dr. Beale himself, who, in addition to his qualifications to undertake the writing of a book on General Anatomy and Physioiogy, happily possesses an amount of artistic skill which he must find of great service to him in his labonrs.

We hope that the remaining parts of the book will appear at an early date. Works on such a constantly changing and progressive science as physiology become unequally developed, if they appear in parts at long intervals of time. To use Dr. Beale's phraseology, the "germinal or living matter" of the earlier parts becomes "formed material", impaired in its vital properties, before the book is completed. It is to be trusted, we repeat, that he will let us have the end of the book while the beginning yet retains its vital power in fair vigour.

DIABETES: ITS VARIOUS FORMS AND DIFFERENT TREATMENTS. By GEORGE HARLEY, M.D., F.R.S., F.R.C.P., Professor in University College, and Physician to University College Hospital, London. Pp. 74. London: 1866.

THIS treatise consists of part of a course of lectures on urine and on the diseases of the urinary organs, which Dr. HARLEY has annually delivered during several years; and is now reprinted from the *Medical Times and Gazette*.

The author first sketches the history of our present knowledge of diabetes, and then treats of the chemistry of the disease. Having described the characters of the two forms of sugar, grape and cane, and the modes of ascertaining their presence and amount in the urine, he next speaks of the Physiology of Diabetes.

"That sugar," he says, "is a normal constituent of the human frame, is easily shown by withdrawing an ounce of blood from a healthy man, in full digestion, and allowing it to fall drop by drop into two ounces of boiling water faintly acidulated with acetic acid. By doing so all the albuminous matters are so firmly coagulated, that, on filtration, a perfectly colourless liquid is obtained; and on applying to it the copper, potash, and fermentation tests, the existence of sugar can be demonstrated with facility." (P. 14.)

Bernard supposes that all the saccharine matter found in the body is produced in the liver. Dr. Harley differs from this view, and holds that, at least as regards the omnivora and herbivora, the sugar found in the blood is in great part directly produced from the starchy materials contained in the food, through the agency especially of the saliva and pancreatic juice. In carnivora, on the other hand, he and Dr. Sharpey have, even when the food has been exclusively animal, found sugar in the blood; so that it must have been formed in the body. Another argument in favour of the formation of sugar within the body is supplied by its presence in the milk; and, as regards the milk-sugar, Dr. Harley believes that not only in the carnivora, but also in the herbivora, it is formed, not in the digestive canal, but in the body. In proof of this, he adduces two facts.

"1. Milk-sugar possesses certain special characters which distinguish it from all ordinary sugars.

"2. Milk-sugar, though abundantly present in milk, has not yet been detected in the circulation. The natural conclusion, therefore, is, that it is formed by the mammary gland." (P. 16.)

Speaking next of the liver as the sugar-forming organ, Dr. Harley notices the fact that, while the amount of sugar in the blood, and that in the urine of diabetic patients, is subject to fluctuations according to the state of the digestion, the quantity in the liver is comparatively unaltered. This Dr. Harley explains by the circumstance that the sugar formed in the liver is not there stored up, but is carried away as it is formed; it was, he says, through overlooking this that Bernard erroneously concluded, from finding the quantity of sugar in the liver unchanged, that diet has no influence on the amount of sugar formed in the liver.

Regarding the ultimate destruction of the sugar formed in the body, Bernard thought that it was burned off in the lungs; but Chauveau and Dr.

Harley oppose this view, on the ground that, in properly conducted experiments, almost as much sugar can be found in the blood of the left as in that of the right side of the heart. Chauveau and Dr. Harley have also found that there is less sugar in the veins of a limb than in its arteries; hence it partly disappears in the capillaries, and aids in the nutritive process. Its part here is shown by several facts to be the formation of adipose tissue.

Dr. Harley next examines the origin of the nerve-force which calls the sugar-forming function into play. Bernard, he says, believed that—

"In the healthy animal the reflex action which incites the glucogenic function, originates in the stimulus given by the respired air to the pulmonary branches of the pneumogastric nerves, and that this stimulus is reflected from the brain along the spinal cord and splanchnic nerves to the liver." (P. 27.)

This view Dr. Harley considers incorrect, for the obvious reason that, while the stimulus of respiration is in constant operation at about the same rate, its alleged result—the formation of sugar—varies greatly. He admits that the pneumogastric nerve conveys the stimulus; but it is by its hepatic, not by its pulmonary branches.

"If the stimulating effect of the blood of the portal vein be imitated by injecting into that vessel substances such as alcohol, ether, chloroform, methylated spirit, or ammonia, the liver is excited to secrete an excess of sugar, and the animal operated on is, for a time, rendered diabetic. The conclusion to which the results of experiments led me was, that stimulants produce diabetes by exciting the hepatic branches of the pneumogastric nerve to transmit an impression to the nervous centres, to be from these reflected to the liver, and thereby cause the increased secretion of saccharine matter." (P. 29.)

Dr. Harley next treats of the Pathology of Diabetes; and observes that the presence of sugar in urine is not itself the disease, but the prominent sign of various abnormal conditions. He enumerates the following conditions as having been followed by diabetes:—

"Injury to the head, with or without fracture of skull.—Clot in the pons Varolii.—Softening of the base of the brain.—Abscess of the cerebellum, extending into the fourth ventricle.—Tumour in the left lobe of the cerebellum.—Disease of the sympathetic nerve.—Tumour of the pneumogastric nerve.—Deposit of bony spicula in the falx.—Excessive brain-work.—Intense grief.—Sudden mental shock.—Blow on the epigastrium.—Pregnancy.—Uterine disease.—Disordered digestion.—Exposure to cold, etc." (Pp. 30-1.)

To these causes he adds, on the authority of Dr. Mosler, hereditary influence.

Diabetes, springing from such a variety of causes, may depend on either of two different conditions; one, in which an abnormal amount of sugar is secreted and eliminated; and another in which, the proper quantity only having been formed in the liver, an abnormal amount is eliminated in the urine. These two forms Dr. Harley distinguishes as *Diabetes from excessive formation*; and *Diabetes from defective assimilation*. This distinction he holds to be an important one for therapeutic purposes.

Each of the two forms, he says, has certain peculiarities which generally enable the one to be distinguished from the other. In diabetes from excessive formation, emaciation does not occur until the disease has far advanced; in that from defective assimilation, loss of flesh is one of the earliest symptoms.

"An inordinate thirst and excessive elimination of urine is in all cases an indication that the disease is already in its second stage; the first stage being indicated, in those arising from *excessive formation*, by saccharine urine alone, and in those from *defective assimilation* by saccharine urine coupled with loss of flesh." (P. 33.)

The author gives a number of examples illustrating the origin of diabetes from nerve-lesion, reflex irritation, disorders of the digestive formation, the complication of diabetes with other diseases, etc., and concludes with some remarks on Treatment. He has no faith in any specific remedies; and holds that it would be charlatanism of the worst sort to say that any one kind of treatment is applicable to all cases. Making the practical application of his division of diabetes mellitus into two forms, he says that, while in that arising from excessive formation animal dieting is most essential, in that due to diminished assimilation of saccharine matter it is either hurtful or of no use. In the former case, all foods containing starch or sugar are to be avoided; and stimulants are to be given only with caution, on account of their liability—as has already been observed—to produce an excessive sugar-formation when introduced into the portal system. In the latter, there must be no restriction; the food must be nourishing and easily assimilable; and stimulants may be even given with advantage. But, as Dr. Harley judiciously remarks, dietetic regulations are but adjuncts—"We are merely withholding the straw and mortar out of which the bricks are made, not removing the makers." Other means must be employed, according to the special requirements of the case. Sometimes we have to relieve, by sedatives, the irritation arising from disease of some organ; sometimes nerve-tonics are required; sometimes the preparations of iron; sometimes with stimulants and sedatives, etc.

The fact that Dr. Harley is one of those whose researches have guided us to a better understanding of the physiology and pathology of diabetes, and the evident care with which he has endeavoured to make these researches useful in its treatment, *primâ facie* give this book a high value.

A Winter in Paris: being a Few Experiences and Observations of French Medical and Sanitary Matters, gained during the Season of 1865-6. By Frederick Simms, M.B.Lond. Pp. 151. London: 1866.

The author has put together, for the benefit of English medical men visiting Paris, the notes which he made in the medical institutions of that city during his stay there. He describes: the Department of Public Assistance inasmuch as it relates to the Hospitals of Paris; the General Hospitals; and the Special Hospitals of Paris; the School of Medicine, and Method of Medical Education; and the Sanitary Arrangements of Paris. The book will be found an useful and agreeable guide to our medical friends who are for the first time visiting the French metropolis.

We are requested to remind members of the Association that the Annual Subscriptions became due on the 1st of January. They can be paid either to the Secretaries of the Branches; or to the General Secretary, T. Watkin Williams, Esq., 13, Newhall Street, Birmingham.

British Medical Journal.

SATURDAY, NOVEMBER 24TH, 1866.

NEURO-THERAPEUTICS.

THE title of Dr. Chapman's recently published work* conveys but a very inadequate idea of the great benefits which are therein promised to suffering humanity from the full operation of "the newly discovered general law" of neuro-therapeutics. The author is fully aware, as he says, that the large claims which he puts forward in favour of his remedial method may be met with scepticism, and even with ridicule. He has been frequently advised to abstain from showing the applicability of his method to the treatment of disease in general, and to concentrate his efforts in proving its efficacy as a remedy for one group only; namely, that of epilepsy and epileptoid affections. To have accomplished so much as this would satisfy the ambition of most men; but Dr. Chapman declares that, were he to rest here, he would be unfaithful to his own convictions, and would leave to others the performance of a duty which, for the sake of science and humanity, as well as his own self-respect, he himself feels bound to discharge. "When what is called a general law has been newly discovered, its operation and applicability become speedily recognised in a great variety of unexpected forms." And this, the author ventures to affirm, will be found true with respect to the remedial principle in question.

We will give a brief sketch of what Dr. Chapman professes to have done, and what he hopes to accomplish by his remedial method; and we will do this as nearly as possible in his own words.

He has subdued congestion of various parts of the body on many occasions by applying heat to the appropriate segments of the spinal region. Anæmia, or deficient nourishment of parts, may be treated successfully by the application of cold in the same way. He has had but slight experience in the treatment of fever; but he "anticipates" that fevers of all kinds will be most effectually controlled by cold along the spine in the cold stage, when the blood-vessels are contracted, and heat in the hot stage, when they are relaxed. The whole group of convulsive diseases he treats by means of ice along the spine. In some cases of apoplexy, these means have been attended with very remarkable success. Paralysis has been thus treated with most excellent results; and "he does not hesitate to predict that, if infantile paralysis be treated by means of ice as soon as it occurs, it will be almost always cured." His own success in improving vision by spinal applications has been not less striking than novel; and Mr. Ernest Hart, at Dr. Chapman's request, has made trial of the plan with success in "a case of that hitherto incurable form of blindness, cerebral amaurosis." Dr. Chapman's success warrants him in believing that, by these applications, it will be possible to remedy cerebral diseases, including various forms of insanity, in an unprecedently great degree.

His experience of the treatment of chest-affections has afforded him the most decisive proofs of the great power which can be exercised over the circulation of the chest-walls and of the lungs themselves. Pleurisy, bronchitis, pulmonary congestion, pulmonary hæmorrhage, can be alike restrained or arrested by application of cold or heat, according to the special needs of the case, between the scapulæ. "How much may be done in the several stages of consumption, experience has not yet determined; but that very much may be, is indubitably implied in the statements just made." Nausea and vomiting, from whatever cause, can now, in the great majority of cases, be either completely cured or very greatly lessened; and functional diseases of the stomach generally may be treated with far more success by modifying the temperature of the spinal region than by any known drugs.

Those troublesome functional disorders of the bladder, whether loss of contractile power or excessive irritability with frequent micturition, have "in case after case" been either completely cured or greatly benefited.

Lastly, Dr. Chapman "has abundant and completely convincing evidence that those excessively frequent seminal emissions, denoting serious impairment of the health of the spinal cord, can be arrested; that the male organs can be strengthened; and that the numerous derangements of the female organs, grouped together as the functional diseases of women, are capable of being remedied by cold and heat applied to the spine, to an extent and with a certainty altogether without precedent."

If Dr. Chapman can effect all this, or nearly all, what a change must come over the world of medicine! The multiplication of special hospitals, which is threatening to become a serious evil, will be at once arrested. The student, no longer compelled to visit a dozen different hospitals in order to study the diseases of as many different organs, may henceforth under one roof see nearly every form and variety of disease, and see them all yield to the

* Diarrhœa and Cholera: their Nature, Origin, and Treatment, through the agency of the Nervous System. By John Chapman, M.D. Pp. 248. London.

potent influence of neuro-therapeutics. Long courses of lectures on the dry details of materia medica will be unnecessary; drugs and druggists will disappear from the scene; the Pharmaceutical Society will soon be a thing of the past. And not the least amongst the many blessings which will be associated with this therapeutical millennium, will be that the herd of quacks, who now make their gains out of the vices and the fears of silly young men, will find their chief occupation gone; while those disgusting "museums", which are a disgrace to our streets and a fruitful source of pollution to our youth, will be swept away by the advancing tide of science.

Passing on now from these grand generalities to the particular subject of Cholera, we find that Dr. Chapman clears the way for his own account of the disease by demonstrating the errors and shortcomings of all who have gone before him.

He begins by asserting, that there is no proof of the existence of a blood-poison in cholera. We will not stop to argue this point. There are, at any rate, many facts which are explicable on the hypothesis of a blood-poison, and which are quite inconsistent with any other hypothesis.

In opposition to the statement, that the cholera-poison in the blood is the cause of the muscular cramps, Dr. Chapman argues thus: "In those diseases in which there is unequivocal evidence of the presence of a poison in the blood—small-pox, scarlet fever, or measles, for example—the irritant action upon the muscular tissue is not shown by the painful cramps which it occasions, for it causes none. If, then, cramps do not occur in these signal instances of the presence of an organic poison, it is simply absurd to allege that the cramps of cholera are caused by a poison, the very existence of which remains to be proved." An exactly parallel argument to this would be the following. Strychnia is said to cause tetanic convulsions; but since neither opium, nor belladonna will cause such convulsions, "it is simply absurd" to say that strychnia has any such effect, or that it is a poison at all. Dr. Chapman does not recognise the fact that each poison exerts its own specific influence on the body.

Dr. Johnson believes that poisoned blood excites contraction of the minute pulmonary arteries. Dr. Chapman objects that it should equally cause contraction of the systemic arteries. In raising this objection, he entirely overlooks the influence of textural affinities; the different vital endowments of the pulmonary and the systemic vessels—the one containing black venous blood, the other bright arterial blood; and he ignores the experiments of Blake and others, which prove that certain salts injected into the blood may be readily transmitted by one set of vessels, while they are abruptly stopped by the others. Dr. Chapman himself adopts the theory of arterial spasm; he declares that both the systemic and the pulmonary vessels are contracted, and that this is due to the direct influence of the nervous system on the blood-vessels. He adduces no evidence that the systemic arteries are spasmodically contracted. There is positive evidence to the contrary in the fact, that during life the arteries are so empty that the radial pulse is often not to be felt; whereas we know that the effect of contraction of the small arteries, which are alone capable of spasmodic contraction, is to fill the trunks of the vessels behind the seat of obstruction.

To Dr. Johnson's explanation of the suppression of bile and urine during collapse, Dr. Chapman objects that, if it were due to defective aëration consequent upon the partial arrest of the circulation through the lungs, it should occur equally in ordinary asphyxia and in severe pneumonia. Dr. Chapman does not see the essential difference between an arrest of blood in the minute pulmonary arteries and an arrest in the capillaries; and, so long as he fails to perceive this distinction, he is certainly not competent to criticise this part of the theory in question. The explanation of the continued secretion of milk during collapse, by the fact that it is not a highly oxidised secretion, is rejected by Dr. Chapman, and in place of it he offers the following. "Mr. Darwin's doctrine of 'natural selection' affords, I apprehend, the true explanation why the secretion of milk continues during collapse; for obviously only those human tribes whose women could continue to give suck throughout periods of great disturbance of the nervous and vascular systems could continue to exist." We commend this ingenious and original theory to the consideration of our readers.

Dr. Chapman asserts that of the *prodromata* of cholera—slight headache, etc.—Dr. Johnson "renders no account, and makes not the least attempt to show how they are produced." Now, the fact is, that Dr. Johnson gives a full account of these "symptoms of invasion", as he calls them; and he refers to them as evidence that there is a stage of blood-poisoning before the commencement of the gastro-intestinal symptoms. (See *Notes on Cholera*, from p. 68 to p. 72.)

Again, we are told, Dr. Johnson's hypothesis does not account for the contraction of the bronchial tubes, and the consequent absence of air from the lungs, which is denoted by the extreme collapse observable in these organs. Now we find that, when the chest is opened after death, the lung, if not emphysematous or adherent, collapses in proportion to the anæmia of its minute vessels. The extreme collapse of the lung in the collapse stage of cholera is a purely physical and *post mortem* phenomenon. Dr. Chapman evidently believes that the absence of air in the lung-tissue after death is the result of spasm of the bronchial tubes during life. There is no evidence of

bronchial spasm in cholera. If there were spasm of the bronchi, the respiration would be sibilant, as it is in spasmodic asthma; and bronchial spasm, if it existed, would not explain the extreme collapse of the lung. In short, Dr. Chapman's assumption of bronchial spasm in cholera is purely gratuitous. It is entirely without proof; and the absence of wheezing sounds during collapse, is proof conclusive that there is no bronchial spasm. Dr. Chapman objects to the theory of the cholera-poison being eliminated by the bowels, that, if this were so, the kidneys would be employed for the same purpose. We are almost ashamed to have to answer such trivial objections. Will Dr. Chapman tell us why Nature does not select the kidneys as the outlet for the poison of small-pox, and why not the bowels to eliminate the sugar of diabetes and the profuse acid secretions of rheumatic fever?

In expounding his own theory of cholera, Dr. Chapman declares that he neither affirms nor denies the existence of a morbid poison as the essential cause of the disease. He considers that there is no trustworthy evidence of a poison; and he believes "that those subtle agents which produce the sudden and wide-spread development of epidemic cholera operate directly upon the nervous system, and not through the intermediate agency of the blood." If the cholera-poison be not a reality, there has of late been a lamentable waste of money and of labour upon the process of disinfection. It appears to us quite superfluous to argue for the existence of a material cholera-poison; and to deny that this poison enters the blood is to require us to believe that in the case of the cholera-poison the laws of physiology are suspended. All poisons whose action is not obviously that of mere local irritants enter the circulation before their characteristic effects are developed. Foul water is mentioned by Dr. Chapman amongst the causes of cholera; and with him rests the burden of proof that this poisonous stuff, when brought into contact with the mucous membrane of the alimentary canal, is limited in its action to the nervous system and does not enter the circulation. The pathological doctrine which Dr. Chapman hopes to prove to the satisfaction of every competent judge, is embodied in the four following propositions.

1. All the phenomena of cholera are due to the simultaneous hyperæmia of the spinal cord and the sympathetic nervous system.

2. All the phenomena of cholera are naturally divisible into two classes, accordingly as they are referrible to the spinal cord, or to the sympathetic ganglia, as their cause.

3. All active or positive phenomena are due to hyperæmia of the spinal cord.

4. All passive or negative phenomena are due to hyperæmia of the sympathetic ganglia.

We have no hesitation in expressing our opinion that not one of these propositions is shown to be even probably true. The whole doctrine is purely speculative, and unsupported by the evidence of facts.

Let us examine Dr. Chapman's explanation of the abundant secretion of bile during the premonitory diarrhœa, and of the suppression of bile and urine during collapse. He assumes that each gland, in addition to its sensory nerves, receives two motor nerves, one from the cerebro-spinal, the other from the sympathetic system; "the former, or the positive, being the one which endows the gland-cells with power to attract blood to themselves, and to select from it their peculiar products; the other, or the negative, being the one which regulates or rather checks the supply of blood to the gland by constringing the glandular arteries to which it is distributed."

During the premonitory diarrhœa, bile is abundantly secreted, because the positive motor nerves distributed to the secreting cells of the liver are stimulating them unduly. During collapse, on the contrary, the negative motor nerve-force predominates, and the secretions of the liver and of the kidneys are, in consequence, nearly suspended. Dr. Chapman confesses that the reason of this "is not obvious"; but he adds, "the reason may hereafter become apparent." The fact is, that Dr. Chapman's attempted explanation of these phenomena is no explanation at all; it is merely a series of assumptions, entirely unsupported by facts. He rejects the doctrine of a blood-poison; and, in place of it, he adopts a purely speculative and fanciful neuro-pathology. The credulity of scepticism is proverbial.

In the treatment of cholera, Dr. Chapman's main object is to overcome the supposed hyperæmia of the spinal cord and of the sympathetic nervous system. This he endeavours to accomplish by the application of ice to the spine, and warmth to the general surface of the body. That the application of ice to the spine will exert a very powerful influence on the nervous system, is certain; that, under its influence, cramps, vomiting, and purging may diminish, or for a time entirely cease, is probable. We know, however, that the arrest of these symptoms is by no means equivalent to the cure of cholera; and, in the record of cases which Dr. Chapman has published, we find no evidence that the treatment had any beneficial influence upon the progress of the disease.

CHANGE OF TYPE IN DISEASE.*

Dr. Markham has republished his Gulstonian Lectures on "Bleeding and Change in Type of Diseases", which appeared in this Journal. In the

* Bleeding and Change in Type of Diseases: being the Gulstonian Lectures for 1864. By W. O. Markham, M.D., F.R.C.P., Physician to St. Mary's Hospital, etc. London: John Churchill and Sons. 1866.

Preface will be found an interesting letter from Sir Thomas Watson, wherein, with his usual candour, he admits that his views touching the change in type theory have undergone modification. Such a statement from so high an authority is worthy of especial attention. We are sure our readers will be glad to see his letter *in extenso*. The question involved in the change of type theory is not a mere matter of theoretical discussion. The practical fact of bleeding in disease is closely connected with it. It will be seen that Sir Thomas Watson endorses the opinion given by Dr. Markham: that (whatever be the explanation) medical men abstain more from bleeding at the present day than is good for their patients; that they have rushed from the extreme of profuse and ill-judged venesection into the extreme of total abstinence.

"16, Henrietta Street, Cavendish Square, April 19th, 1866.

"My dear Dr. Markham,—Since I listened to your Gulstonian Lectures on Venesection, and especially since you told me of your purpose to publish them in a book, I have felt it to be my bounden duty, as a former teacher of medicine, to re-examine and consider afresh the collateral question discussed in them, respecting the so-called 'change of type' in diseases.

"By that phrase I mean some change in the human body, existing through considerable spaces or cycles of time, which renders it varyingly affected by the causes and by the remedies of disease, and especially of febrile and inflammatory diseases; so that diseases nominally the same shall during one period express themselves in the body more strongly, and during another succeeding period more feebly, and shall accordingly require and bear, now more and now less, of what is called energetic, active, depleting, or lowering treatment.

"That this kind of difference, arising from some obscure outward influence, atmospheric, telluric, magnetic, social, or what not, may really be seen in different epidemics of the same disease, will be admitted, I suppose, by all men who have had opportunities of noticing the phenomena of epidemic distempers. But I am obliged to confess that the result of my later reading and inquiries, and of careful reflection on the matter, is that my previous belief in the soundness of the doctrine of a general and more abiding variation of type, in the sense now explained, has been shaken.

"In making this confession I desire to protest against the uncharitable imputation (not made by you, nor especially against myself, but thrown out somewhere, as I gather from Dr. Stokes's address before the British Medical Association) against those who hold or have held the controverted doctrine, the imputation that it was artfully invented to conceal former errors of practice in regard to bloodletting.

"Indeed, though I believe that great errors were committed in past years by excess in bleeding, as at the present time by its utter neglect, my own conscience is not uneasy on that score, for I have never been a lavish or a frequent bleeder. I taught, no doubt, because I believed in them, the lessons which I had received from my predecessors, and I endeavoured to explain to my class how it was that my practice was apparently so little in accordance with my public teaching. In the first edition of my lectures I say:—

"'Those among you who happen to be attending the wards of the Middlesex Hospital may wonder indeed, after hearing my estimate of the power of bloodletting over inflammation, that I so seldom prescribe venesection there. The truth is, not that I undervalue the remedy, but that the time for its employment has generally gone by. The poor are unwilling to relinquish the occupations by which they subsist; they struggle on as long as they can, and resort to hospitals only when they are compelled to do so by the exigency of their malady. Many of them, labouring under inflammation, have been freely bled before admission. It is commonly too late when they present themselves to expect that the course of the disease can be so arrested. The first effect of bloodletting is to deplete and relieve the labouring circulation. But when is again and again repeated, it becomes (as the French say) *spoliative*; it robs the vital fluid of its nutrient and plastic materials, etc., etc.' (vol. i, p. 217.)

"A careful survey of the facts and arguments adduced on both sides of late, respecting the alleged change of type, compels me, I say, to suspect that my previous opinion was a mistaken one. In that survey it was needful for me, looking back, to trace, if I could, what were the sources of that opinion; and the retrospect has shown me, I think, the main causes to which it owed its origin and strength.

"First, then, I repeat, I had faith in the judgment of the practisers and teachers of medicine at whose feet I had sat as a learner, that the old fashion of free bleeding in certain inflammatory and other febrile diseases was a right practice.

"But as the field of actual observation and experience enlarged itself before me, I soon found that those symptoms and conditions which I had been taught to regard as the warrant for free bloodletting, very rarely presented themselves; and this fact gave birth to a notion, vague enough at first, that the inhabitants of our great and crowded metropolis, and especially the class of persons who form the bulk of the in-patients in our London hospitals, among whom my experience then chiefly lay, had somehow become less likely to receive benefit from, and less able to sustain, the active use of what are spoken of as lowering remedies.

"About the same time came the teachings of a desolating visitation of influenza (the first that I had seen) in 1833, the year after the first outbreak of cholera in this country.

"The cautions enforced by the influenza, as well as its name, outlived the occasion. The abstinence from depressing measures, inculcated by that depressing disorder, was continued to cognate and extended to other disorders, and this by general consent; and thus men learned the safety and the wisdom of a less heroic treatment of disease in general, and thus the doctrine now called change of type got plausible support; but I believe that the main ground for that doctrine was furnished by the differing behaviour under medical treatment of different epidemics of fevers.

"My dear friend, Dr. Latham, one of the most conscientious, careful, and unprejudiced students of disease that I have ever known, had collected (after about ten years' observation as one of the physicians to St. Bartholomew's Hospital) materials for, and was on the point of publishing, a book on fever. He had chosen with care his clinical assistants; he had kept regularly and had periodically digested his case books and their records; and he found that he had bled from the arm one in every four of his fever patients, and had applied leeches to nearly all of them; and the mortality had been seven in the hundred.

"But not long after the first visitation of cholera

in 1832, so great a change occurred among his fever patients that he did not dare to bring out his prepared book. *Now*, he could not venture to draw blood from any of his fever patients. Their condition urgently demanded support, and the mortality among them was doubled. So numerous were the deaths that it was impossible to make any regular inspection of bodies as long as this state of things lasted.

"This looked very like a change of type.

"We know now, but few or none of us knew then, that the diseases with which Dr. Latham had been dealing were, not varying types of the same malady, but two diseases differing in species; the first having been enteric fever, the second typhus.

"In this way, and to this extent, I readily admit that modern improvements in diagnosis have modified, on grounds of reason, our practice.

"I remember, also, to have read Dr. Caleb Williams' address to the British Medical Association on the Change of Type in Disease, in which he adduced his own experience and convictions on that topic, and gave some account of Autenrieth's work, to the same effect.

"Again, and more lately, I remarked (and the fact tended to strengthen my faith) a great consensus of opinion among medical writers upon the alleged change of type who had lived and practised in the period when the change was supposed to have manifested itself, while it was chiefly questioned or denied by younger men, whose personal experience had not included that period.

"I trust that I may now have convinced you that the opinion combated by you (which I should be ashamed if I had not candour or courage enough to renounce, or at any rate to doubt, upon good cause shown) was not formed at random, nor without supposed foundation for it, still less adopted as a miserable cover or excuse for former bad practice.

"I suspect that, in a sentence of mine which has obtained an unhappy prominence in this controversy, I ought to have spoken of successive 'waves' of 'opinion' rather than of 'time.'

"Believe me, very truly yours,

"THOMAS WATSON."

OUR medical brethren in the army are naturally anxious to know the decision of the War-Office as to the recommendations of the Army and Navy Medical Committee. As much misunderstanding appears to prevail on the subject, we may state as authentic, for the information of the profession, that the terms of the new warrant embody precisely the recommendations of the Committee aforesaid (as already published in this JOURNAL). The new warrant will appear in January 1867; but the increased pay and retirement given in it will not come into operation until April 1st.

WE are glad to note that a large and influential meeting of members of the profession was held on Tuesday last, to consider the case of Mr. Statham, alluded to in our last number. Dr. Richardson was called to the chair; and the following resolution was passed—"That this meeting expresses its warmest sympathy with Mr. Statham, and its entire approval of his practice in his treatment of the plaintiff Absolon, and that it looks upon actions of this nature with the extremest anxiety, as tending to embarrass every practitioner in the conscientious performance of his duty." A committee was formed, with Dr. Richardson as chairman, Mr. Arnold Rogers as honorary treasurer, and Mr. Charles Jas. Fox as honorary secretary, for the purpose of further considering the case and preparing a statement respecting the present critical position of medical men in relation to vexatious trials, such as that to which Mr. Statham had been subjected.

AT a meeting of the Fellows of the College of Physicians on the 21st instant, Dr. Alderson in the chair, it was decided by ballot that Mr. Richmond should be requested to undertake the portrait of Sir Thomas Watson.

THE statement made by the *Pall Mall Gazette*, and copied into other papers, concerning the behaviour of St. Mary's Hospital students at a coroner's inquest, is a gross exaggeration of facts. One student so far forgot himself as to lift up the sheet over the corpse with his stick, and made some jocular remark to one of the jury. But his improper behaviour has of course received its due correction from the authorities; and assuredly it would be gross injustice to calumniate a whole body of men for the faults of one or two. A better conducted *corps* of students do not exist in London than the students of St. Mary's Hospital. Their behaviour has constantly elicited the approbation of the governors of the hospital and of their medical teachers.

DR. WM. CAMPS, in a pamphlet on *Epidemic Cholera*, etc., asks if cholera and diarrhœa can be prevented; and he suggests, as preventive agents, quinine or salicine.

"How, or by what means can the population of our towns and country districts be placed in such circumstances, as that they shall not morbidly succumb to the pernicious influences surrounding them? I entertain a strong persuasion, almost amounting to conviction, that this may be done mainly and medicinally, by the internal administration of *quinine* and its salts. I would have our families wherever threatened with an attack of Epidemic Cholera, or of Epidemic Diarrhœa, so placed under the influence of *quinine*, as to become *quinidised* or *cinchonised*, or, they might be *salicinised*, or *arsenicised*, by the administration either of *salicine*, or of *arsenic*. The mode herein indicated, aims at the diminishing, or even at the destroying, of the predisposition to take these diseases; without which they can take no powerful hold upon the animal organism."

The *Ophthalmic Review* for October has a paper to show that ophthalmology is not properly taught in England; that a better provision for the instruction of the rising generation of oculists is required. Mr. Laurence shows how lacrymal disease may be radically cured by removal of the lacrymal gland.

A tabular statement is given of sixty-five cases of squint operated upon by Mr. T. Windsor. Next follow a translation of a paper by Professor Quaglino of Pavia, on Hemeralopia; reports, by Dr. Engelhardt, of Graefe's Clinical Lectures; and Reports of Journals, by Mr. Windsor—a retrospect of ophthalmological doings.

Dr. E. Hearne of Southampton has published a pamphlet entitled *Cholera Non-contagious, and the Absurdity of Quarantine Restrictions Demonstrated.* Dr. Hearne's object is to arrest, if so it may be, the attempts which are being made at the present time to establish the contagious nature of cholera, and so to re-establish something like a quarantine. Dr. Hearne writes, we fear, with too much force of language. His reasonings and facts may be thereby damaged. His own views on the subject, founded on large and long experience of cholera, are very decided as to the non-contagiousness of the disease. Contagionists rest their opinion on facts like the following. How would Dr. Hearne answer them?

"M. Grimaud relates that during the late epidemic at Marseilles, there were employed at the post-office twenty-two persons in the bureau for dispatching, and nine in the bureau for receiving letters. Amongt the former there was no sickness at all; whilst amongst the latter there were eight persons sick and one death. He whose business it was to open letters from the East, was attacked with cholera; four others engaged in the same business were attacked one after the other."

On the 13th instant, only two cases of cholera were announced in Vienna.

In the General Hospital at Vienna, three wards have been set apart for the practice of electro-therapeutics.

THE CASE OF MR. STATHAM.

A MEETING of members of the medical and dental professions was held on Tuesday afternoon, at the Edwards Street Institution, to consider the case of Mr. Statham. Dr. Richardson was called to the Chair; and Mr. Charles James Fox acted as Honorary Secretary *pro tempore.*

The CHAIRMAN, in opening the business of the meeting, said there was no occasion for him to enter into a description of a trial with the details of which they were all familiar. A woman suffering from hysteria was operated upon by Mr. Statham; she continued hysterical; and she charged him with producing what was obviously and confessedly the continuance of a disease present before Mr. Statham had anything whatever to do with the case. He (the Chairman) had tried to look at the treatment adopted by Mr. Statham from every point of view, and he could see no fault at any step. For him (Mr. Statham) to have left in the mouth six exostosed roots, giving intense pain, might indeed have been good tact, considering the kind of patient under treatment; but it would have been most cowardly, and against the first principles of practice. The evidence was conclusive, also, that the administration of chloroform was correct, and that the teeth were most skilfully extracted. The charge of violence was simply absurd. There was no evidence save the woman's unsupported statement, which was denied by two witnesses; while the neatness and perfection with which the teeth were taken out (not one of them was broken in the slightest degree) was further proof that the utmost calmness and gentleness was practised. In regard to Mr. Statham's practice in the case, all professional men, he believed, were of one accord, that it was scrupulously correct. But it was urged by some, that Mr. Statham had done unwisely in afterwards giving the woman money and assistance. Well, this was a point that would in every case turn on the temper of the men. There were hundreds of men who, like Mr. Statham, would sacrifice anything to keep out of law; there were many who would go to law at once. The question in which they were all concerned did not, however, rest on the basis of what should be done in a case of this kind; they had to consider how they were to be saved from the dilemma altogether—how to prevent unscrupulous persons from making such false charges with the chance of success. When a medical man is so charged, he must meet the charge either by publicity in a court of law, or by secrecy, for both of which acts he must pay heavily; and the question was, how to protect him from either danger.

Mr. ERASMUS WILSON moved the following resolution.

"That this meeting expresses its warmest sympathy with Mr. Statham, and its entire approval of his practice in the treatment of the plaintiff Absolon; and that it looks upon actions of this nature with the extremest anxiety, as tending to embarrass every practitioner in the conscientious performance of his duties."

In his opinion, Mr. Statham had acted according to the strictest and best rules of surgical practice. It would be monstrous for a surgeon, if a patient consulted him for severe pain from facial neuralgia, to allow six decomposing and carious and exostosed teeth to remain in the mouth. Mr. Statham's practice was, indeed, so obviously correct, that he would not dwell upon it; and he discarded all alleged violence as unworthy of any credit. He differed from the view that Mr. Statham ought to have avoided the endeavour to prevent the charge from going into court. He was one himself who would do anything that was honourable to avoid law; and what Mr. Statham had done was humane and honourable. The case showed the increasing necessity of unity among the members of the profession; and he could hardly conceive a case in which there could be less difference of opinion. The most annoying feature of these cases was, that there was always to be detected some one medical hand at least in the proceedings on the side of the prosecution, without which assistance the prosecution must fail from the first.

Dr. CHOLMELEY seconded the resolution, and described the condition of the patient while she was under his care at the Great Northern Hospital. She was so excitable, that it was difficult, almost impossible, to treat her at all. He entirely agreed in the practice Mr. Statham had adopted.

Mr. GANT described the condition of the patient prior to the operation. He dwelt specially on the fact that he was forced by subpœna into the witness-box; and that, as he had no belief whatever that Mr. Statham had done anything wrong, his own position, as even seeming by his presence in the box to be with the prosecution, was most painful. He trusted this would be correctly understood by the profession, and he entirely agreed with the resolution.

The resolution was put to the meeting, and carried unanimously.

Mr. Clover moved the following resolution.

"That this meeting do form itself into a General Committee for considering the best method to sustain professional honour in the person of Mr. Statham; and that the following gentlemen—Dr. Anstie; Dr. Bailey; Dr. Buzzard; Dr. Cholmeley; C. J. Fox, Esq.; W. A. Harrison, Esq.; C. Heath, Esq.; R. Hepburn, Esq.; G. A. Ibbetson, Esq.; G. Laurie, Esq.; Dr. Leared; W. H. Michael, Esq.; Dr. Richardson; A. Rogers, Esq.; C. Rogers, Esq.; E. Saunders, Esq.; E. Wilson, Esq.—constitute an Executive Committee to consider: 1. Whether it be advisable to raise a fund to defray the legal expenses of Mr. Statham, or otherwise to make him an honourable recompense; 2. Whether it be well to move for any new action in the case, and, if necessary, take opinion of counsel; 3. To draw up a statement inviting the attention of the public to the present unsatisfactory and dangerous relationship between professional men and their patients, based on the recent vexatious trials for malpraxis; 4. To consider whether it would be advisable to take steps for the organisation of a Defence Fund."

It had been argued, that Mr. Statham should not have given chloroform, because, at a previous time, chloroform had produced great excitement in the patient. In his (Mr. Clover's) practice with chloroform, it was constantly reported to him that similar excitement had been observed. The truth was that, in such cases, the patient had had sufficient chloroform to excite, but not sufficient to produce anæsthesia. He was accustomed to treat reports of that nature as of no moment, and to administer chloroform on his own independent judgment in every case. That was the practice with all who understood chloroform and its administration.

Mr. Walker seconded the resolution; and, having known Mr. Statham for years, said that he was not only a skilful dentist, but a most upright and humane man.

Mr. Charles James Fox said that, by passing the resolutions now before them, the meeting would in no way pledge itself to the support of any of the propositions.

The resolution was then put, and carried unanimously.

Mr. W. A. Harrison moved the third resolution—

"That Dr. Richardson be requested to act as Chairman; Arnold Rogers, Esq., as Honorary Treasurer; and Charles James Fox, Esq., as Honorary Secretary to the Committee."

The resolution was seconded by Dr. Sansom, and carried unanimously.

Dr. Buzzard moved the fourth resolution—

"That the Executive Committee be empowered to call the next meeting of Committee, and to invite to the meeting every gentleman who may wish to take part in the proceedings."

The resolution was seconded by Mr. Kempton, and carried unanimously.

After a vote of thanks to the Chairman, the meeting broke up.

CLITORIDECTOMY.

We have been requested to publish the following opinion of Dr. West's on this subject:—

I must beg leave to state my opinions as briefly as possible, in the belief that my former position as a teacher in the largest medical school in London not only justifies my doing so, but renders it an act of duty.

1. Having for the past twenty-five years seen more of the diseases of children and young persons of both sexes than most members of my profession, and as much as most of the diseases of women at all ages, I believe that masturbation is much rarer in girls and women than in our own sex.

2. I believe the injurious *physical* effects of habitual masturbation to be the same as those of excessive sexual indulgence, and no other. The special *physical* harm done by masturbation I believe to be due to the fact that it can be indulged in at a much earlier age than sexual intercourse, and can be practised with much greater frequency.

3. But, nevertheless, I have not in the whole of my practice seen convulsions, epilepsy, or idiocy *induced* by masturbation in any child of either sex; a statement, I scarcely need add, widely different from the denial that epileptics or idiots may, and not seldom do, masturbate. Neither have I seen any instance in which hysteria, epilepsy, or insanity in women after puberty was *due* to masturbation as its efficient cause.

4. I *know*, and I can appeal with confidence to the knowledge of many members of the medical profession, that of the alleged cures of hysteria, epilepsy, insanity, and other nervous diseases of women by excision of the clitoris, a very large number were not permanent. I further *know* that in several instances, one of which, seen by me in consultation with Mr. Paget, is related at p. 663 of my lectures, very mischievous results have followed it.

5. Although the moral questions involved in the practice of masturbation are not strictly within the province of medicine, yet, as the quotation from my lectures, taken apart from the context, may appear to imply that I believe the mind could be restored to its purity by any means which our art might furnish, I must add that I hold no such opinion.

We too often see the man in whom desire has outlived the power of performance for the dream to be possible that there is any necessary connexion between infirmity of body and purity of mind; and most of your readers do not need to be reminded that the judgment of the Church as well as the sympathy of all are with the struggle and self-conquest of St. Jerome rather than with the voluntary mutilation of Origen.

6. Whilst I believe the removal of the clitoris in cases of hysteria, epilepsy, insanity, and other nervous diseases of women to be a proceeding theoretically based on erroneous physiology, and practically followed by no such results as to warrant its frequent performance, I regard it as completely unjustifiable when done for the alleged relief of dysuria or of painful defecation, for the cure of amenorrhœa, or for the mitigation of the symptoms of uterine misplacement or disease.

7. I consider that public attempts to excite the attention of non-medical persons, and especially of women, to the subject of self-abuse in the female sex are likely to injure society, and to bring discredit on the medical profession. I think that such attempts are the more objectionable when associated with a reference to some peculiar mode of treatment and alleged cure practised by one individual.

8. I believe that few members of the medical profession will dissent from the opinion that the removal of the clitoris without the cognisance of the patient and her friends, without full explanation of the nature of the proceeding, and without the concurrence of some other practitioner selected by the patient or her friends, is in the highest degree improper, and calls for the strongest reprobation.

Reports of Societies.

HARVEIAN SOCIETY OF LONDON.

Oct. 18th, 1866.

Thomas Ballard, M.D., in the Chair.

Umbilical Hæmorrhage. Mr. William Sedgwick related a case which had lately come under his observation, in which the third child, a daughter, in the family of a mechanic in comfortable circumstances, had hæmorrhage from the umbilicus on the ninth day after birth, and the sixth day after the separation of the funis. The hæmorrhage was considerable, and was arrested for a time by long continued and well sustained pressure. There was a slight recurrence of the bleeding on the following day, which was checked by a renewal of the pressure, and the patient recovered. The first child in the family was full grown and apparently healthy; but had been born dead. The second child, a daughter, died on the nineteenth day after birth from umbilical hæmorrhage associated with purpura, which began on the twelfth day after birth, the cord having separated on the third day. Both the patients in this case were strong and healthy; but the family history on the mother's side was unfavourable; for her father had died insane at the age of 30, and her mother had died in child-birth with her fourth child, leaving two sons and a daughter. The elder of these two sons died of fever at the age of 27, leaving two children, a boy and a girl, both free from disease; whilst the younger son, who is still living, has had occasional attacks of hæmoptysis.

ON SOME OF THE CAUSES OF INSANITY.
BY HENRY MAUDSLEY, M.D.

The author observed that it was almost impossible in many cases of insanity to assign any one cause, as producing the disease. There was always a plurality of causes to be taken into account in each case. It was his design to treat, not of the pathological causes of insanity, but of its predisposing and exciting causes. Civilisation had been considered by many authors as a predisposing cause of insanity; but, although there were said to be 1 in 400 in civilised countries in a state of insanity, it was not possible to compare this fact with what occurred among savage tribes, because life was short, and the weak succumbed early among such nations. There seemed many causes at work in civilisation not unlikely to cause aberration of mind. Of late years, in this country too, there had certainly been great additions to the numbers of the insane in lunatic asylums. Thus, in 1865, there were 29,425 inhabitants of lunatic asylums; and this proved, in his belief, that there was a great increase in the proportionate numbers of lunatics in this country. One of the evident causes of insanity must be looked for in the fierce struggle for existence, which now caused so many social wrecks to take place. The weaker and less able were trampled under foot, and thus ended their existence insane. A notable example of this was to be met with in the case of women. Men have, as yet, taken all the more lucrative employments; and women were thus confined almost entirely to the state of marriage to secure anything like a certainty of existence. This was one of the most frequent causes of the breaking down of the mind among women. He did not think that self-abuse was a frequent cause of insanity in women; but that it was rather one of the symptoms of the malady. Among men, on the other hand, it was a frequent cause of insanity. The trivial and defective education of women left them quite unable to cope with the unfortunate position in which they were often placed. Over-crowding and brutal degradation of the poorer classes tended also to produce physical and mental degeneration; and this was well known to be the result of over-population in old countries. Diseases of all kinds of a lowering type occurring in parents, such as consumption, predisposed children to insanity. A great proportion of lunatics, too, died of tubercular disease. It was often observed that, when families were dying out, consumption and insanity were frequent among the members. Speculation in business was a common cause of insanity; and the complete deadening and hardening of the emotions common among the commercial classes certainly tended towards producing insanity among their offspring. Effeminacy and luxury, also, were, in highly civilised countries, conditions favouring insanity and deterioration of the race. They tended to produce a sort of cretinism, just as a similar condition was produced by bad air and water. Hereditary predisposition had been very variously estimated as a predisposing cause; some authors asserting that nine-tenths of those affected were thus predisposed, and others only one-tenth. In fifty cases examined by Dr. Maudsley, hereditary transmission occurred in a marked form in fourteen. Any form of nervous disease in the parents might predispose to insanity in the offspring. Thus, epilepsy might occur in one member of a family and insanity in another. Intermarriage, in his experience, was a frequent cause of insanity. Intoxication was in this country by far the commonest physical cause of mania and idiocy. Sexual excesses came next. Mania might in some cases be vicarious with epilepsy; he had seen some cases of this kind. The puerperal state was sometimes a cause of mania; and acute rheumatism and typhoid fever not unfrequently were followed by insanity. Injuries to the brain, from railway accidents and other causes, were followed by insanity in some cases. As to moral causes, single women in some instances became violently devout and ended in insanity; whilst disappointed affections also sometimes lead to a similar result. Great intellectual activity alone, he considered, did not lead to insanity; it was only when this was accompanied by some painful emotions, such as that of being distanced by successful competitors, or being unequal to responsibilities.

Dr. Charles Drysdale said that there could be no doubt that the struggle for existence was one of the great causes why insanity and consumption were now such common diseases. In ruder times, wars and fevers carried off suddenly great numbers of the weak and strong simultaneously; but, now, long chronic diseases, such as consumption and insanity, had taken their place; and these would continue very frequent, until it was acknowledged that over-population was the chief evil that the human race had to contend against. In French statistics, epilepsy and convulsions were given as the commonest physical causes of insanity; but he could readily believe that, in this country, drunkenness was the chief cause; and this pointed to the advisability of making life in this country more artistic and less monotonous. The next commonest physical causes were sexual excesses, enforced celibacy, and self-abuse. These three together caused a vast amount of insanity; and he believed that Mr. Holmes Coote was not exaggerating when he said, that no cause of insanity was more common among the youth of both sexes than the last named of the three. The enforced celibacy of women of the better classes was, he (Dr. Drysdale) believed, most dangerous to the

maintenance of that balance between the intellect and the emotions so necessary to sanity. The wages of women, when forced to live by their earnings, were ridiculously small, in proportion to the labour; and, as marriage was much fallen off in frequency during the last few years, it was no wonder that women often became desperate and ended insane. Religious asceticism and intolerance were frequent causes of insanity, and the dwelling too much on supernatural ideas also tended to insanity. Loss of friends, disappointed ambition and love, were frequent causes. The most common antecedent of all at present was hereditary influence.

Dr. Hughlings Jackson, after adverting to the extreme value of the author's communication, made some remarks to show the different experience which he had obtained by studying diseases of the nervous system at a general and a special hospital, from what physicians practising in insanity had obtained by studying nervous diseases at asylums. He thought that cases of what might be called coarse disease of the nervous system—*e. g.*, damages by blood-clot and tumours (and these cases are chiefly under the observation of those practising generally)—ought to be carefully considered by medical psychologists, in order that they might obtain a knowledge of certain comparatively unimportant and yet highly significant symptoms, some of which evidently stand betwixt the two artificial extremes which are conveniently, though arbitrarily, distinguished as physical and psychical symptoms. On the other hand, medical men practising generally could scarcely give small signs of mental disorder wide enough relations. The progress of our studies of nervous diseases was, Dr. Jackson believed, hindered from the fact that able and industrious men, practising in different departments, had not opportunities of working harmoniously as members of one scientific organisation. However elaborately our medical knowledge, acquired in different fields, might be arranged, it was still badly organised; and, indeed, some of the present arrangements of diseases, or of symptoms of disease, of the nervous system, were, it seemed to him, altogether subversive of true scientific method. The question of transmission of disease in general required to be studied with more width, and also with more precision, than we could, with our present divisions of works, possibly study it. For instance, each in his own field of labour might study cases of nervous disease, with regard to this question, very minutely; but the too arbitrary division of our work into sections drove medical practitioners to a narrow style of study, and thus our minuteness was not always precision, and our width tended to vagueness. He conceived that the transmission of disease was not so much of bad organs as of imperfect tissues; and that a child could scarcely be said to inherit a symptom directly—as, for instance, convulsions of any sort—but rather degenerate tissues. The transmission of peculiarities of healthy structures was not denied—either of fixed anatomical possibilities or of an alteration of any of these, acquired by an unusual exercise of particular functions. To use the language, and to adopt certain views, of Herbert Spencer, there was a transmission of Physiological Units. But degradations of structure, such as softening of the corpus striatum, or disorders of function such as chorea, were not, Dr. Jackson believed, likely to be transmitted. These were not units in the sense in which Spencer uses the word. They did not even deserve the name of pathological units. For local alterations of normal structure were probably not equilibrated with the rest of the organism. They were, therefore, not likely to be represented in the detached physiological units, the sperm-cell or germ-cell. Perhaps if a man had chorea, or frequently recurring convulsions almost from birth, the local changes, or those produced by the reaction of the irregular movements or spasms, might, after long persistence in a growing body, be equilibrated with the whole of the organism; and thus certain abnormal structures might be transmitted. Transmission of epilepsy from guinea-pigs—rendered epileptic artificially—might be an instance of this. Yet, as a matter of fact, Dr. Jackson believed that transmission of a tendency to changes in tissues—not to damages of particular organs, nor to disorders of special function—was the way in which bodily evil was hereditary. To give an illustration. A child's father died hemiplegic, and the child's mother had epileptiform seizures. The father's paralysis would be due most likely to disease in the brain, such as tearing up by effusion of blood of a nervous organ, usually the corpus striatum; and not to primary changes beginning in nerve-tissue itself; for hemiplegia was nearly always due to cerebral hæmorrhage. The mother's fits might have followed syphilitic disease of the brain's membranes. Then their child, if it became hemiplegic or epileptic, could not be said to have inherited a tendency to either of these symptoms, although it might be born with a tendency to degeneration of tissues forming part of the vascular system, or with a syphilitic taint, which taint so often induced or allowed disorderly growth in a low vegetal tissue forming part of very different organs. Whilst it was not rare for grandfather, father, and son to suffer hemiplegia from cerebral hæmorrhage, the grandson could scarcely be said to have inherited this kind of paralysis, but rather to be born with his family's tendency to wide degenerative changes, of which disease of the blood-vessels was nearly always one part, and the changes of chronic Bright's disease very often another. Again: a child is born liable to those tissue-changes which constitute tuberculosis, and dies when grown up, as many of its immediate relatives have died, of tubercular disease of the lungs. It would not be generally held that a tendency to disease of an organ, the lungs, was transmitted. No one ventured to say that tubercular meningitis in children was hereditary, although several children in a family might die of it; for tubercle in children was nearly always widely scattered, and very rarely indeed affected only one organ. A child might inherit feeble nerve-tissue, and thus indirectly a tendency might be transmitted to a class of nervous diseases, not to any nervous disease. Parents, then, transmitted tendencies to diseases of the nervous skeleton, or of the connective-tissue skeleton, or (and this was speaking very loosely) of the arterial skeleton. Instead of saying "to transmit a tendency", it might, perhaps, be better to say "transmit an imperfectly developed tissue or tissues"; but the expression tendency was better in this way, that it had not enough meaning to carry a theory, and was used as a mere verbal artifice. A feeble nervous skeleton being transmitted, only those diseases which depended upon primary changes, slight and yet widely spread, in nervous tissue itself, would be likely to occur in both offspring and parents. These changes would be, as a matter of fact, most strikingly of the cerebral hemisphere; because, although there are nerves in all parts of the system, this part of the body is made up nearly altogether of nerve-tissue; and thus various disorders of the function of the chief nervous organ constituting insanity, and perhaps some forms of epilepsy, would occur in several members of one family. It was, Dr. Jackson conceived, most important to try to distinguish in all nervous diseases or symptoms, from the simplest, such as paralysis of the third nerve, to the most complete per-

version of the highest functions of the brain, whether the pathological alterations were primarily of nervous tissue, or were secondary changes of some inferior tissue which helped to make part of the nervous organs. In cases of paralysis of muscles supplied from a single nerve-trunk, the nervous bundle might suffer (1) from diseases of the areolar tissue about it, as from syphilitic disease, or (2) from wasting of the true nervous elements, as most likely was the case in the amaurosis, etc., which now and then occurred in locomotor ataxy. This distinction led to one (1) of three natural orders of all diseases of the nervous system, or rather of our thoughts on disease. There were two other orders; viz. (2), according to damage of organs; and (3), according to disorders of function. Each case of disease ought to be considered as it bears on each of these three lines of thought. Roughly speaking, there were, from the (1) tissue-change point of view, two classes of nervous disease. The first (*a*) included those essentially nervous; *i. e.*, those due to changes beginning in nerve-tissue itself; and possibly the intimate changes in the brain, giving rise to or permitting many forms of insanity, are faults of this tissue. The second (*b*) class included diseases in which nervous tissue was indirectly affected, as when hemiplegia occurred from rupture of blood-vessels in the corpus striatum, or when epileptic fits or amaurosis (or more precisely, the minute changes on which the last two signs of disordered or lost function depended), followed some time after coarse disease of the connective tissue of the pia mater, such as syphilitic "deposits", had been well established. Among those of the first (*a*) class of nervous diseases would be a certain kind of atrophy of the optic nerves—progressive diseases of the nervous system in general, and probably certain forms of insanity. The *idea* was the same, whether nerve-tissue was wasted in the optic nerve bundle, or in the posterior columns of the cord, or in the hemisphere, although the *events* in these cases differed most widely. In the second (*b*) class would be placed such cases as hemiplegia from cerebral hæmorrhage, loss of speech from embolism, and convulsions from the secondary changes which cerebral tumours give rise to. Dr. Jackson, to exemplify these principles, gave the case of a family where the eldest girl (the patients were all daughters) had what for shortness he would call, idiopathic epilepsy; the next, atrophy of the optic nerves, and occasional *petit mal*; the third, unilateral chorea. The mother of these children had rheumatic fever when her youngest daughter had chorea, and she died (through her lungs) of disease of the heart a year later. She herself had had chorea when a child, and a second time in one of her pregnancies. The child, the subject of chorea, had a mitral murmur which persisted when she was rid of all irregular movements; and her elder brother not long after suffered from an attack of acute rheumatism. Here seems an inheritance, not of a tendency to nervous diseases, but of those ill-defined tendencies to particular morbid processes which are called arthritic. Dr. Jackson held strongly that the chorea in mother and daughter could not safely be admitted as an instance of transmission of a tendency to nervous disease, but rather as a sign that there was transmitted a tendency to disease of tissues of much lower function than the nervous, which tissues, being affected in the valves of the heart, led to cerebral disorder through the quasi-accident of embolism. But there were other possibilities of disease in this family. The second daughter, the one amaurotic, had malformation of the teeth—that particular sort of deformity which Mr. Hutchinson has found to be due to inherited taint. Thus it became a question whether this girl and her elder sister had not inherited the syphilitic cachexia, which had given rise to, or rather permitted, disorderly growth in one of the commonest tissues—the connective. And the fact that their nervous organs had been somewhere damaged by the results of this disorderly life in a low vulgar tissue, was not the most essential one, pathologically considered, as connective tissue in other parts frequently suffered from syphilis, when that of the brain was so diseased. Here it seemed worth passing attention, that the artificial separation of function and life seemed partly warranted by what we knew of the resemblances and differences of nerve-tissue and connective tissue. The one might be called a tissue of high function; it is of elaborate structure, but of low life. The other, the connective tissue, played a very subordinate part to nervous tissue, the real celebrant in the functions of the nervous organs; but in disease it not unfrequently indulges its speciality for mere vegetable growth, although the new products die almost as fast as the mass increases in size. Thus nerve-tissue often suffers from no fault of its own. These distinctions obviously bore upon the way in which we should try to arrive at a rational system of therapeutics. It was, Dr. Jackson freely admitted, most satisfactory to adopt a sound empirical system of treating many nervous diseases. But to pretend to a rational treatment of diseases of which the tissue-changes are altogether unknown; for instance, to talk of a rational treatment of so-called idiopathic epilepsy, was not practical. Much of our so-called practical knowledge was really an acceptance of metaphysical explanations, and a treatment of entities. Progress in the therapeutics of nervous diseases would, he believed, come from such workers as those who found out how and where tissue was changed from health, and not from such as those who tried one mineral or vegetable after another, to find out what thing best decreased the "increased excitability of the medulla oblongata." The attempt to divorce the study of therapeutics from a real positive study of states of disease, was, he hoped, almost quite out of fashion. Those who had not fine enough perceptions to observe slight differences in pathology, would not be credited to possess perceptions fine enough to observe those slight changes in the course of diseases, which many of our remedies can produce. Dr. Jackson next spoke of injuries to the head. He had not unfrequently been consulted for certain epileptiform seizures, which had followed some time after blows on the head, seizures often physiologically related to the part injured; but he had never been consulted for insanity caused in this way, probably because general physicians are not likely to be consulted for insanity. He then made some remarks upon epilepsy. He thought that the term epilepsy was unfortunately a very indefinite one, and that it was especially hurtful when used very decisively for a definition of the most commonly occurring chronic convulsions. He thought it most likely that the unknown condition of nervous matter in epilepsy, might produce or permit almost any set or degree of nervous symptoms, according to the part of the nervous system affected; as the motor tract, or the outlying parts of the hemispheres. He alluded to the case of a patient, who used to pass suddenly into a state somewhat like that of a somnambulist: next, to that of a woman, who had short maniacal attacks in her sleep, and who was, by her own wish, strapped down every night: next, to transitory fury following convulsive attacks. He supposed that in these last cases the epileptic condition, whatever that was, during the paroxysms, affected some critical parts, also unknown, of the hemispheres. Now, in every case there were to be studied,

(1) changes of tissue; (2) damage of organs; (3) disorders of function. In coarse diseases of the nervous system, we sometimes make out all the three with comparative completeness. Hemiplegia occurs from (1) softening of nerve-tissue of the (2) corpus striatum. But in most cases of chronic convulsions, we know only the first; and it could not be too much borne in mind, that we had in epilepsy the two others to find, and that we should seek them in an orderly manner. In some convulsive seizures, *i.e.* those in which the spasm of muscles is unilateral, we might sometimes get to know something of each of the three. In insanity, he imagined the same positive plan of study ought to be followed, as soon as ever it became possible. At present, however, it seemed scarcely likely that, in most cases at least, we could do more than study a case of insanity as a disorder of what we know of healthy function of brain, *i.e.* of mind, and not much as to its dependence on particular changes in nerve-tissue which allow that disorder, and not even as to the seat of those changes, the part or organ affected. It was, perhaps, a truism to say that disease was a departure from health; but he (Dr. Jackson) remarked that, even in the study of the simpler nervous affections, such diseases as chorea, epilepsy, etc., the attempt seemed to be, not to determine how far, and in what way, the symptoms shewed a departure from healthy states of tissues, organs, and functions; but how nearly cases approached our conventional notions of genuine epilepsy, etc. He did not know if this plan was the sole method of any medical psychologist. He might, he thought, easily venture to say that it was not the method that the Author had followed. In spite of a temporary convenience, it would not be, he fancied, very profitable to try to determine how disorders of mind approached or receded from arbitrary standards of mental disease. Yet, very possibly for a long time, this plan of studying insanity must be followed in great part. But it need not be followed in certain other diseases which presented striking symptoms, which seemed to reveal links betwixt motion and thought. And while psychologists were studying cases of insanity as departures from mental health, *i.e.* as disorders of function of brain, they might also, Dr. Jackson imagined, do good work in cases of hemiplegia, apoplexy, uræmia, chorea, etc., towards helping the putting in order of those slighter symptoms which might be called either defects of rudimentary mental, or of highly developed physical processes. This was, he thought, especially applicable to defects following damage to the hemisphere, near the corpus striatum. In such cases, we could frequently trace a gradation from simple disorders of motion, to symptoms which are called mental; or, to put this in convenient technical terms, from psychico-physical, *i.e.* gross movements, to physico-psychical, or disorder of the educated movements of language, or perhaps of motor impulses of thought. In chorea there were often ordinary mental defects, from slight nervousness and ill-temper, up to (what, it is true, is very rare) actual imbecility. And, in a few cases of chorea, hints seemed to be given of a method of studying movement and thought as one series of motions, ascending from gross movements to the very borders, at least, of the motor-impulses of thought. Such cases, he believed, when fairly and widely studied by both general and special practitioners, with other cases already mentioned, would help to establish valuable laws of physical and psychical processes. Many little symptoms in chorea might have that sort of value to the psychologist, which little words had in giving meaning to technical terms in a sentence. By working more in harmony, again, more might be learnt about such diseases as puerperal mania. The wide study of the puerperal group of nervous affections, would require the organised efforts of obstetricians, general practitioners, and alienists. A woman in labour is liable to have (here speaking of some of those symptoms only which continue after the crisis of parturition is well over) epileptiform seizures, hemiplegia, with or without loss of speech, chorea, and mania. Now, Dr. Jackson thought that, by working together, medical men would have, not only what to a great extent they already have, viz., a knowledge of many facts about nervous diseases following labour, but much knowledge of the particular ways in which the tissues and organs of the nervous system were liable to suffer in parturient women.

Mr. Baker Brown, jun., thought, with the author of the paper, that self-abuse in women was frequently rather a symptom than a cause of insanity. In lunatic asylums, this practice was very frequently observed among the insane. Some cases of insanity had derived benefit from the practice of excision of the clitoris, recommended by Mr. B. Brown; but these were rather persons with acute hysteria, than insane persons. He could not think with the author, that sexual excesses were common among married persons, or that they frequently caused insanity among the married. He believed that excesses were only met with among unmarried persons. With regard to religion being a cause of insanity, he believed that such cases were chiefly to be met with among the extreme parties of religious denominations; such as, on the one hand, the methodists, and, on the other hand, the high church party. Those who belonged to the established or moderate party, did not seem to be so liable to become insane from devotional causes.

Dr. Cleveland was not quite certain how far the author's statement with regard to the increase in the proportional number of insane persons was to be taken as proved. He was inclined to believe, that there were more lunatics because the population was greater; but not that the proportion of the insane to the whole population had increased. To give the debate a practical turn, he would observe that, since intemperance was such a frequent cause of insanity, it seemed to him that something like what Dr. Winslow had suggested should be done to establish a sanitarium, where drunkards could be placed out of reach of drink until the fit of drunkenness passed away.

Mr. Benson Baker had had some experience of insanity among the poor, and had found drunkenness a very fruitful cause of it among that class. After this, as a cause of insanity, he thought, came consumption. Among the poor, dipsomaniacs went into the infirmary and recovered; whilst the rich drunkards were worse off in this respect, because they were not removed from the possibility of obtaining drink. He considered that the signing of certificates of insanity was too great a responsibility to put upon a medical man, and that the law on this point required alteration.

Dr. Camps said that in Scotland there existed asylums for dipsomaniacs, and it would be well to introduce such institutions into England. He did not think that epilepsy should be looked upon so much in the light of a cause, as of a consequence, of insanity. Many cases of insanity he had seen, had been concurrent with other diseases, such as tuberculosis. He did not think that religion could be justly considered as a cause of insanity. True religion, on the contrary, rather tended, he thought, towards warding off any predisposition towards insanity.

Dr. Broadbent said it was very rarely that he had listened to a paper with such interest, or had de-

rived so much instruction from the discussion of any subject before a medical society. The first idea developed by Dr. Maudsley was, that insanity was a form of degeneracy, traceable on the one hand to moral depravity, and on the other, to physical privation, bad hygiene, and the like. He had especially been struck by the prominence given to moral causes. Another great idea had been advanced by Dr. Hughlings Jackson, that transmitted hereditary degenerative tendencies were rather to degeneration of tissues than of organs. By the combination of these two doctrines, and the approximation of physicians and those especially engaged in the study of mental alienation, which Dr. Hughlings Jackson had pointed out to be so desirable, he believed that great results might be obtained.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, OCTOBER 3RD, 1866.

ROBERT BARNES, M.D., President, in the Chair.

MR. JAMES KEITH GROSJEAN was admitted a Fellow, and Professor Rizzoli of Bologna an Honorary Fellow, of the Society.

Specimens, etc. Mr. NEWTON exhibited three preserved specimens, which he presented to the Society.

Dr. BRAXTON HICKS showed a Cephalotribe of his own design. It was lighter in construction than any yet made, and possessed power equal to those of larger size now in use on the Continent.

The Report on Dr. WYNN WILLIAMS's case of Cyst Removed from the Abdomen, and exhibited at the Society in June last, was read.

Dr. BRUNTON showed a Placenta which he had removed a few days before from a healthy primiparous young woman. It contained in its centre a round tumour about the size of a small egg. The specimen was referred to two Fellows for examination, and a report upon the tumour.

Dr. SMUTS gave the history of a curious case of Prolapsed Placenta, in which, after the greater part of the placenta had remained outside the vulva for more than forty-eight hours, it retracted within the uterus beyond the reach of the finger, and was expelled immediately after the birth of a healthy living child.

Case of Early and Entirely Detached Placenta in Labour, producing Internal and Concealed Hæmorrhage, of which the patient died soon after Delivery. By J. T. MITCHELL, Esq. The patient, who was in the ninth month of gestation, was early one morning awakened by a most unusually violent and protracted spasm in the abdomen, so severe that she became alarmed. This pain was followed by a discharge of blood from the vagina, which, although not very great, continued more or less up to the time of the birth of a still-born child. She never rallied, and died shortly after delivery. A large, firm clot, the size of a child's head, had passed from the uterus just before death. Mr. Mitchell considered it as one of those very rare cases where the placenta was suddenly and, no doubt, entirely cast from the uterus by the violent spasm of that organ.

FATAL CASE OF CONCEALED ACCIDENTAL HÆMORRHAGE, OCCURRING AT THE EIGHTH MONTH. BY R. DUNN, ESQ.

Mrs. C., suffering from severe cold, experienced while in bed, after a violent fit of coughing, strange and unusual sensations about her womb, and became faint. From this she recovered, and remained well for three or four days, when Mr. Mitchell was sent for. On his seeing her, she was cold, exhausted, and faint, with a weak and feeble pulse. From this state she rallied, but was seized with labour a few hours later. The liquor amnii escaped early, and with it a large clot of blood. She became faint, and complained of the want of breath. The os uteri being dilated to only the size of a half-crown, and the pains inefficient, stimulants, beef-tea, and ergot were administered, and Dr. Robert Lee's opinion was sought. The patient, however, rapidly got weaker, and expired before the consultation had concluded. The *post mortem* inspection revealed a child of eight months lying in the normal position in the womb. The placenta was found to be completely detached and quite loose, resting upon a large mass of coagulated blood, not less than a quart, in the fundus of the uterus.

Dr. GREENHALGH agreed with Messrs. Dunn and Mitchell that fatal accidental hæmorrhage was of rare occurrence; never having met with a case until within the last few weeks, when he was applied to by a teacher of midwifery to see Mrs. —, between thirty and forty years of age, the mother of many children, who had reached the end of the eighth month of her pregnancy. Dr. Greenhalgh found the patient blanched, cold, and almost pulseless, without the slightest evidence of uterine action. Stimulants and nourishment were given freely, but without signs of rallying. Eight ounces of blood were transfused, after which she expired. Although no time was lost in performing the Cæsarean section, a dead child was extracted. The circumference of the placenta was adherent, except about two inches of its upper part, through which a portion of clot was protruding. Nearly the whole of the centre of the placenta was detached, and between it and the uterus was a large coagulum, weighing from one and a half to two pounds. The uterus was remarkably blanched and flaccid.

Dr. BRUNTON had met with a similar case about the full period of gestation. His patient was collapsed and nearly pulseless, and in a state of intense suffering, There were no labour pains, but one continuous pain of an intense stretching character. He found the os uteri dilated to the size of a florin, and the membranes tensely stretched, as during a labour pain; but there was no relaxation of them as in the interval between true labour pains. There was no discharge of blood at all until the membranes were ruptured, and then an immense gush of bloody fluid came away, rapidly followed by the head and body of the child, and then came three large clots of blood, each as large as a child's head. The placenta was healthy and cup-shaped on the uterine surface, caused, doubtless, by pressure of retained blood. The patient recovered. Dr. Brunton maintained that the chief diagnostic symptoms of accidental concealed hæmorrhage were: 1. The sudden collapse and fainting, with continuance of this state; and, 2. The intense continuous stretching pain, and the tense state of the membranes, also continuous.

Dr. GRAILY HEWITT attached much importance to the presence of a painful feeling of stretching or dilatation in the abdomen as a sign of hæmorrhage within the uterus, but from facts which had fallen under his own notice, and which he mentioned, it was not a symptom which was invariably observed, and consequently could not be considered as reliable. It might be absent, and yet with the uterus possibly containing a large quantity of blood. Together with other signs, great prostration and pallidity of surface, the sensation alluded to had, however, much positive diagnostic value.

ON A NEW MODE OF TREATING EPITHELIAL CANCER OF THE CERVIX UTERI AND ITS CAVITY. BY C. H. F. ROUTH, M.D.

The author, after referring to the able papers of Mr. Moore on Cancer, said that the use of bromine as a local agent was first suggested to him by his colleague, Dr. Wynn Williams. Dr. ROUTH then related two cases admitted under his care at the Samaritan Hospital. In the first, the patient was thin, pale, and haggard, losing blood continually. There was a mass of fungoid epithelial growths, taking their origin from the os uteri, and of about the size of an egg. The actual cautery was used to check the bleeding, and after the slough had come away, a solution of bromine, five minims to fifty of spirits of wine, was used. A piece of lint, the anterior surface of which was well saturated with the solution, was applied to the uterine diseased surface, and kept *in situ* by pledgets of lint. After forty-eight hours it was removed, and the part dressed at night with a poultice of lint dipped in warm water, and during the day warm douches were applied. In about a week a slough came away, and left a large healthy granulating surface. Tannin with glycerine was applied, and used daily. The patient also took internally the iodide of arsenic with extract of conium. After a period of ten weeks she was fat, hearty, and well-coloured; but as she occasionally lost a drop of blood, Dr. Routh carefully examined the internal surface of the uterus, and found about a quarter of its lining membrane affected with epithelioma. She left the hospital for some weeks, and on being readmitted a piece of wood about the size of the uterine cavity was prepared, and covered with cotton: the upper part was dipped in a saturated solution of carbonate of soda, the lower in the bromine solution, and it was passed up and left within the uterus. Two or three further applications of bromine with glycerine were necessary, and the patient left the hospital with a movable healthy uterus.

In the second case there was a large carcinomatous mass, of about the size of an orange, attached to the os, which appeared to be large cauliflower excrescences, breaking down readily and bleeding at the slightest touch. On June 20th the mass was removed by the wire *écraseur*, and a few days afterwards the spirituous solution of bromine was applied. She took internally the iodide of arsenic and conium, and was treated in the same manner as the first case. She left the hospital on April 2nd, with a moveable uterus covered with healthy mucous membrane, and looking herself fat and hearty.

The author remarked that he was quite aware that two cases afford an insufficient criterion as to the value of any remedy, and that time had not been allowed to prove that the cures were lasting. Notwithstanding these objections, he thought, at the same time, there were some considerations which made an early publication of these cases desirable. The author concluded by drawing attention to the care necessary in mixing the bromine with the spirits, which should be done very gradually, to avoid an explosion. He hoped others would try the agent he now brought forward, and give the results of their experience. He believed it to be a potent and useful remedy, and likely to prove of service, if not in the cure absolutely, at least in the arrest of the progress of cancer.

Dr. WYNN WILLIAMS had applied solutions of bromine, in varying degrees of strength, in cancerous growths where there had been any breach of surface, for some nine or ten years; and, for the last two or three years, to this disease when attacking the uterus, with the effect of destroying the cancerous mass, and causing its removal by sloughing. The first patient on whom he used it was a man suffering from epithelial cancer which had commenced in the lower lip, the soft parts having been almost entirely removed; and wherever he was able to apply the solution of bromine the wound healed, until the whole external surface of it, extending, he might say, almost from ear to ear, had skinned over. The patient, however, ultimately died from extension of the disease to the neighbouring glands. Dr. Williams considered the beneficial effects of bromine were not confined to its corrosive or escharotic action only, but it acted also as a most powerful disinfectant, its good effects in this way being of very great service. He had seen patients with that peculiar cachectic, emaciated aspect so common in those suffering from open cancer, rapidly improve in appearance soon after using bromine applications. He had found that in almost every case in which he had been able to apply bromine directly to the cancerus growth it had been followed by most beneficial results. He had frequently prescribed bromide of iron internally whilst applying the bromine externally, but thought its effect very problematical.

Dr. ROGERS said he believed some of the members were labouring under an erroneous impression that the paper by Dr. Routh and the remarks of Dr. W. Williams tended to establish a new "specific for cancer." All that was desired to be made known was the fact that in some cases of epithelial cancer of the cervix uteri the bromine had proved a most energetic and valuable escharotic, destroying vascular growths, arresting hæmorrhage, and the prostration resulting from it, and checking all fetid and foul discharges. Healthy granulations followed its application, and the parts appeared free from disease. How long such improved state would continue could not at present be predicted. This was certain, that a most marked improvement took place locally and constitutionally. The patients would soon have died had not the disease been arrested; now they appeared restored to health and strength again. Of course, where the bromine could not be applied to the whole of the diseased parts the mischief could not be arrested, and the disease proceeded on its fatal course. Bromine, like other powerful caustics, required great care and all the precautions mentioned by the author in its use. From its not being properly guarded, he (Dr. Rogers) had known mischief to arise which ought to have been prevented. He had used it himself, and had assisted the author with all his cases; and great credit was due to Dr. Routh for the skill, care, and perseverance exhibited by him.

Dr. ROUTH had frequently seen cases of extirpation of cancerous growths by the knife or *écraseur*, but they almost invariably recurred. The plan proposed did more, or supplemented what knives and *écraseurs* could not do; and he must say he never saw change so rapid from one of marked cachexia to robust health as under the bromine treatment. It was because he had thought this so remarkable that he wished others to try it also for themselves. If the agent was what he believed, the profession would soon acknowledge it. Herein he only followed the general rule of medical men, which differed so much from that of quacks, to make known at once any remedy for the good of all, and not to keep it secret. Great harm, he believed, had been done to the treatment of this affection in our schools and elsewhere by invariably speaking of cancer as incurable. Now he believed opinion was changing, and some began to believe a cure might be found. He did not say that bromine was certainly such a remedy, but at any rate it was the most powerful palliative he had

met with. To see a woman dying by inches, and carrying about her an odour completing her misery, was a severe trial. If bromine could stop this only for six months it was surely to be received with thankfulness. Future experience, however, might prove its powers to be even greater than this.

ON THE MECHANISM AND MANAGEMENT OF DELIVERY IN CASES OF DOUBLE MONSTROSITY. BY W. S. PLAYFAIR, M.D., M.R.C.P.

The author pointed out that, although numerous instances of double monstrosity were recorded in various publications, and specimens were met with in all our museums, little reference was made to the mechanism of delivery in any of our standard works on obstetrics. As the cases were likely to give rise to very formidable difficulties in practice, the object of the paper was to arrive at a clear understanding as to the means by which Nature attempted delivery, with the view of arriving at some definite conclusions as to the proper management of cases of the kind. Details were collected from various sources of thirty-one cases, in which the labour was more or less accurately described. These histories were analysed under their respective classes, and practical deductions were arrived at as to the proper course to be pursued with the view of rendering the most efficient assistance.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, JUNE 26TH, 1866.

JAMES ALDERSON, M.D., F.R.S., President, in the Chair.

CASE OF STRICTURE OF THE URETHRA, WITH COMPLICATIONS. BY GEORGE W. CALLENDER, F.R.C.S.

THOMAS C. suffered for seven years and a half from stricture. He then had an attack of retention of urine, for which his urinary bladder was punctured above the pubes. As no instrument could be passed along the urethra and through the stricture, an operation was performed for his relief which has been suggested for similar cases, but was not practised, by John Hunter. A No. 8 elastic catheter was passed into the bladder by the suprapubic opening; after which it was armed with a stout stilet, bent to the curve of an ordinary urethra. Guided by the finger, introduced for this purpose into the rectum, the catheter passed readily through the prostate, but was stopped in the membranous portion of the canal; but by withdrawing the stilet a little, the point of the instrument was tilted up, and it then passed easily into, and was felt in, the perinæum. A straight metal catheter, introduced from the glans penis as far as possible, reached to the site of the instrument passed from the bladder, lying a little to its right side. Cutting from the perinæum upon the extremity of the latter, and then examining the parts from time to time with a probe, the incision was prolonged forwards through callous tissue for about an inch and a half, when the probe slipped up and struck the straight catheter at a point an inch and a half forward, and then emerged through the urethral orifice. Following this probe, passing through the wound in the perinæum, and following also the elastic catheter as it was drawn backwards through the suprapubic opening, a No. 8 elastic catheter was now readily introduced into the bladder, and the treatment was subsequently continued as for an ordinary perineal section. Eleven months later the patient continued well.

An instrument was referred to, by means of which the urethra was kept dilated whilst the wound in the perineum healed.

An account was also given of the removal of two calculi through the hypogastric puncture (enlarged for the purpose); and some remarks were added respecting the hypogastric operation for the relief of retention of urine.

ON STRICTURE OF THE URETHRA AS A RESULT OF CONSTITUTIONAL SYPHILIS. BY T. W. NUNN, F.R.C.S.

1. Constitutional syphilis is frequentiy the cause of the pathological changes in the urethra which give rise to stricture.

2. Stricture of the urethra so produced is liable to possess the character of being resilient.

CASE 1. Middle aged man, who had undergone perineal section, and had not suffered inconvenience for several years afterwards until he acquired constitutional syphilis.

CASE 2. Middle-aged man, in whom the stricture was unmanageable until constitutional remedies had been employed.

CASE 3. L. suffered from constitutional syphilis in 1850, subsequently from an obstinate gleet, lastly from stricture.

CASE 4. L. S. had gonorrhœa in 1852, again in 1854; chancre 1857; six months later, secondary eruptions; and three months still later, stricture.

CASE 5. The brother of No. 4, nearly similar as regards the concurrence of stricture and constitutional syphilis.

CASE 6. Had chronic syphilitic disease of the larynx and stricture of the urethra. The stricture would not yield until constitutional remedies were employed.

CASE 7. P. P., aged 45, has obstinate stricture, having a traumatic origin, but there is a stricture in front of the seat of injury, and the patient has plantar psoriasis, and psoriasis of the scrotum.

CASE 8. E. H. had a stricture in 1864, following gonorrhœa; in 1865, contracted syphilis; during the acute stage of the constitutional symptoms the stricture was unmanageable.

CASE 9. W. came under observation in 1864 for gonorrhœa, August 22nd; had twice previously had gonorrhœa; discharge in the present attack followed connexion after four days. There existed the remains of an indurated chancre with inguinal adenopathy. After the appearance of constitutional symptoms, some months later, stricture was found.

CASE 10. D. suffered from constitutional syphilis two years since, one year since from gonorrhœa. In January of the present year (1866) had an almost unpassable stricture.

ON ELEPHANTIASIS OF THE SCROTUM AND PENIS. BY R. H. MEADE, ESQ., F.R.C.S.

The tumour of the scrotum in this case was 35 inches in circumference; the penis was between six and seven inches in circumference, and very much elongated and twisted. The man was 32 years of age and had never been out of England. The disease had been growing for fourteen years, commencing in the prepuce, and spreading thence all over the penis and scrotum; the whole skin of both organs being enormously thickened and tuberculated. The author recommended the patient to have the genital organs entirely removed; but he would only consent to have a portion of the disease extirpated, so that part of the penis and, if possible, the testes should be saved. In accordance with this wish, Mr. MEADE took the man into the Bradford Infirmary, and performed the following operation on March 9th, 1865.

The patient being in the lithotomy position, and under the influence of chloroform, the tumour of the

scrotum was transfixed laterally through its root with a long amputating knife; a semicircular flap was then made forwards, with its convexity downwards, to the base of the penis, and the remainder of the tumour removed by another incision made backwards to the perineum. The testes could be seen uninjured in the anterior flap through the tunicæ vaginales, which were not opened. There was very little hæmorrhage, for the precaution was taken of strangulating the superficial parts of the tumour with a series of large and deep loops of whipcord, inserted above the line of the incisions, in the manner adopted in a similar case by Mr. H. Walton. These loops were unfastened one by one after the removal of the tumour, and the bleeding vessels secured. The portion of the scrotum removed weighed eleven pounds.

The two anterior thirds of the penis were afterwards amputated, and the flaps of the scrotum brought together and secured by sutures.

The wound slowly healed, and the patient recovered, being very much relieved; but a considerable part of the diseased mass remained unremoved, which would probably increase.

The paper was illustrated by photographs.

LIVERPOOL MEDICAL INSTITUTION.

THURSDAY, NOV. 1ST, 1866.

JAMES HAKES, Esq., Vice-President, in the Chair.

Specimens, etc. Mr. HARRISON brought under the notice of the Society a Humerus he had removed from a subject in the dissecting-rooms, in which was an almost perfect supra-condyloid foramen with the brachial artery and median nerve passing through it. Some specimens from the carnivora were exhibited in illustration.

Dr. OTLEY showed a specimen of an extensively Hypertrophied Heart with Valvular Disease, from a child.

Dr. IMLACH narrated the particulars of a case where a young lady had been in the habit of passing *per urethram* for a considerable period Urine of a very peculiar mahogany-looking character. Dr. Imlach discovered that this condition was brought about by the patient introducing into the urethra red tooth-powder, apparently with no other object than to mislead her medical advisers as to the real nature of her disorder. A specimen of urine that had been drawn off by the catheter was perfectly clear.

The late Mr. F. D. Fletcher. The PRESIDENT alluded in feeling terms to the death of Mr. Fletcher, who for many years took an active part in the proceedings of this Society; and a resolution was unanimously passed in accordance with these remarks, which the Secretary was requested to forward to the widow of the deceased gentleman.

Paper. Mr. BICKERTON then read the paper of the evening, On Wounds of the Eyeball, with Cases and Specimens of Foreign Bodies removed.

UNIVERSITY OF CAMBRIDGE. At a congregation at Cambridge, Nov. 15th, graces passed the Senate requiring candidates for the degree of M.B. to pass in algebra, and for appointing as assistant examiners to professors, Dr. Latham, Dr. Drosier, and Mr. Lestourgeon. The Vice-Chancellor has given notice that the place of a member of the Senate in the Council of the Senate has become vacant by the resignation of Dr. Paget.

Association Intelligence.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT MEDICAL MEETINGS.

THE next meeting of this Branch will be held at the Fountain Hotel, Canterbury, on Thursday, November 29th, at 3 P.M. Dinner 5s., exclusive of wine.

Members desiring to bring forward papers, should communicate with the Honorary Secretary without delay.

R. L. BOWLES, L.R.C.P., *Honorary Secretary.*

Folkestone, November 14th, 1866.

Correspondence.

THE TREATMENT OF CANCER BY INJECTIONS OF NITRIC ACID.

LETTER FROM J. HUGHES BENNETT, M.D.

SIR,—In my work on *Cancerous and Cancroid Growths*, published in 1849, there will be found, at p. 249, the following passage.

"We have seen that certain chemical agents have a marked effect upon the cancer-cell. Acetic acid especially dissolves the cell-wall more or less, and strong potash reduces the whole to a granular mass. The continued application of these agents, therefore, would tend to dissolve the growth, if it could be brought into direct contact with the cells, and need not necessarily excite such irritation as to cause fresh exudation. The only objection is, the utter impossibility of affecting the whole mass even in cases of ulceration, and preventing the formation of deep-seated cells, while the superficial ones are destroyed. In certain cancroid growths, especially epithelial ones, the application of acetic acid is an established remedy, and should always be tried whenever it is thought possible to bring the fluid successively in contact with the entire mass of the disease."

The statement in the above passage, that the continued application of acetic acid and strong potash "would tend to dissolve the growth, if it could be brought into direct contact with the cells," resulted from numerous histological researches recorded in my work. It may be readily understood, therefore, with what interest I regard the proposition of injecting acetic acid directly into a cancerous tumour—a practice which, I gather from Mr. Moore's communication in the last number of the JOURNAL, must be attributed to Dr. Broadbent. He first published an account of this practice at the August meeting of the British Medical Association. I have failed, however, to discover his communication in the JOURNAL, and am myself unacquainted with his results. I cannot, however, too earnestly recommend that, as surgeons have commenced what has always appeared to me a most hopeful practice on histological grounds, it should be extensively tried on a methodical plan; that the facts should be carefully observed and collated, the structure of the tumour in each case ascertained, and the value of the whole inquiry brought before the next meeting of the Association in the form of a correct statistical report.

I am, etc., J. HUGHES BENNETT.

Edinburgh, November 17th, 1866.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND. The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at a meeting of the Court of Examiners, on November 14th.

Bingham, John Joseph, L.S.A., Staveley, Derbyshire
Bishoppe, George, Northiam, Sussex
Boulton, Donald Fludyer, Usk, Monmouthshire
Buck, Thomas Alpheus, Kennington Park Road
Demain, Joseph, Leeds
Griesbach, Sydney, Leeds
Hensman, Arthur, Camden Street
Hill, James Robert, Old Brompton
Hirst, Lionel, Morley, near Leeds
Holm, John, Camden Town
Hullah, Robert, Devonshire Place, Wimpole Street
Lettis, Thomas, Argyle Street
Molloy, Matthew Henry, Dublin
Powell, Scudamore Kydley, Newcastle-on-Tyne
Rainbow, Frederick, Lower Norwood
Rossignol, Augustin Le, Bès Sc. Univ. of France, Jersey
Sandwell, Edward, Gerrard Street
Tudge, Richard, Credenhill Court, Hereford
Williams, John, M.B. and L.S.A., Llangadock, Carmarthen
Wills, Douglas, L.S.A., Old Kent Road

Admitted on November 15th—

Bedford, William James Guthrie, Sydney
Creaser, William Appleton, Market Weighton, Yorkshire
Green, John, Hull
Harris, Richard, Ashburnham Grove, Greenwich
Holderness, William Brown, Windsor
Jewison, Thomas William, Leeds
Keen, William, King's Road, Chelsea
Maberly, George Frederick, Sudbury, Middlesex
Moon, Henry, Tottenham
Morrisson, Stammers, Launceston, Tasmania
Naughtin, William, Tralee, co. Kerry
Paterson, Alexander, Edinburgh
Plomley, John Frederick, L.R.C P.Ed., Maidstone
Randall, John George, Portman Street
Robinson, Robert, L.S.A., Preston
Stainthorpe, Thomas Edward, Hexham, Northumberland
Trubshaw, Alfred, Liverpool

Admitted on November 16th—

Allan, Frederick Andrew, Newcastle-on-Tyne
Brocklehurst, Thomas Howard, Manchester
Canton, George Anderson, Great Marlborough Street
Daniel, William Abbot, Ramsgate
Davidson, Alexander Dyce, M.B. & C.M.Aberd., Aberdeen
Docking, Thomas, Sydney
Guest, John, Manchester
Jefferson, John, Lisburn, co. Antrim
Orfeur, Charles Howard, Norwich
Philpot, Charles William, Croydon
Pollard, William Fox Branch, Demerara
Swan, William, B.A.Oxon., Lincoln
Trevor, Arthur Tudor Humphreys, Bangor

At the same meeting of the Court—

Noble, John, L.S.A., of Her Majesty's ship *Cumberland*, stationed at Sheerness, passed his examination for Naval Surgeon. This gentleman had previously been admitted a member of the College: his diploma bearing date August 4, 1852.

APOTHECARIES' HALL. On November 15th, 1866, the following Licentiates were admitted:—

Thomas, John Davies, Bryn Villa, Swansea
Tidswell, Thomas Harrison, Spalding, Lincolnshire

At the same Court, the following passed the first examination:—

Fox, Alexander, London Hospital
Inglis, Walter William, St. Thomas's Hospital

APPOINTMENTS.

MACDONNELL, Robert, M.D., elected Surgeon to Steevens' Hospital, Dublin, in the room of the late G. R. Symes, Esq.

NANKIVELL, A. W., Esq., appointed House-Surgeon to St. Bartholomew's Hospital, Chatham.

O'GRADY, Edward S., M.D., appointed Surgeon to Mercer's Hospital, Dublin.

*THORBURN, J., M.D., to be Lecturer on Midwifery and Diseases of Women and Children at the Manchester Royal School of Medicine and Surgery.

ARMY.

BATHO, Staff-Assistant-Surgeon R., to be Assistant-Surgeon Cape Mounted Riflemen, *vice* E. L'Estrange, M.D.

BURROWS, Staff-Assistant-Surgeon M. L., M.D., to be Staff-Surgeon.

CAHILL, Surgeon-Major A. P., M.D., 6th Foot, to be Staff-Surgeon-Major, *vice* Surgeon A. D. Gulland, M.D.

CATTELL, Staff-Surgeon W., to be Surgeon 20th Foot, *vice* G. P. M. Woodward, M.D.

GULLAND, Staff-Surgeon A. D., M.D., to be Surgeon 6th Foot, *vice* Surgeon-Major A. P. Cahill, M.D.

L'ESTRANGE, Assistant-Surgeon E., M.D., Cape Mounted Riflemen, to be Staff-Assistant-Surgeon, *vice* R. Batho.

NEWLAND, Staff-Assistant-Surgeon P. F., to be Assistant-Surgeon 99th Foot, *vice* J. W. G. Allen.

WOODWARD, Surgeon G. P. M., M.D., 20th Foot, to be Staff-Surgeon, *vice* W. Cattell.

ROYAL NAVY.

ARMSTRONG, A., M.D., to be Inspector-General of Hospitals and Fleets, for special services rendered at the Admiralty.

DE MÉRIC, Eugene Victor, Esq., Assistant-Surgeon (additional), to the *Royal Adelaide*, for Plymouth Hospital.

SANDERSON, James Edward, Esq., Assistant-Surgeon (additional), to the *Victory*, for Haslar Hospital.

SYMES, Henry, Esq., Assistant-Surgeon (additional), to the *Victory*, for Haslar Hospital.

WILSON, James, Esq., Assistant-Surgeon (additional), to the *Royal Adelaide*, for Plymouth Hospital.

WORDSWORTH, Charles Gregory, Esq., Assistant-Surgeon (additional), to the *Victory*, for Haslar Hospital.

VOLUNTEERS, (A.V.=Artillery Volunteers; R.V.=Rifle Volunteers):—

CARRUTHERS, J., M.D., to be Honorary Assistant-Surgeon 4th Dorset A.V.

GIBSON, J. F., Esq., to be Assistant-Surgeon 1st Administrative Battalion Isle of Wight R.V.

GRANGER, F. W., Esq., to be Honorary Assistant-Surgeon 3rd Glamorganshire A.V.

GRAY, J R., M.D., to be Assistant-Surgeon Liverpool R.V. Brigade.

LONG, R. G., Esq., to be Assistant-Surgeon 1st Administrative Battalion Dorset R.V.

OLLARD, J. F., Esq., to be Surgeon 1st Administrative Battalion Isle of Wight R.V.

BIRTHS.

BLACKSTONE. On November 19th, at 8, Gloucester Road, Regent's Park, the wife of *Joseph Blackstone, jun., Esq., of a son.

BURRELL. On November 17th, the wife of Lionel C. Burrell, M.D., Stoke Newington, of a son.

DOMENICHETTI. On November 17th, at Kilkenny, the wife of Richard Domenichetti, M.D., 75th Regiment, of a son.

EASTON. On November 16th, at 20, Connaught Square, the wife of John Easton, M.D., of a daughter.

FRODSHAM. On November 19th, at Streatham, Surrey, the wife of *John M. Frodsham, M.D., of a son, stillborn.

HENSLEY. On November 12th, at Spring Gardens, the wife of Frederick J. Hensley, M.D., of a daughter.

HOCHEE. On November 12th, at Fenny Stratford, Bucks, the wife of *James Hochee, Esq., of a son.

M'KELLAR. On October 11th, at Jhansi, the wife of Surgeon E. M'Kellar, 10th Bengal Lancers, of a daughter.

MURRAY. On September 24th, at Victoria, Hong Kong, the wife of J. Ivor Murray, M.D., Colonial Surgeon, of a daughter.

PIKE. On November 17th, at Weyhill, Hants, the wife of Thelwell Pike, M.D., of a son.

TODMAN. On September 12th, at Port Elliot, South Australia, the wife of James Todman, M.D., of a son.

WILBE. On November 14th, at 24, Queen's Road, St. John's Wood, the wife of Richard H. Wilbe, M.D., of a son.

MARRIAGES.

CREIGHTON, Robert, Esq., Surgeon R.N., of Derraree, county Fermanagh, to Anna, eldest daughter of the late John WEST, M.D., R.N., of Enniskillen, at Rossorry, on November 13.

KYNSEY, William R., Esq., Army Medical Staff, to Isabel Keith, second daughter of the late John K. JOLLY, Esq., of Farieland, Kandy, Ceylon, on October 9.

STUART, John, Esq, Assistant-Surgeon 8th Regiment, to Sarah F. F., eldest daughter of Philip HEDGES, Esq., of Woolston, Hants, on November 6.

TOMKINSON, Richard, Esq., Surgeon, of Cheadle, Staffordshire, to Catharine Mary, widow of Thomas BROWN, Esq., at St. Pancras, Euston Road, on November 13.

DEATHS.

ANNESLEY. On November 16th, at Stoke, Devonport, aged 5, Arthur, son of F. C. Annesley, Esq., Deputy Inspector-General of Hospitals.

BALLARD. On November 15th, at Compton Terrace, Islington, Julia Hannah, wife of Edward Ballard, M.D.

HADAWAY. On November 14th, at 47B, Welbeck Street, Sarah, wife of J. Hadaway, L.R.C.P.Ed.

HIND. Lately, at 177, Euston Road, Ann Elizabeth, wife of G. W. Hind, Esq., Surgeon.
ROBERTSON, John, M.D., at Rothesay, aged 76, on November 11.
SERCOMBE. On November 14th, at 49, Brook Street, aged 1 year and 7 months, John, second son of *Edwin Sercombe, Esq.
SMITH. On November 11th, at Shoeburyness, Julia, wife of Alexander Smith, M.D., Surgeon-Major Royal Artillery.

GIZZARD OF A WEEVIL. A few years ago, the rose-trees of a large garden in this neighbourhood were much injured by a brown weevil of about a quarter of an inch in length, and which I take to have been *Otiorhynchus picipes*. The gizzard of one of these (fig. 237) forms a beautiful object. The teeth are in seven rows; they are of a deep red colour, and are composed of stiff hairs. Each row is parted in the centre and laid down to the right and left, and the teeth, if such they may be called, are set in a striated membrane. (*Hardwicke's Science Gossip.*)

THE YELLOW FEVER ON BOARD THE ATRATO. The Duke of Buckingham, accompanied by the medical adviser of the Council, arrived at Gosport, on Monday, and immediately embarked for the quarantine ground at Motherbank, where the Royal West India Mail steam vessels *Atrato* and *Parana* are lying in company with the quarantine frigate hulk *Menelaus*. On arrival at the quarantine ground the Duke, accompanied by his medical officer, by Dr. Wiblin, the medical officer of health at Southampton, and by Captain Vincent, the superintendent of the Royal Mail Steam Company at Southampton, went on board and inspected the steamship *Parana*, which has been sent to the quarantine ground by the company to receive the passengers and crew of the *Atrato*.

CRANE'S CHARITY FOR SICK SCHOLARS, AT CAMBRIDGE. The Vice-Chancellor has invited the attendance of members to discuss in what manner the undistributed annual income of Crane's charity for the relief of sick poor scholars may be best expended. The accumulations are now represented by the sum of £5193 Consols, and it is proposed that £50 annually be expended in providing for the training of nurses in Addenbrooke's Hospital, with the view, in case of requirement, of their services being rendered to sick scholars, under the scheme of the charity. By this and other means proposed of rendering increased assistance to sick students, it seems probable that the whole of the annual income of Mr. Crane's benefaction will be disposed of

CHOLERA IN SCOTLAND. Epidemic cholera made its appearance in Scotland the last week of July, and sensibly augmented the mortality of the quarter. The disease seemed to have invaded Scotland much in the same manner as in 1848, appearing first in the seaboard towns and villages on the east coast, and then spreading over the country, principally selecting as its victims the inhabitants of the town, village, street, or hamlet who were living in a locality in a bad sanitary condition, or who were using water from rivers, burns, lochs, pump-wells, or cisterns whose purity had been more or less affected by containing organic matters in a state of decomposition. It is mentioned that the microscope often detects the presence of these organic matters when chemical analysis fails to show that anything is wrong. In 1832 epidemic cholera broke out in Scotland towards the end of January, and then followed the law which seems to regulate its progress in all the warmer countries of the Continent—viz., increased with the rise of temperature, proved most fatal in the autumnal months, and died out in December. In its subsequent attacks, however, it followed in Scotland a different law—the law which seems to regulate the spread of fever, and most epidemics there—viz., it first manifested itself in the autumn, as the weather began to cool, increased with the fall of temperature, and died out in spring on the advent of the warm weather. It would be very unwise for the Scotch to assume that the cold weather will now arrest its course, and neglect to employ the sanitary means which have been proved materially to check its ravages.

ROYAL COLLEGE OF SURGEONS. It is stated that out of the eighty-eight candidates who have been undergoing their examinations for the diploma of membership of the College during the past week, no less than twenty-one failed to acquit themselves to the satisfaction of the Court, and were consequently referred to their hospital studies for the full period of six months. The professional examinations for the Fellowship of the College took place on Tuesday, Wednesday, and Thursday last, when twelve candidates presented themselves; viz., six seniors and six juniors. The next midwifery examination will take place on Wednesday, the 12th proximo. The preliminary examination for membership will take place on Dec. 18th, 19th, and 20th.

DISCIPLINE AT NETLEY. Professor Maclean, Dr. Parkes, Mr. Longmore, and Dr. Aitken, of the Army Medical School, deny the imputation lately cast on the school by the *Pall Mall Gazette*. They say that "it is unhappily true that two of the candidates for commissions were a short time ago dismissed for a grave breach of discipline"; but "that, from the opening of the Army Medical School until now, the strictest discipline has been maintained. This is the thirteenth session of the school, and we declare that, from first to last, only two examples of serious misconduct have taken place, including the late occurrence, both of which were punished by immediate dismissal. We submit, therefore, that the Army Medical School, in the conduct of the gentlemen under instruction, will bear a favourable comparison with any of the universities or other places of public instruction, military or civil, in the three kingdoms. With regard to the gentlemen candidates now in the school, we assert that, so far from being a set of men with a 'large proportion of *mauvais sujets*' among them, they, as a body, are men of sound education, correct and gentlemanlike in their conduct, attentive to their duties, and in a high degree submissive to the requirements of military and academic discipline."

DISTRIBUTION OF CHOLERA. The Registrar-General's return shows in what districts of England and Wales the 10,365 deaths from cholera in the third quarter of this year have occurred. No less than 8,098, nearly four-fifths of the whole number, were in three districts—London, Lancashire, and South Wales. Of the 4,714 deaths from cholera in London, three-fourths—3,590, occurred in six registration districts—namely, Bethnal Green, Whitechapel, St. George's-in-the-East, Stepney, Mile-end Old-town, and Poplar districts, containing less than a sixth of the population of London. Of the 1,872 deaths from cholera in Lancashire, no less than 1,603 were registered in the district of Liverpool and the adjoining district of West Derby, and of the 1,412 in South Wales, 1,074 occurred in the four districts of Merthyr, Neath, Swansea, and Llanelly. In Neath more than half the deaths of the quarter were from cholera, and in Swansea and Llanelly two in every three of the deaths. There were only six counties in England in which the deaths from cholera exceeded a hundred. These are Kent, in which 226 deaths occurred; Essex, 435; Hampshire, 391, 98 at Southampton, and 98 in the Isle of Wight; 325 in Devonshire; Cheshire,

150; Yorkshire, 240. In Surrey, Sussex, Durham, and Monmouthshire, the deaths ranged between 50 and 100. In Middlesex, Gloucestershire, and Lincolnshire, betweeen 30 and 50. In Somerset the number was 26; in Northumberland 22; in Worcestershire 17; in Staffordshire 16; in Cumberland 14; in Bedfordshire 13; in Cornwall 12; in Warwickshire 11; in Suffolk 10; in Norfolk 9; in Wilts, Derbyshire, Salop, and Buckinghamshire 7; in Herts 6; in Cambridgeshire 5, in Dorset 5, in Notts 4; in Oxfordshire and in Leicestershire 2; Berkshire, Northamptonshire, Huntingdonshire, and Westmoreland had only one each; Herefordshire and Rutlandshire had none at all.

An Indian Town. Last year, Dr. Leith, President of the Bombay Sanitary Commission, inspected several towns in Bombay, with a view to ascertain their sanitary condition. At Sholapoor, a town with an increasing population, the houses generally are in enclosures, which present towards the street their dead walls of sun-dried bricks or stone or mud, a small doorway being the only opening seen. On entering the doorway, the visitor finds a yard from ten feet to twelve feet square, on the sides of which are the dark rooms or cells in which the people live, with an open verandah before them. The rooms are generally exceeding sparingly ventilated, and lighted by an aperture about a foot square. The houses within the walls are visited by sweepers at intervals. Of drainage there is really none. There are vile and offensive receptacles in the enclosures. The foul waste water of houses abutting on a street with a side-gutter is discharged into that gutter, there to evaporate. When there is no gutter, an unglazed earthen jar is sunk at the side of the lane or street, and a pipe passing through the wall pours the liquid into it. When full, the jar is supposed to be carried away outside the town to be emptied. Many merely dig a hole at the side of the street for the reception of the liquid refuse. Were it not for the dryness of the air, human life could scarcely be maintained under these conditions. In a moist climate such prevalent uncleanliness would occasion devastating pestilence.

Two Cases of Poisoning by the External Use of Belladonna. The volume of *London Hospital Reports* just issued contains accounts of two cases of poisoning by the external application of belladonna. The first was that of a nobleman for whom a liniment containing two drachms of liquor belladonnæ in two ounces of soap liniment had been ordered. After using it, he hastily summoned his physician, who found him with widely dilated pupils, cerebral excitement, and rapid pulse. Another liniment without the belladonna was prescribed, and the doctor left. The next day he was again hastily summoned, and found his patient with a solicitor, three keepers, and a "mad doctor", who had already signed a certificate of insanity. It turned out that the liniment containing belladonna had by mistake been applied a second time, and hence a return of the cerebral excitement rather exaggerated. Dr. Brown explained that the patient's state was attributable to the belladonna, and that the symptoms would quickly disappear, as indeed they did. "The case," remarks Dr. Brown, "is instructive; first of all as illustrating the small quantity of this drug from either the external or internal use of which symptoms of poisoning may arise; in the next, to act as a danger signal, to warn us from incarcerating, upon a single interview, a patient of whose history and previous treatment we know nothing." The next is a case (related by Dr. Fraser) of a servant-girl, who was taken to the London Hospital by her mistress, who was afraid the girl was "going out of her mind." She was extremely restless, would wander about the room, stand first on one foot and then on the other, but was quiet for a moment when spoken to, and answered a question with an effort, generally breaking off in the middle as if she had forgotten what she had to say. It was noticed at once that her pupils were widely dilated and fixed. It was subsequently discovered that she had had pain in her breasts for some days, and had gone to a chemist who had given her lotion composed of half a drachm of extract of belladonna in an ounce of water, with directions to apply it on cotton wool covered with oiled silk. She applied some in the evening and again in the morning, and in the afternoon the symptoms appeared which induced her mistress to take her to the hospital. The girl expressly denied having swallowed any of the lotion. She did not recover so quickly as the before-mentioned patient; but was quite well in six days. (*Chemical News.*)

OPERATION DAYS AT THE HOSPITALS.

Monday.....Metropolitan Free, 2 P.M.—St. Mark's for Fistula and other Diseases of the Rectum, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

Tuesday. .... Guy's, 1½ P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.

Wednesday... St. Mary's, 1 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.

Thursday.....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Great Northern, 2 P.M.—London Surgical Home, 2 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.

Friday. ..... Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

Saturday..... St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1·30 P.M.—Charing Cross, 2 P.M.—Lock, Clinical Demonstration and Operations, 1 P.M.—Royal Free, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

Monday. Medical Society of London, 8 P.M. Dr. Tilbury Fox, "On the Study of Dermatology in England."

Tuesday. Royal Medical and Chirurgical Society, 8.30 P.M. Mr. Solly, "Case of Fracture of the Ribs, with peculiar Tympanitic Resonance"; Mr. T. Holmes, "Sequel to his Case of Colotomy for Vesico-Intestinal Fistula."

TO CORRESPONDENTS.

*** *All letters and communications for the* Journal, *to be addressed to the* Editor, 37, *Great Queen St., Lincoln's Inn Fields, W.C.*

Communications.—To prevent a not uncommon misconception, we beg to inform our correspondents that, as a rule, all communications which are not returned to their authors, are retained for publication.

Correspondents, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

The Publisher begs to intimate that orders for Journals sent by post must be accompanied by stamps for the amount. Price of each number is, by post, *sixpence.*

Dr. Sansom.—We have in no way, we believe, "misinterpreted" Dr. Sansom's views of cholera; and therefore regret that we are unable to find room for his letter reviewing our remarks.

Treatment of Cancer by Injections.—Dr. Skinner again writes to claim for Sir James Simpson the discovery of a method of cure which we adjudge to Dr. Broadbent. He winds up thus:—

"In conclusion, it would appear that the only difference between Dr. Broadbent's mode of procedure and that of Sir James Simpson's, is, that Dr. Broadbent 'dissolves and disperses the tumour

without producing sloughing or destruction of the tissues' (the healthy tissues, the cutaneous and parenchymatous are meant), I presume, by means of a weak caustic or destroying fluid, and that Sir James does the same thing in probably one-half or one-twentieth of the time with a stronger one. Another difference is worth noticing; namely, Sir James made his discovery in 1857—Dr. Broadbent in 1866. It may be well to add that, while Sir James made the discovery to effect a cure in cancer, he did not limit the discovery to cancer, but applied it to the removal chiefly of non-malignant growths—a much more justifiable and successful line of practice. The fact that Sir James Simpson's solutions have a much wider range than those of Dr. Broadbent, only adds to the superiority of the practice, and shows the far-sightedness and practical bearing of the discoverer."

It is evident that Dr. Skinner has neglected to make himself acquainted with Dr. Broadbent's theory of the treatment of cancer and the facts recorded respecting it. If he is to be accepted as the exponent of Sir James Simpson's aims and results, the process employed was the injection of a few drops of some irritant liquid, the object was 'sphacelus' and the effect 'enucleation'. Dr. Broadbent's object has been to avoid sphacelus, and to obtain absorption; and with this view he has injected considerable quantities of dilute acetic acid. We think this constitutes a difference of some importance, and shows that Sir James Simpson did not effect or attempt the same thing as Dr. Broadbent. The substances mentioned as employed by Sir James Simpson are not adapted to the end proposed by Dr. Broadbent. But the main fact still remains, that Sir James Simpson's experiments, whatever they were, or whatever they did in 1857, have, up to 1866, resulted in no new method of curing cancer. Where is the surgeon who, during that period, has used Sir James Simpson's injections? But Dr. Broadbent's method is already adopted and practised by many surgeons, and thus far regarded as a very great addition to our means of cure of cancer. (EDITOR.)

CEMETERY, HAPPY VALLEY, HONG KONG, 1865.

What says the column midst death's grim array,
Rearing its head o'er monument and mound?
What says this gloomy sentry o'er decay,
Amidst the silent tombstones crowding round?

It tells thee that within the "Happy Vale",
Our soldiers, Briton, lie in many a grave;
That soldiers' lives weighed nothing in the scale,
Against the peace economists would save.

Dost ask how died they? In fierce battle fray,
For country's cause, meeting a glorious fate?
No, one by one, of pestilence the prey,
Passed they the portals of yon gloomy gate.

Mark there inscribed the motto of our dead,
"My fate to-day, to-morrow waits for thee."
Now let the words in double sense be read,
The moral of that griping policy—

Which has prepared this holocaust to-day,
Which may again to-morrow victims claim.
A cry is raised, 'tis all, 'tis passed away,
Then for fresh schemes, and for results the same.

Gaunt were their features, as by pale moonlight
Unmeaning guard, and weary watch they kept;
While robed in dismal vapours of the night,
Within their breasts insidious fever crept.

Now fell they fast before the fiery shafts
Of Cathay's sun; now drew the reeking breath
Of fœtid fumes, which eastern city wafts,
Rife with disease, and dire with doom of death.

The deadly swamp of thrice condemned kenloon,
Miasma's lair, all hope of health denied;
Brief was the struggle, and, alas, how soon
The ending came, they sickened and they died.

(Signed) J. C.

COMMUNICATIONS have been received from:—Dr. THOMAS SHAPTER; Mr. WM. P. SWAIN; Mr. T. M. STONE; Mr. CHARLES H. MOORE; Dr. E. BURD; THE REGISTRAR OF THE MEDICAL SOCIETY OF LONDON; Mr. M. HILL; Mr. HARRISON; Dr. GEORGE JOHNSON; Dr. DRYSDALE; Mr. R. W. THOMAS; Dr. HUGHLINGS JACKSON; Dr. JOHN THORBURN; Mr. NANKIVELL; Mr. THOMAS BRYANT; Dr. SANSOM; THE HONORARY SECRETARY OF THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY; and Mr. HOWARD.

BOOKS RECEIVED.

. Treatment of Pulmonary Consumption. By J. Henry Bennet, M.D. London: 1866.

. A Treatise of Diseases of the Skin. By G. Nayler. London: 1866.

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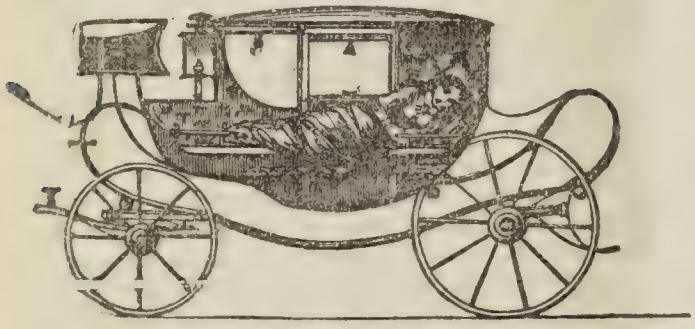
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READ AT

THE THIRTY-FOURTH ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION.

[*Held in CHESTER, AUGUST 7th, 8th, 9th, and 10th, 1866.*]

A BRIEF REPORT ON CASES OF CANCER

REGISTERED BY MEMBERS OF THE ASSOCIATION DURING THE PRESENT YEAR.

By CHARLES H. MOORE, F.R.C.S., Vice-President of the Royal Medical and Chirurgical Society; Surgeon to the Middlesex Hospital.

THE growing importance of the study of Cancer is shown by the great increase in the number of the deaths attributed to it. The annual mortality from the disease usually augments by about 200 in the year, which is more rapid in proportion than the increase of the population. The last report of the Registrar-General, however, chronicles a much more serious spread of the disease. For, while the deaths from it in 1863 were 7479, they rose in 1864 to the unprecedented number of 8117.

In pursuance of the discussion which was raised at Leamington last year on the Antecedents of Cancer, an attempt has been made to elicit information on several important points connected with the subject from members of the British Medical Association. With this object, there was issued in the JOURNAL in December last a Register for the cases of Cancer which might be met with in the various parts of England during the following six months. About 150 other copies of the same Register were distributed privately to medical friends.

Thirty-four papers have been returned, with more or less complete reports of 155 recent cases, besides references to 38 older ones; cases, that is, which did not occur within the period to which the inquiry was limited. Opinions and remarks have been also sent from members who are no longer engaged in active practice, and who, though unable to contribute the details of current cases, were nevertheless interested in the inquiry.

I take this occasion to renew the expression of my heartiest thanks to those gentlemen who have returned their Registers. That the number of them has been less than was hoped, is partly due to the facts, that some members have happened not to meet with a single case of Cancer during the half-year; that others have been studying the subject from another point of view; and that the work of recording cases is inconsistent with very active practice.

My thanks are especially due to Mr. Nunn for 19 cases; to others of my colleagues at the Middlesex Hospital for the opportunity of pursuing my inquiries amongst their Cancer patients; to Mr. T. H. Smith, of Mayfair, for 2 cases; and to Dr. Morell Mackenzie for 6 cases. These, with my own, make up 61 cases reported in the metropolis. From the South-Eastern District, I have received 14 cases; 11 from Mr. Rutherford, of Pulborough, and 3 from Mr. Hayes, of Basingstoke. Mr. Stear, of Saffron Walden, in the Eastern District, sent 2 cases; and Mr. J. C. Worthington furnished the remarkable instance of twin-sisters, who, alone in their family, were affected with Cancer of the uterus. 29 cases were returned from the South-Western District, of which I have to thank Dr. Wilbraham Falconer for 2, Mr. Freeman, reporting cases from the United Hospital at Bath, for 11, Mr. C. S. Barter, of Bath, for 3, Mr. John S. Bartrum, of Bath, for 4 (who also contributed as many as 28 older cases), Mr. Thompson, of Bideford, for 5, and Mr. Newman, of the North Devon Infirmary at Barnstaple, for 4. From the same district, I have been favoured with the result of some of the great experience of Mr. James, of Exeter. Dr. Marten Perry, of Evesham, in the West Midland District, forwarded 3 cases, one of them recent, and Mr. Mackey, of Erdington, 10 cases; Mr. Pope, of Cleobury Mortimer, sent also a reference to his published opinions on the subject of Cancer in the ASSOCIATION MEDICAL JOURNAL, Sept. 14, 1855. He takes it to be a blood-disease, the increase or arrest of which depends on a more or less vitiated secretion of the liver. Local deposit drains the circulation, without which outlet for this diseased hepatic product early death would be certain. Both prevention, arrest, and cure of Cancer depend, he thinks, on a clear liver. 3 cases each were contributed out of the North Midland District by Mr. Benfield, Senior Surgeon of the Leicester Infirmary, Mr. Sympson, of Lincoln, and Mr. J. Hornsey Casson, of Alfreton. Mr. Hughes Hemming reported 4 cases from the South Midland District. None reached me from Yorkshire; but Dr. Philipson, of Newcastle-on-Tyne, in the Northern District, obliged me with 3 cases; 2 cases each arrived from Mr. Noble, of Kendal, and Dr. Barnes, of Carlisle; and Dr. Tiffin, of Wigton, supplied some valuable local information. Mr. T. Eyton Jones, of Wrexham, in Wales, contributed 1 case; and 10 reached me from the North Western District; 4 from Mr. Blower, of Liverpool; 2 from Dr. Ward, late of Glossop; 1 each from Dr. Anderton, of Wavertree, and Mr. Hudson, of Stockport; and 3 recent, and 8 older, cases from Dr. Ransome, and Mr. Rawson Senior, of Bowdon, Manchester. Dr. John Barclay, of Banff, N.B., also sent reports of 6 cases.

My object, in presenting this paper to the Association at the annual meeting at Chester, is to report the sum of the facts which the members have contributed towards a solution of the questions raised last year. In doing this I may be brief, because it is unnecessary to enlarge on those subjects respecting which the new testimony bears out the opinions I propounded at the last meeting. It is unavoidable, I fear, that a supplementary report should be somewhat desultory.

It will be convenient to recall the points respecting the Antecedents of Cancer, which were in question in the discussion last year. There did not appear to be any common precedent morbid condition to which the occurrence of Cancer could be ascribed. We possessed no evidence of its prior existence in the blood, or of its source being in any of the usual diseases, and specifically not in tubercle or syphilis. Sometimes it was found to be coincident with rheumatism, as it was with many, and indeed almost any other diseases; but the very variety of the numerous diseases which might have previously occurred in the cancerous proved that it was not essentially connected with any of them. It could not be traced to faulty digestion, or to a perver-

sion of function on the part of some one of the organs which contribute to prepare the blood. Neither was it originally a constitutional disease, in the sense in which the whole body sometimes became involved in the later period of the disease. On the contrary, Cancer originated as a local tumour, which might or might not remain limited to its first site; but which, if found elsewhere, had spread, travelling in the directions mechanically suited to its advance in the adjoining textures, and by the circulating channels with which it was in anatomical relation. It was thus evidently at first a local disease. Its independence of general prior disease was shown most of all, however, by its usual occurrence in persons whose lives had been signally healthy. Their own textures and organs were otherwise healthy; their aspect at the beginning of the disease healthy; the structures adjoining the tumour itself were healthy; the persons affected with Cancer were the healthy of their families, and more often the eldest and strong than the younger and weak; and their parents were very frequently distinguished for longevity. This last opinion was further supported by the observation, that Cancer prevailed unequally in the community, and most where the conditions of life and health were best.

Of these conclusions, the following are supported by the returns with which I am favoured: the excellent and habitual precedent healthiness of the persons in whom Cancer comes on; the longevity of the parents of those persons; the numerical excess of Cancer among the eldest born; the fact of the occasional repetition of Cancer in families; the prevalence of Cancer of similar organs in nearly related persons; the independence of Cancer on prior disease in the patient's self or ancestry; the absence of a definite general cause of the disease, and the palpable fallacy of those which are suggested as causes except such as act locally.

On the other hand, there are two particulars in which my own conclusions are less precisely in accord with those to which these records point. There is less independence than I found, and than I still find, between Cancer and Phthisis; and there is a less comparative rarity of dissimilar Cancers in families.

I will briefly state the results of the registered cases on these several particulars.

a. Longevity of Parents. The ages of 225 of the parents of Cancer patients have been obtained. Of these, as many as 9 overlived the age of 90; 38 died between that age and 80; 67 survived the age of 70; 47 were between 70 and 60; 43 were over 50; and only 27 failed to survive their 50th year. There is probably no disease surpassing Cancer in the pedigree of health which its subjects can show. They do not come of that feeble stock which is characterised by dying of little ailment, by that lethal tendency which the Germans call "lethalität." The parents of Cancer patients are not sickly persons, or prone to illness generally, still less to illness of any one kind. They are, on the contrary, remarkably distinguished by their capacity for life and health.

b. The previous Condition of Health in Persons affected with Cancer. The replies on this head may be thus summarised. 163 observations have been made, of which in a few cases more than one apply to the same person. Good health had been the characteristic of 118 persons before the attack of the Cancer, with little qualification, but that it had been very good, or excellent. An elderly patient of Dr. Pawle Ree's, of Walham Green, had not been once ill for fifty years previously to the growth of Cancer in his rectum. A man of 48 is reported by Mr. Noble, of Kendal, as not having kept his bed on account of sickness for a day. Three of the Cancer patients had had fever in some earlier part of their lives; 4 had some pulmonary ailment; 3 were formerly strumous; 2 had some affection of the reproductive system; 1 had been noted to be melancholy; 2 had had rheumatism; 12 some fault in the digestive system; and 18 had been weakly or otherwise ailing, or delicate. Thus, neither in the parents of the cancerous, nor in the patients themselves, was the previous habit of life shown to be feeble or uniformly or definitely diseased.

As a disease concurrent with Cancer, I may add that it is exceedingly common in mammary cases to find small crimson nævi projecting on the skin of various parts of the trunk. They are not numerous; sometimes they are situated near the primary tumour; but not unfrequently they lie at a distance from it, and even on the opposite side of the body. They are certainly not congenital; for they sometimes appear after the discovery of the disease in the breast, and there arise occasionally with them molluscous tumours, which likewise betoken an unnatural condition of the skin. Their relation with the cancerous tumour is not distinct, as they are met with, though less frequently, in other cases; but it may be more than an accidental coincidence; for I have seen a vast nævus originate in a cancerous lip, and gradually extend from it over the neck and upper part of the chest. The observation of the frequent association of these small nævi with Cancer was made by my colleague, Mr. De Morgan.

c. Concurrent, but not Cancerous, Disease in the Families of Persons affected with Cancer. Under the former two heads have been shown the state of health usually preceding Cancer in the persons actually affected, and that which may be inferred from the longevity of their parents. The replies under this third head relate not only to parents, but also to other and distant members of the families; and they usually express the causes of death. 126 particulars have been reported; from which it appears that gout and rheumatism have been noted 14 times, and 14 times diseases of the organs of the circulation. The nervous system has been mainly in fault in 10 families, and the digestive in 6. Fevers and diseased kidneys were each noted in 2 instances, and consumption in 32; while 47 families are specially entered as without prevalent disease of any kind. An elder sister of a patient with scirrhus of the breast had a tumour of the lip removed some years before the report of Dr. Ward, of Glossop, and it never returned. In the remaining reports, the question as to the existence of other than cancerous disease in the family is not answered.

From this numerical summary, it appears that, in the majority of cases, there is no uniform or any prevalent disease in the families of the cancerous; but that the disease most frequently concurrent in families with Cancer is Consumption. As this is the most fatal of all diseases, it is necessary to inquire if the prevalence of it in association with Cancer exceeds that which is usual in the whole community. The Cancer patients themselves and their parents have been already shown to be habitually

healthy in their previous lives; but are the relatives taken all together liable to phthisis? Now, the deaths from all tuberculous diseases bear the proportion of 1 in 7 to the total deaths in England and Wales. The phthisical in these returns are found among the cancerous, however, so often as in the proportion of 1 in 4. It would be possible to increase the conviction that the two diseases have some common or causal relation by striking instances of their connexion. Thus, a case of Cancer, to which my attention was invited by my colleague, Mr. Shaw, furnished the history of father and mother dying of consumption, and their eldest and youngest children having Cancer of the breast, whilst five intermediate children were free from both diseases. The numerical evidence is, indeed, in favour of the frequent concurrence of Cancer and Phthisis; but it is more in favour of their usual independence of each other. And, if the facts be more minutely examined, it will be found that the alliance of Cancer and Phthisis is very much more apparent in some localities than in others. Excluding London and Bath, there were 13 cases out of 79 in which consumption co-existed in the family with Cancer. 34 of the cases in which this point was noted in the metropolis by Mr. Nunn, Mr. T. H. Smith, Dr. Morell Mackenzie, Mr. Shaw, and myself, included 10 of concurrent phthisis; but that disease and Cancer were met with in the same families 9 times out of 13 by Dr. Falconer and Mr. Freeman, of Bath. Phthisis and rheumatism are indeed so very common in Bath among the families from which the Cancer cases are reported, as to be worthy of a special explanation on the part of the medical observers in that locality. In contrast with their reports, it is remarkable that Mr. T. Eyton Jones suggests the question, whether the excessive prevalence of rheumatism and struma has anything to do with the comparative absence of Cancer at Wrexham. There is, in fact, much conflict of opinion on this part of the question respecting the alliances of Cancer. Mr. Hussey, of Oxford, recognises the connexion of Cancer and Tubercle as still to be investigated. Dr. T. King Chambers finds them to be rarely conjoined. Mr. Weeden Cooke regards the two diseases as so certainly associated, that he allows to the occurrence of consumption in a relative a decisive weight in the diagnosis of a cancerous tumour.

d. Place of the Cancerous among the Children of their Mother. This inquiry was undertaken to ascertain if the elder born and stronger or the more weakly and younger children were the rather liable to Cancer. The result bears out the conclusion, that that disease occurs more often in elder children than it should if all were equally liable to it. The position of the Cancer patient among the children of his mother was reported in 146 instances; and of these 36 occurred in eldest children, 23 in a second child, 24 in a third, 17 in a fourth, 11 in a fifth, 13 in a sixth, 9 in a seventh, 4 in an eighth, 3 in a ninth, 1 each in a tenth, twelfth, and fourteenth, none in an eleventh, and 3 in a thirteenth. The whole of the facts I have at hand relating to this subject may be best presented in the following table, which shows both the place of 242 Cancer patients in their mothers' families, and their distribution in families consisting of various numbers of children. The greatest liability to Cancer appears, from the table, to exist in first children, the next in third. Either of these lists in the table shows a decidedly greater number of Cancers than prevails in youngest children. Taking the vertical lines of the lists, we find Cancer occurring with some uniformity throughout the families, whatever the particular number of children, but with usually an excess among the earlier half of them, and nearly equally in third and in first children. This result does not precisely correspond with the result of my inquiries into this point, as stated last year at Leamington, or with my own part in these further inquiries; and the suggestion I then offered appears to be borne out, that younger children are less exempt from Cancer in country than in town, although their liability to it even there does not equal that of the eldest.

Table showing the place of 242 Cancer Patients in their Mothers' Family, together with the whole number of their respective Mothers' Children.

Among families consisting of—

Cancer occurred in the	1 chld.	2 chln.	3 chln.	4 chln.	5 chln.	6 chln.	7 chln.	8 chln.	9 chln.	10 chln.	11 chln.	12 chln.	13 chln.	14 chln.	15 chln.	16 chln.	17 chln.	21 chln.	unkwn.	Total.
Eldest	9	8	6	5	6	3	5	4	3	3	1		2		1	2			3	61
Second		5	7	2	7	2		2	2	3	3	1	1							35
Third.....			1	6	7	8	3	5	4	2	3		1	1	1		1			43
Fourth				3	2	5	6	4	3	1		1	2			1				28
Fifth					3	6	4	1	1		2	1		1						19
Sixth						6	6	2	2		3			1						20
Seventh ...							2	2	3	4		2								13
Eighth								2	2	1		1	1							7
Ninth.....									2			1				1				4
Tenth										1										1
Eleventh ...											1									1
Twelfth ...														1						1
Thirteenth													3	2		1				6
Fourteenth																1				1
Twenty-first																		1		1
Unknown...																	1			1
Totals	9	13	14	16	25	30	26	22	22	15	13	7	10	6	2	6	2	1	3	242

As this table contains instances of multiple Cancer in families, the number of cases exceeds that of the mothers. Twins are entered together, not in succession.

e. The Occurrence of Cancer in more than one Member of a Family. This event has been noted in the Registers more frequently than in the previous investigations; and particular instances of multiple family Cancers have been brought to my knowledge, not apparently in the proportion in which they occur in actual practice, but chiefly on account of their rarity and striking characters. A general statement, that there had been Cancer in the family, occurs in the Registers 34 times among the 155 cases. Upon examination, however, this very high proportion is not borne out. The fact itself is held to be doubtful, or recognisable particulars as to the disease in distant relatives are not specified, altogether 10 times. It is to be allowed that some of these doubtful cases may have been Cancers; there appear, however, to be certainly 24 instances among the 155 cases in which some relative was known to be cancerous, and the organ diseased could be named. One-half of these multiple Cancers in related persons occupied similar, and one-half dissimilar organs. Mother and daughter had Cancer of the same organ 4 times, thrice in the uterus, once in the pylorus. Sisters in one family had the breast cancerous; and twin sisters, in one remarkable example, both had Cancer of the uterus. These twins were born sixth in a family of eleven children, all of whom, with their father and mother, were generally healthy. The father died at 44 of erysipelas, the mother at 53 of apoplexy. The twins were attacked with Cancer of the uterus at the ages of 35 and 44 respectively. Their previous lives had been healthy, with the exception that the one who was latest attacked—nine years, that is, after her sister—had had a previous attack of jaundice. They were the only persons in the whole of their family connexion who were affected with Cancer. In 4 instances, an aunt and niece suffered together from Cancer of the breast; and in one family an aunt and nephew had the same disease in the œsophagus. A brother and sister, in the practice of Mr. Kesteven, of Holloway, were alone in their family affected with Cancer, and they both had it in the tongue. In addition to these twelve cases, Mr. Fearn, of Derby, has informed me of the occurrence of Cancer of the breast in a lady, her aunt, and two daughters of the aunt. Mr. Meade of Bradford, also, in writing on the subject of the Antecedents of Cancer in the Journal of July 28th, 1866, reported an instance of brothers suffering from that disease in the testis.

On the other hand, one mother and her daughter suffered from Cancer, but in dissimilar organs, the uterus and breast. Two fathers and daughters were also cancerous in dissimilar organs, the face and uterus in one instance, the lip and breast in the other. A grandfather had Cancer of the penis, and his grandson at 16 lost his leg for Cancer of the tibia, which had shown itself after a blow from a cricket-ball. The breast and uterus were the organs affected in two aunts and nieces, and the tongue with the breast in the case of an uncle and niece. An aunt had Cancer in the breast, and her nephew in the bones. Three times sisters had dissimilar Cancers; the breast and uterus being the organs in two of the examples, and the stomach and uterus in the third. Lastly, once when a sister had Cancer of the uterus, her brother suffered from Cancer of the cheek.

This is the second point upon which the conclusions to be drawn from the returned Registers differ from those which I had previously stated. And, again, the additional observations which I have since made bear out my previous conclusions, and not those derivable from Cancer, as it occurs in other parts of England. Numerically indeed, the proportion of duplicate Cancers in families does not exceed that of one in six, which I stated on the authority of Mr. Paget last year. But the relative numbers of repeated Cancers in similar and dissimilar organs I had no means of knowing. The returns show them to be equal. There appears to be much difference in the Reports in respect to this question. In my cases during the past year, there has been an unusual rarity of concurrent family Cancers. The reports from Bath also, by Dr. Falconer and Mr. Freeman, furnish not a single instance of the duplication of Cancer in a family, although they refer with striking uniformity to the concurrence of it with rheumatism and phthisis. In the example of Chester, on the contrary, I have the testimony of Dr. Waters and Mr. Harrison, both that Cancer is rife, and that it is multiplied in families alike in similar and dissimilar organs. In October last, after this paper was in the hands of the Editor, I was favoured by Mr. Charles Williams with some facts respecting Cancer, as he had observed it in Bradford and in Norwich. Only in 8 instances did he ascertain the disease in Norwich to be hereditary, while in 100 it was not hereditary, and in 46 the condition of the relatives was unknown. Including all the cases which have been returned to me, I find the evidence still against the hereditary habit of Cancer, and in favour of its tendency when it does appear in families to appear in the same organ, though with a less preponderating frequency than I anticipated. The necessity of large numbers of cases is here much felt.

Dr. Maurice H. Collis has suggested to me that the amount of hereditary taint will always be greater than can be gathered from the knowledge or admission of the patients, and that this source of error must be allowed for in statistics of hereditary Cancer. I can readily assent to this observation; and I am prepared to find Cancer even more frequently transmitted by inheritance in future years than in the past, without therefore inferring that, at its origin in the first member of an affected family, it is other than a local disease. If it be, as I endeavoured to show it, erroneous to judge that the primary tumour had a constitutional source because of the wide dispersion of the disease in the body at the time of death, it becomes indispensable to the detection of the cause of Cancer that we should fix our attention upon that first tumour. Degrees of local and of constitutional character are then established with less difficulty; for it is a manifest principle, not less justly applicable to Cancer than to any other disease, that a repetition of it in corresponding organs of nearly related persons shows a liability of the part to the disease, rather than of the constitution; that its concurrence in organs functionally associated, but not identical with one another, displays a less distinctly local morbid propensity; while the local connexion is least pronounced, and the constitutional character is most conceivable, as the disease is found among relatives in systems of organs which are not physiologically associated together. Thus Mr. Worthington's examples of uterine Cancer in twin sisters, and in them only of all their family, exhibits a predominant tendency of that part alone to the disease,

indicating no more than the distinctly local repetition of diseases, which are reputed innocent, in the same organs of nearly related persons. Of such an occurrence Mr. Turner, of Manchester, lately favoured me with an account, in the instance of a mother and two daughters, whom he knew to have suffered from simple tumours of the right ovary. When, however, Cancer in sisters originates in opposite breasts, the local character of the disease is less pronounced, and the presumption of its having a constitutional source is somewhat increased. Still more is this the case, should the family Cancer be distributed in the breast and uterus—organs which, though physiologically associated, are not repetitions of one another. The general nature, as distinguished from the local, shows out most in such an instance as nearly related persons having respectively Cancer of the breast and liver, or as Cancer of the penis in a grandfather, and Cancer of the tibia after a blow from a cricket-ball in his young grandson. At the same time, however, the probability of any connexion existing between two such diseases is diminished proportionally to their dissimilarity of site and progress, and to the break in the inheritance between the persons.

A crucial instance for determining the method, if there be any, regulating the repetition of Cancer in a family, and an extreme one as illustrating the degree in which an hereditary multiplication of it may obtain, has been recently published by M. Broca in his *Traité des Tumeurs*. A mother, who had lost several children in early life, died of Cancer, leaving four daughters, who likewise died of Cancer. Each of these four daughters left offspring. The three children of the eldest, and the only child of the youngest, though they lived on into old age, had no Cancer; but each of the other two—that is, the second and third daughters of the first cancerous mother—had seven children, and five of each seven had Cancer. In the line of the third daughter, two further generations of children were born; but, amongst the fifteen comparatively young persons comprising them, there had occurred, at the time of the report, but one case of Cancer. This, however, was in the first descent from one of the prior generation, who became cancerous.

The 38 persons constituting these five generations were 24 females and 14 males; one only of the males and fifteen of the females had Cancer. None of the children are reported to have been cancerous, and none of the grown persons until æt. 35. At the time of the report, 12 had not reached that age; consequently, there were 10 only out of 26, who, having passed that age, had escaped the disease. The proportion in which the two sexes were attacked was very different. The only male who suffered was one of four who were older than 35; 21 females survived that age, and the number of the cancerous among them was 15.

The organ primarily affected in the first mother was the breast; that in her two elder daughters was the liver; in her two younger, the breast. Among the children of the second daughter, the disease first appeared in the stomach, breast, breast, breast, liver; in the family of the third daughter, the first affected organs were, breast, breast, uterus, breast, liver. The case in the fourth generation occurred in the breast, and in succession from the first breast-cancer in the family of the third daughter.

Ten of the 38 persons were firstborn, and 3 of them survived the age of 35. None of these had Cancer.

The facts in this recital may be accepted, as they were furnished by three members of the family, who were medical men; and they present a means of severely testing any theory as to the nature of Cancer.

In the first place, the belief is placed beyond dispute, that there is a proneness to Cancer in particular families. In our ignorance, we express this by calling the Cancer itself hereditary. Is it, then, heritable as common to the whole body, or as springing forth from the fault of an organ or texture? There are strong arguments for both opinions.

On the side of constitutional degeneration are the facts, that the affected persons displayed Cancer in dissimilar organs, that there was no recognisable gradation or order in the dissimilarity, and no regular distribution of those Cancers which were alike. The affected organs in successive and in parallel members of the family were not only different, but entangled with one another. Several children of one mother might have their primary tumour in one of two or even three organs; and that equally, in whatever organ the disease of the mother had occurred. Mammary Cancer could descend from a mother with Cancer of the breast or of the liver, and might also, from either maternal source, concur with hepatic Cancer in a sister. Moreover, the site of these various primary Cancers might alternate in successive children even of the same generation. So multifarious a combination of the several primary tumours was inextricable. Their cause must have been apart from their sites, must have been common to them all; must, therefore, have been constitutional.

On the other side, it must be argued that, intricate as were the circumstances attending the development of the numerous Cancers in this family, they fail to demonstrate the existence of any cause which is apart from the several sites of the disease. The opportunity was an extreme one for the display of all that is constitutional in the nature of Cancer; yet, in several important particulars, that quality of the repeated disease did not stand forth preeminently. The local character should have disappeared, becoming merged in a wider, not to say universal, disposition to the growth of Cancer. It should have arisen earlier in life than is ordinarily the case, and at an earlier age in successive individuals, both through the generations and in each family; its intensity and rapidity of course should have become extreme; and here, if in any persons, examples should have been found of its outburst in multiple primary tumours. But these indications of a constitutional nature of the disease were wanting. The character and duration of the several cases are, indeed, not stated in Broca's account; but it is stated that the earliest age at which any member of the family was attacked was 35; that, with increase in the number of the persons, there was not a lessening of the ages at which their disease began; that each primary disease arose in a single definite organ; and that there was, on the whole, a very distinct predominance of Cancers of particular localities. For, though the only male was affected in the stomach, and one female in the uterus, yet four of the remaining persons had the disease in the liver, and as many as ten in the breast. This proportion in

which the organs were primarily affected is not that in which Cancer appears in the community; for the very common Cancers of the uterus and stomach were but just represented in this family; some were not found in it at all; and the influence of inheritance, be it what it may, was almost limited to two, and was chiefly exerted in one of the organs. The propensity to mammary Cancer was double that of all the rest of the body in the affected women, and was so strong as to be found with equal frequency among the children of sisters, whether the maternal disease (which, of course, arose after their birth) were to be in the breast or in the liver. That Cancers of other regions should be intercalated at all in the series of breast Cancers manifests, indeed, a cancerous tendency not strictly limited to that organ, but does not inevitably involve our search after the origin of the disease in all the obscurities of what is called the constitution. With so limited a range of primary Cancers, and so excessive a prominence of one organ as the seat of them (the organ through which the disease appears to have been introduced into the family), our attention is forced upon each separate organ as containing the cause, hereditary though it be, of its own disease.

The conviction of the local nature of even the hereditary disease may thus still be left to rest upon the general evidence, when supported by such occurrences as Cancers of the uterus in a grandmother, mother, and daughter; Cancers of the left breast in a mother and five of her daughters; Cancers of the breast in six males and females of two generations; Cancers of the uterus in twins.

f. The Distribution of Cancer in the Community. The sources of fallacy in establishing so large a fact by private inquiry are thus admirably put by Mr. James, of Exeter. After estimating Cancer in that healthy city and neighbourhood to be a disease of considerable frequency, he adds: "As to any particular district in the county, the evidence is liable to be affected by two circumstances: first, as regards the hospital, it would depend more upon the number of governors giving recommendations from a particular part of the county, than upon the absolute number of cases in that district; secondly, as regards private patients, it would greatly depend upon the number of medical friends with whom I have been in the habit of acting in certain districts; and so of others." Speaking from more than forty years' experience in the Devon and Exeter Hospital, and from a considerable amount of private practice, Mr. James informs me that he has met with a much larger number of cases of Cancer in the breast and lip than of any other parts; and he adds the observation, which could only be made by one long conversant with, and also observant of, the disease, that "of late years soft or mixed Cancers have increased in number." This condition is well known to indicate an increased malignancy; it is the character which tumours tend to assume when recurrent after operations, and in the later period of the life of patients long affected with the disease. It is, therefore, of much importance to know the corresponding fact, that, in a healthy district, where Cancer relatively abounds, the type of the disease deteriorates.

Notwithstanding the fallacies, however, to which private inquiry is liable, the broad statement which I have made, on the authority of the Registrar-General's returns, as to the unequal distribution of Cancer in the community and in towns, is borne out, so far as I have been able to obtain information. A great or a small prevalence of Cancer in a town has been again and again recognised by the medical men of the locality when I have directed their attention to the question. The proportion of Cancer which comes to my own knowledge from the south of England is much greater than from the districts north of London. In Chester, it is found to be a very common disease. Dr. Tiffin has informed me that the hamlet of Dundraw, in Cumberland, with about a hundred inhabitants, furnishes little less Cancer than the town of Wigton, which is but a few miles off, and contains forty times as many people. Dundraw and Chester have this in common, that their sewage and water-supply are liable to be intermixed. There is much Cancer at Lowestoft, where the inhabitants occupy small chambers, and breathe an unhealthy atmosphere while seeking protection from the keen east wind. There is much also at Haverfordwest, as reported by Dr. Brown. Mr. H. Burford Norman meets with much of the disease at Southsea. On the other hand, there is little of it in Wrexham, according to the report of Mr. Eyton Jones. The total Cancer-mortality of Birmingham is a little below that of England generally. The cases reported from that town by Mr. Edward Mackey are chiefly Cancers of the uterus; they were most of them severe, and rapidly fatal. The great towns of Liverpool, Manchester, and Leeds, though high in their general mortality, exhibit no excess of Cancer. Dr. Balthazar Foster has pointed out this fact to me by a paper of Mr. W. L. Sargent, on Mortality in Large Towns, read at the meeting of the British Association in 1865; and Dr. Foster draws from it the conclusion that, in an unhealthy region, Cancer is not common, but rare. He offers the remark, in corroboration of my own, that Cancer originates in healthy rather than in unhealthy persons and communities. The instances which he adduces show all the more how little liable to Cancer unhealthy towns and parts of towns are, since even the imported cases from the adjoining country fail to raise the mortality by Cancer in Liverpool, Manchester, and Leeds, more than up to the average of England and Wales.

Mr. Charles Williams has sent me the following instructive contrast. "I was much surprised at the prevalence of Cancer which I noticed while Resident Surgeon at the Norfolk and Norwich Hospital. It was greatly in excess of what I had observed either in London or in Yorkshire. Every case that came to the Norwich Hospital for two years—*i.e.*, from October 1st, 1860, to October 1st, 1862—was recorded; and I found at the end of that period that we had admitted, as in- and out-patients, 154 cases; whilst during the three years I resided in the Bradford Infirmary, Yorkshire, only 13 cases of Cancer were operated on. These were in-patients. I have no note of the number of out-patients, but it could not have been great. The population of Bradford, at the period I speak of, was about 100,000, whilst that of Norwich was 74,000; and the suburbs of Bradford were much more thickly peopled than those around Norwich, which indeed are very thinly populated. At Bradford there was but one Hospital, and no Dispensary; whereas in Norwich, in

addition to the Hospital, there existed a Dispensary, an Eye Infirmary, and a Children's Hospital."

Dr. J. Ludford White offers two suggestions in explanation of some of the inequalities I have noted in the distribution of Cancer: 1. That a great many persons in the north-western provinces, finding that they are not being cured, come to the London hospitals, and die there; and 2. That, *post mortem* examinations being much more frequent in the south-east than in the north-west, the presence of internal Cancer is more often discovered and certified. The first suggestion, doubtless, points out one cause of the great mortality from Cancer in London, though I am unable to state the proportion in which the deaths may be thus explained, or in which different districts of England and Wales contribute their cases to raise that mortality. A similar explanation is offered by Dr. Balthazar Foster, who also adds that the mortality from Cancer in Bristol, Sheffield, and Birmingham, may be augmented by cases sent into their hospitals from large adjoining districts and towns. Dr. White's second suggestion applies also to Wales, in which he knows autopsies to be extremely rare, and where certificates of death from an affection of a certain organ are given without specifying the particular disease of it. I find from the Registrar-General's returns, that as many as 38 per cent. of the deaths in Wales are not certified at all.

Exemption from Cancer. Only one family has been reported to me in which Cancer is known not to exist. It is one referred to by Dr. T. King Chambers, in which old age and degenerative diseases are common, and Cancer and acute disease unknown. The example which I mentioned at Leamington, as that of an exempted family, struck me at the time as presenting the conditions of healthiness, and general wellbeing, and longevity, in which Cancer might arise. Since my paper was issued, I have become aware of the existence of Cancer in a member of that family. This occurrence tends to remove from our notion of Cancer the thought of its substantial existence in one person long beforehand, and the absolute exemption of any person. It rather indicates the first origin of Cancer to be in the affected individual, and seems to justify the belief of my colleague, Dr. Woodham Webb, that there is, in fact, nothing special in it. On this subject of exemption, I may quote an observation by Mr. James, of Exeter, who says: "I can scarcely recollect an instance in which Cancer has coexisted with old ulcers of the leg." The remark corresponds with one to the same effect put forth in the prospectus of a Society, which was formed in 1802 for the study of Cancer, and of which Dr. Baillie, amongst others, and Mr. Abernethy, were members. M. Broca, in referring to this remark by the Society, points out, what is undoubtedly true, that the epithelial form of Cancer does sometimes arise in the chronic ulcers themselves, whatever exemption from the disease they may confer on other parts of the body. Mr. James adds that, when he has operated for Cancer, he has always established an issue, if allowable. I have myself seen health prolonged, apparently by means of good issues, in a case in which I had considered recurrence likely. They were kept open in the arms after the removal of a breast by caustic and incisions, and the patient remained well eight years afterwards.

The last two divisions, *e* and *f*, appear to me to have some connexion with one another; and there is no part of this investigation in which I have to regret more than in this the absence of complete information on the prevalence of Cancer in different localities, side by side with the peculiarities which may distinguish it where it is rare and where common. Valuable as the returned registers are, they need to be supplemented by many others. The fact appears certain, so far, that there is some condition in which Cancer multiplies in a family, and another, much more frequent, in which it is restricted to an individual, not to say intransmissible. And, at the same time, the progress of this investigation brings out more and more distinctly that there is, so to speak, geographically an unequal production of Cancer. Now, is there any connexion between these two facts? Do the geographical abundance and the family multiplication of Cancer coincide, while infrequency of it in a district is associated with its occurrence in isolated individuals? And, if this be so, is the fault partly or altogether in personal characteristics, or in the physical condition of the district? Is Cancer generated in the man, or in his home? It is not possible to resolve such questions with the data I have in hand. But this practical point seems to be coming to light from the inquiries I have been making, that in places (though not in families) where Cancer is prevalent, it is proportionally malignant in this sense, that operations are commonly followed by a quick return of the disease, and by an earlier death than if the tumour had been left to its own course. The different impressions upon the minds of medical men as to the propriety of operating in Cancer may be partly thus accounted for, and only partly by a judicious or a reckless selection of cases, and an effectual or a mischievous mode of operating. Operations in Cancer are very unsatisfactory in Haverfordwest and in Chester, in both which places the disease is too abundant. From New South Wales, also, I have received an account of such disastrous results of operations in Cancer, that most of the principal Surgeons have for some years given up operating; the patients, even in recent cases, suffering from a speedy return of the disease, and dying much sooner than others who had not undergone operation. My informant is Dr. George Bennett, of Sydney.

g. The suggested Cause of the Primary Cancer. A reference to this point has been made in 111 instances. No cause whatever could be assigned in 66 cases; a general cause was suggested in 18; and a local one in 28 instances. Of the general causes, I may refer to hard living and to rheumatism as doubtful in their influence, and to anxiety and melancholy as probably real causes. Mr. Hughes Hemming, of Kimbolton, specifically mentions that there had not been rheumatism in any of his cases. Mr. James, of Exeter, who has seen much of Cancer, has observed general pains to be frequent after the outbreak of Cancer, and especially towards the end of the disease; but has not found rheumatism to precede it. Dr. Jeaffreson, of Leamington, on the contrary, and Dr. Falconer and Mr. Freeman, of Bath, have ascertained rheumatism to have previously occurred in many of their Cancer patients. Anxiety and melancholy were referred to six times in the reports; and they were alluded to by Mr. James as causes of Cancer with which much experience had made him familiar.

Amongst the local causes, it is singular to notice how frequently the first symptom of the disease is assigned as its cause. Meat sticking in the throat is given as a cause of Cancer of the œsophagus; a blow, which calls attention to a tumour already of some size, as a cause of Cancer of the breast; choking with dust, as the occasion of Cancer of the bronchial glands; miscarriage, labour, an injury by the medical attendant during labour, or flooding subsequently to a severe fall, as giving origin to Cancer of the uterus. A case which perhaps needed most discrimination was one of Cancer of the uterus in a patient of Mr. Shaw's, whose husband died of Cancer of the penis. As nine years, however, had elapsed between the time of his death and her ailment, it may be asserted that the two diseases arose independently of one another. On the other hand, in as many as five cases there had been an abscess in the breast many years before the appearance of Cancer in it; and piles and constipation in a patient of Mr. T. H. Smith, many years before the occurrence of fatal Cancer of the rectum. Irritation in the eye had preceded for some years the outbreak of melanosis of the eyeball; an open fistula for forty years, and a blow with a cricket-ball, were severally the occasion of Cancer of the head of the tibia. These may have been real local causes of the Cancer afterwards developed; and, in the same manner, Cancer of the cheek is fairly attributed by the reporter of the case to an old wart in which it first sprang; a scratch by a horse's tooth may have set up Cancer of the skin of the hand; and Cancers of the lip may be traceable to the tobacco-pipe.

Original Communications.

BOILS AND CARBUNCLES.

By Tilbury Fox, M.D.Lond., Physician to St. John's Hospital for Skin Diseases.

The points involved in Mr. Startin's letter are of so much pathological interest, that I hope I may be allowed space for a few comments. Mr. Startin's therapeutical experience is entitled to the profoundest respect; but the explanation which he has given of the cause of boils and carbuncles is scarcely that which *modern* pathological observations would seem to indicate. Unfortunately, empiricism of the rankest and most tyrannical kind has held its sway for many a long day over cutaneous medicine; and no one (since Carswell's day) specially conversant with the facts of general pathology has thought it worth while to study the subject; yet, unquestionably, the philosophical study of skin-diseases is pregnant with results of great general significance, and the case of carbuncle is fully illustrative of this fact.

Mr. Startin views boils and carbuncles as having "frequently or constantly a parasitic origin"; and he bases his belief upon the facts, (1), that they are sometimes contagious; and (2), the success and efficiency of the practice in the cure of these ailments, rather than on microscopic verification: in other words, on the occurrence of *occasional contagion*, and the *beneficial action of acid nitrate of mercury*. One word will suffice in reference to the second argument. Acid nitrate of mercury, in virtue of its *caustic* properties, removes a host of ills—lupus, acne, warts, cancerous masses, and other diseased structures the most dissimilar. Are they then parasitic? Mr. Startin's chief ground for his belief in the parasitic nature of boils and carbuncles is the occurrence of contagion. This, however, is only occasional; and, considering the absence of all relative proportion between the amount and kind of the local diseased action and that observed in parasitic maladies; the absence of parasitic growth in the vast majority of cases; the fact that fungi will but very scantily develope in purulent fluids; the absence of any aperture by which the fungus-germs could enter from without into the cellular tissue; the non-access of air; and the want of relation between the amount of tissue-change and that of the fungus when present,—the unlikeliness of its parasitic nature is evident. And, if we seek amongst the parasitic diseases of animals, of human beings, or of plants, we shall not find any analogical grounds (nay, just the contrary) upon which to rest such a belief. Again, the constitutional conditions anteceding, accompanying, and following the local changes, in relative proportion to the extent and character of the latter, are not seen in any parasitic disease. The occasional presence of vegetable parasites is common to all diseases. Parasites are essentially ubiquitous, and they may be found in almost all skin-diseases; it is only when they *luxuriate*, that they give rise to *special* mischief. It is, unfortunately, fashionable to ascribe too many diseases to the influence of parasites.

How, then, explain the contagion of boils? for they seem to be occasionally contagious. What mean we by contagion? The labours of all pathologists seem to show that it is essentially connected with the growth of living particles of matter, detached from living bodies, and carried to others—of course, under favouring circumstances. Occurrences of the kind are universal in the vegetable kingdom, and there seems no reason why animal cells should not be transplanted and grow as well when isolated as in masses; and they do so. The cells in the secretion from a leprous sore, from Egyptian ophthalmia or the mucous surface of a rinderpest cow, cancer-cells, the pus-cells of syphilis and of small-pox, and, from recent observation it seems likely, tuberculous cell-matter, all possess this faculty; and, to take another example, in the case of molluscum, the cells found in the little "varioliform" tumours are the means by which, being transplanted from person to person, the occasional contagion of molluscum is to be explained. One feature that is necessary in all these cases is the presence of free proliferation on the part of the cell-growth, and an adapted state of nutritive fluid (blood). In the active and early stage of boils, the cells of the enlargement may, no doubt, be removed from one body to another, and, growing under favourable circumstances, reproduce the original disease. Why not? What law would this contradict? Dr. Laycock's cases of contagious furunculoid are explicable upon the same ground.

Contagion is scarcely a distinctive feature of any one disease: the *degree* of contagion no doubt is. If it were possible to transplant an alphos scale, and it were to grow and produce alphos on a second subject, there would be no great mystery in it; it would harmonise (though an unusual occurrence) with true pathological facts, and be contagion in one sense of the word. There is nothing improbable, but probable, to say the least, in the supposition that the cell-growth in a boil may be the means by which the disease is rendered "contagious". In carbuncle, there is a good deal of superadded inflammation, and a tendency to gangrenous change, which, implying a tendency to the death of the cell-tissues, is accompanied by a very much less likelihood of contagion.

But what is the pathology of boils and carbuncles? We may assume that in kind it is the same; the difference between the two diseases is dependent upon (1) variations in the vigour of constitution, (2) the state of the nutritive fluid (the blood), and (3) the activity of the local tissues. In the central part of boils and carbuncles are one or more pieces of dead tissue, sloughs, or cores. How is the tissue killed?—by arrest of the circulation, or failure of nutrition? What has been noted about the blood? Three very important sets of facts: 1, bacteridia oftentimes in great amount; 2, excess of urea in the urine, and uric acid in the blood; 3, diabetes. Bacteridia, however, seem to be developed only secondarily, and to be unable *per se* to produce furuncle. The excess of urea and uric acid can scarcely be said to be the cause of carbuncle and boils; and we come to the third condition, noticed by Cheselden, Prout, Latham, Landouzy, Marchal de Calvi, and others—viz., a tendency to, or actual, diabetes. Dr. Wagner has given details of fifty-two cases of gangrenous inflammation, including carbuncles and furuncles, in which a diabetic condition existed; and M. de Calvi has confirmed Wagner's observations. My own observations on this point are small; but I am convinced that, if we would clearly understand the true pathology of carbuncle, we must carefully investigate the matter in connexion with the production of sugar in the system. The existence of a diabetic habit explains satisfactorily the fatality of carbuncular disease, and the serious constitutional disturbance. Nothing is more common than for carbuncles to arise in the course of diabetes; and it will be remembered, that Cardinal Wiseman suffered for no less than four years before his death with carbuncles. More recently, Dr. Fonseca, of Pernambuco, has investigated the subject; and he tells us that in Pernambuco anthrax is very common, and that one of its forms is regarded as diagnostic of diabetes. Küchenmeister, Menestrel, and Jordão of Lisbon, have also given similar evidence.

And at this point Mr. Startin's therapeutical experience comes in to confirm the theory I have briefly sketched. He finds successful treatment in the use of *aperients*, *animal* diet, *tonics*, and free stimulation without malt liquors. The avoidance of all saccharine and amylaceous matter is an essential point; but I venture to affirm that, of all drugs, opium, judiciously used, is the most important. Clinically, I know that it has cured, and does help to cure, carbuncular inflammation, when other things fail; and therefore, if we add to Mr. Startin's recommendations the use of opium, we shall be in possession of a plan of treatment which is not only empirically dictated by the largest experience, but consonant with the most recent truths which pathology has taught us. The acid nitrate of mercury acts well, of course, as a *caustic*.

There are many other points—the origin of the local mischief especially—that I would like to notice; but I have only attempted to indicate that there is a much truer explanation than the "parasitic" hypothesis as to the cause of carbuncle, involving very wide pathological considerations. Skin-diseases have been so long handled from a *surgical*, that it is a novelty indeed for any one to investigate them from a purely *medical* point of view, and to trace connexion between them and such a profoundly subtle disease as diabetes; but I again reiterate the remark I have elsewhere made, that "the physician must be possessed of all that general medicine can teach before he can become the successful dermatologist."

43, Sackville Street, Piccadilly, W., November 1866.

NOTES AND OBSERVATIONS ON DISEASES OF THE HEART AND LUNGS.

By T. Shapter, M.D., F.R.C.P., Senior Physician to the Devon and Exeter Hospital, etc.

[*Continued from page* 10.]

In the preceding paper it was mentioned that, in the present day, there might perhaps be no very great difficulty in setting forth the quality and general characteristics of the normal sounds of the heart, or in describing what may be the peculiar sounds proper to the several lesions of this organ, but that, nevertheless, in practice, their due appreciation and perfect recognition were not infrequently found to be embarrassed by many sources of error. Some few of the occasionally recurring difficulties towards forming a correct diagnosis will, by way of illustration, be here briefly referred to. In doing this, it must not be inferred, though the sounds and murmurs belonging exclusively to the valves in their relations to the circulation of the blood are here solely referred to, that other signs no less important, and independent of these, are ignored. On the contrary, the value in diagnosis of some of these latter will be in due course not only considered, but perhaps seen to be of paramount importance, so that, without them, prognosis in disorders of the heart will be essentially at fault. The object at present, however, is mainly to illustrate the positions advanced as to the immediate cause of the sounds, and then to show what may be the importance of these sounds by themselves, towards estimating the condition of the heart itself.

In investigating, by auscultation, any of the disorders of the heart, the first and the chief point to be arrived at, in reference to sound, is the accurate ascertainment of the presence or the absence of either of the two normal sounds.

If there be an absence of either of these sounds, it may then be inferred, as a general rule, that some other sound has taken its place, and that this other sound is not a normal one—that it is, in fact, a new sound, and manufactured, as it were, by diseased structure or by disordered action.

If the above position be true, it will be at once seen how very important it is to ascertain the existence, or the contrary, of both normal sounds; and that here confusion in diagnosis must be sought to be carefully avoided, lest the inferences thence deduced be erroneous.

A careful observer, and one of our best authorities upon diseases of the heart, says that absolute deficiency of either sound, or of a murmur taking its place, has never fallen under his observation; that, in fact, neither systole nor diastole has ever been, in his experience, absolutely noiseless over the entire cardiac region. The above strong and pointed statement is made by Dr. Walshe (p. 78). After noting that, in cases of extreme weakness, the first sound may be *quasi*-deficient at the left apex, he says: "But it will then be found at the right apex and at the base. So, again, the second sound may be *quasi*-deficient at the base from excessive feebleness, or from being covered by a prolonged systolic sound or systolic murmur; but, in the first case, excitement of the heart, increasing the energy of its contractions, will invigorate the sound, and in the second case the sound will be heard at the right apex."

Though cases have occasionally presented themselves to my observation in which I could not satisfy myself of the absolute conclusiveness of Dr. Walshe's statement, that both the sounds, if not superseded

by others, were thus always present, yet the position is so generally a safe one that, in order to arrive at a correct and sure conviction of the presence, or of the absence, of the two normal sounds, it is necessary fully to appreciate those various accidental circumstances which, when the two normal sounds are really present, tend to obscure their being duly recognised.

Doubtless, in estimating these circumstances, those special variations and peculiarities which may occur in the several properties or conditions proper to, and characteristic of, the sounds themselves, such as "intensity, duration, pitch, and quality," must be considered. Each of these may, under the modifying influences of sex, age, attitude, exertion, excitement, debility, etc., be so altered or intensified as to lead to false inferences; and hence, in the place of normal valvular sound, the presence of a murmur may be erroneously assumed.

A naturally weak heart, or a heart in which the ventricles are hypertrophied, will frequently on agitation generate sounds, or so modify the valvular sounds, that these are to a certain extent masked; the sounds become hurried, intensified, and confused, and might, on a hasty examination, be regarded as being murmurs. A little care in examination will generally succeed in detecting that the sound is really a normal valvular one. Sometimes, however, from continued hurry of the ventricular impulses, and from these not following in regular succession, the marked and uniform valvular sound is merged in, or superseded by, that continuance of sound which, in contradistinction to regulated rhythmical sound, is denominated by the term "noise". It then becomes difficult indeed to separate and appreciate the two normal sounds.

In cases of fever, the first or systolic sound is often the subject of considerable modifications. In some cases, there is a feebleness, passing into nearly a total absence of this sound; in others, it becomes prolonged, and almost assumes the characteristics of a murmur—perhaps there may even be a murmur; for occasionally, in fever, the muscle of the left ventricle is found to be weakened and even degenerated in its structure. It is, therefore, probable, though neither the mitral nor tricuspid valves may be diseased, there is some want of proper action in the muscles attached to these valves; so that, practically, there may really exist a certain amount of valvular error.

The above sources of error, more or less, arise from modifications of the valvular sounds themselves; but the main causes of embarrassment, whereby the correct recognition of the presence of the normal valvular sounds becomes obscured, have not their origin so much from any real variations or actual modifications of the valvular sounds as from causes extrinsic to the valves themselves.

The modification of the sound occasionally induced by an excess of nervous excitement has perhaps its cause more exclusively in the disturbed passage of the blood through the irregularly palpitating heart itself. Immediately succeeding the first sound, but still commencing, as it were, the second sound is a soft murmur, and the second sound itself, which concludes this, is heard, sharp, loud, and accentuated. Both these latter sounds are produced under the influence of nervous excitement during an increased and rapid impulse. The murmur itself has been by some attributed to the action of the heart within the pericardium, whereby a slightly appreciable friction-sound is produced. It is not, however, a friction-sound; for it not only has not its distinctive character, but an equally rapid and augmented impulse without the nervous excitement fails to induce this specific murmur. Considering the character of this murmur, and of the succeeding accentuated vavular sound, it is not unreasonable to conclude them both to be due to the increased rapidity of the flow of blood through the heart agitated and rapidly palpitating under nervous excitement; the murmur being produced by an eddying disturbance in the flow of blood through the ventricle, and the accentuated second sound by the sudden jerk of the semilunar valves, whereby its backward flow is arrested. In these cases of nervous excitement, it is invariably the second sound which is implicated, and from the alteration in which error in diagnosis may arise.

Though, under these circumstances, there is undoubtedly the presence of a murmur, and though the valvular sound is exaggerated and altered in tone, yet a careful examination can separate the accentuated sound from the murmur, and thus enable it to be recognised as the normal sound, only modified by the excited systolic action of the heart.

The more usual source of confusion arises, however, from various sources extrinsic not only to the valves but to the heart itself. Amongst these the most common are breathing sounds so synchronously occurring with the diastole as to obscure and (as it were) overlay one or other of the normal sounds of the heart. Dr. Latham (vol. i, p. 65) states this condition of things clearly. "It has been said that endocardial murmurs are best imitated by modulations of the breathing and by help of the mouth. Hence it is not to be wondered at that there should be an endocardial murmur which nearly resembles the natural murmur of respiration. The commonest of all the endocardial varieties is the bellows-murmur; and the natural murmur of respiration is only a gentle sound of the same kind, but more prolonged. Hence the morbid sound of the heart and the natural sound of the lungs are sometimes so much alike that, if the systole of the ventricles and the act of inspiration kept time with each other, it might not be easy to determine from which of the two organs the murmur came; and, in point of fact I have sometimes listened and hesitated, and hesitated and listened again and again, before I could satisfy myself that a murmur which came altogether from the lungs did not in part proceed from the heart also. It has been carried with an impulse into the ear as if it came from the heart." Dr. Latham adds that "the method of clearing up the doubt is to auscult the heart, while the respiration is suspended for a quarter of a minute."

Doubtless, this is true. Nevertheless, cases constantly occur where the respiratory murmurs are both so prevailing and so protracted as to render it extremely difficult, and even at times impossible, to separate the sounds of the heart from them. Perhaps the most embarrassing circumstances exist when the lung contiguous to the heart is, besides being in an emphysematous condition, the seat of bronchial *râles*; the murmur, the resonance of the lung, and, as almost invariably occurs, a feebleness of the sounds of the heart themselves, each offering elements of difficulty. The first sound, especially of the left heart, is, under these circumstances, at times so effectually masked as to render it next to impossible, taking the element of sound only, to diagnose the absence of murmur in the left auriculo-ventricular valve.

Murmurs, generated in neighbouring structures when in certain inflamed and morbid states, not unfrequently appear to proceed from the heart, and thus interfere with a due appreciation of its existing normal sounds.

The more notable examples of this source of confusion are to be met with when the pericardium becomes the seat, especially of acute, disease. Doubtless, the friction-sounds of a recent case of pericard-

itis may very frequently be suspected to be murmurs, and thus to be indicative of valvular disease. Difficult though at times it may be, nevertheless there are signs which, if attentively considered, will generally lead to a correct diagnosis. First and foremost, the intrinsic character of the sound must be ascertained and appreciated. A pericardial friction-sound has neither the quality nor the pitch of a valvular murmur; it is deficient in that blowing or whistling character which invariably characterises the latter. It is, however, easier to state this than always correctly to appreciate the characteristic differences of the two sounds; but other circumstances come to our aid. The sound is usually increased on pressure; and it is found to occur most commonly both with the systole and the diastole, and always with the systole if with the diastole; and in favourable cases —that is, where the ordinary rhythm of the heart's action is not greatly impeded—careful auscultation will detect the normal valve-sound followed by the pericardial friction-sound, and this latter is usually observed to be a more pronounced sound with the systole than with the diastole. Other circumstances also tend to separate the pericardial from the normal valve-sounds—as the more sudden occurrence of the former, the rapidity with which they shift their seat, the fremitus often communicated to the hand, but more especially their sudden disappearance under treatment.

Occasionally during pericardial disease a short clicking sound is heard accompanying both systole and diastole. Dr. Walshe says (p. 110) these are only distinguishable at the time from modifications of the valvular sounds by their non-synchronism with them, and by the extreme irregularity of their occurrence, and that he has satisfactorily traced them to the pericardium, and further, in all probability, to the separation, without attrition, of surfaces glued together with exudation matter.

Various other sources of difficulty, extrinsic to the heart, whereby the normal sounds are occasionally materially interfered with, and even at times effectually overpowered, might be enumerated. Amongst the chief of these are those which have their origin in foreign and abnormal pressure, by contiguous diseased structures, on the great vessels immediately emerging from the heart, or even pressing on the heart itself; so that murmurs are manufactured, if we may so apply the term, in places which, in health, are not the seat of sound; but so near to the seats of normal sounds as to interfere with the true appreciation of these latter.

It is not only essential to be on our guard as to the existence of murmur having this foreign origin, but essential towards a correct diagnosis that their true cause should be recognised.

Their investigation and study is also interesting in a physiological point of view; for they serve to illustrate and confirm, strongly and clearly, the positions assumed on the formation of murmurs and the cause of the normal sounds. We find these murmurs induced when there is evidence of disturbance of current only; and we also find the normal sounds interfered with, though there be a normal ventricular systole and a perfect contraction of the valves, when at the same time there exists an arresting of the perfect recoil, so that an interference is effected with the vibrations which would occur in an unbroken column of moving blood suddenly checked.

The friction-sounds produced by a pericarditis, and which very nearly assimilate themselves to valvular murmurs, have been just alluded to; still they are but friction-sounds. The physical consequences of a pericarditis do, however, at times, really cause murmurs in the great vessels. The lymph exuded during a pericarditis may so envelope the two large arteries at their origin, as to bind them down and contract their area; thus effecting a disturbing pressure adequate to produce a considerable amount of murmur, and even to completely mask the normal second sound.

Dr. Markham extends this observation (p. 35); and says that this murmur may be due to loss of elasticity in the aorta, "or some other alteration of its coats caused by the inflammatory process; or to irregular action in the heart's muscular movements involving those of the columnæ carneæ, whereby the function of the auriculo-ventricular valves is rendered temporarily incomplete; or, again, when the murmur is persistent, it may possibly be ascribed to the pericardial adhesions; these being of such a character as to prevent the walls of the heart, and consequently the columnæ carneæ, from freely contracting, so that the mitral orifice is left partially unclosed during the heart's systole." In this latter case, however, the valvular sound cannot be said to be masked, but is really obliterated by the murmur induced.

It has been stated by some observers that the presence of a serous effusion into the sac of the pericardium may also be the remote cause of a murmur; it has, however, never been my lot to observe a case in which this has been satisfactorily made clear. It is, however, very certain, that effusions of fluid, in cases of acute pleurisy, into the left pleura, especially when attended with excitement of the heart, will produce a murmur. Dr. Stokes (p. 531) says, "It is distinct from any modification of the friction-sound, and consists in a systolic murmur often broken into two parts, sometimes intense. This murmur is most evident during inspiration; but it continues in expiration, and even when the patient holds his breath."

It is probable that the immediate cause of this murmur are the eddies caused in the flow of blood through either or both the aorta or pulmonary artery, as these vessels are contracted at their orifices from being bent and somewhat twisted in consequence of the forcible displacement of the heart—a displacement which at times is very considerable.

It is also probable that those murmurs, so often met with in cases where the heart is displaced by deformities in the parietes of the chest, or by tumours in the abdomen or of the abdominal organs, are, in like manner, due to the contraction caused by the bending or twisting of the great vessels as they emerge from the heart.

In those chests which have a weakly constructed bone-work, a murmur may sometimes be produced by pressure from without, or, at any rate, so very like it as to excite suspicion of the existence of a valvular murmur. This is especially the case in those who, having weak bone-work, are also pigeon-chested. In some cases, especially in these latter, this murmur is so very easily effected, that the slight pressure of a stethoscope during investigation may be adequate to produce it, and even occasionally to require the greatest caution that it be not thus produced.

The murmurs induced by tumours within the mediastinum, or by glandular and similar enlargements encroaching on the great vessels, appear to be due to simple pressure only; so also is the murmur induced in the pulmonary artery when pressed upon by an aortic aneurism.

The whole of these artificial murmurs are synchronous with the systole. Nevertheless, they are heard more distinctly at the base of the heart than at the apex; and this is a very important feature of

their existence, and to be well considered and appreciated in summing up the diagnostic signs.

Murmurs may also be heard, the valves being perfect and normal in their function, in those cases in which an obstruction to the flow of blood within the ventricle or in the larger arteries takes place in consequence of the accidental formation of clots, or of those remarkable and unaccountable matters, the purulent cysts. I conclude there are no very distinct signs by which the presence of these latter may be inferred. The former may, perhaps, by their more frequent seat being in the right ventricle, and by the suddenness of their production, and by the nature of the antecedent illness, yield some grounds of suspicion for their existence. The whole subject, however, of these formations, is one of doubt and difficulty.

The valvular sounds occasionally undergo a complication of some passing interest, whereby they become, as it has been termed, reduplicated. The two normal sounds may thus be added to, so as to form three or even four sounds. Dr. Walshe (p. 79) has given an elaborate summary of these sounds, and such as only a very practised ear, exercised in a large field of observation, could hope to recognise and fully to appreciate. This difficulty of accurately appreciating these sounds in all their specified varieties is not to be wondered at, considering the space of time in which they occur, and the very limited field of their generation, and the invariably agitated state of the heart's action at the time.

The more simple form of this reduplication is not, however, rare, nor difficult of recognition. It occurs with the second sound, which thus becomes divided in time, and as it were cleft in two. But, whether it occur with the second, or with the first, or with both the sounds, it is heard sometimes similar in tone, and sometimes not, to the sound of which it is the reduplication; but usually the first portion of the divided or cleft sound is the most accentuated. For the most part, a reduplicated sound is met with in cases which present apparently the characteristics of functional disorders of the nervous heart only; but it also occurs in cases of active inflammatory disease; and in these cases it is usually the second sound that is cleft, while there is associated with it a mitral murmur. It rarely or never occurs in chronic diseases of the heart. But, whether it be a nervous or inflamed heart, there is one condition necessary for its development, which is, that the heart should be the subject of an unusual amount of systolic excitement. It is for the most part a passing symptom, varying often, and rarely or never permanent.

Dr. Stokes (p. 119) says, "its origin is difficult to declare; but that it is to be attributed to valvular, rather than to muscular action, appears more than probable." Dr. Walshe (p. 80), from the limitation of the phenomena to certain points of the cardiac region, sees difficulty in referring these reduplicated sounds to irregularity in the closure of the valves in respect to time. Seeing, however, that a reduplicated sound is heard over the spot where it is produced, and that the normal sounds themselves are not necessarily very pervading, and are easily obscured, the first one by the second, and *vice versâ*, this limitation does not appear sufficient to overthrow the hypothesis of the valvular formation of a reduplicated sound.

I am disposed to conclude this reduplication of the sounds is due entirely to irregularity in the systolic action of the two hearts, so that this function does not agree in time; that hence there arises a want of synchronism in the closure of the valves; and hence also one set, or may be both sets of valves of one heart, act more tardily than their congeners in the other heart—thus dividing into two sounds what in health would be, from their synchronism, one sound only.

As the first sound depends on the blow caused by the column of blood on the closure of the auriculo-ventricular valves, it may be inferred that a reduplication of the first sound has its origin in the disturbance of the synchronous closure of the mitral and tricuspid valves; while, as the second sound results from the sudden closure of the semilunar valves in each heart, a reduplication of this sound may be said to have its origin in a want of synchronism in these valves.

Such is the theory of the formation of these sounds, and which agrees entirely with the view proposed in these papers, that the heart's action is essentially ventricular, and that the sounds are caused by the sudden closure of the valves on a column of moving fluid. The production of two sounds only, in the heart's normal state, from the four valves, is effected by each corresponding set of valves acting in the most perfect synchronism. Any irregularity in this synchronism may hence induce the reduplication in one or both sounds.

If we examine the cases accurately in which these reduplicated sounds occur, they certainly present features which offer fair ground for assuming that there exists that amount of turbulent action which may induce a want of synchronism in the systole of the ventricles, and that hence this may be the cause of these irregularities in the sounds of the heart. The soundness of this view being granted, then the existence of a reduplicated sound is to be regarded as symptomatic of a want of synchronism in the contractile action of the two ventricles.

In nervous affections of the heart, there often are to be observed the elements which might produce this want of unison.

In those cases in which the second sound, being reduplicated, is associated with a mitral murmur, it may be assumed it arises from the too early closing of the aortic valves, in consequence of the spasmodically hurried systole of the left ventricle, under the excitement of recent inflammatory disease, whereby the sound induced by the aortic valves anticipates that caused by those in the pulmonary artery.

Or, on the other hand, any condition of the blood whereby its amount may be unduly forced into, or retained in, one ventricle over the other, would, by impeding its free, ready, and synchronous expansion, be certainly adequate to cause this phenomenon.

Those cases where a full inspiration induces a doubling of the second sound, and which is inaudible in ordinary breathing, Dr. Walshe (p. 81) says, may be explained by the unduly abrupt rush of blood into the pulmonary artery, whereby the necessity for closure of its valves to meet the recoiling fluid is felt a little earlier than usual.

Looking at the circumstances that belong to each of these instances, it is probable that reduplications of the first sound originate in want of synchronism of the commencement of the systole, and of the second sound in excitement, whereby its systole is terminated too quickly.

[*To be continued.*]

Cholera in Scotland. A deplorable mortality by cholera is reported from the little mining village of Methill Hill, near Leven, in Fifeshire, where, out of a population of at most 400, there were 30 deaths between Sunday and Wednesday, the dreadful epidemic continuing to make fresh victims.

Reviews and Notices.

On Epilepsy, Hysteria, and Ataxy. Three Lectures. By Julius Althaus, M.D., M.R.C.P., Physician to the London Infirmary for Epilepsy and Paralysis, etc. Pp. 126. London: 1866.

Dr. Althaus states that his intention is to give, not a complete treatise on the diseases whose names form the title of the book, but his views on some important points in their pathology and treatment, on the investigation of which he has bestowed some trouble.

The lecture on Epilepsy he begins by denying that the disease is incurable. In saying this, he speaks of what is often called "centric" epilepsy; "eccentric" epilepsy, or epileptiform convulsions from irritation outside the nervous centres, are, he says, not true epilepsy at all, but merely reflex spasms. These are easily curable by removing the cause of irritation; it is with centric, idiopathic epilepsy, that the difficulty lies.

After quoting the opinions of various medical writers, at home and abroad, who have supported the doctrine of the incurability of epilepsy, he examines the pathology of the disease, and arrives at the conclusion that,

"Where structural lesions have been discovered, they have been either due to complications coexisting with, but foreign to, epilepsy itself; or they have been the proximate results of the epileptic attack; or the cases adduced were not such of epilepsy, but of other convulsive diseases; therefore structural changes are not the actual cause of the complaint, but epilepsy is a functional disorder, due to certain prior changes in the nutrition of the brain imperceptible to our senses, and which may be rectified by treatment." (P. 14.)

The objects in the treatment of epilepsy are, Dr. Althaus says, three: 1, the suppression of the attacks; 2, to induce a change in the finer nutrition of the brain and nervous system; 3, to restore the general health, and remove sources of irritation.

The author's remarks on treatment are mainly intended to show that the cure of epilepsy is not to be despaired of, although the time occupied may be long—even months or years; but that, by the exercise of perseverance, the physician and patient may arrive at the desired result much more frequently than is generally supposed. We find no mention of any special remedies: the selection of these, we suppose, the author leaves to the knowledge of his readers.

The second lecture, that on Hysteria, is an expansion of one which appeared in this Journal a few months ago.

The third lecture contains a very clear and instructive description of the disease commonly known as Progressive Locomotor Ataxy. It is but a few weeks since, in reviewing M. Trousseau's *Clinical Lectures*, we gave an outline of the characters of this malady: it is, therefore, scarcely necessary to go over what is nearly the same ground. Dr. Althaus does not speak altogether despairingly of the prognosis of the disease; we have, he says, much more control over it than formerly, but much depends on the period at which the treatment is commenced.

Dr. Althaus' book is one which deserves perusal. His views are simply but clearly expressed; and the tendency of his teaching is to give the physician confidence in his power over disease.

Note-Book on Materia Medica, Pharmacology, and Therapeutics. By R. E. Scoresby-Jackson, M.D., F.R.S.E., F.R.C.P.Ed., Physician to the Royal Infirmary of Edinburgh, etc. Pp. 632. Edinburgh: 1866.

This work has been written by Dr. Scoresby-Jackson, as a note-book for the students attending his lectures on Materia Medica; and he has done well in publishing it. It consists of three points. 1. Introductory, in which the author comments on the Materia Medica, Pharmaceutical Operations, Prescriptions, *Modus operandi* of Medicines, and other general matters; 2. The Inorganic Materia Medica; 3. The Organic Materia Medica. The book is one which scarcely permits of analysis; we can therefore only say that, although concise, it is apparently very complete, and contains notices not only of Pharmacopœial preparations, but of other medicines which have been brought into use.

Dr. Scoresby-Jackson's *Note-Book* has a modest title; but it deserves to take an honourable place among our text-books of Materia Medica.

Chromo-Lithographs (after Coloured Photographs from Life) of the Diseases of the Skin. By Alex. Balmanno Squire, M.B. Lond., Surgeon to the West London Dispensary for Diseases of the Skin. London: 1866.

Mr. Balmanno Squire has here republished copies of the first series of his coloured photographs of skin-diseases, of which we have already given notices in the Journal. He has made no alteration in their size; but has issued the twelve illustrations, with the explanatory letter-press, in a neat portfolio, at a low price, so as to place them within the reach of all practitioners and students. Many, to whom the price of the photographs was an obstacle, will now be able to obtain a series of excellent typical examples of skin-diseases.

The illustrations are: 1. Psoriasis diffusa (Class Squamæ); 2. Impetigo figurata (Pustulæ); 3. Lichen inveteratus (Papulæ); 4. Scabies (Animal Parasitic Diseases); 5. Chloasma (Vegetable Parasite Diseases of the Body); 6. Favus (Vegetable Parasite Diseases of the Scalp); 7. Lupus (Tuberculæ); 8. Papular Syphilide (Syphilidæ); 9. Nævus Vascularis (Maculæ); 10. Erythema tuberculatum (Exanthemata); 11. Eczema (Vesiculæ); 12. Pemphigus (Bullæ).

The Use of the Laryngoscope in Diseases of the Throat; with an Appendix on Rhinoscopy. By Morell Mackenzie, M.D.Lond., M.R.C.P., etc. Second Edition. Pp. 156. London: 1866.

The first edition of Dr. Morell Mackenzie's work on the Laryngoscope appeared at the beginning of last year, and has already been exhausted. This was but a natural result of its merits. He has now issued a second and revised edition; which, we have no doubt, will more than sustain the reputation of its predecessor as a most complete treatise on the subject.

We are requested to remind members of the Association that the Annual Subscriptions became due on the 1st of January. They can be paid either to the Secretaries of the Branches; or to the General Secretary, T. Watkin Williams, Esq., 13, Newhall Street, Birmingham.

British Medical Journal.

SATURDAY, DECEMBER 1ST, 1866.

RAILWAY ACCIDENTS AND RAILWAY EVIDENCE.

MR. ERICHSEN, in a recent publication,* gives an account of Injuries of the Spine, illustrated by cases. He tells of the effects of severe blows on the spine; of concussion of the spine from slight injury; of concussion of the spine from general shock; and of twists, etc., of the spine. It would be superfluous for us to say that these subjects are well treated by the author. One so versed in the practice and the literature of surgery as is Mr. Erichsen, could not fail to acquit himself well in a descriptive dealing with surgical matters.

We must, however, object to the special character which has been given to this book, and, as it seems to us, given both needlessly and incorrectly. There is necessarily a great dividing and specialising in the medical and surgical art. But specialities, though unavoidable, are in one sense always hurtful or dangerous; they naturally tend to cramp the mind; they are opposed to enlarged and comprehensive views, and are apt to entice the practitioner into a narrow limit of considerations, hurtful to the progress of medicine: from which we infer that all specialising which is not necessary should be carefully avoided; that no specialising, which has not been well canvassed and has received the sanction of the profession as a necessary evil, should be accepted as legitimate in practice.

The title of Mr. Erichsen's little volume is calculated to mislead the casual reader. Certainly, the one which is twice given on the outside cover of it —*Erichsen on Railway Injuries*—is erroneous. The book really contains an account only of the effects of shocks and concussion of the spinal cord and brain; whereas "railway injuries" embrace a very wide field of surgical considerations—indeed, almost every injury that blows and shocks can effect on the human body. Mr. Erichsen himself, in fact, shows throughout the book that there is really no difference whatever in the symptoms and pathology of the nervous injuries of which he treats, whether produced by railway or any other concussions. It is, therefore, quite superfluous to make of them a special class of railway nervous injuries.* The fact is, that of the fourteen cases observed by Mr. Erichsen himself, and here detailed, no less than eight are not railway accidents at all. Indeed, one case, given as a typical case of concussion of the spine, is that of a Count de Lordat, which happened sixty or seventy years before railways were invented. Again, in the chapter on the Symptoms of Railway Concussion, we find, as illustrations, reference made to cases of persons who were not injured by railway. Case 9, for example, is that of a lady who slipped down stairs. Case 2, which, under the above heading, is used to exemplify *defect of memory*, we find detailed at a previous page as that of a painter who injured his back by a fall from a ladder! Case 3 also, which is made to illustrate one of the "symptoms of railway concussion"—complete paraplegia, without diminution of the size of the limbs—is in fact the case, previously detailed, of a man who fell from a tree. Moreover, the subject under the heading of Pathology of Railway Concussion, consists almost entirely of references to the researches of Ollivier, Portal, and Abercrombie, in whose works, we need hardly say, not a word is to be found about "railway concussions". Under this heading, indeed, only one single case of *post mortem* examination after railway accident is given; and that is a case of Mr. Lockhart Clarke's, detailed in the Pathological Society's *Transactions*.

From all this we gather that injuries of the nervous system, whether produced by railway or any other kind of concussion, resemble each other in every particular. It, therefore, seems to us that it would be just as reasonable to speak of railway fractures, or railway amputations, etc., as to speak of "railway nervous injuries". The only differences which, as far as we can see, are to be found between railway and other injuries, are purely incidental, and relate to their legal aspect. A man, whose spine is concussed on a railway, brings an action against the company, and does or does not get heavy damages. A man, who falls from an apple-tree and concusses his spine, has—worse luck for him—no railway to bring an action against. Surely the concussions of the spine, as such, are precisely similar, whether produced by a tumble off a ladder, or a jumble in a railway-train come to grief. It would be, in fact, just as reasonable to call a broken leg caused by the kick of a horse an equine fracture of the tibia, as to call such a concussion of the spine a railway concussion.

* "On Railway and other Injuries of the Nervous System." By J. E. Erichsen, F.R.C.S., etc. Pp. 144.

* In his opening remarks, Mr. Erichsen tells us: "It has been justly said by one of the greatest masters of the art of surgery that this or any other country has ever produced—Robert Liston—that no injury of the head is too trivial to be despised." Celsus made the same remark nearly two thousand years ago: "*Nullum vulnus capitis contemnendum est.*"

As we have already said, we object seriously to such specialising of "railway injuries", because it will assist, and needlessly, in a still further section of our already well cut-up profession; and in a case where (as Mr. Erichsen himself shows) there is no pretence for any specialistic difference in the nature of the injury dealt with. Such division will naturally, and also of course needlessly, lead to the establishing of a new class of surgeons—railway accident surgeons; and a new surgery—a railway accident surgery. No doubt, the public may readily be brought to believe that there is a speciality in the injuries produced by railway accidents; and, therefore, that one surgeon has more special knowledge of their surgery than other surgeons have. This, it is true, may lead to the benefit of the individual, but clearly is not to the benefit of the profession at large, or of the art of medicine and surgery. The belief, on the part of the public, in the existence of such individual superiority, in the present case, at least, would clearly be based upon a delusion, and must necessarily tend to the unfair depreciation of general surgery, and of surgeons in general.

Mr. Erichsen also here comments on Medical Evidence in Law Courts. We regret that we are forced totally to dissent from him in the apology which he offers for the notorious discrepancies in opinion, too often displayed by medical men in our law-courts, and especially in actions against railway companies. Mr. Erichsen defends them by quoting the similar discrepancies between other professional men—beteen engineers, men of law, etc. But surely it is a bad defence which rests its cause upon the similar shortcomings and failings of others—upon the plea that we are no worse than others. Our own opinion is, that we are, in fact, very much worse in this matter than either men of law or engineers. At all events, the public think so; and it is very certain that the direct opposite swearing of opinions, too often exhibited in law-courts by members of our profession, bring, and justly bring, great discredit on the body of us. We have no kind of doubt that the exhibitions alluded to damage our influence and our value, as curers of disease, in public estimation. The serious remarks which frequently fall from the Bench in this matter are not to be removed by Mr. Erichsen's apology. The public say, and say with truth, that the differences of opinion put forth and sworn to point-blank in courts of law, by medical men, do not occur in consultations in private practice. The public know this; and they ask, Why do they occur in law-courts? And, unfortunately, they answer "the question which themselves have asked", in a manner not complimentary to our profession. Are they wrong in doing so? We leave our readers to answer.

INFANTICIDE AND WET NURSING.

THERE are two ways of exhibiting a high moral tone of life-conduct. One is, by an indignant denunciation of deviations from the right line of virtuous morality; and the other is, by acting as far as we are able so as to prevent the possible occurrence of the evils which we denounce. A moderately careful analysis of our methods of practice in daily life would occasionally show that we ourselves actually take a share in promoting the very evils which we so virtuously denounce; in other words, are *participes criminis*. A remarkable illustration of the truth of this may be found in our loud remonstrances of the crime of infanticide. Every one thinks he fully knows what infanticide means; but the thing, carefully considered, will be found to embrace a much wider range of criminal procedure than that derived from the idea generally attached to it. There are other ways of killing infants besides throwing them into ponds, dropping them on door-steps, and tying a string round their throats, etc. Coroner's inquest infanticide is only a species of a large genus of methods of children-slaughter, and probably only a comparatively small species. There are infanticides and infanticides; and those infanticides of which we hear most are probably in number incomparably smaller than the quiet wholesale and gradual slaughterings which a little scientific or even unscientific inquiry, if it will take the trouble, may readily discover. A child found dead on a door-step produces a coroner's inquest, and leaders in journals, and indignant sensation with the public; but the laying in the grave of some scores of innocents by the gentle, unobtrusive, and gradual administering of soothing syrups, and other agents productive of infantile quietism, disturbs not the coroner, the press, nor the public. We English are proud when we hear continentals say of us that we are a practical people; but there is really great doubt whether we are worthy of the title, except in the matter of money-making. No national is probably more easily led by the nose than John Bull, when he is tickled with sensationalism. He views with calm indifference the sacrifice of the lives of hundreds of soldiers (worth, as shown by his ledger, at least £150 a head) to the Bermuda yellow fevers. He reads, or may read, in his blue-books, how the sacrifice is done—needlessly done—done in the face of remonstrating science—done by ignorant officialism, which closes its eyes and shuts its ears to all but the inveterate teachings of routine and redtapeism. He is told that, so sure as his soldiers were slaughtered last year—so sure as they had been in a like way, and spite of unheeded science's voice, needlessly slaughtered in previous years—so sure will they yet again be needlessly sacrificed, on the first fitting occasion, by the same fever, and in the same place. Can any

one say that John Bull is a practical man, when they see him running about, driven raving mad by the press, because a few Poor-law officials have failed to do their duty; and yet taking no account of the wholesale destruction—the needless, wanton destruction, by the hundreds—of his soldiers' lives? Martha Styles is found performing her ablutions in a chamber utensil, and John's bowels are moved to their depth of indignation. But all this terrible tale of the Bermuda tragedy stirs him not. (See British Medical Journal, Oct. 20, 1866.) And why? It has not been sensationalised; the dish has not been served up hot and hot by the press; and therefore (we must conclude) John Bull is silent. But the shortcomings and irregularities of a few metropolitan workhouses, well worked into vivid and romantic forms by an imaginative press, have operated on him like the torturings of the Torero on his namesake in a bull-ring, and driven him clean off his head. Trotted out by fantastic sentiment, John Bull is led as easily by the nose as his *Punch*-like representative is by a gentle maiden.

The marvel of all this tale is, that John Bull, like his namesake, not unfrequently shuts his eyes, and then rushes ahead just as madly and unreasonably; and he does so in this matter of infanticide. Men and coroners' inquests cry out indignantly against infanticide; and yet we ourselves actually take a hand, indirectly, it may be, but still a hand, in this very business. Is it not so?

We ask our medical brethren to lay aside for a moment all the dress and varnish which may be put around the question of wet-nursing, and to view the thing in its barren nakedness; and we ask them whether, from this point of view, the fact does not come out, clear and sharp, that the practice of one mother hiring another mother to suckle her child is indirectly, to speak euphoniously, a source of destruction to infantile life. We have more than once brought this serious subject under the attention of our medical brethren; and we should like to hear what those who recommend the common practice can say in its defence. We have never yet known a defender of it appear and maintain, *coram publico*, in argument, the proceeding which he practises. How does the mother, who purchases the hireling nurse, reconcile it to her conscience? Does she even ask herself where the hired mother's child is—how and where it is fed—how much its feeding costs? Does she not, on the contrary, make it part of the contract, that the hired suckling woman shall never see her own child, or visit her husband's house, while under hire? Is not the suckling mother fed and pampered, solely that she may become a good milcher? Is she not for the time so fed and pampered as to be quite unfit to return to her ordinary home—so as, in truth, to be made to loathe her own home and her own child? Is not her natural affection for her own offspring nipped and perverted in the very bud by this unnatural and demoralising proceeding? And what goes with her child in the meantime? Well, we doctors, at all events, know well enough. The lady may reck little, and in truth know little, of all this. She may be ignorant of the fact that, to feed her child, another child is being slowly starved into disease and death. Besides, is she not enjoined by her doctor that she must not suckle—that, though she may be strong enough to produce children, she is unequal to the labour of feeding the produce? Moreover, is it not too frequently the case, that mothers, who are naturally desirous of feeding their own children, are by their doctors forbidden to do so? This great and most serious blot (as we view the matter) upon the escutcheon of medical practice always, we confess, shows itself black and staring to us when we read of infanticide. It is useless for us to pretend to conceal from our reason, because the thing is out of our sight, the fact that the wretched offspring of hired suckling women are more or less victims of this species of infanticide. We know well enough what is the usual end of these *misérables*—put out at two and sixpence or eighteen pence a week, to undergo hand-feeding, that is, in ordinary language, substituted for demi-starvation and its usual train of tabescence.

We strongly advise those members of our profession who are so indignant in their denunciation of coroner's 'quest infanticide, to turn their attention to this particular species.

The promulgation of a report that the City Coronership would be vacated by Serjeant Payne has brought three or four medical and seven or eight legal candidates into the field. Amongst the medical candidates, Dr. Septimus Gibbon, Dr. H. Simms, Dr. Holt Dunn, and other medical men, are named. We learn, however, that it is highly probable that after all there will be no vacancy just now. The resignation was contingent upon the Corporation voting a handsome retiring allowance to the present coroner; and this, we believe, a majority are very disinclined to do. Rumour had assigned the succession to Mr. Payne's son; and the condition of resignation, coupled with the active support of the doctrine of succession, has raised some indignation in influential quarters.

The fate of three kingdoms, and of many more whose national interests are bound up with them at present, hang upon the life and health of three persons, who are all severely tried by illness—the Emperor Maximilian, the Emperor Napoleon, and the Count Bismarck. Just now, we will back prescriptions against despatches.

Who is responsible for advising the detention of the unhappy passengers of the *Atrato?* Or will any one state clearly the scientific grounds on which it is justified? If there be anything definitely proved about yellow fever—and although much has been written, there are still doubtful points—it is that yellow fever cannot be spread at a temperature below 50°. The fear that yellow fever would be propagated by passengers landing in England in the month of November, is characterised by the highest authorities as entirely chimerical. We take the contagiousness of the disease for granted in this case; for the best authorities accept it as such, although it has been positively denied; and yet it seems clear that to keep the passengers cooped at Motherbank was an unjustifiable and not a very intelligent act of oppression. There is, however, a very evident source of danger, which will not, we hope, be lost sight of. This is the possibility of a fresh outbreak occurring in the ship *Atrato* on its return voyage, when it reaches the warmer latitudes. Yellow fever clings to ships rather than to individuals, and the *Atrato* should be very carefully disinfected and cleaned before sailing afresh.

The attention of the Horse Guards, it appears, has been called to the great inexpediency of removing the 1st Brigade Royal Artillery from Gibraltar to Halifax. On account of the lateness of the season, and the great contrast between the two climates, the health of the men would, it is feared, suffer very greatly, the winter having already set in with great severity in Halifax. What will be done?

The sudden death is announced of Professor Trousseau, the great physician of Paris. Dr. Trousseau was one of the most eminent and highly distinguished physicians whom the school of Paris has produced. He combined the highest qualities of the teacher with the most remarkable skill as a practical physician. His clinical insight was exquisite; the profound, literal, and minute study which he made of every case, was the first element of his success. But to this he added rare sagacity and discrimination, a searching insight into hidden causes, and a skill in unravelling the most intricate web of probabilities, which rarely failed him. It was impossible to hear Trousseau give an account of even the most usual case without feeling that he had invested it with a peculiar interest, that he saw more in it than any ordinary man could see, and had called attention to some subtle analogy or some suggestive detail which would have eluded any but his keen glance. Not the least of his qualities was an admirable precision of language, and a fluency which, under the influence of feeling, often warmed into eloquence. He was erudite, as most eminent French physicians are; but he was more catholic, more sober, and less enamoured of novelties, than many of his distinguished contemporaries in that school. We pay him a compliment which he appreciated, which in his lifetime he loved to hear, in calling him the French Graves. He highly esteemed the clinical writings of that physician, and edited them in French. His own clinical lectures, which are now in course of publication in English, forcibly recall those of his great Irish predecessor. He had but lately resigned the Chair of Clinical Medicine in the Paris Faculty, which he had been induced to keep of late years, sorely against his will, by the earnest prayers of the students, who idolised their great teacher. In this country, Trousseau has long been accepted as the best typical physician of the French school. His sudden decease will not be heard here without emotion by many private friends, and by more professional admirers.

The terse epigrammatic style in which Dr. Farr writes his weekly reports on public health helps their effect considerably. No man has rendered greater services to the cause of sanitary progress; few so great. The reports are not mere statistical records of figures—skeletons without life; but are animated by a vital energy due to the informing mind which draws the inferences to which they lead, in language which rarely fails to arrest attention. Hence, we are anxious for some further explanation than has yet been given of that brief and pregnant sentence in which the Registrar-General made known that Dr. Frankland had ascertained that "cholera stuff (cholerine)", when held in solution in water, passed unchanged through charcoal, and was found in the filtrate. What is cholerine? By that question we do not mean to criticise the word, although it had previously been, and is still frequently, applied to the diarrhœa which frequently precedes cholera in the individual and is abundant in choleraic periods; but we want to have information, which will be certainly most acceptable to the world at large, and to professional chemists and physicians especially, as to the means by which cholerine was detected in the solutions and the filtrate. Has cholerine any physical and chemical tests? Was its presence ascertained by its influence on man or animal?

The cholera is still showing itself in its oldest and most dangerous haunts—brought over from Salonica, it has broken out in Pera. Most of the cases lately reported have been fatal. Cholera at Constantinople is a standing menace to Europe. Late letters from Rome describe the cholera as very seriously prevalent there also. On the 15th, there were 100 cases; and, in consequence of the panic, several foreigners have left the city.

The balloting-list of the Royal Society for officers to be elected on November 30th includes the following names:—*President* — General Sabine, B.A., D.C.L., LL.D. *Treasurer*—William Allen Miller, M.D., LL.D. *Secretaries*—William Sharpey, M.D., LL.D.; George Gabriel Stokes, M.A., D.C.L., LL.D. *Foreign Secretary*—Professor William Hallows Miller, M.A., LL.D. *Other Members of the Council*—Lionel Smith Beale, M.B.; William Bowman, Esq.; Commander F. J. Owen Evans, R.N.; Edward Frankland, Ph.D.; *John Hall Gladstone, Ph.D.; William Robert Grove, M.A., Q.C.; William Huggins, Esq.; Thomas Henry Huxley, Ph.D.; William Lascelles, Esq.; Professor Andrew Crombie Ramsay, LL.D.; Colonel William James Smythe, B.A.; William Spottiswoode, M.A.;* Thomas Thomson, M.D.; William Tite, Esq.; Vice-Chancellor Sir W. P. Wood, D.C.L.; the Lord Wrottesley. The Fellows whose names, in the preceding list, are printed in italics, were not members of the last Council. A Royal Medal of the Society has been awarded to Mr. Parker, the distinguished comparative anatomist, and one of the most accomplished members of the medical profession. It is no small honour to the great body of general practitioners, that from their number have lately sprung in London two such distinguished workers in zoological science as Lockhart Clarke and Parker, now both Royal Medallists of the Royal Society.

The letter of a "Medical Tutor" in the *Times* this week has excited general and just indignation in the profession. We all know that medical students are no more free from follies and from the excesses of youthful spirit than other students; and that there are, amongst every thousand young men, a few who may disgrace the rest by their conduct. But it has for years been a source of pride and gratification to all concerned in the management of the schools and colleges of medicine, and to the profession at large, that the educational and social standing of medical students has progressively and rapidly improved during the last fifteen years. They must now perforce be men of good education, before they can pass the preliminary examination in Arts; they are drawn from the professional classes to a large extent; and the demeanour and discipline of the students in the medical schools is such as to have called forth the admiration of the governors of the hospitals to which the schools are attached, and even of others, who have in times past gathered from Albert Smith's sketches a very distorted notion of the habits of the men of his day. A more serious libel against the professors is that implied in the statement that they are too "timid" or too "careless" to enforce any sort of discipline; and that the most dissipated and idle student easily gets his schedule signed for "diligent" attendance. This is so entirely without foundation in fact, that it cannot be supposed that it will be allowed to pass without more serious notice than has yet been taken of it. There are not very many medical tutors; and we shall be surprised if they do not meet to repel the extraordinary aspersions which, in a moment of bilious recklessness, this unknown writer has cast upon them. Besides medical tutors properly so called, such as Dr. Duckworth, Mr. Morant Baker, and Mr. Shepard at Bartholomew's, Dr. John Harley at King's, Dr. Liveing at Middlesex, there are, however, a few "grinders" and extra-academical tutors, whose rooms are the last resort of the dissipated and idle students—of the absolute numskulls, and the thrice rejected of the colleges. Here the wildest *canards* fly about; the idlest students are the most prolific in complaints; they have a dozen reasons for their failure, all inherent in the organisation of their schools, and none in their own stupidity and idleness. Are the complaints of a "Medical Tutor" nothing more than the *apocrypha* of the grinder's room? At any rate, we hope to hear from the veritable medical tutors what they think on the subject.

The names of Dr. Rolleston, Mr. Clifton, and Mr. Vernon Harcourt, as Examiners in the first examination for the degree of Bachelor of Medicine; and of Dr. T. K. Chambers (Christchurch) and Dr. J. W. Ogle (Trinity) as Examiners in the final examination required for the same degree, were this week submitted to the Oxford Convocation, and approved.

At a late conflagration of a house in the Hampstead Road, the lives of three children were unhappily destroyed, and, as the verdict says, "by the negligence of the police." The coroner, Dr. Lankester, said there could be no doubt from the evidence that the children died from suffocation. What is called suffocation in such cases is, however, usually, we believe, poisoning by carbonic oxide, leaving the blood reddened in the veins as in the arteries. We should be interested in receiving particulars of the *post mortem* appearances in this sad case. The point is one of medico-legal and scientific interest.

Mr. George Steel, of Woodstock Street, Oxford Street, gave recently by his will all his real and personal property (after payment of his debts and legacies) for the benefit of the Slyman Ward of Middlesex Hospital; with a further direction that, if any portion of his estate would not pass under the bequest to the hospital, then such estate should be administered that the greatest benefit might accrue to the charity. The residuary legatee of the testator filed a bill in the Rolls Court last week for the administration of his estate, and a decree was made for

such administration, leaving the right of the hospital to be determined at a future time. The amount involved is, we believe, however, very small; and it is thought doubtful whether the hospital will benefit by the legacy at all.

We understand that Mr. John Simon, F.R.S., will be nominated by the Council of the Pathological Society as President for the ensuing year, having been unanimously selected for that purpose. It is no small compliment to the staff of St. Thomas's Hospital, that the President of this Society should twice successively be selected from amongst their number.

The College of Surgeons have shown the intention of seriously setting to work to bring their examinations up to the level at which they ought to stand as tests of surgical knowledge and skill. The examination for membership has been rendered more practical. New regulations are also now issued for the fellowship, which will have a good effect. But what is most to be desired is, that the College diploma, which gives the right to register, and therefore to practise generally, should not be granted to candidates who have not been examined in medicine, materia medica, chemistry, midwifery, or botany. This can probably only be carried out by arranging an amalgamation for the purposes of a general licence with some other body, such as the College of Physicians.

During the trial of the case of Hunter *v.* the *Pall Mall Gazette*, on Tuesday last, Dr. Hunter, in answer to a question put to him by Mr. Karslake, said that Dr. Wills, the gentleman who had carried out his system of treatment in Edinburgh, and who was author of one of the "Hunterian works", had given up the business, and had returned to the army. Hence it appears that Dr. Wills gave up his commission to enter into private practice. After a certain amount of indulgence in the Hunter system of cure, which does not appear to have answered among our acute Scotch friends in Edinburgh, he is again, by the complaisance of the Director-General, received with open arms into the bosom of the army medical family.

The Council of the Royal Medical and Chirurgical Society recently authorised their President, Dr. Alderson, to make application to the Government for rooms for the Society in Burlington House, where many learned societies are already lodged at the Government expense. The application has been forwarded to the Commissioners of Woods and Forests; and we believe that an answer has been received, stating there is not sufficient space at their disposal to grant the application of the Society, but that their claim should be considered along with those of others who have addressed similar requests to the Government. Hence, for the present at least, the Society will remain in their old rooms in Berners Street.

Dr. Jeaffreson of Leamington has resigned the office of Physician to the Warneford Hospital. He considers, and fairly enough, that, after twenty years' services given for the benefit of the poor, he is entitled to relief from his public duty.

In a recent able review of the biography of Dr. Whately, the late Archbishop of Dublin, the writer refers to the singular facility with which that great logician gave himself up to all the wild follies of mere sciolists and pretenders in science. Homœopathy, animal magnetism, spirit-rapping, and most nonsense of the kind, found ready acceptance from him. This writer has a theory by which he explains the paradox. It is, he says, "as if, in his case as in that of others, the intense use of reason produced a reaction towards superstition in some matters." The same thing has been enunciated more generally by Dugald Stewart, who says "that mathematicians are the most credulous of men." An illustrious living mathematician in the metropolis is very well known at the present moment as one of the warmest believers in the mysteries of spirit-rapping and spirit-communications.

The grand jury have ignored the indictment preferred against James Aldous by the Commissioners in Lunacy, for receiving into his house, without certificates, an imbecile patient. The act was, of course, illegal, as set forth; but it was shown, in the first instance, that the greatest kindness and skilled attention were given to the patient. The fact that no patient of unsound mind can with safety or legality be received for profit, under any circumstances, unless duly certified and returned to the Commissioners, is one which cannot be too strongly insisted on.

The new volume of the *Medico-Chirurgical Transactions* (the forty-ninth of the series) is out. It is generally observed that it is hardly equal in size or in quality to many of its predecessors. It contains, however, some papers of considerable interest; amongst others, the last of the late Mr. Toynbee's observations on Diseases of the Ear, the eighth series communicated to the Society. The volume is a very thin one, making only 219 pages of actual scientific matter; and does not contrast favourably with the much fuller and richer volume issued this year by the Pathological Society. In a Society so distinguished, and numbering so many highly eminent men in its list, there could hardly be a difficulty in

producing a better volume, if the Fellows could be induced to take a more lively interest in the scientific progress of the Society than they have done for the last year or two.

A REPORT of a Committee on Trichiniasis has been presented to the Medical Society of Vienna by Professor Wedl. The Committee dealt mainly with the presence of the disease in different animals, etc. Rats taken in Vienna and the suburbs, as well as in many of the provinces of the empire, were especially examined with this object. Very few trichinæ were found in Vienna rats. On the other hand, suburban rats, and the Moravian and Galician rats, were found well studded with the parasites. In Moravia, for example, where there are an extensive manufacturing of sausages and large pig-markets, trichinæ abounded. Trichinæ were also found in the marmot, hedgehog, shrew-mouse, polecat, and fox. But in pigs, for the most part, the examinations were negative. Hitherto, there have only been in Austria a few scattered cases of trichinosis observed in man. The pigs experimented on exhibited no distinct pathological symptoms characteristic of trichinosis. Cough and irritation of the skin, loss of appetite, and wasting, were noted, but after a time disappeared. The same symptoms were noted in a calf. Experiments with tainted food made on rats, mice, foxes, etc., all gave positive result. But in no case was paresis or paralysis observed. Trichinæ subjected to gastric fluid were destroyed; but the capsulated trichinæ resisted destruction. Muscular trichinæ exhibited great tenacity of life in decomposed muscle; they were still capable of infecting after being kept eighty days in putrid flesh.

Dr. Jurányi has been nominated Professor of Botany at Pesth, says *Wiener Med. Wochen.*, although a Protestant. His opponent, Dr. Linzbauer, who knew nothing of botany, and was supported by the clerical party, has addressed a protest to the Emperor against the election of a Protestant.

M. Dumas has been nominated Honorary Professor of the Paris Faculty of Medicine.

IRISH REGISTRAR-GENERAL'S REPORT. The return just issued records 18,751 deaths in Ireland in the third quarter of the present year, being at the rate of 13·4 to every person living. About thirty registrars reported cases of cholera; many are stated to have been imported from England by the reapers. In Mallow, twenty-six deaths from cholera took place, the greater number of them occurring in the vicinity of a well, the water of which was used for domestic purposes by the people residing in its neighbourhood. The water has since been analysed, and found to contain a very large amount of organic matter derived from animal sources. The same thing occurred at Arklow, in Rathdrum, where twenty-one deaths were occasioned by Asiatic cholera, out of a total of fifty-eight for the quarter.

Association Intelligence.

REPORT OF MEETING OF COMMITTEE OF COUNCIL:

Held at Birmingham, November 22nd, 1866.

PRESENT—Dr. Sibson, F.R.S. (in the Chair); Mr. Bartleet; Mr. T. H. Bartleet; Dr. Bryan; Mr. Clayton; Dr. Falconer; Mr. Husband; Dr. Richardson; Dr. Simpson; Mr. Southam; Dr. Stewart; Dr. A. T. H. Waters; Dr. Edward Waters; Dr. Wilkinson; and Mr. T. Watkin Williams (General Secretary).

Resolved—

1. That Professor R. W. Smith, of Dublin, be appointed to deliver the Address in Surgery at the Annual Meeting in 1867.

2. That a JOURNAL Reference Committee be appointed: to consist of the President of the Association; the Vice-President; the President of the Council; Dr. Markham; and Dr. Stewart.

3. That Ernest A. Hart, Esq., be appointed Editor of the BRITISH MEDICAL JOURNAL.

4. That the Committee of Council be appointed a deputation, with power to add to their number, to wait upon the Home Secretary when considered desirable.

T. WATKIN WILLIAMS, *General Secretary.*

Birmingham, November 26th, 1866.

BATH AND BRISTOL BRANCH.

THE second ordinary meeting of the above Branch will be held at the York House, Bath, on Thursday evening, December 13th, at 7.15 P.M.

The following papers are expected:—A Case of Gonorrhœal Rheumatism. By A. Prichard, Esq. An Extraordinary Case of Carcinoma in a Child. By W. B. Herapath, M.D. On the Internal Use of Tartar Emetic in Sudden Acute Inflammations. By J. K. Spender, M.B. An Unusual Case of Valvular Disease of the Heart. By Ezra Hunt, Esq. Clinical Temperature in Acute Disease. By H. W. Freeman, L.R.C.P.L.

R. S. FOWLER, *Honorary Secretary.*

SOUTH EASTERN BRANCH: EAST SURREY DISTRICT MEDICAL MEETINGS.

THE next meeting of the above Branch will be held at Longton's Hotel, Sydenham, on Thursday, December 13th. The chair will be taken by Dr. Ray, of Dulwich, at 4 P.M.

Papers, etc., will be read by Dr. Horace Jeaffreson, of Wandsworth; Dr. J. M. Bright, of Forest Hill; Mr. Roper, of Croydon; and by other gentlemen.

Dinner will be provided at 6 P.M.

HENRY T. LANCHESTER, M.D., *Hon. Sec.*

Croydon, November 28th, 1866.

QUEKETT MICROSCOPICAL CLUB. The monthly meeting was held at University College on the 23rd ult., Ernest Hart, Esq., President, in the chair. Mr. M. C. Cooke read a short paper "On the Best Method of Transmitting Slides by Post." Mr. S. J. M'Intire read a paper "On the Different Kinds of Poduræ." Mr. N. E. Green read a paper "On Melicerta." Nineteen members were elected, and the proceedings terminated with a *conversazione.*

Reports of Societies.

WESTERN MEDICAL AND SURGICAL SOCIETY.

FRIDAY, OCT. 19TH, 1866.

H. W. FULLER, M.D., President, in the Chair.

AFTER a few words in connection with the Society, the PRESIDENT made some observations

On Certain Points in connection with Cholera. He began by expressing his belief, that the outbreak of cholera which had occurred this year was only the prelude to a more severe and general epidemic of the disease next year. He grounded his opinion on the facts that, in former epidemics, the force of the malady had not been felt until the second year, and that, although its influence had this time been chiefly localised to certain districts, still sporadic cases have occurred over the whole metropolis; and, notwithstanding the cold weather, it has spread over the whole kingdom, with great malignancy in some parts. Hence, Dr. Fuller drew the inference, that the seeds of a virulent form of cholera are widely sown, and only require a certain atmospheric condition to develope it into an epidemic.

Concerning the various theories of cholera, Dr. Fuller believed that the existence of a distinct *materies morbi*, a cholera-germ, probably of fungoid origin, was alone capable of explaining the facts of cholera; such as its occasional sudden outbreaks, at times over a vast extent, at others over a small area; its predilection for low and unhealthy localities; the immunity of certain localities above a certain level; the difference in its period of incubation; its uniformity of duration as an epidemic in any locality; its spread, at times with, at times in the teeth of, the wind; and lastly, its apparent communicability by times, by contagion at one time and not at another. He showed, also, how forcibly the experiments of Dr. Salisbury and others pointed to the fungoid origin of the ague and other endemic and epidemic diseases; which researches rendered it probable that all so-called zymotic epidemics had a fungoid origin.

Dr. Fuller then argued the question of the contagion of, and quarantine for, cholera. Experience showed that, in the vast majority of cases, cholera did not evince a contagious character. The admitted failure of quarantine to arrest its progress, was to the point; the sudden way in which a town might be affected without the disease being traceable to any human agency of contact, and the way in which ships might be attacked which have not touched land for weeks, showed how the atmosphere might be the means; also how one town might be full of cholera, very near another which had none, notwithstanding hourly communication of people between them. Quarantine would not, therefore, stop cholera, when due to an epidemic state of the air; nor when not due to the state of the air, for cholera had no tendency to spread when proper sanitary measures were observed.

Dr. Fuller then proceeded to discuss the influence of sanitary arrangements in the case of cholera, and chiefly dwelt upon the agency of water. It was impossible to doubt the influence of defective drainage, of the emanation from sewers, gaseous exhalation from all kinds of decomposing filth, of impure water, of overcrowding, bad ventilation, and all other agencies of that kind in promoting the spread of the disease; nor could one doubt that intemperate habits, deficiency of food, depressing passions, etc., did so likewise; partly by lowering nervous power, and so lessening the resistance of the system to its poison; and partly by giving rise to a congenial nidus for the development of the cholera-germ. Great praise was, therefore, due to all those who had exerted themselves in promoting sanitary measures during this epidemic, such as removing nuisances, procuring a free supply of pure water, good ventilation, etc. All these measures would diminish the spread and the severity of the disease, but would not always attack the true cause of the cholera. According to some people, cholera was alone due to defective drainage; to others, alone due to the water-supply; but trustworthy cases had shown how some people had cholera, never having drunk of the accused water. According to Dr. Fuller's experience, foul water acted, not by introducing the excreta of cholera-patients (which it was not proved would, when swallowed, produce the disease), but as a vehicle for taking into the system the *materies morbi* it had received from the air; and also by lowering the system through its power to derange the stomach, etc. A purer water-supply, as also other preventive sanitary measures, did good in some way; but, however good, they had little, if any, influence in checking the progress and duration of the disease. The decline of cholera was often attributed to these so-called preventive measures; rather than, as it ought to be, to the natural decline of the disorder. The natural history of cholera showed that, as an epidemic, its duration was usually limited to three or four months; nor had "stamping out" diminished this period. The essential cause of cholera must be sought for elsewhere than in neglect of hygienic measures.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, NOVEMBER 13TH, 1866.

JAMES ALDERSON, M.D., F.R.S., President, in the Chair.

A CASE IN WHICH OVARIOTOMY WAS TWICE SUCCESSFULLY PERFORMED ON THE SAME PATIENT.

BY T. SPENCER WELLS, F.R.C.S.

THE author commenced by alluding to three cases in which ovariotomy had been performed twice on the same patient. The first was by Dr. Atlee, of Philadelphia, sixteen years after the previous operation by Dr. Clay, of Manchester. The second was by the author, nine months after an operation by another surgeon. The third was by Dr. F. Bird, fourteen years after one of his own operations. The first case was successful. The second and third were not. The case now related was believed to be the first in which ovariotomy had been performed successfully twice on one patient by the same surgeon. In this case the author removed the left ovary of an unmarried woman, 24 years of age, in February 1865. The tumour weighed twenty-nine pounds. The right ovary was then healthy. The patient recovered, and remained well more than a year. But, in about fifteen months, disease began in the right ovary, and advanced so rapidly that ovariotomy was performed for the second time eighteen months and a half after the first operation, and a tumour, weighing eighteen pounds, was removed with complete success. A full account of both operations was given, with a description of the tumours removed; and some remarks were added upon the comparative frequency of disease in one or both ovaries, and upon the appearance of disease in one ovary after the other had

been removed. The author showed that the right and left ovaries are found diseased with equal frequency; and that in from one-third to a half of the cases where the disease has gone on to its termination in death, both ovaries are diseased. But he asserted that both ovaries are affected in much smaller proportion in the earlier stages of the disease. In the first hundred and fifty cases in which he performed ovariotomy he only removed both ovaries in seven, and in only three others was disease in an early stage suspected in the ovary not removed. In three the ovary not removed, but examined and found healthy, had become diseased afterwards. In two of these cases disease was malignant. The rule appeared to be established that after a successful ovariotomy the patient was restored to good health; and although there were occasional exceptions to this rule, it was satisfactory to know that, if the remaining ovary should become diseased, the first operation need not add much to the difficulty of the second; and that, of four cases in which a second ovariotomy had been performed, two had proved successful.

Correspondence.

RESIGNATION OF DR. RICHARDSON.

LETTER FROM BENJAMIN W. RICHARDSON, M.D.

SIR,—Circumstances having forced me to the painful necessity of forwarding my resignation of membership of the British Medical Association, I feel it my duty to lay before the members, through the JOURNAL, a statement of my position in regard to certain offices and affairs of the Association with which I have been up to this time intimately connected. By this step I shall save the Executive and others the trouble of applying to me personally; I shall speak at once and for good to *all* the members of the Association; and, on my own part, I shall feel relieved of every anxiety.

The Charter of the Association. The business of the proposed Charter of the Association has been conducted by Dr. Stewart and myself, advised by Mr. Robert Upton, of the eminent legal firm of Uptons, Johnson, and Upton.* The Charter has received from us the most thoughtful study; and the draft has been framed with the utmost care. Previously to the meeting at Chester, however, the Committee of Council thought it wise to alter one of the clauses of the draft Charter, in order to give a vote in Council and in Executive Committee to the General Secretary of the Association. I ventured to oppose this; because, without reference to any particular man, this clause, if carried, would put the whole power of the Association into the hands of an officer who, of all others, should exert none but ministerial functions. I felt this so strongly, that at Chester I was compelled, despite the labour to which the Committee had been subjected in preparing the draft, to second Mr. Steele in proposing the postponement of the question until the Dublin meeting next year. Mr. Steele's motion was carried; and the Charter remains still in abeyance. In leaving it, I offer no opinion as to the propriety of its adoption; but have merely to state, apart from the clause respecting the General Secretary, that it is sufficiently elastic in its provisions to give the Association easy progression, and sufficiently firm to keep the Association steady in its course. Indeed, should the Charter be given up, the proposed rules embodied in it would be found a great improvement on some of the present rules of the Association, simpler and more practical. It is important for me to add that, in the matter of the Charter, the Association has been subjected, up to the present moment, to no other expenses than those arising from the communications of Dr. Stewart and myself with Mr. Upton. The affairs of the Committee now remain with Dr. Stewart solely, in whose hands they are most safe.

The Medico-Legal Committee. This Committee, of which Dr. Tuke is Honorary Secretary and I was Chairman, remains in action, having been re-elected without change at the Chester meeting. It requires only a new Chairman. I handed over all the letters and papers then in my possession to Dr. Tuke at the last meeting of the Committee. I may perhaps venture to say, in respect to the labours of this Committee, that, if the programme laid down by Dr. Symonds were in the main followed, the time has come when the Committee could forcibly influence the Government on many points of legal medicine which urgently require amendment by the legislature. In observing the decisions of the Committee, I was led to fear that the differences of opinion among the members on points that were most vital stood in the way of combination. For all that, had I remained in the Committee, I should have asked Dr. Tuke to summon it in London prior to the ensuing session of Parliament, and should have tried to effect a common understanding in relation to some important changes of law, on which all classes of the profession feel alike, and which might be moved for with fair chance of success. Regarding the future of this Committee, I would respectfully suggest that its labours would be greatly lightened if it were to connect itself in work with the Parliamentary Committee of the Metropolitan Counties Branch, which Committee Dr. Gibbon so ably superintends. The two bodies might remain as distinct Committees, and yet combine for special discussion of particular subjects.

The Hastings Medal. It has been proposed to change the character of the Hastings Prize, by substituting money for the present gold medal. On this matter I ought to say thus much: that, as it was my happiness and privilege to be the first to suggest the prize, I took the opinion of Sir Charles Hastings on the subject of the character of the prize. Of the prizes suggested, the gold medal pleased him best by far; and he came himself to my house to see the Fothergillian Gold Medal as a model. Also, after presenting the first medal at Cambridge to Dr. Thudichum, he was so good as to say to me that he could not thank me adequately for having given him the pleasure of the presentation; and that he hoped "I should live many years to see the Hastings Medal an established honour in physic—an honour which men would treasure as of more real worth than the money it represented." It may be that, in his later years, Sir Charles changed his mind; but, unless he expressed such a change to Mr. Hastings, or to some one whose word could be relied upon, I do not think the members of the Association would be following out the wishes of their beloved and honoured master, if they made any other change in the prize beyond that of supplementing the medal by a money grant. There are yet, perchance, a few friends of Sir Charles Hastings who will sympathise with me on this point, and who will try to keep the Hastings Medal still intact.

The Medical Provident Society. The position in which the Medical Provident Society was left by the Chester meeting is well known. As a matter of simple history, the Association, from which the So-

* Our friend Dr. Westall was originally elected with us, but could not act.

ciety emanated, discarded it, giving it merely the ensuing twelve months to wind up its affairs and close, or to set itself up on an independent basis. From the experience I have had of the Society—experience gained by very hard work, long continued—I feel that the decision of the meeting was correct; and that Mr. Steele was also correct in his original view, that such a Society, requiring to exist by legal tenure, cannot live as a part of the Association. I name this, because it may prevent other men from trying an useless experiment. The Association is, in fact, too fluctuating to form the groundwork of what is virtually an inheritance. Members die, members change; members of one opinion are present at this meeting, and members of an exactly opposite opinion form the majority of the next meeting. Thus, the basis of rock to-day is sand to-morrow. I have requested Dr. Henry, the Secretary, to call a meeting of the Directors of the Medical Provident Society. The Directors can then agree, if it be desirable, to call a general meeting of the subscribers, to determine whether to go on or to close. Whatever they do, and I am sure they will act for the best, I may state, that as up to this day, November 26th, no subscriber has made a demand on the funds, the money which the subscribers have paid can all, in the event of the Society being broken up, be returned; and that, as the working expenses of the Society have been moderate, the Auxiliary or Donation Fund, *minus* such expenses, would still remain, to be dealt with, I presume, by an equitable re-distribution amongst those who so handsomely produced it.

And now it only remains for me, as a member of the British Medical Association, to add, "Good bye." The word is hard to say, but must be said. The associational bond has been long, earnest, I trust worthy of some passing remembrance, and by my initiative would never have been broken. As it is, working on in the art of curing disease—the only work on which, whether combinedly or individually, we can progress—I shall hope still to retain the good esteem of the best and truest of those who have been my fellows; beyond this, I have no ambition.

I am, etc., B. W. Richardson.

12, Hinde Street, W., Nov. 26th, 1866.

POISONING BY THE EXTERNAL APPLICATION OF BELLADONNA.

Letter from William F. Morgan, Esq.

Sir,—The last number of the Journal contained an account, condensed from the London Hospital Reports, of two cases of poisoning by the external application of belladonna. I am reminded by of it similar instances occurring in my own practice, a brief recital of which may not be uninteresting to your readers.

I was sent for in haste a few years ago to see a gentleman who was supposed to have impending some serious affection of the brain. I found him in a state of mental confusion bordering on delirium, with his lower extremities semiparalysed, his pupils widely dilated, and vision much impaired; the pulse was very frequent, the skin hot and dry, and covered with a scarlet rash, which occasioned intolerable itching. The rash extended throughout the fauces and throat, accompanied with a feeling of great dryness and constriction, and intense thirst.

I was told he had been suffering from lumbago, and had of his own accord applied a large belladonna plaster to his loins. This being removed (it was at least a foot square) he speedily recovered.

The other case was the mother of a medical friend, who had some painful affection of her leg, for which he strapped it with belladonna plaster. He came to me soon afterwards in much alarm, requesting me to see his mother immediately, as he feared she was threatened with apoplexy. Her symptoms were those of belladonna poisoning, in a less degree than in the former case, and without the characteristic scarlet rash; and on removing the plaster she was soon all right.

We may derive from these and similar examples a lesson of caution when prescribing belladonna externally. I am, etc.,

W. F. Morgan.

Bristol, November 26th, 1866.

RESECTION OF THE KNEE-JOINT.

Letter from Holmes Coote, Esq.

Sir,—In the number of your Journal, November 24th, Mr. William Paul Swain has thought fit to comment on some remarks of mine, on "Resection of the Knee-Joint," published in the St. Bartholomew's Hospital Reports of this year.

I rarely notice criticisms, as I consider every published statement in the light of public property, to be treated as those who read it may fancy; but the subject of resection of joints is one so important as to induce me to break through this rule, and to repeat that in my opinion the operation of resection of the knee has been very often heedlessly and recklessly done, and that it has yielded unsatisfactory results, especially in the young.

Had Mr. William Paul Swain taken the trouble to inquire, he would have found that my "practice is in accordance with my preaching;" and that I have long been known to refrain from an operation, which, as frequently performed, justly merits the appellation of "barbarous," as he well expresses it.

I have seen more cases of joint disease than falls to the lot of most surgeons. They present themselves in endless succession at St. Bartholomew's and the different orthopædic hospitals; and I cannot recall during a long experience any single occasion in which I have had to amputate the thigh of an infant for disease of the knee. What am I to think of the judgment of that surgeon who would resect the knee-joint of a child of three years?

In the case of adults the death-rate is very high unless all the internal organs are sound; but when a person is in such a state of perfect health, he is very rarely the subject of joint disease.

I operated on the two cases referred to by Mr. William Paul Swain, partly at the request of the patients, partly on the suggestion of some of my colleagues, partly because the cases were in my own opinion peculiarly well suited for a trial of resection. The results were satisfactory as regards the operation, *i. e.*, the patients did not die, and the wounds closed. The limbs were similar to those depicted in so many woodcuts, namely, short, withered and weak. One of the two patients requested me afterwards to amputate the limb.

Next to those who have worked to prove how much may be done by rest and gentle measures, in the treatment of joint disease, I respect those who made the first brave attempts to avert amputation by resection; but I cannot equally admire the opinions of those who close their eyes to the shortcomings of this serious operation; and I am sure that if Mr. William Paul Swain will read over his remarks on me, he will regret some of his remarks, which I am confident must have crept into his communication by accident. I am, etc.,

Holmes Coote.

Medical News.

UNIVERSITY OF LONDON. The following is a list of candidates who passed the recent Second M.B. Examination.

First Division.

Bateman, Francis, St. Bartholomew's Hospital
Buckell, Francis John, University College
Bushell, Stephen Wootton, B.Sc., Guy's Hospital
Clothier, Henry, University College
Cole, Thomas, St. Bartholomew's Hospital
Eastes, George, Guy's Hospital
Ferris, John Spencer, King's College
Gooding, Ralph, B.A., King's College
Howse, Henry Greenway, Guy's Hospital
Hughes, John Pearson, University College
Kelly, Charles, King's College
Nunneley, Frederic Barham, University College
Philpot, Charles William, B.Sc., King's College
Shaw, Thomas Claye, B.A., King's College
Spencer, George Outhwaite, University College
Spender, John Kent, King's College
Tayler, George Christopher, St. Bartholomew's Hospital
Taylor, Arthur, Guy's Hospital
Thorne, Richard Thorne, St. Bartholomew's Hospital
Welch, John Burges, King's College
Williams, John, University College

Second Division.

Ball, John Augustus, Guy's Hospital
Barter, Clement Smith, St. Bartholomew's Hospital
Evans, John Augustus Michael, University College
Grimes, John, B.Sc., King's College

Examination for Honours.

First Class. *Medicine.*

Kelly, C., (Scholarship and Gold Medal), King's College
Philpot, C. W. (Gold Medal), King's College
Bushell, S. W., Guy's Hospital
Howse, H. G., Guy's Hospital
Nunneley, F. B., University College
} equal

Shaw, T. C., King's College
Thorne, R. T., St. Bartholomew's Hospital
Cole, T., St. Bartholomew's Hospital
Williams, J., University College
Clothier, H., University College
Gooding, R., King's College
Tayler, G. C., St. Bartholomew's Hospital
} equal

Second Class.

Taylor, A., Guy's Hospital
Welch, J. B., King's College
Ferris, J. S., King's College

First Class. *Midwifery.*

Kelly, C. (Scholarship and Gold Medal), King's College
*Howse, H. G. (Gold Medal), Guy's Hospital
*Bushell, S. W., Guy's Hospital
*Shaw, T. C., King's College
*Philpot, C. W., King's College
Welch, J. B., King's College
Thorne, R. T., St. Bartholomew's Hospital
Ferris, J. S., King's College
Nunneley, F. B., University College
Williams, J., University College
Gooding, R., King's College
} equal

Second Class.

Spencer, G. O., University College
Tayler, G. C., St. Bartholomew's Hospital
Taylor, A., Guy's Hospital
} equal

First Class. *Forensic Medicine.*

Spencer, G. O. (Scholarship and Gold Medal), Univ. Coll.
Bushell, S. W. (Gold Medal), Guy's Hospital
Philpot, C. W., King's College
Shaw, T. C., King's College
Nunneley, F. B., University College
} equal

Second Class.

Gooding, R., King's College
Tayler, G. C., St. Bartholomew's Hospital
} equal

Third Class.

Howse, H. G., Guy's Hospital

* Obtained number of marks qualifying for scholarships.

APOTHECARIES' HALL. On November 22nd, 1866, the following Licentiates were admitted:—

Nowell, Richard Bottomley, Guy's Hopital
Rix, Richard Avery, Beccles
Willan, Thomas Henry, Littlehampton, Sussex
Young, Frederick William, Salisbury

At the same Court, the following passed the first examination:—

Colson, Edward, Guy's Hospital
Harvey, James D'Arcy, University College Hospital
Jenkins, Robert Thomas, Charing Cross Hospital
Pratt, John Wyatt, St. Mary's Hospital
Roberts, Thomas Andrew, St. Mary's Hospital

APPOINTMENTS.

EASTLAKE, Henry E., F.K.&Q.C.P.Irel., etc., elected Consulting Physician-Accoucheur to the Western Dispensary, Westminster, *vice* Dr. Mark Tanner, resigned.

FOX, Charles James, Esq., elected Assistant Dental Surgeon to the Dental Hospital of London, *vice* J. Walker, Esq.

ARMY.

DEEBLE, Surgeon W., 56th Foot, to be Surgeon-Major, having completed twenty years' full-pay service.

EATON, Staff-Assistant-Surgeon R. C., to be Assistant-Surgeon 16th Foot, *vice* J. R. Kehoe.

FLEMING, Surgeon J. W., 4th Dragoon Guards, to be Surgeon-Major, having completed twenty years' full-pay service.

KEHOE, Assistant-Surgeon J. R., 16th Foot, to be Staff-Assistant-Surgeon, *vice* R. C. Eaton.

VOLUNTEERS, (A.V.=Artillery Volunteers; R.V.=Rifle Volunteers):—

CANNELL, J., M.D., to be Honorary Assistant-Surgeon 7th Lancashire R.V.

WILLEY, H., M.D., to be Assistant-Surgeon 1st Hampshire R.V.

BIRTHS.

ASHDOWN. On November 23rd, at Northampton, the wife of *George Ashdown, Esq., of a son.

CUFAUDE. On November 24th, at Acle, Norfolk, the wife of W. H. Cufaude, Esq., Surgeon, of a daughter.

DANIELL. On November 20th, at Blandford, the wife of George W. Daniell, Esq., Surgeon, of a son.

GERVIS. On November 27th, at 33, Adelaide Road, Haverstock Hill, the wife of F. H. Gervis, Esq., Surgeon, of a son.

HOLMAN. On November 20th, at the Dockyard, Chatham, the wife of John R. Holman, M.D., of a daughter.

MARSHALL. On November 25th, at Mere, Wilts, the wife of W. N. Marshall, Esq., Surgeon, of a son.

PICKTHORN. On November 19th, at Aberdeen, the wife of T. R. Pickthorne, Esq., Staff-Surgeon H.M.S. *Saturn*, of a daughter.

SEQUEIRA. On November 23rd, at Jewry Street, the wife of H. L. Sequeira, Esq., Surgeon, of a son.

MARRIAGE.

TURNER, James Smith, Esq., Surgeon, to Annie, eldest daughter of Richard WHITBOURN, Esq., of Godalming, on November 25.

DEATHS.

BARNES. On November 12th, at Tottenham, aged 56, Elizabeth, wife of Christopher H. Barnes, Esq., Surgeon.

COLLINGWOOD. On November 12th, at Ampthill, Mary, wife of *W. Collingwood, Esq., Surgeon.

FALLS. On November 20th, at Bournemouth, Annie, wife of *Wm. S. Falls, M.D.

HAMILTON. On November 20th, at Mitcham, Surrey, Anna, wife of Thomas W. Hamilton, M.D.

JONES, Charles, Esq., L.R.C.P.Ed. (of Tenby), at Susa, near Turin, aged 28, on September 17th.

A HOSPITAL FOR BRITISH SEAMEN will be opened next spring at Cronstadt.

MR. DARWIN, the author of the *Origin of Species*, has sent a subscription of £10 to the Eyre Defence Fund.

MORTALITY IN LONDON. The amount of mortality in the city of London during the past week was considerably below the average of the last five years.

CHOLERA. One death from cholera was reported on Sunday and Monday, and three from diarrhœa. The deaths from all causes were 173 less than the calculated average.

DESTRUCTION OF RATS. The *Presse*, of Vienna, states that the rats in the sewers of that city have been so effectually destroyed by means of green vitriol, or sulphate of iron, that Professor Hyrtl, requiring some for experiment, was scarcely able to obtain them at any price.

The Tyne. The healthy persons on board the *Tyne* were put on board the *Eolus*, at the Mother-bank, on Tuesday morning, and received pratique on Thursday morning.

North Riding Pauper Lunatic Asylum. Dr. Christie, medical superintendent of Pembroke House, Hackney, has been appointed to the same post in the North Yorkshire Pauper Lunatic Asylum, in the place of Mr. Samuel Hill, compelled to resign through ill health.

Subjects for Dissection. Some difficulty having been experienced at Queen's College, Birmingham, in procuring subjects for dissection, an application was made by the Professor of Anatomy to the guardians of the West Bromwich Union for the unclaimed bodies from the infirmary. The application was negatived by a majority of nine to five.

The Gilbert Blane Medals. These prizes, founded by the late Sir Gilbert Blane, for competition amongst naval medical officers for the best reports of medical cases, have been adjudged by Sir Thomas Watson, Mr. Partridge, and Dr. Bryson, to Dr. Stephen Bowden, of H.M.S. *Prince Consort*, and Staff-Surgeon W. H. Sloggett, of H.M.S. *Edgar*.

Foundling Hospital at Moscow. The Prince of Wales has visited the foundling hospital at Moscow. This institution admits 12,000 children a year, one-sixth of which are born within its walls. If healthy, the infants, when four weeks old, are handed over to young mothers in the country, who are well paid; but 50 *per cent.* of the children die within the first year.

Drying Succulent Plants. "I have succeeded in drying succulent plants and orchids in a very satisfactory manner, by plunging them first into boiling water, which arrests any further growth; and I have never been disappointed by finding the leaves fall off when dried, as is the case with specimens not treated in this manner; and, moreover, the colour remains unimpaired for years." (*Hardwicke's Science Gossip.*)

Disinfectants and Deodorisers. The Lords of the Admiralty have ordered that the use of Burnett's disinfecting fluid shall be discontinued in the Royal Navy, in consequence of several fatal cases of poisoning having occurred, from its having been accidentally swallowed by seamen. Moreover, it has been discovered that the Burnett's fluid is not a disinfectant, but only a deodoriser. Carbolic acid is now to be used throughout the fleet.

Alkaline Treatment of Acute Rheumatism. In commenting on four cases, Dr. Lyons observed that they were too few in number to admit of any absolute deductions being drawn from them. Having, however, in many other instances employed like means with like results in the treatment of this disease, he confidently recommends it as one well worthy of consideration. The patients were in all cases carefully fed on farinaceous aliment with milk. Wine was occasionally allowed when the symptoms of the case demanded it. Much ease is experienced from the application of the poultices of camomile and poppy heads to the affected joints, the great secret being that they require to be applied hot and hot about every third hour, any chill to the joints being very injurious. In the combination of the salts of potash referred to will be found the alkali requisite to neutralise any excess of uric or other acid in the system, and in the diuretic salts is provided a stimulus to free elimination through the kidneys. The entire freedom from cardiac complication in the four cases cited is worthy of note. (*Medical Press and Circular.*)

Accounts from India show that sanitary regulations for the army are but ill carried out. Jubbulpore, in the upper valley of the Nerbudda, is in the vicinity of jungle, and its water is of questionable quality. From letters dated Sept. 24th, 1866, it appears that a bad kind of jungle fever is prevalent in the 23rd (Royal Welsh) Regiment. At that date, an assistant-surgeon and six men had died in one week, and 128 men were in hospital, out of a complement of 12 officers and 500 men. Later dates (Oct. 24th) report 150 men in hospital, and as many more sick, but unable to obtain admission from want of room. Ten men had died.

Water Supply. At the last meeting of the Metropolitan Board of Works, a memorial was presented, complaining of the quantity and quality of the water supplied by the East London Water Company, which is polluted with sewage to an alarming extent; and it was stated that, wherever this water was supplied, there was an increase in the cholera death-rate. The memorial proposed that a bill should be presented to Parliament to compel the East London Water Company to improve the purity of their supply, and prayed the board to use its influence to effect the passing of such a bill through Parliament. It was moved that the memorial be referred to the Works Committee.

Infanticide in France. Notice has lately been called to the decrease of the population in several districts of France owing to the fearful mortality among infants. The children who thus die off by thousands are those sent out to nurse by parents who cannot attend to them, or who wish to rid themselves of illegitimate offspring. Some communes are celebrated for never rearing children. The following table will give an idea of the scale on which this massacre of the innocents is carried on. The figures appended refer to 1860, when Government ordered an inquiry into the matter, but since that date the evil has become worse. The rate at which infants aged from one day to one year die is, in Loire-Inférieure, 90·50 per cent.; Seine-Inférieure, 87·36; Eure, 78·12; Calvados, 78·09; Aube, 70·27; Seine-et-Oise, 69·23; Côte-d'Or, 66·46; Indre-et-Loire, 62·16; Manche, 56·66. During 25 years, while the population of Rouen has increased 31,856, Havre 47,169, and Dieppe 1,567, the augmentation in the department Seine Inférieure was only 69,463 inhabitants. (*Pall Mall Gazette.*)

Diseased Dutch Meat. At the weekly meeting of the Commissioners of Sewers of the City of London, held on Tuesday, Dr. Letheby reported that 2,297 lbs. weight of meat, unfit for human food, had been seized at the different markets. He also made a special report with regard to a large quantity of meat imported from Erlangen and Rotterdam, which has been seized at Newgate Market, as quite unfit for human food on account of disease. This meat had escaped the inspection at Blackwall, and had been sent up to the London markets to be disposed of for human food. A large seizure of the same description of meat was also made at Newgate Market on November 23rd. The whole of this meat was in such a condition that it ought to have been seized at Blackwall, and Dr. Letheby suggested that a communication should be made to the Custom House authorities, in order that a more strict inspection should be made of the foreign meat that was landed at Blackwall.

Paralysis of the Pneumogastric Nerve. To his careful and most interesting narrative—too long to be rendered here—of a fatal case of defective innervation of the heart, Professor Wolff of Berlin subjoins the following. General von S., a friend of

the deceased, aged 68, otherwise robust, had for about a year complained of an annoying pain in the occiput, periodically recurring, and which required the head to be supported; when, on a sudden, he was seized with symptoms which could only be accounted for by the assumption of a beginning paralysis of the par vagum. The three functions over which these nerves preside were simultaneously and equally affected; the appetite gave way entirely, and, during the two weeks that the illness lasted, could not by any means whatever be restored. With great reluctance, the patient contrived, in submission to medical order, to swallow a small quantity of food or beverage. The respiration slackened more and more; and on one of his last days, there were counted forty-four seconds between two respirations. *Pari passu* declined the movements of the heart. As its impulse and sounds grew feebler, so the pulse vanished in the extremities, and at length could no more be felt in the crural and radial arteries. During the two last days of life, it was by the stethoscope only that a faint vibration of the heart could be perceived. Along with the pulse went also the warmth of the extremities. "However, gangrene of the feet did not ensue; the occurrence of which I had occasion to observe (together with Drs. Romberg and Riese) about the same time in a patient who succumbed to fatty disease of the heart, and in whose case the pulse and temperature had likewise fallen off in the lower extremities during the last days of life." Death, which ensued at the commencement of the third week of illness, while the patient remained conscious to his last breath, was in the true sense of the word an "extinction" of life. The cranial cavity was not allowed to be opened. (*Deutsche Klinik*, Oct. 23rd, 1866.)

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....Metropolitan Free, 2 P.M.—St. Mark's for Fistula and other Diseases of the Rectum, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TUESDAY. .... Guy's, 1½ P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.

WEDNESDAY... St. Mary's, 1 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.

THURSDAY.....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Great Northern, 2 P.M.—London Surgical Home, 2 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.

FRIDAY..... Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

SATURDAY.....St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1·30 P.M.—Charing Cross, 2 P.M.—Lock, Clinical Demonstration and Operations, 1 P.M.—Royal Free, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY. Epidemiological Society, 8 P.M. Dr. Ed. Goodeve, "On the Proceedings of the International Sanitary Conference, and the protection of Europe from Cholera."

TUESDAY. Pathological Society of London, 8 P.M.—Anthropological Society of London, 8 P.M.

WEDNESDAY. Obstetrical Society of London. 7 P.M., Council Meeting. 8 P.M., Dr. Fairbank, "On a Case of Fracture of the Pelvis, with Injury to the Uterus during Pregnancy"; Dr. Tanner, "On Excision of the Clitoris as a Cure for Hysteria"; Dr. Newman, "On a Case of Cæsarean Section"; and other papers by Drs. Madge and Short.

THURSDAY. Harveian Society of London, 8 P.M. Dr. Broadbent, "On Cases illustrating Prognosis in Heart-Disease."

FRIDAY. Western Medical and Surgical Society of London, 8 P.M. Dr. Marcet, "A Case of Empyema treated by Tapping and Injection"; Mr. C. Hunter, "A Case of Paralysis treated by Strychnine injected Hypodermically."

TO CORRESPONDENTS.

*** *All letters and communications for the* JOURNAL, *to be addressed to the* EDITOR, 37, *Great Queen St., Lincoln's Inn Fields, W.C.*

COMMUNICATIONS.—To prevent a not uncommon misconception, we beg to inform our correspondents that, as a rule, all communications which are not returned to their authors, are retained for publication.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

THE Publisher begs to intimate that orders for JOURNALS sent by post must be accompanied by stamps for the amount. Price of each number is, by post, *sixpence*.

DR. MUSHET.—We regret that we cannot comply with our correspondent's request.

MR. NUNN.—We are requested to state that an announcement which appeared in the *Lancet* to the effect that Mr. Nunn has withdrawn from his position as Surgeon to St. Peter's Hospital, is incorrect.

SUBPŒNA QUERE.—In law cases are we obliged to attend and give evidence because we have received a summons? I once went to the court contrary to my expressed wish, and afterwards found that our senior practitioner had coolly stayed at home, though he was served with a subpœna. B. B.

THE CASE OF MR. STATHAM.—SIR: I must beg to be allowed to correct the report, given in last week's number of the JOURNAL, of the few remarks I made at the meeting called to consider the case of Mr. Statham. I did not say that Mrs. Absolon "was so excitable that it was difficult, almost impossible, to treat her at all." I stated that in however wild and excited a state the patient presented herself, she could always behave quietly and rationally, and perfectly control herself, on my requiring her to do so as a condition of my prescribing for her. She was for some time under treatment and observation, and I at last dismissed the case as one of *exaggerated* hysteria. I am, etc.,
Nov. 27th, 1866. WM. CHOLMELEY, M.D.

A QUESTION FOR THE LAWYERS.—A subscriber puts the following case, and asks for an answer. "In 18—, Mr. A. was a surgeon in practice in England, and Mr. C. was a medical student, and had attended all the lectures, hospital practice, etc., required by the *Hall* and *College*, but had no money to pay for the College Diploma; consequently, Mr. A. lent his diploma to C., to go out as surgeon on board ship. In about six months afterwards, C. returns, passes the College of Surgeons, and takes the M.D. of Edinburgh. Now, both these gentlemen are registered, etc., and behaving themselves as gentlemen, and an honour to their profession; now, can the Medical Council erase the names of these gentlemen from the *Medical Register* for the above offence, which occurred before the Medical Council came into act? Would there be any chance in law of these surgeons being erased from the College and Hall list?"

COMMUNICATIONS have been received from:—Dr. WILLIAM NEWMAN; Dr. A. T. H. WATERS; Mr. A. B. STEELE; Dr. TILBURY FOX; THE HONORARY SECRETARIES OF THE WESTERN MEDICAL AND SURGICAL SOCIETY OF LONDON; Mr. MORGAN; Mr. HOLMES COOTE; Dr. W. B. MUSHET; Mr. R. S. FOWLER; THE HONORARY SECRETARY OF THE EPIDEMIOLOGICAL SOCIETY; Mr. HILL; THE HONORARY SECRETARY OF THE HARVEIAN SOCIETY OF LONDON; Dr. JEAFFRESON; CHIRURGICUS; THE HONORARY SECRETARIES OF THE OBSTETRICAL SOCIETY OF LONDON; Mr. T. M. STONE; Mr. J. BIRCHENALL; Dr. H. JONES; Mr. BARWELL; Mr. JONATHAN HUTCHINSON; Mr. G. ASHDOWN; Dr. CHOLMELEY; PROFESSOR RODGERS; Dr. EASTLAKE; Mr. BLOWER; Mr. SWAIN; Mr. WALTER COULSON; Mr. DAYMAN; Dr. LANCHESTER; Mr. F. H. GERVIS; Mr. W. H. ARROWSMITH; Dr. SKINNER; and Mr. T. M. EVANS.

BOOKS RECEIVED.

1. The Nervous System. Part I. By Ludovic Hirschfield. Edited by A. M. Macdougal. London: 1866.
2. Club-Foot: its Causes, etc. Being the Jacksonian Prize Essay. By W. Adams. London: 1866.
3. On Exuberant Growths of the Tonsils. By J. Yearsley, M.D. London: 1866.
4. A System of Medicine. Edited by J. R. Reynolds, M.D. London: 1866.
5. Abscess and Tumours of the Orbit. By Spencer Watson. London: 1866.
6. Fecundity, Fertility, Sterility, and Allied Topics. By J. M. Duncan, A.M., M.D. Edinburgh: 1866.
7. On Diseases of the Stomach; the Varieties of Dyspepsia, their Diagnosis and Treatment. By S. O. Habershon, M.D. London: 1866.
8. Homœopathy and Hydropathy impartially appreciated. By Edwin Lee, M.D. Fourth Edition. 1866.

Notes from Lectures

ON

THE PRACTICE OF MEDICINE.

Delivered at the Middlesex Hospital.

BY

CHARLES MURCHISON, M.D., F.R.S.,

PHYSICIAN TO THE MIDDLESEX AND LONDON FEVER HOSPITALS.

No. I.—On the Etiological Relations of Yellow Fever.

Gentlemen,—The recent appearance in this country of yellow fever, which, under ordinary circumstances, is restricted to certain parts of the tropics, and particularly to South America, the West Indies, and the West Coast of Africa, has invested it for the time with unusual interest to English practitioners of medicine.

Yellow fever, which has also been designated *Typhus icterodes* or *Hæmagastric Pestilence*, may be defined as a contagious fever, peculiar to warm climates, and characterised by jaundice, hæmorrhages, and the "typhoid state."

No subject in medicine has been a more fertile cause of discussion during the last sixty years than the precise nature of yellow fever, and even still opinions are divided upon it. On the one hand, it has been contended that it is a non-contagious malarious remittent fever; on the other, that it is a specific contagious fever like British typhus. The following considerations suggest the idea that the truth may possibly lie midway between these two opinions.

1. Jaundice and black vomit, although prominent, are not pathognomonic symptoms of yellow fever. They are met with in many other acute specific diseases. For example, they have been frequently observed in the relapsing fever of Great Britain and Ireland. Indeed, the frequency with which relapsing fever is complicated with jaundice, and even with black vomit, has often caused it to be mistaken for true yellow fever. In 1826, Drs. Graves and Stokes published an account of the yellow fever of Dublin; and the twenty-first chapter of the first volume of Graves's unrivalled *Lectures* is entitled, "Yellow Fever of the British Islands." It is now generally admitted, that the cases described by these writers were instances of the so-called relapsing or famine fever, complicated with jaundice and cerebral symptoms; and the fact that they differed from true yellow fever was pointed out at the time by O'Brien. The Scotch epidemic of 1843 was likewise regarded as closely allied to, if not identical with, yellow fever, by Cormack of Edinburgh, Arrott of Dundee, by several physicians at Glasgow, and by Dr. Graves of Dublin. In Glasgow, it was even fancied that the disease had been imported by merchant vessels from the West Indies, although, in truth, it had been prevailing on the east coast of Scotland for some time before it appeared at Glasgow. There is, no doubt, a strong resemblance between the more severe forms of relapsing fever complicated with jaundice and cerebral symptoms and true yellow fever. But we have here another illustration of the mistakes which are apt to result from founding analogies or differences between acute specific diseases on symptoms alone, and from neglecting the circumstances under which they appear, or, in other words, their causes. As I have already endeavoured to point out to you, the "typhoid state", seen in its typical form in true typhus, is not peculiar to that disease, but is liable to be developed in the course of many others. So it is with jaundice, which may appear, independently of any mechanical obstruction of the bile-ducts, as the result of many other poisons besides that of true yellow fever. The occurrence of jaundice, and even of black vomit, in the malarious remittent fevers of India, where true yellow fever is believed to be unknown, has been repeatedly noted. Twelve years ago, I met with these symptoms in the malarious fevers of Burmah; and Morehead, one of the latest and best writers on Indian diseases, observed jaundice in twenty-eight out of one hundred and fourteen cases of remittent fever. It may be added that jaundice and black vomit are not only not peculiar to yellow fever, but that they are not essential to it. True yellow fever may occur without them.

2. It has been argued, that in yellow fever there is no periodicity like that exhibited by remittent fever; but severe malarious fevers, such as I have witnessed in Burmah, have no more periodicity than is often observed in the so-called continued fevers of this country, and may, indeed, present all the phenomena of typhus, excepting the eruption.

3. Hæmorrhages are said to be common in yellow fever, very rare in remittent fever; but in severe remittents, hæmorrhages are far from uncommon, and it is only severe remittents, complicated with jaundice and the typhoid state, that present any analogy to yellow fever.

4. Of late, the urine has been thought to furnish a distinction between yellow fever and remittent fever. Albuminuria, which is the rule in the former, is said to be exceptional in the latter. The alleged absence, however, of albuminuria in severe remittents requires confirmation. My own observations in Burmah, which have been specially referred to in support of the statement, were far too few for the purpose to which they have been adapted, and are more than counterbalanced by the well known fact that, in intermittent fevers, which may be regarded as a milder manifestation of the same poison that causes remittents, albumen and even blood in the urine, are far from uncommon.

5. Rapid convalescence is said to be the rule in yellow fever, the reverse in remittent fever; but, curiously enough, the extensive evidence on this matter collected by Bartlett makes the convalescence from yellow fever in America very slow. Lastly,

6. Quinine is said to be an all-powerful remedy in remittent fever, but to be useless in yellow fever. This is quite true, as a rule; but in the so-called "malignant jungle (remittent) fever", quinine is often quite as powerless as in yellow fever.

A careful study of the whole matter makes it clear that, so far as the symptoms and clinical history are concerned, no specific distinction can be drawn between true yellow fever and severe malarious remittents. Their etiology furnishes much stronger grounds for separating them.

1. Yellow fever is unquestionably a contagious disease; malarious remittent fever is non-contagious. Notwithstanding all that has been written to prove the contrary, the facts showing the contagious character of yellow fever appear to me to be as conclusive as in the case of typhus. There are numberless instances in which the disease has been imported into fresh localities by the persons or clothes of infected persons. It is true that healthy persons are more liable to contract the disease by visiting infected *localities*, such as ships; but this is only an illustration of what is also observed in the case of typhus, which only spreads under favourable circumstances. No one doubts that typhus fever is contagious. Yet Dr. Christison remarks that, during a period of twenty-two years, he and two of his colleagues had attended 280 medical students at their own houses, who had contracted typhus by visiting infected localities; that 1,200 persons must have been more or less exposed in attending on them; and that in only one instance had there been any propagation of the disease.

2. Yellow fever differs from malarious fevers in the localities where it mainly prevails. Like typhus, it is a disease of cities, rather than of the open plains where remittent fevers are so common. When it occurs on board ship, it has been usually restricted to the occupants of the worst quarters, and to those whose duties bring them into contact with the sick. For instance, in the West Indian steamers, the passengers have for the most part escaped, while the disease has attacked the crew, the surgeon, and the purser. Many writers have dwelt on the intimate relation between yellow fever and those causes which are known to favour the origin and spread of the continued fevers of this country, and particularly overcrowding of human beings, with defective ventilation.

3. Although a high temperature favours the generation of malaria, malarious fevers are known to prevail and prove destructive at temperatures which seem fatal to the existence of yellow fever. A temperature of 70° is generally believed to be necessary for the existence of the yellow fever poison; and, notwithstanding the constant communication with countries where yellow fever prevails, almost the only instance in which true yellow fever has been known to have been imported and to have spread in Britain occurred in the autumn of 1865, during the prevalence of a tropical heat.

4. According to the evidence collected by Bartlett and other writers, one attack of yellow fever confers an immunity from second attacks; whereas it is well known that no such immunity, but rather the reverse, is observed after one attack of remittent fever.

From an etiological point of view, then, yellow fever and remittent fever appear to be sufficiently distinct. But here a curious question arises; and that is, whether a remittent fever may, under any circumstances, become contagious. Dr. Morehead, than whom there can be no greater authority, is inclined to think that it may, and that it does so "in consequence of overcrowding and neglect". Of late years, a contagious and very fatal fever has been described as prevailing *in the prisons* of the North-Western Provinces of India, remittent at first, but afterwards continued in its character. Jaundice was present in one-fifth of the cases; and the course of the disease was so rapid that, of 229 fatal cases, 9 died within twenty-four hours, 105 within five days, and 176 within ten days. It is important to add, that this fever has been described as identical with English typhus.* So also the fatal Indian malady known as *Pali Disease* or *Mahamurree*, which is characterised by glandular swellings, the typhoid state, and often by black vomit, is regarded as an adynamic remittent fever, which, under unfavourable hygienic circumstances, becomes contagious. Like typhus fever, it "has prevailed chiefly amongst the poor, in filthy, badly ventilated houses and villages; and has been preceded by seasons of famine."†

The above considerations suggest—1. That, although remittent fever and yellow fever are distinct diseases, they may possibly be more nearly related in their origin than some modern writers are inclined to believe; and 2. That, in its etiological relations, yellow fever also approaches to British typhus; the same causes which in Britain favour the origin and spread of typhus, when combined with malaria and a tropical heat, favouring the appearance of yellow fever. It is not irrelevant to add, that most writers on yellow fever refer to the frequent presence of petechiæ on the skin; and some even describe an eruption bearing a close resemblance to that of typhus. Dr. Archibald Smith, for instance, in his account of the yellow fever of the Peruvian Andes, remarks that the cases are almost constantly accompanied, from the third or fourth day, with mulberry-coloured spots varying from the size of a flea-bite to that of a pea.‡ The etiological relations, however, of yellow fever and British typhus can only be cleared up by a more accurate knowledge than we yet possess of the hygienic conditions under which outbreaks of yellow fever commence.

* On an Epidemic of Typhus in the North-West Provinces of India. By William Walker, M.D. (*Edin. Med. Journ.*, May 1861.)

† Morehead, "Clinical Researches on Disease in India." Second edition, 1860, p. 155.

‡ On the Spotted Hæmorrhagic Yellow Fever of the Peruvian Andes in 1853-57. (*Trans. Epidem. Soc.*, vol, i, 1863.)

QUARANTINE. A committee of the Lords of the Privy Council sat on Saturday, at Whitehall, on the subject of quarantine.

EMPLOYMENTS FOR YOUNG MEDICAL MEN. In the course of the evidence taken before the Committee upon the rank, pay, and position of the medical officers of the army and navy, several of the witnesses noticed the many new openings offered of late years to the medical profession. The English contractors for the construction of continental railroads usually employ one or two surgeons, whom they pay well, and who like the service. The larger mines in England have also a surgeon attached. Such services as those of the Peninsular and Oriental Company, or Cunard's, or the emigrant ships, are very attractive, as a temporary occupation to young surgeons. The surgeon of an emigrant ship, besides provisions and wine, gets in a tolerably large ship about £150 for the first voyage, rising eventually to £350, and if he is very industrious he can make nearly three voyages in two years. When the ship reaches her destination he may find it worth his while to settle there. Dr. Smart mentions that eight Hong merchants who had stations at Foochow offered to guarantee £800 a year to a young surgeon who had just come from England and had been one trip up the coast in one of the Peninsular and Oriental Company's vessels; he accepted the offer, and settled at Foochow.

THE

Jacksonian Prize Essay

FOR 1865.

ON DISEASED CONDITIONS OF THE KNEE-JOINT.

BY

WILLIAM PAUL SWAIN, M.R.C.S.,

SURGEON TO THE ROYAL ALBERT HOSPITAL, DEVONPORT, ETC.

SECTION III.—OPERATIVE INTERFERENCE. (*Continued.*)

The Diseased Conditions requiring Amputation of the Thigh.

THESE conditions I have designedly retained for consideration until the last, because amputation is the final procedure to which the surgeon can have recourse. I have already, as a matter of necessity, referred to many conditions of disease in which the operation of excision of the joint is not admissible, and where it becomes necessary to remove the limb by amputation through the thigh, in order to save the patient's life. Now, it becomes a question of serious import, whether the surgeon is justified in resorting to amputation of the limb in disease of the knee-joint for any other reason but to save life. Amputation of the thigh is a very serious proceeding, fraught with great danger to the patient, and resulting, under the most favourable circumstances of recovery, in the loss of "a perfect foot, a nearly perfect leg, a considerable portion of a nearly healthy thigh." (*Lectures on Progress of Anatomy and Surgery during the Present Century*, by Professor Fergusson. Lecture v.) The surgeon may well pause ere he performs so serious an operation upon his patient; and as long as any chance remains of saving the limb, the patient's life not being risked by the delay, the operation should be put off.

Still it must fall to the lot of every practical surgeon sometimes, however much he may endeavour to avoid it, to be obliged to amputate the limb for disease of the knee-joint; and I now propose to consider those cases which absolutely require this interference. But, before doing so, I shall refer, as in the case of excision of the knee, to the operation itself.

For reasons which I shall mention afterwards, the operation should always, if possible, be confined to the lower third of the thigh. It is seldom that the femur is so far implicated as to require section above this point; and, if the plan of exploration to which I have referred be carried out, the amputation may easily be completed, the soft parts being divided and dissected up from the bone with the same bistoury with which the knee-joint was laid open. This may seem a trivial point; but I have always been taught that simplicity is one of the great rules of surgery, and I never like to change an instrument during an operation, if it can possibly be avoided. It must be remembered that, in amputating the thigh in the lower third, there is a very great tendency for the femur to project forward through the wound, on account of the dragging of the hamstring muscles on the posterior flap. This defect might be remedied by making Teale's rectangular flap; but I do not think that his plan is applicable here, as it necessitates the division of the bone too high up. It is proved by calculation that, if the transverse incision be made just above the patella, it would be necessary to divide the bone eleven inches above that point, to obtain the right proportion in the flaps. The plan adopted by Mr. Spence of Edinburgh, with a slight modification, is a good form of amputation; provided, of course, that the skin and surrounding soft tissues are healthy. A large anterior flap is made, the base being the original incision into the knee-joint, including as much muscle as possible. A very short posterior flap is then cut, the integument being dissected from the muscles, to free it from the contractions. The bone may then be divided very low down; and, the flaps being brought together, an excellent pad will be formed for the end of the bone, and the cicatrix of the wound will be sufficiently posterior to avoid pressure. Mr. Carden of Worcester has published a paper in the BRITISH MEDICAL JOURNAL (April 16th, 1864), in which he describes an operation very similar to this, and gives numerous woodcuts, showing admirable results. If the disease of the bone or soft parts necessitates an amputation higher up, Teale's, or the ordinary anterior and posterior flap operations, will be serviceable. Pus burrowing high up amongst the muscles is no indication for a high operation, as the removal of the cause of the abscess will very soon cure it. I have already referred to the necessity for extreme "conservatism" in amputation of the thigh; and I have done so because it has been proved that, in proportion to the advance of the section up the thigh, is the rate of mortality following the operation. The following is a table extracted from Macleod's *Notes on the Crimean War*, showing the rate of mortality following amputation of the thigh in various parts.

	Per cent.
At the upper third	87.0
,, middle third	60.0
,, lower third	56.6
,, knee-joint	55.5

Thus it will be seen that saving a few inches of femur materially lessens the chances against the patient.

It is possible that, in some exceptional cases, where disease is not much advanced, but the constitutional condition of the patient demands amputation, the operation may be performed through the knee-joint, the diseased articular surfaces being sawn off, and the posterior flap obtained from the calf of the leg. This amputation has been performed for disease of the knee-joint with the best results, and, when it can be practised, must conduce to the safety of the patient. I have had the care of cases of amputation through the knee for disease below the joint, and can testify to the admirable stump which is thus formed.

I have given up the use of wire sutures in such cases, as there is no benefit derived from them, and their removal is a source of great pain to the patient. Moreover, the ends are apt to catch in everything with which they come into contact, and so give rise to a great deal of needless distress and irritation. (See Humphry's Address in Surgery, BRITISH MEDICAL JOURNAL, August 13th, 1864, p. 179.)

Three silk sutures are all that are generally required, and they may be removed at the end of the third day.

The after-treatment should be of the simplest. In the majority of cases, there is not the slightest necessity for the application of any dressing whatever—at any rate, for some days. The less the stump is meddled with, the less pain inflicted on the patient, and the better chance of rapid recovery. One application only I find very useful, especially when the flaps are rather large and heavy; and that is a back splint of gutta percha, moulded to the posterior surface of the stump, and retained in its place by a turn or two of bandage. In the ordinary run of cases, the wound is healed in about a month or six weeks; but, at the end of that period, it frequently happens that sinuses still remain open, which require a long period of time for perfect cure. Even when the stump is perfectly healed, and the case pronounced "cured", it is still a considerable period before the patient can bear the application of any apparatus on which to walk. Taking an ordinary case of excision of the knee and an ordinary case of amputation of the thigh, I believe that the one will walk on his foot pretty nearly as soon as the other on his wooden leg.

The after-results of amputation of the thigh are not always as satisfactory as we could wish, and present as many drawbacks to the operation as exist to excision of the knee. The most frequent bad result is conical stump, even after an apparently good pad of soft tissue has been provided. Mr. Hancock has referred, in the *Lancet* of July 23rd, 1859, to a condition of "painful cicatrix and irritable stump". In the former, the skin is in close contact with the periosteum; and, instead of dissecting out the cicatrix, which is the usual mode of treatment, Mr. Hancock is in the habit of performing "subcutaneous separation of it from the periosteum", and preventing adhesion again taking place by constantly moving the skin backwards and forwards. In irritable stump, Mr. Hancock pursues the same method, thinking that the pain arises more from the adhesion of the skin to the bone and periosteum, than from the implication of the nerve or its bulb. Barwell quotes a case of Mr. Hancock's where amputation of the thigh was twice performed for this condition, and lastly, that of the hip, after which the patient died. Necrosis of the end of the femur is another troublesome condition, which much delays the cure. If the periosteum be stripped back from the bone during the operation, a ring of bone will, in all probability, exfoliate. I saw, not long since, a stump removed just below the *trochanter major*, in which the remaining shaft of the femur had died, and was inclosed in new bone. Thus, like the operation for excision, the recovery from amputation of the thigh is not always rapid or free from after-complications. It has, however, escaped the severe criticism to which its sister operation has been subjected, and is often allowed to bear off the palm for rapidity of convalescence and decreased danger to the patient.

The statistics as to the mortality following amputation of the thigh are, like those of excision of the knee, not very reliable. Certainly, in this respect, our country hospitals are in advance of those situated in large cities—a fact which, of course, we are not surprised to learn. Thus, at the Exeter Hospital, out of 119 cases of amputation of the thigh, only ten died; and at the Plymouth Hospital, out of about forty cases, only three have died.

Against these figures, I must place the figures of excision of the knee-joint in these two institutions. In the Exeter Hospital, eighteen cases have been operated on, and sixteen have recovered with good limbs. In the Plymouth Hospital, eight cases of excision have been performed; five have recovered with good limbs, and one is still under treatment and going on very well.

I place these results side by side in order to show that the same causes which influence the success of amputation in all probability will equally affect excision.

But to return to the statistics of the mortality after amputation of the thigh.

From various sources, Price has collected a number of cases, which I tabulate.

	Cases.	Deaths.
Jäger	23	10
Benedikt	36	11
Chelius	10	1
Roux	16	9
Dupuytren	11	9
St. Thomas's Hospital, from 1835 to 1840	13	4
University College Hospital	46	9
	145	53

This list shows a very high rate of mortality; higher, no doubt, than the average. Teale shows the rate of death to be about one in four or five; whilst Bryant places the mortality from amputation for disease of joints at one in seven (*Medico-Chirurgical Transactions*, 1860)—although I think this a very low average.

Mr. Sansom, in a paper read before the Medical Society of King's College, gives fifty-four amputations of the thigh for diseased knee; of which nine died, or one in six. In the year 1855, he gives sixty-nine cases; of which sixteen died, or about one in four.

The average of deaths following amputation of the thigh after injury is of course very much higher.

During the Crimean war, the percentage of deaths after amputation of the thigh in the lower third was 56.6.

The usual causes of deaths are pyæmia, shock, exhaustion, and secondary hæmorrhage. Of the fifty-four cases quoted above, five died of pyæmia, two of shock, one from exhaustion, and one from tetanus. Pyæmia is, as this table indicates, the most fertile source of death after amputation of the thigh.

In Price's table of the causes of death, which occurred in the 238 cases of excision he collected, he gives ten deaths only from pyæmia. Thus, in the amputations of the thigh, the deaths were about one in eleven, whilst in the excisions they were only one in twenty-four.

This fact is well worthy of notice, because the occurrence of pyæmia has been held up as one of the chief objections to excision of the knee; and the fact that in that operation the cancellous structure of the bones is so freely exposed, was thought to be the chief cause. Now it appears, that pyæmia is more than twice as frequent after amputation

as after excision. Dr. Wilks, in his *Pathological Anatomy*, p. 454, makes the following pertinent remarks on this subject.

"There are particular sorts of wounds and injuries which favour the absorption of matter into the blood, and, above all, those where the bone is exposed; thus, after amputation and injuries to any part of the skeleton they are most common. Mr. Bryant informs me that half of the deaths from amputation arise from pyæmia, and my own experience confirms this..... It remains a question whether the putrid elements are conveyed through the medulla rather than by the solid or cancellous structure of bone; and in relation to this matter, whether pyæmia is less frequent after excision of a joint than after amputation."

I believe the figures quoted above to be an answer to this query; and that absorption takes place more readily from the medullary canal than from the cancellous structure of the bones.

Death from shock, although not so frequent as from pyæmia, stands next on the list. It arises from the severance of large vessels and nerves, and from the great loss of blood which frequently attends the operation. The removal of so large a portion of the body, with the blood contained in the limb, is in itself a great shock to the patient. Death usually takes places in from twenty-four to thirty-six hours after the operation.

Exhaustion is but a sort of prolonged shock, the patient never recovering from the immediate effects of the operation, but lingering on for days, or even weeks, and at last sinking, with all the powers of Nature thoroughly worn out.

Secondary hæmorrhage may occur at various periods, either soon after the operation from the open mouth of some vessel undetected at the time of operation, or from imperfect closure of the orifice at the time of the separation of the ligature, or from sloughing of the wound laying open vessels.

These are the principal sources of death after amputation of the thigh. I have shown that pyæmia is less prevalent after excision of the knee; and I am quite certain that the same may be said of shock. As a matter of personal experience, I am sure that the shock after excision of the knee is very much less than after amputation of the thigh. It stands to reason that it should be so. In excision, nearly all the causes of shock are avoided. No large vessels or nerves are divided, little or no blood is lost, and the limb still remains attached to the body. I do not deny that in some cases, especially if the limb be ill adjusted, the patient suffers more severe pain after excision than after amputation; but pain and shock are two very different matters—in fact, the entire absence of the former not unfrequently indicates the presence of the latter.

I have already shown that secondary hæmorrhage after excision may be avoided; at any rate, it is of far less importance than when occurring from a large vessel in a stump after amputation.

[*To be continued.*]

Pollution of Rivers. The Royal Commissioners appointed to inquire into the pollution of rivers are still pursuing the inquiry at Pontefract, in Yorkshire, relative to the Aire and Calder rivers. It is hoped that the commissioners' report will be laid before Parliament shortly after its meeting.

Addresses and Papers

READ AT

THE THIRTY-FOURTH ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION.

[*Held in CHESTER, AUGUST 7th, 8th, 9th, and 10th, 1866.*]

ON THE ORIGIN OF PYÆMIA.

By Alfred Baker, Esq., Birmingham.

The term Pyæmia implies pus in the blood; and it has been applied to certain morbid conditions of the system in which the circulating fluid has its constituents altered, and its distribution disturbed, whether these results follow its admixture with pus or with any other morbid agent.

Notwithstanding Piorry's statement that the blood itself is subject to inflammation, in which disorder pus-corpuscles were supposed to be intermixed in large proportion with the true blood-globules; Gulliver's imaginary discovery of pus-globules in the blood of persons suffering under typhoid diseases; and the subsequent declaration by Mayo, that pus-globules existed in the blood of every one; it is now believed that pus cannot be recognised in the blood by any known distinctive characters, and that the cells observed by these gentlemen, and mistaken for pus-cells, were really white blood-globules.

During the course of wasting diseases, especially if the lymphatic glands be affected, these white globules are often met with in considerable excess; and they are not infrequently too numerous in the subjects of pyæmia, although there is no necessary connection between their presence and the occurrence of that malady.

Dr. Hughes Bennett drew attention to this condition of blood in a paper on Leucocythemia, and confessed that at first he mistook the white blood-cells for pus-corpuscles. Both he and Virchow agree as to the two classes of cells being precisely similar, and the latter author declares it to be impossible to distinguish them excepting by their mode of origin; he says: "If this prove to be external to the blood, you may safely conclude that it is pus; but if this is not the case, you have to do with blood-cells."

Piorry's supposition of a purulent condition of the mass of blood being thus disproved, it was suggested by Arnott, in explanation of the origin of Pyæmia, that it sprang from suppurative phlebitis; that the pus formed in the inflamed veins was carried into the circulation; and that the pus-globules, being larger than the blood-globules, became arrested in the minute capillaries, and gave rise to secondary abscesses.

To some extent John Hunter's views as to the identity of the anatomical structure, and inferentially of the pathological changes in veins, with those which are seen in serous membranes, gave colour to this theory. Regarding the veins as peculiarly liable to adhesive and to suppurative inflammation, he considered that discoloration of the lining membrane, a deposit of lymph on the surface, and the presence of a clot in the vein, which, whilst dark coloured externally, was frequently creamy and diffluent within, were unquestionable proofs of phlebitis. It is now known that these premises are erroneous; that anatomically the lining of a vein bears no resemblance to serous membrane; that its discoloration is due to

imbibition; that the supposed lymph is really solidified and adherent fibrine; and that the coagulation of the blood in a vein may arise from various causes entirely unconnected with the inflammatory process. With regard to the diffluent clot, upon which much reliance was placed, it has been examined by numerous histologists, and has been described by Gulliver as consisting of white blood-corpuscles shrivelled and altered, the remains of the red corpuscles, and the molecular *débris* of the fibrine-mesh holding them in suspension. The cells in the clot, looking like pus, are not the products of inflammatory action, but are pre-existing elements of the blood. These changes in the clot are retrograde and degenerative, and, as the centre of the clot is furthest removed from the vital force of living tissue, so the retrogression and softening are there most marked. Thus we see that Arnott's views of the production of pus and its conveyance into the circulation by the veins, are answered; whilst that part of them which supposed a mechanical arrest of the pus-globule in the capillaries, is disposed of by the identity of the pus and blood corpuscle as to size and other outward characters. Lastly, it may be added that numerous cases of plugging of the femoral vein by clot, with a puriform looking centre, are on record, which were unaccompanied by pyæmic symptoms.

It is now generally—though not universally—believed that the lining membrane of veins is rarely inflamed; that, when inflammation does attack it, the pathological changes are discovered in the coats, and not in the contents of the vessel; and that the evidences of its presence are to be found in a cloudy opacity of the epithelial layer, and a fine elementary growth in the connective tissue; appearances utterly unlike those which are met with in serous textures after inflammation.

The doctrine of suppurative phlebitis and the consequent introduction of pus into the blood, is still, however, supported by men of acknowledged eminence. Dr. G. Budd and Mr. Holmes adopt it; and Dr. Bristowe considers phlebitis, idiopathic and traumatic, as a frequent cause of pyæmia. He declares that it has followed phlebotomy, operations on varicose veins, on piles, and the deligation of veins in other surgical proceedings; and he mentions the fact of pyæmia following the tying of the umbilical cord in a new-born child, presumably from phlebitis.

The 49th case related by Mr. Hodgson in his work *On the Diseases of Arteries and Veins*, supports this theory of the phlebitic origin of pyæmia.

"A soldier, aged 36, was bled in the arm for ophthalmia, which was considerably relieved by the operation;" but fever came on, with pain and swelling of the arm; the fever assumed the typhoid form; glandular swellings arose above the clavicle, and beneath the angle of the jaw; dyspnœa ensued, with delirium and death in the seventh week after the bleeding. On examination, "the cephalic vein, where it was punctured, resembled an artery in the thickness of its coats, and in retaining the circular form when cut across. Below the punctured part it was healthy. About one inch above, it was obliterated, and the obliteration extended to the shoulder. The external jugular vein was less in size than the corresponding vein on the opposite side. The internal jugular vein was much enlarged, thickened and indurated; the effects of inflammation were apparent throughout its whole course; it had the external appearance of an artery, though larger than any artery except the aorta. The subclavian, axillary, and brachial veins to the bend of the arm, exhibited similar appearances. The external jugular and the subclavian veins were filled with pus; when slit open they were found to be much thickened, and lined with lymph; many of the smaller veins were in a similar condition; the lungs contained some small abscesses."

In this case, allowing for the altered pathological views of the present day, we have ample evidence of inflammation of the punctured vein, preceding, and apparently inducing pyæmia. In Mr. Hodgson's book, the record is followed by references to other instances of a like kind, related by Hunter, Abernethy, and Dr. Clarke. One source of doubt exists in the case quoted: it is this, whether the phlebitis was simple, or whether it was complicated by the introduction of some septic element into the blood through the medium of the lancet used in bleeding, to which, rather than to the mere puncture, the subsequent symptoms, local and general, may be attributed.

It is right to add that, whilst admitting that Gulliver's description of disintegrated blood-clot is in the main accurate, Dr. Bristowe maintains that *true pus* is occasionally met with in the clots of veins and arteries, and that pus is also sometimes discovered *in transitu* in the blood, not in the form of scattered pus-cells, but in that of soft pellets consisting of pus-cells aggregated.

Before quitting the subject of the relation of the veins to pyæmia, let me object to the use of the term "absorption of pus by the veins," which has become general. It is opposed to all the teachings of physiology, which assigns no such functions to those vessels. The offices of absorption and renewal of the blood, in so far as these processes are independent of the lymphatics, reside in the capillary vessels, which appear to have the power of absorbing by their porous coats any gaseous, liquid, or minutely divided solid material that can pass through their walls. The operations of this system of vessels afford to my mind a much more satisfactory explanation of the production of some contagious diseases than the theory which attributed them to inflammation of the veins, or to the absorption by the veins of diseased secretions.

Take, for instance, the forms of puerperal affection, which are so intimately connected with erysipelas as to justify their being viewed as convertible diseases; and it appears to me that the majority of them are dependent upon the absorption of contagious matter by the uterine or vaginal capillaries. At first view, the unclosed orifices of the uterine veins and sinuses favour the idea of absorption through them; but though the orifices may be patulous, the vessels must be plugged within, or blood could not fail to flow from them; and the same barrier that wards off hæmorrhage, must surely form an adequate defence against any introduction into the blood by their canals of contagious material. These affections are still attributed by many high authorities, including Sir J. Y. Simpson, to the absorption of some poisonous material by the veins of the uterus; but it is more probable that in many instances the uterus and its vessels are unconcerned in the process, and that it is due to inoculation of poisonous matter, through some abrasion in the vagina, by the finger of the attendant.

Mr. Athol Johnson published a case of pyæmia after amputation, in 1857, in which certain veins that had been tied were free from inflammation, and contained no pus; whilst those not included in ligatures were full of pus, and were much inflamed. This case is an argument against the opinions generally held as to the dangers of phlebitis after the tying of a vein; but, with respect to its value as supporting such a practice in order to lessen the risks of pyæmia, our estimate of it must perforce be small, since numerous cases of pyæmia are said to have occurred, in which every visible vein impinging upon

the diseased or suppurating surface has been found closed.

In addition to the veins and capillaries, other blood-vessels may contribute to the production of pyæmia. It is established that atheroma or fatty degeneration of the arteries of the body may lead to arterial embolism, either by the escape of the fatty deposit itself into the blood, through a tear in the lining membrane; or by the detachment of the fibrinous deposit which so often covers these cracks of the inner coat, and the transmission of particles of it into the current of circulation. The emboli resulting from these substances have long been known to give rise to curious and grave disorders; but they are believed also to occasion pyæmia. Dr. Bristowe has observed that the ultimate arterial twigs in lung and other textures (in cases of pyæmia) are distended by a soft pulpy yellow clot, which is composed of disintegrated fibrine and the *débris* of pus- or blood-cells: and from the fact that the changes observed in this fibrine required time for their production, he infers that arterial embolism was the first step towards the changes in the distribution of the blood, which ended in purulent deposits. His view is supported by analogical evidence, and by experiments made by Wharton Jones, Cruveilhier, Sédillot, and Mr. H. Lee.

An occasional, although infrequent, circumstance, in which pus and blood may be brought into admixture, is, when a vein or artery ulcerates under the pressure of an abscess. Cases of this rare kind are recorded by Pearson, Liston, and Miller. In an instance referred to by Miller, the ulceration was incomplete; the two outer coats of the aorta being thoroughly eroded, so as to leave only the inner coat entire, and in contact with an unopened abscess. These cases usually end fatally when the abscess bursts, by hæmorrhage into the sac of the abscess: but it is possible, as Mr. Liston argued, that a false aneurism may be the result. In any case it is not probable that a pyæmic state would be thus established; and no instance of such an occurrence has fallen under my notice.

It follows, from what I have stated, that pyæmia may result from phlebitis of a suppurative kind, although such a source of blood-disorder is believed to be of infrequent occurrence; and that the same effects may be produced by embolism in the minute ultimate arteries, from chronic disease invading arteries of larger size. Of the relative prevalence of either cause we have no means of judging, but they constitute the only modes in which pyæmia can be produced by materials generated within the vascular canals themselves. In the introduction of foreign matters, whether hurtful or otherwise, into the blood, the capillaries have by far the most active powers of the whole system of blood-vessels.

There are other vessels, however, (the lymphatics) through which it has been thought that pus might enter the blood. We know that collections of pus, and of other fluids, disappear by a process which we call absorption; but it is uncertain whether the lymphatics or the capillaries are most active in their removal. It is certain, from the experiments of Tiedemann, Panizza, Magendie, and others, that the visceral lymphatics, or lacteals, exercise a selection or choice in the materials absorbed by them, and that they take up injurious substances slowly, and as it were unwillingly. The peripheral lymphatics, on the other hand, will absorb poisons readily, and carry them into the blood. Even with them, proof of the absorption of pus is wanting; and, granting them this power, it is very improbable that the pus absorbed reaches the blood in the same form. The structure of the lymphatic glands, according to Kölliker, is such as leads to an interruption of the current of lymph brought by the afferent vessel; to its filtration in the parenchyma of the gland, and the separation of corpuscular and other elements from it, before the digested and purified lymph is sent on towards the blood. When anything received by the gland cannot be digested by it, inflammation and suppuration are said to be established in the effort to extrude it. Ricord's description of syphilitic bubo is an admirable illustration of this process. He states that suppuration occurs in the inguinal glands in two situations: in the centre of the gland where the matter is syphilitic and inoculable, and on the exterior where the pus has no specific properties.

From the changes in character and composition effected in every particle of matter, during its passage through the lymphatic vessels and glands, it almost necessarily follows that pus loses its peculiar characters before being received into the blood, and that, in the shape of pus, it cannot enter into the circulation by the agency of the lymphatics.

Having thus glanced at the channels through which pus may possibly enter the blood, the next inquiry is whether pus, having gained entrance into the blood, can be recognised in that fluid, or can lead to the development of those formidable symptoms, grouped together under the term pyæmia.

It has been asserted, on the strength of the absorption of collections of pus being frequently unattended by serious constitutional disturbance, and on other inadequate grounds, that pus is not poisonous; whilst, on the other hand, cases of pyæmia are recorded, which are traceable to no other discoverable cause than absorption of pus. Lebert, Sédillot, Dr. Hughes Bennett, Mr. J. S. Gamgee, and others, have proved by experiment that pus may be injected into the veins of the lower animals, that it mixes readily with the blood, and becomes so incorporated with it as to be indistinguishable. In one of Dr. Bennett's experiments, in which he had exposed six inches of the jugular vein of an ass, before injecting the pus, "owing to the transparency of the vein, the yellow opaque fluid was seen to join the blood, to continue for a few moments running side by side with the crimson current, until at length the vein became full of pus. On removing the syringe to obtain a fresh supply, the blood above could be seen to join the pus, to continue side by side with that fluid, presenting a streaked red and white appearance, without any coagulation, until all the pus was carried forwards and downwards towards the heart, and the vein was again full of blood." A second syringeful of pus was then injected with similar results. No local or constitutional disturbance followed, and when the animal was killed four days afterwards, the vein was found pervious.

So many writers have proved the facility with which pus is injected into the veins of living animals, without inducing any signs of coagulation in the blood, that we are compelled to infer the existence of something unusual in those experiments performed by Mr. H. Lee, from which he was led to believe that pus introduced into a vein coagulated the blood and arrested the circulation in it so that the pus became encapsuled, and was thus prevented from entering the moving current. This effect may have been due to the qualities of the pus employed by him, or to the condition of the animal subjected to the experiment. With reference to the power of pus thus introduced into the blood of living animals, to produce pyæmia, we find testimony of a discordant kind from the same observer; thus Lebert, Sédillot, Polli, and others, have sometimes succeeded in inducing pyæmia by injections of pus into the veins; at other times they have failed. Indeed, the trials made

by the same operator with pus believed to possess the same qualities, have led to results so dissimilar, as to render it impossible as yet to arrive at a positive conclusion. It has been proved that fresh pus may circulate in the living blood of the lower animals without appearing to excite any important symptoms of disordered health; but this does not disprove the existence of local mischief, and, from the reports which are published, I am led to the conclusion that, in the majority of cases, when the animals were killed after pus had been injected into the blood, circumscribed congestions were found in the lungs, and other organs, which corresponded with those that are known to constitute the earlier stages of the secondary abscesses, so characteristic of pyæmia; whilst in some of them, and especially in those instances in which the animal had been subjected to repeated injections, puriform collections were actually found after death.

Whether human beings would bear the introduction of pus, however fresh, into the blood without severe, if not fatal constitutional disturbance, is an open question; but the cases which are on record do not indicate such a tolerance. In his medical report on contagions and septic diseases, made to the Privy Council, Mr. Holmes says "there is no valid reason for doubting that purulent infection of the blood, accidentally arising, in human beings, is the essential cause of pyæmia," and he mentions a most curious and interesting case, bearing on this question. He states that fatal pyæmia was induced by the bursting of a small mesenteric abscess into the thoracic duct, and the direct transmission of pus to the right side of the heart. This case appears to possess every essential point for the settlement of the question; since the abscess, being internal, and shut off from communication with atmospheric air, would probably contain fresh untainted pus.

Mr. Holmes also refers to another remarkable case, published by Mr. Bowman in his *Lectures on the Eye*. A young gentleman died from pyæmia, following ulceration of the mitral valve of the heart, where perhaps, there had been a small primary abscess. This case, however, is less conclusive than its predecessor, because the existence of abscess is assumed, and the pyæmia may be accounted for on Virchow's mechanical theory, by the detachment of a small mass of fibrine, with which the valve was covered, and the obstruction by it of the capillaries, as an embolic body. The case was one of amaurosis, accompanied by old standing rheumatic peri- and endocarditis; a condition with which the so-called idiopathic cases of pyæmia are not infrequently associated or confounded.

There is ample ground in the statements which have been made, for the suspicion that the entrance of pus into the blood of human beings is one of the causes of pyæmia. At present we cannot estimate the frequency of this cause, nor can we determine dogmatically the modes in which pus gains entrance to the blood, or the process, zymotic or otherwise, by which it induces the symptoms and pathological changes which attend that disorder. With regard to the latter point, it has been suggested that the pus-globules may disorder the blood in some subtle manner, causing its fibrine to separate here and there in the capillaries, thus inducing that obstruction to circulation which precedes textural disintegration and secondary abscess.

Whilst admitting the facts already adduced, there can be little doubt that other causes are brought into operation in the production of a disease so variable in its course: and we may now profitably revert to those thrombi or coagula in the veins of which I have already spoken, and which Hunter and Arnott regarded as the products and proofs of phlebitis. The tendency of the blood to coagulate in these vessels appears to be traceable to mechanical injury of a vein, to irritation of its lining membrane, or to a morbid condition of the blood itself. Upon the changes which take place in these clots of blood, Virchow has attempted to reduce the heterogeneous evidence on the causes of pyæmia to order: he has offered and ably argued an ingenious explanation of the constitutional disturbance, and of the pathological effects which attend pyæmia. He starts with the assertion that thrombosis in the larger vessels is the first step towards the formation of the secondary deposits; that these thrombi after a time disintegrate and crumble down; and that the separated portions are carried by the current of blood into the capillaries, where they become wedged, and form what he calls "embolia," around which congestion and stasis of blood is established, followed by capillary phlebitis and abscess. He also expreses an opinion that the character of the secondary deposits depends upon the changes which take place in the original thrombus. Thus, if the softening of the thrombus be of a gangrenous nature, so will the secondary deposits be gangrenous also; whilst, if the original thrombus contract, and be converted into connective tissue and pigment, the secondary embolia will waste and disappear. In the latter case it is known, from the effect of various agents which have been found to induce local coagulation of the blood, such as solid molecules of blood, disintegrated fibrine, or fatty matters arising out of the conversion of pus-cells, that the embolism is frequently unattended by pyæmic symptoms.

Thus far Virchow supplies us with an intelligible and probably accurate history of certain forms of pyæmia, arising from the degeneration of a thrombus or blood-clot; but many cases of pyæmia that we witness pursue a course so rapid and fatal, and display evidences of such severe shock, and nervous depression from their commencement, that they resemble the worst cases of typhus, scarlatina, erysipelas, and other asthenic fevers. To the production of these cases, the tardy retrogressive changes in a blood-clot would appear to be *per se* quite inadequate. Another agent must be assumed, capable of disordering the mass of blood; and in explanation of these severer forms, Virchow asserts that certain putrescent fluids, having no necessary or direct relation to pus, and which differ in their nature and origin, are absorbed through the agency of the lymphatics, and induce a dyscrasia, under which influence their effects are acutely exerted on organs which have a predilection for them. He calls this form of malady "Ichorrhæmia or ichorous absorption," and states that the blood-mass is rapidly contaminated by the poison; that the congestions and inflammations which follow are diffuse, instead of circumscribed, as in pyæmia; and that they are almost uniformly fatal.

To Virchow's ingenious theory of simple embolism as the immediate cause of pyæmia it has been objected, that uncomplicated embolism is followed by fewer centres of congestion and stasis than we see in pyæmia; that the area of each spot is wider; and that the stasis which results from simple embolism is less likely to be followed by degenerative softenings; Dr. Bristowe asserts also, that this embolic theory is only partial in its applicability, since it does not explain cases starting from some part of the systemic venous system, in which the lungs escape, whilst secondary deposits abound in other organs.

Dr. Wilks, who is a staunch advocate of the origin of pyæmia in pus, upon the ground that "like produces like," entertains an opinion similar to that

of Dr. Bristowe. He says: "When a few lobules of the lungs are inflamed, the fatal results cannot be accounted for, either from the amount of disease in them, or from the constitutional disturbance resulting therefrom; and we must have recourse to the blood-disease itself, and its effects on the system and nerves, to account for the event. If it be true that death may occur independently of the local disease and its effects, it is not difficult to understand how the same result may be brought about without any visceral affection whatever, and we have no doubt that this is very often the case."

As bearing upon the doctrine of thrombosis and secondary embolia, Mr. Lister and Dr. Mackenzie have advanced the opinion that anything which irritates without inflaming the lining membrane of a vein, favours coagulation of the blood in it; and Dr. Mackenzie has experimentally induced obstruction of large primary venous tracks, by irritant injections (allowed to escape before the blood was re-admitted), after which the secondary circulation became obstructed. Whilst these experiments of Dr. Mackenzie support Virchow's theory of thrombosis and consequent embolism, they can scarcely be accepted as proofs of coagulation of the blood in a vein, through simple irritation of its internal coat, inasmuch as minute portions of the chemical agents employed (lactic acid and oxide of zinc) may have remained upon the lining membrane, and have produced coagulation by their presence.

We have now briefly reviewed the more prominent facts and theories concerning the origin of pyæmia, and I have attempted to lay clearly before you the causes which may operate directly in its production as a disease uncomplicated by any special septic agency. The records of cases which have occurred, afford sufficient ground for Bennett's and Virchow's opinion that this disease is, under certain circumstances, associated with septic or putrescent contamination of the blood; and this may be admitted without hesitation, since our latest authorities declare that pyæmia, in common with erysipelas, phagedæna, and gangrene, is apt to occur when the surface of a wound is foul; when dead particles are in course of separation from it; and when effused blood is putrefying under the influence of atmospheric air.

There can be little doubt, from experimental researches, that the variance in the pathological changes found after death in animals, has been influenced largely by the agent injected, and by its degree of putrescence; thus Dr. Weber and Professor Panum declare that filtered putrid fluids and sulphuretted hydrogen never cause infarctus, or metastatic abscesses: these only occur when morphological bodies, of small size, but sufficiently large to obstruct the capillaries, pass into the circulation. They infer that the disease usually called pyæmia is septic poisoning, *plus* some element capable of leading to embolism.

Concerning the nature of the special agent of putrid poisoning, we are uncertain. Professor Panum declares it to be fixed, not volatile, indestructible by boiling and subsequent evaporation to dryness; soluble in water, insoluble in alcohol, and so intense as to be comparable only with the poison of serpents, curare, and the vegetable alkaloids: whilst Dr. Richardson, at a recent meeting of the Epidemiological Society, announced that he had found the poisonous matter of pyæmia to be an alkaloid, which was derived from the decomposition of albuminoid substances. He calls it "septine," and says that it has the power of transforming albuminous secretion into matter like itself.

From what has been already said it is scarcely necessary to state that the secondary, or metastatic abscesses, which occur in pyæmia, have been repeatedly and jealously examined; and that they are found to consist of the elements of the blood more or less modified, granular matter, exudation-corpuscles, granule-cells, and not infrequently true pus-cells. Sometimes they have a gangrenous odour, and contain shreddy particles, which are infiltrated with a dirty looking fœtid puriform fluid. It has been thought that the presence of these abscesses might be viewed as a crucial test of pyæmia; and it is true that in most cases they exist; but they are not constant. Their occasional absence may be explained by a theory which Dr. Williams has proposed to account for rapidly fatal fevers, that have presented few pathological changes; viz., that a fatal result is brought about, from the intensity of the poison, in too short a time for the usual series of pathological actions to develope themselves; and Mr. Lee declares that in several instances of fatal pyæmia he has "been unable to trace either blood-clots, or metastatic abscesses."

Whatever may have been accepted at various periods, as the ultimate cause of pyæmia, the frequent occurrence of its symptoms after local injuries and surgical operations, has led somewhat naturally to the supposition that a wound of some kind was an essential precursor. Admitting that injury involving local suppuration is a very frequent preliminary, it is certainly not an universal one. Numerous cases have been published which presented unquestionable symptoms and *post mortem* appearances of pyæmia, in which no local disease or injury was traceable. Jenner relates cases of typhus terminating in "pyogenic fever." Tessier speaks of instances of "acute purulent diathesis," which were developed spontaneously; and Bennett, Gamgee, and others, have published cases of this malady succeeding upon what appeared to be acute rheumatism.

In explanation of these spontaneous occurrences of pyæmia, it has been assumed by many surgeons, that some intermediary disease, such as necrosis, may be established, as a consequence of the primary affection, and that by the absorption of noxious materials from the diseased part, the blood may become poisoned. Allowing to this suggestion its due weight and value, there can be no question that, whilst pyæmia occasionally shows itself as an idiopathic affection, it is far more frequent in surgical than in medical practice; and that it is more prevalent after certain wounds and injuries than after others of a different description, and involving different textures. Diffuse asthenic inflammation of the cellular membrane, phlegmonous erysipelas, and their allies, carbuncle and dissection wounds, are extremely liable to be followed by pyæmia. Unhealthy inflammation, situated in the deep cellular tissue around a bone, or in its interior, diseases which are calculated to induce necrosis, may be accounted as very frequent precursors. Mr. Holmes says that the risk is greater when such inflammation attacks cancellous bone; and this remark applies not only to injuries, but to operations, such as amputation, and the excision of joints. In this opinion he is at variance with Mr. Syme, who has strongly recommended amputation through the cancellous ends of long bones, on the ground of its being attended with less risk of pyæmia than when the bone is divided in the denser part so as to lay open its medullary cavity, and has supported this position by numerous published cases.

It may be remarked here, whilst speaking of amputations, that the relative frequency of pyæmia is greater after primary operations, than after those performed for chronic disease; and this has been attributed to the frequent occurrence of inflammation of the veins in these cases. Phlebitis is held to

be an occasional cause of pyæmia by all pathologists, and by some it is considered to be a frequent and chief cause. A remark made by Dr. Bristowe on this point, will show how strongly this view is entertained by him. He says: "If the presence of phlebitis is to be denied in all cases where there is an absence of thickening and congestion of the venous walls, it may with equal justice be denied that bronchitis has been present, when the bronchial mucous membrane is found after death neither congested nor thickened; but in many cases of fatal bronchitis the mucous membrane itself looks quite or nearly healthy."

Suppurations in the eye and ear, and in various parts of the genito-urinary organs of both sexes, are also considered to be a common cause of pyæmia: but no injury, from a simple contusion to the most severe crush by which the component textures of the part are at once devitalised, can be said to enjoy an immunity from its possible invasion. From observation it appears that, in recent wounds, some deviation from the healthy reparative action must precede its attack; the surface must become sloughy and foul, with a tendency to putrefactive destruction of fibrinous matters and blood-clot; a condition in which fermenting and septic matters are formed quickly and abundantly, and, unless these be frequently removed, they must become a source of extreme danger.

It has long been supposed that certain atmospheric conditions have exerted considerable influence in the production and spread of pyæmia and other contagious diseases. It is probable, however, that in most of these surgical maladies a direct conveyance of contagious or poisonous matter is the real mode by which they spread: and that air vitiated by the respiration of many human beings, by exhalations from their bodies, and by effluvia from discharges and excretions, merely renders the patients, by depressing their vital power, more prone to the attacks of zymotic disorders, and less able to resist their ravages.

It is known by actual experiment, that the quantity of organic matter floating in the atmosphere, and adhering to the walls and furniture of sick wards, is immense; that much of this is putrescible; and that it may, therefore, form a medium of contagion. In the Foundling Hospital at Répy, an epidemic of ophthalmia was traced to particles of pus floating in the air. Recent investigations by Chalvert, Moscati, Dundas Thomson, and others, have led to the discovery of countless living germs of vegetables and infusoria—mycoderms, mucedines, torulæ, vibrios, and bacteria—in atmospheric air, capable, when supplied with a suitable menstruum, of establishing the processes of fermentation and putrefaction. Some of these germs, inappreciable to our unaided senses, find their most appropriate nourishment in the secretions of wounds, or in pus. Schrœder and Pasteur have asserted that different chemical changes are wrought by different germs. They say that "the bacteria may enter the blood, absorb its oxygen, hinder the combustion of effete substances which should be eliminated, and work deadly changes in the circulating fluid." Dr. Lionel Beale, in his researches into the sources of the cattle-plague, appears to have arrived at conclusions in accordance with those just mentioned. He is of opinion that the *materies morbi* of contagious diseases consists of minute living germs, which may be conveyed by air, are intercommunicable between man and animals, and are not readily destructible.

If these views be confirmed by additional inquiries and experiments, they will form the basis of a new and animalcular theory, explanatory of the propagation of many diseases. At present, however, our knowledge is insufficient for the deduction of any laws governing their production and their increase; so that we cannot yet suggest any useful precautionary measures as a special defence against these invisible plagues, and we must trust to those well known hygienic rules which are essential to the health of all of us, and which are most stringently required to be carried out in the construction, superintendence, and arrangements of large buildings designed for the occupation of the sick.

Before concluding this imperfect sketch of the known and probable sources of pyæmia, I must say a few words in reference to those causes which have been said to predispose to its establishment. It has been repeatedly affirmed that the impure air of hospitals, in which many patients with wounds are treated, and which has been recently termed a "traumatic atmosphere", acts as a predisposing cause; and the mortality from traumatic pyæmia exhibited in Mr. Bryant's statistical tables is a very strong argument in support of this opinion. It has also been declared that morbid conditions of health engendered by injurious occupations, by dietetic excesses, and by bad habits of life, dispose the blood to decomposition from trivial causes, whilst they lessen the resisting and reparative powers of the body. What the changes in the blood are, chemistry fails to discover; but histologists tell us that its fibrine is deficient in quantity and in contractility; and that there is a relative increase in the albuminous and fatty matters contained in it. Dr. Chevers, especially, is disposed to attribute the access of pyæmia after surgical injuries to morbid conditions of the organs of assimilation and excretion within the abdominal cavity; and he has stated that, in the absence of injury or operation to form the starting-point of pyæmia, many of these persons would have been cut off by fatal cerebral, thoracic, or abdominal disease. We cannot help acknowledging the force of such opinions, because they are consistent with the approved doctrines of hygiene and physiology; but, whilst admitting this, we must not attach undue weight to them. So many facts can be advanced against them as to materially diminish their seeming importance. It is known that a considerable number of cases of pyæmia originate in large towns, in the close and crowded dwellings of the poor, and are thence imported into the hospitals; whilst the more airyand well-constructed dwellings of the wealthy do not escape this scourge. Dr. Bristowe is entirely opposed to the opinion of Dr. Chevers, and "asserts confidently that the vast majority of pyæmic patients have not been suffering from chronic visceral diseases, few from acute; and that very many victims of pyæmia have enjoyed excellent health up to the moment of the injury, operation, or disease which has exposed them to its risks." Mr. Quain also relates four cases which shew forcibly how open Dr. Chevers' opinions are to objection. They were patients upon whom amputations had been performed; they were placed in wards with good ventilation, not overcrowded, and which had been recently cleaned. Two healthy males died of pyæmia, and two unhealthy females recovered. One healthy male took food well even after rigors set in, yet died. One unhealthy woman vomited all food for three weeks, and yet finally got well. Mr. Quain also refers to a boy admitted into hospital with pyæmia following a bruise on the knee, who died in two days; and says he was brought in from a healthy district, from good and well-ventilated lodgings, was well fed, and had been quite well up to the time of the accident.

Original Communications.

ON THE DIAGNOSTIC VALUE OF THE RETRACTED NIPPLE AS A SYMPTOM OF DISEASE OF THE BREAST.

By Thomas Bryant, Esq., Assistant-Surgeon, Guy's Hospital.*

To overestimate the importance of a symptom, and to accord it a value which is belied by clinical experience, is an error to which we are all prone, and against which it is well that we should always guard; for by so doing we are led too frequently into faults of diagnosis and treatment which might have been avoided, as well as to a subsequent underestimate of the true significance and even the rejection of a sign which, if correctly interpreted, may be of considerable importance.

The retracted nipple, as found in a diseased breast, may be readily advanced to illustrate the truth of these remarks; for it may be asserted with some confidence that, as a sign of carcinoma of the mamma, it has been assigned a value to which it is not entitled, and that, even at the present day, its true significance is not generally understood. It is too true that it is even now regarded by many men as a symptom of special value, and that, when present, it is looked upon as pathognomonic of a cancerous affection; whilst, on the other hand, we find men mistaking a cancerous tumour for a benign one simply on account of the absence of this so-called pathognomonic symptom. To illustrate this, I will quote from a high authority and a living one—Professor Nélaton—who, in his *Clinical Surgery*, published a few years since, when discussing the diagnosis of a tumour of the breast, asks—"Was this tumour benignant, or was it scirrhus? if the latter, it would most certainly have determined the retraction of the nipple; the projection of the nipple would be rather replaced by a depression"; for he adds, "the surgeon should know *that this is one of the very first signs of scirrhus.*" Again, when considering another case, the nature of which was doubtful, in a woman aged 45, he says—"The first idea in regard to this tumour was that it was cancerous"; and yet he adds, "the usual circumstances did not exist, and the retraction of the nipple was wanting." Nevertheless, the tumour turned out to have been of a cancerous nature.

It is needless to make further quotations, or to draw from other authors to prove that the presence of the retracted nipple is still taken by many for more than its true worth; the authority from which I have quoted being amply sufficient for my present purpose; and I propose now to pass on to prove that this retraction of the nipple is to be found under many different conditions. In the simple disease of the mamma as well as in the malignant—in the inflammatory affections as in others of a more morbid nature.

To the congenital, or naturally retracted nipple, I shall not allude, further than to state that it is well on examining a diseased breast with this condition of nipple, to bear this fact in mind, that the retraction of the part may have been a natural one.

The first series of cases to which I shall draw your attention, in which this condition of nipple was present, will be the inflammatory.

Case I. *Chronic Inflammation and Suppuration of the Breast, with Retracted Nipple.* Mary R., aged 41, a married woman, the mother of nine children, all of whom she had easily suckled, came under my care on August 25th, 1864, with an affection of her right breast.

She had been confined nine months previously, and had been able to suckle for a few weeks with the affected breast, but had not done so for some months when coming under observation. The disease had commenced with an inflammation of the gland, accompanied by great swelling, heat, and redness. By treatment, this had gradually subsided; but the parts were left hard, and somewhat tender. In about three weeks from its first appearance, the nipple began to disappear, and in about one month it had completely retracted. When seen, the breast appeared as a large globular tumour, of a firm consistence and semifluctuating feel. It was not very moveable, although it was not fixed; but the integuments over it were evidently "glued" by inflammatory effusion to the parts beneath; the nipple was completely out of sight; the axillary glands were unaffected.

Manipulation caused the patient some pain, and a dull aching of the part was also present. The woman's powers were very low. Tonics and good living were prescribed, with fomentations to the breast. On September 1st, indications of the presence of pus were tolerably clear; some thinning of the integuments and parts beneath showing themselves near the nipple. The abscess was accordingly opened, and a large quantity of healthy pus evacuated. In three weeks, this abscess had contracted, and had completely healed; but the nipple remained retracted and the gland indurated; this latter, however, had much diminished. On July 13th, 1865, nine months after treatment, the breast was natural, but the nipple was still out of sight.

Case II. *Chronic Abscess in the Centre of the Breast. Retracted Nipple from the appearance of the Disease.* Sarah M., aged 20, came under my care on December 31st, 1863. She was a married woman, but had no children. She had enjoyed good health till eight months previously, when she received a blow upon the left breast. It was accompanied by severe pain, and was followed by swelling; this swelling gradually increasing.

When seen, the breast was much larger than natural, and to the hand felt hard and fluctuating; a globular tumour evidently existing in the centre of the gland. The nipple also was completely retracted; this retraction having come on gradually since the receipt of the blow. An incision was then made into the tumour at its lower part, and several ounces of pus evacuated. Convalescence rapidly followed. The condition of the nipple, however, remained unchanged.

Case III. *Chronic Abscess in both Breasts; Retraction of the Nipple.* Rachel B., a childless married woman, aged 28, applied to me at Guy's Hospital on November 10th, 1864, with an affection of the right breast. It had existed for one week, and had come on without any recognised cause. It began by pain and swelling; and appeared as a globular, tense, fluctuating tumour, in the centre of the mammary gland. The nipple, which had been quite natural, was completely retracted. An abscess was diagnosed; and a poultice ordered, with quinine. In two weeks, the abscess was opened, and three ounces of healthy pus evacuated; and, in another week, the breast had healed. The gland, however, remained indurated; and the nipple retracted on December 7th.

* Read at the Hunterian Society, October 24th, 1866.

On February 1st, 1865, this same patient reappeared before me with a similar disease, running the same course in the left breast. The inflammation came on without any known cause. An abscess formed in the centre of the mammary gland, which required opening, and the nipple also retracted in the same way. On May 21st, 1865, the report states that the nipples were still retracted.

Case iv. *Retracted Nipple, the Result of a Chronic Inflammation of the Mammary Gland.* Emma W., aged 35, a married woman, the mother of two children. the first eight years since, applied to me at Guy's Hospital, January 19th, 1865, with an inflamed and thickened right breast. It came on after her first confinement, eight years previously, with suppuration, and had become worse three years ago after her second; a sinus had existed behind the breast since that date, but the nipple had been retracted since the first attack. Her general health was good.

A drainage-tube was introduced into the sinus through its most dependent opening, and tonics given. In two months, the sinus had healed, and the woman left cured. The nipple, however, was still retracted.

Remarks. In the cases I have already quoted, it will have been observed that the retracted nipples are the result of a chronic inflammatory affection of the mammary gland; and it is to be remarked that the retracted nipple was left as a result of the disease.

The next case I propose to read will illustrate the fact, that an acute inflammation of the gland may produce a similar condition.

Case v. *Abscess in both Breasts of an Infant; Retracted Nipples.* A female infant, aged two weeks, was brought to me at Guy's Hospital on December 22nd, 1864, with abscesses in both breasts, brought on by the foolish attempt of an old nurse to express the secretion from the glands which always exists after birth. It had been present for ten days, and the inflammation was very severe. The glands were much swollen, and as large as half a walnut. The nipples were also completely retracted. The breasts discharged freely for some days, and then recovered. The contracted nipples, however, remained.

Remarks. In the cases already quoted of inflammation and suppuration of the breast—a few only of the many which could be extracted from my note-book—the retraction of the nipple was a marked symptom; and they are amply sufficient to prove the truth of the remark, that such a condition is by no means unfrequent in connection with inflammation or suppuration of the mammary gland. It may occur during the progress of an acute or chronic inflammation in either an infant or an adult; and, as it has been already shewn, may be an early accompaniment and result of a chronic abscess.

I will now pass on to show that the same condition of nipple may exist in another simple disease of the mammary gland, the cystic disease, and to demonstrate the fact by the quotation of cases.

Case vi. *Retracted Nipple associated with the true Cystic Disease of the Right Breast, for which Excision was successfully performed.* Anne C., aged 49, a married woman, the mother of five children, all of whom she suckled, came under my care on April 17th, 1865, with a disease of the right breast of four and a half years' duration. It began by a swelling on the outer side of the gland, and this has gradually increased. The nipple, which had been quite natural, soon disappeared, its position being indicated by a deep depression. The tumour had also been tapped at least six times, a brown glairy fluid having been drawn off at each operation. On her coming under observation, the breast and tumour were very large, measuring about a foot from axilla to sternum. The disease was evidently cystic; for its outline was smooth, globular, tense, and fluctuating. The skin was much stretched over the growth beneath, and adherent in several spots from the frequent tappings, but not in any way diseased. Firm pressure upon the tumour was also followed by a copious discharge from the nipple of a glairy, blood-stained, mucoid fluid; or rather from the depression representing its position. This discharge had been present at times during the whole life of the new growth. The patient's general health was good, and there was no disease of the axillary glands. I tapped the cyst, and drew off several ounces of the same glairy blood-stained fluid which had been drawn off on previous occasions; and, finding much solid growth beneath, advised excision. This was done on May 30th, and a rapid recovery took place.

The disease turned out to be a fine specimen of the *true* cystic disease of the breast-gland; that is, a disease of the gland itself, developed within its ducts, the cysts containing intracystic growths and more or less glairy fluid.

Case vii. *Cystic Disease of the Breast: Retracted Nipple.* S. M., aged 67, a married but childless woman, applied to me on June 13th, 1864, with a disease of her right breast of two years' standing. It had appeared as a gradual enlargement, and had been unaccompanied by pain. Her general health was also good. When coming under care, the tumour was evidently situated in the breast itself, and with it formed one mass; it was of about the size of a large fist, and very pendulous, hanging down from the thorax. It was quite moveable, and the integuments covering it in were healthy and uninvolved. The tumour was evidently made up of solid growth, as well as of cysts; these latter being of various sizes. The nipple was thoroughly retracted, and had been so for one year. There was no discharge from it, or any enlargement of the axillary glands. An operation was advised for this patient, but her consent was not obtained. She remained under observation for one month, when she left town.

Retracted Nipple in Cancer of the Breast. The value of a retracted nipple as a sign of cancer will now occupy our attention; and I have placed it last on our list, as I thought it well to demonstrate first of all the fact that such a symptom is by no means an uncommon associate of the inflammatory and cystic diseases of the breast; and that, as a consequence, it cannot with any certainty be regarded as pathognomonic of the cancerous affections. That it does occur in connexion with a cancerous tumour of the breast, is not to be disputed; but that it is a frequent accompaniment of such a disease, is open to doubt; for, on looking over my notes of 222 examples of cancer of the mamma, I find that a retracted nipple existed in only 32 cases, or in about 14.4 per cent. Should the surgeon expect, therefore, to find it in all cases of cancer, he will be disappointed; and should its absence in certain cases lead him to regard a tumour as innocent, he will, in the majority of cases, be found wrong. This symptom may be found in the infiltrating form of cancer of the breast, whether partial or complete; that is, when the disease has involved the whole gland, or only a lobe. It may also exist in some examples of the tuberous cancer, in those instances in which the tuber is developed between the ducts, and by its growth separates them—thus acting mechanically upon the nipple, and causing its retraction; the retraction, under such circumstances, taking place towards the diseased part (Case ix). In the generally infiltrating form of cancer, the nipple simply retracts; and, at a later stage of the disease, it may reappear (Case

VIII), this reappearance being due to the increase of the disease and the mechanical pressure of the nipple forwards by the tumour beneath. These facts will be well illustrated in the following cases.

CASE VIII. *Infiltrating Carcinoma of both Breasts: Retraction of the Nipple in both during the Early Stage of the Disease: its subsequent Projection in one, in the Later Stage.* Mary W., aged 58, a married woman, the mother of four children, all of whom she had suckled without difficulty, came under my care at Guy's Hospital on August 22nd, 1864, with cancer of both breasts. The disease had existed in the left side for two years, and had appeared as a general induration of the mammary gland. The nipple, also, soon began to retract, and the skin to become involved by infiltration. In about one year after its first appearance, the nipple reappeared; and when coming under observation, it was as prominent as it is usually found. The whole breast was very large, and generally infiltrated. The skin over it was adherent, and covered with cancerous tubercular infiltrations. The axillary glands on that side were also diseased.

On the right side, the breast was similarly affected, although not to such an extent as the left. The disease had commenced in the right gland one month previously, by a general induration of the gland, and retraction of the nipple, the nipple having entirely disappeared. The skin was also slightly puckered. In about one month, tubercles appeared in the integument, and the axillary glands began to enlarge—the woman's health rapidly failing; the last notice in the report being on October 13th, that the patient was sinking.

CASE IX. *Tuberous Carcinoma of the Right Breast, and Retracted Nipple.* Eliza Lee, a childless married woman, aged 54, came under my care at Guy's Hospital on July 28th, 1864, with a disease of the right breast of one year's standing. It had commenced by a swelling situated on the outer side of the right mamma, of a hard and stony character, this swelling gradually increasing. After six months, a change appeared in the nipple, a slight dragging of the part towards the tumour being very manifest. This retraction steadily progressed; the nipple, when coming under observation, being drawn completely in. The axillary glands also soon began to enlarge, and the integument in the tumour to be infiltrated. When coming under my care, the tumour was of about the size of an orange, globular in outline, and very hard; it was evidently situated in the outer or axillary border of the mammary gland. The nipple was retracted almost out of sight, and drawn towards the diseased part. The tumour was fixed to the parts beneath, being quite immoveable; and the skin over it was also infiltrated. The axillary glands were likewise enlarged. In about one month, the skin began to ulcerate, and the powers of the patient to fail; the last report, made on November 24th, being, that the breaking up of the cancer was progressing rapidly, and the development of tubercles in the integument increasing. The patient's powers were fast failing.

REMARKS. We have thus shown that a retracted nipple is an occasional symptom in acute and chronic inflammation of the breast; that it is found in the cystic disease of the gland, as well as in the cancerous; in fact, that it is met with *in all the diseases of the true gland, whether simple or malignant.* It is absent in the ordinary chronic mammary or adenoid tumours, simply because these tumours are not of the gland itself; and, as a consequence, the nipple, with the gland-ducts, are not interfered with. In what way, then, it may be asked, is this retraction of the nipple generally brought about? It must depend on some general or simple cause, as it is found under so many different conditions; "for," as I have stated in another place (*Clinical Surgery*, Part v, p. 429), "a retracted nipple may be described as an accidental symptom in the development of a tumour; it is the product of mechanical causes, and its presence is determined by the manner in which the gland is involved in the disease, rather than in the nature of the affection itself. Should any tumour, simple or malignant—should any abscess, chronic or acute—attack the centre of the mammary gland, a retracted nipple, in all probability, will be produced; for, as the disease so placed will necessarily cause material separation of the gland-ducts, their extremities—terminating in the nipple—must be drawn upon, and, as a consequence, a retracted nipple will be the result."

In an early stage of an infiltrating cancer of the organ, this symptom is one of *occasional* occurrence; the nipple being drawn towards the side of the gland, which may be involved. At a later stage of the disease, however, when the infiltration is more complete, the nipple may again project. In a central chronic abscess of the breast, the retracted nipple is equally common; and, in the true cystic adenoceles, it may be also present. The explanation of the cause of this symptom in all of these cases is alike, being purely mechanical, and in a measure accidental.

CASE OF CHOLERA.

By JOHN BIRCHENALL, Esq., Macclesfield.

EVERY peculiarity in the history of cholera is interesting to us as the members of a liberal profession. The essential nature of the disease, the mysterious laws which influence its migrations, as indicated by the erratic course it took upwards of thirty years ago, when it swept over the entire surface of the civilised world, are questions which have not as yet received their solution. The following case of ordinary bilious diarrhœa, progressively assuming the distinctive characteristics of Asiatic cholera, prior by many months to its first visitation in this locality, is worthy of note, simply because it touches the marginal region of these problematical inquiries. It occurred in the month of June, 1833.

Mrs. H., aged 57, was a short corpulent woman, of bilious lymphatic temperament and swarthy complexion, strictly temperate, and of active habits, though of loose flabby texture. She had had occasional bilious purgings previously. From the Tuesday on which the last seizure occurred up to the Friday following, although the complaint did not yield to the usual remedies, there was nothing to awaken the slightest apprehension. The pulse, though a little lacking in force, was soft and regular; the tongue whitish, but moist and free from coating. There were the usual loathing of food, occasional nausea, but no vomiting; an entire absence of pain; no disturbance in the organs of special sense; no thirst; the urine was small in quantity; and the discharges from the bowels, which occurred on the average some half-a-dozen times in the twenty-four hours, were scanty also, and semiliquid, yellow at first, but gradually passing into a greenish hue; a transient sense of faintness being expressed after each evacuation, when this change in their aspect obtained.

In the course of the day last named, I found the pulse quickened; the countenance anxious, and expressive of exhaustion. The alvine discharges were still small in quantity, but oily-looking; and there was a prolonged sense of faintness on each occasion. As the treatment, which now consisted of an alkaline

mixture, with compound spirit of ammonia, and a pill containing a grain of calomel and half a grain of opium, repeated every three hours, together with injections of starch and laudanum, did not effect any change for the better, I took the opinion of the late Dr. Swanwick on the case; intimating that I should have regarded it as one of incipient Asiatic cholera, if that disease had appeared anywhere in the immediate neighbourhood; although the symptoms, even on that day, were not, in the judgment of Dr. Swanwick, sufficiently characteristic to warrant the presumption. In the evening, however, the temperature of the skin suddenly lowered; the voice, which had been getting fainter, had become husky; the pulse small and accelerated; a cold clammy perspiration was exuding; cramps supervened, increasing in violence; the countenance assumed a somewhat leaden aspect; the hands became mottled and purple, the tips of the fingers sodden; there was thirst, whiteness and coldness of the tongue, and a complete suspension of the renal secretion. In spite of the administration of full doses of opium and ether, with regular supplies of brandy, injections of port wine and laudanum, frictions, the application of hot bottles, etc., my patient passed a night of extreme suffering; and, when Dr. Swanwick saw her again early on the following morning, the discharges from the bowels—which had now the complexion of finely shredded portions of boiled salmon in a copious watery-looking menstruum—pointing, with the associate symptoms, to the specific character of the disease, he then recognised it as one precisely similar to cases he had witnessed in Manchester some time previously. Our patient expired in the course of the morning.

This was the first cholera case in this district, and no other occurred in the town until twelve months afterwards. The nearest point to which the disease had approximated at the time was Stockport, a distance of twelve miles; and there had been no conceivable intercommunication.

There was one feature which served to distinguish it from every subsequent case of cholera or choleraic diarrhœa that has come under my notice, at the adult period at least; namely, the scantiness of the alvine dejections. Until within the last twelve hours, the quantity in each instance could not have exceeded an ounce and a half or two ounces by measure.

Reviews and Notices.

Transactions of the Pathological Society of London. Volume Seventeenth. Comprising the Report of the Proceedings for the Session 1865-66. Pp. 482. London: 1866.

That the Pathological Society of London should be enabled to issue, as the record of its proceedings during a session, a volume of nearly five hundred pages—a larger volume, indeed, than has appeared in any previous year—is a plain sign that the condition of the Society is very different from that implied in its name; that, in a word, the Society is in a healthy and vigorous, not in a morbid and decrepid state. Not only the size, but the variety and value of the contents of the volume, indicate that the members of the Society have been diligent in availing themselves of the opportunities afforded by the meetings, of contributing to the constantly increasing mass of facts in pathology. A brief outline of the contents will bear out this statement.

Under the head of Diseases of the Nervous System, 15 specimens are described. Dr. W. Cayley gives a case of abscess of the cerebellum, with caries of the internal ear. Dr. J. W. Ogle describes an instance of calcareous deposit in the brain, containing sixty per cent. of phosphate of lime and magnesia, with albuminous matter; a case in which false membranes were found covering both cerebral hemispheres; and one in which bodies, apparently enlarged *quasi*-varicose veins or their remains, were found attached to the arachnoid and pia mater. He also furnishes three instances of softening of the brain and of the spinal cord; and a case in which the anterior cerebral hemispheres contained a hard fibrous growth in which were embedded calcareous masses. Mr. Nunn describes the case of a boy in whom the ulnar nerve was divided by an accident in August 1861. In October, the hand was wasted, and the temperature was 10° Fahr. below that of the other hand; in July 1865, the difference was only half a degree, and the muscles of the hand had recovered their bulk. Dr. Peacock gives an instance of abscess in the right hemisphere of the brain in a boy aged 4; although the abscess was evidently of old date, intelligence was retained nearly until death. Mr. Jonathan Hutchinson describes a specimen of encephalocele of the cerebellum, in a child which lived three weeks. Dr. W. H. O. Sankey gives an interesting description (accompanied with a plate) of the appearance presented by the capillaries of the brain in certain states attended with motor paralysis. "The vessels were variously contorted from their original course. In some, the vessel exhibited nearly a sigmoid curvature; in others, the contortion formed kinks and knots of considerable complexity." This condition Dr. Sankey has always found in "general paresis"; but also in another case attended with general paralytic symptoms. Dr. Conway Evans describes an instance of *contre-coup*, in which the left cerebral hemisphere, nearly opposite the ear, was found to be lacerated as if by a sharp knife, as far as the descending cornu of the lateral ventricle. There was much intracranial sanguineous effusion, and a fracture extended from the internal occipital protuberance through the petrous portion of the temporal bone. Dr. Dickinson gives a case of meningeal apoplexy in a patient suffering from purpura; the case being remarkable for the apparent connection of the apoplexy with blood-disease, there having been no external violence, and the vessels being, as far as could be seen, healthy. Mr. Lockhart Clarke describes the case of a patient of Mr. Gore of Bath, in whom, on his death three and a half years after a railway collision, the posterior columns of the cord were exclusively found diseased. They contained a large amount of compound granular corpuscles and isolated granules; also corpora amylacea. The principal symptoms during life had been pains in the back and head; gradually increasing loss of power to walk; and loss of control over the bladder.

Of Diseases of the Organs of Respiration, there are 13 examples. Dr. Gibb and Dr. Morell Mackenzie give instances of the removal of laryngeal tumours by the aid of the laryngoscope. Dr. Greenhow describes, with comments, cases of stone-workers' pulmonary disease, of colliers' lung-deposit, and potters' lung-disease. The other specimens under this head are derived from the larynx and trachea,

and are described by Dr. Crisp, Mr. Spencer Watson, Dr. Cayley, Dr. Cholmeley, and Dr. Gibb.

Under the head of Diseases of the Organs of Circulation, there are 34 contributions. Dr. Peacock describes an instance of contracted outlet of the right ventricle, with deficient ventricular septum. Dr. Andrew gives a case in which there were only two segments in the aortic valve; and one of embolism of the pulmonary artery. Two cases of rupture of the left ventricle are given; one by Dr. Ramskill, the other by Dr. Moxon. Dr. Dickinson relates three cases of angina pectoris depending on occlusion of the mouths of the coronary arteries. Dr. Hilton Fagge describes three cases of pyæmia in which recent endocarditis was found after death; and Dr. Dickinson gives two instances of pyæmic deposits in the valves of the heart. There are a number of cases of aneurysm recorded. In one, related by Dr. H. Weber, there was aneurysmal dilation of the sinuses of Valsalva, with rupture of one of the left semilunar valves, in a patient suffering from albuminuria, anasarca, and old heart-disease. Dr. Peacock describes an instance of dissecting aneurysm originating at the descending portion of the arch of the aorta—an unusual situation. Other remarkable features were, the escape of blood into the posterior mediastinum and behind the left pleura, while the pleural and pericardial cavities were free; and the prolongation of life for seven days after the symptoms of rupture had appeared. Mr. Leggatt also describes a dissecting aneurysm of the aortic arch. Dr. H. Weber relates a case of rupture of the aorta at the origin, occurring in a patient in the German Hospital with Bright's disease, who fell out of bed. The heart was hypertrophied, but of healthy structure; and there was very little disease of the arterial coats. Cases of aneurysm of the thoracic aorta are also described by Mr. H. Leach, Dr. Moxon, Dr. J. W. Ogle, Dr. B. W. Foster, and Dr. Quain. In Dr. Moxon's case, the aneurysm, which was seated in the ascending aorta just above the valves, burst into the left auricle. This occurrence is very rare. The symptoms were, faintness, cold sweat, great restlessness, pallor, and exhaustion; no orthopnœa or lividity. Dr. Ogle relates eight cases; 3 being aneurysms of the ascending portion of the arch of the aorta, 3 of the descending part, 1 of the convexity, and 1 of the aorta below the arch. In four of the cases, the aneurysm burst into the left bronchus; into the right in one. In two others, the left bronchus was pressed on by the tumour; and in another it was absorbed. Dr. Quain's case is a well marked example of aneurysm opening into the œsophagus. In Dr. Foster's case, there was extensive atheroma of the large vessels, the patient being only 28 years of age. Dr. Conway Evans relates at some length a case of aneurysm of the innominate artery, of supposed traumatic origin (fracture of the clavicle), which attained a large size, producing comparatively little suffering, and at last burst externally. Dr. Conway Evans also relates a case of atheromatous disease of the pulmonary artery, with great congenital contraction of the left auriculo-ventricular orifice and hypertrophy of the right ventricle; there being no atheroma of the aorta. *Apropos* of this case, Dr. Evans makes some observations on the causation of arterial atheroma. He considers the order of sequence to have been: first, congenital narrowing of the auriculo-ventricular orifice; second, dilatation and hypertrophy of the right cardiac cavities from impeded pulmonary circulation; and lastly, dilatation and thickening of the coats of the pulmonary artery, and consequent change in nutrition giving rise to atheroma. Dr. Ogle gives a case of aneurysm of the abdominal aorta which burst into the peritoneal cavity; the diagnosis during life was difficult, and the increase of the tumour before bursting was attended with an unusual amount of pain. He also relates a case, believed to be of rare occurrence, of an aneurism of the (? common) iliac artery which burst into the abdomen. Dr. Duckworth finishes the series with a description of a heart in which there were four pulmonary valves. The adventitious valve had no corpus Arantii; and Dr. Duckworth believes that there was probably an arrest of development of fœtal life.

Of Diseases of the Organs of Digestion—comprising the tongue, digestive canal, and liver—there are 35 specimens, among which the following are some of the most interesting. Drs. Murchison and Morell Mackenzie give several instances of sloughing and perforation of the intestine in enteric fever. Dr. Murchison describes two cases of small multiple abscesses of the liver secondary to simple ulcer of the stomach. Dr. Hermann Weber reports a case (illustrated with coloured plates) of syphilitic disease of the liver, lungs, bronchial glands, dura mater, cranium, and sternum. Dr. Wilks records a specimen of syphilitic cirrhosis of the liver from an infant; this being the first example he had found of the disease as described by Gubler. Dr. Cayley gives an instance in which, the thoracic duct being obstructed, the receptacula chyli was ruptured, producing peritonitis. Mr. Bryant relates a case of hydatid of the liver, in which exfoliation and expulsion of the parent cyst took place after tapping. No bandage or strapping had been employed.

In the section on Diseases of the Genito-Urinary Organs, there are 24 contributions. Among them are the following. Dr. Hilton Fagge describes a left kidney in which the ureter lay in front of the blood-vessels at the hilus; and where also the posterior surface was not flattened—so that it could not have been determined with certainty whether the kidney, if removed, was a right or a left one. Dr. Murchison describes the kidneys of a patient who died of convulsions during typhus fever; the specimen bears out the opinion that the kidneys are diseased in this fever, and that the convulsions in it, and in scarlatina, have an uræmic origin. Mr. A. Bruce describes a case in which the left kidney and the ureter of the same side were entirely wanting. Dr. T. Duka describes a case of emasculation as practised among the Mahomedans in India. The mutilation is effected by removing, by a clean sweep of the knife, the whole of the scrotum and its contents with the penis. Among the cases of disease of the female organs, are, an instance, by Mr. Holmes, in which an uterine tumour was removed by mistake for a tumour of the ovary; five cases of ovariotomy by Mr. Nunneley (in one of which, however, the tumour is believed by Dr. Graily Hewitt and Mr. Spencer Wells to be uterine); a case, by Dr. Hickman, in which there was cystic disease of both ovaries; etc.

Thirty-two contributions are recorded under the head of Diseases, etc., of the Osseous System. Among them is an account by Dr. Murchison of a case of peculiar disease of the cranial bones, hyoid

bone, and fibula. The specimens were sent by Mr. E. R. Bickersteth of Liverpool.

The patient died in Liverpool in 1857, at the age of 34. His face began to enlarge at the age of 14; and, thirteen years afterwards, a hard swelling appeared on the left fibula. There was no evidence of constitutional disease; but one brother had a similar enlargement of the upper jaw on one side. There was never any suppuration, nor implication of the integuments and soft parts. On examination by Dr. Murchison, all the cranial bones, except the occipital, were found to be greatly thickened and indurated, principally by "growth from the outer surface of numerous closely aggregated, smooth, dense, botryoidal excrescences, varying in size from a hemp-seed to a small cherry, and causing the bone to resemble somewhat a mass of malachite." A full description is given of the aspect presented by the several diseased bones; and a further report on the case, by Mr. De Morgan, Mr. Hulke, and Dr. Murchison, states that there are two somewhat similar specimens of disease of the bones of the head in the Hunterian Museum, and gives a description of the structure of the diseased fibulæ. The cranial bones were not examined, in order that the specimen might be preserved.

"The shaft of the fibula is much expanded; it presents, on its anterior and outer surface, a thin shell enclosing a very open cancellous structure. The shell is highly vascular. From the posterior and internal surface springs, by a narrow neck, the general mass of the bony tumour. The greater portion of this is made up of dense ivory-like bone, with here and there an extremely delicate cancellous structure. About half an inch posterior and internal to the shaft, is a large vascular canal, nearly $\frac{1}{6}$th of an inch in diameter; and throughout the general mass smaller canals are seen in great number, the average diameter of which is $\frac{1}{15}$th of an inch.

"The dense bone is very tough, and to the naked eye appears compact at first view, but, on closer examination, it is seen to be studded with numerous minute openings.

"The compact structure is traversed in every direction by large branching and communicating vascular canals, forming in some places a close net-work. At the point of confluence of these canals, there is often a sort of ampulla. From the sides of the larger canals finer ones are given off, which form communications with those coming off from the neighbouring, or even from distant, larger ones.

"In many places, a large canal terminates in a bulbous extremity, from which is given off a pencil of small tubes radiating in various directions. The general arrangement of these tubes is in fact not unlike what is seen in the framework of some sponges.

"The spaces between the canals are filled up by bone-tissue of ordinary character. There is an indistinct lamination for the most part parallel to the walls of the canals, around the walls of which the laminæ are very closely packed, so as to give a dark colour to the bone. The laminæ are in general very numerous, but they are small, and for the most part elongated. The majority are furnished with very delicate canaliculi. In some places, however, stellated laminæ, with numerous large canaliculi, are found; very few traces of true Haversian systems are to be seen.

"The cancellated bone presents, for the most part, the ordinary characters; but even here are found many of the large canals running into the cancelli."

An analysis, made by Mr. Hewitt, showed the bone to consist of: Earthy phosphates, 55.65; carbonate of lime, 8.44; organic matter, 35.91—the latter being slightly in excess of the normal amount (about 33.3 per cent.)

Mr. Jonathan Hutchinson relates a case of circular fracture of the base of the skull, in a man who died with erysipelas of the face and pyæmia nine days after the injury, which was produced by a fall on the top of the head.

On his admission, there were partial loss of consciousness, and paralysis; but these symptoms disappeared, leaving, however, total deafness. There was no hæmorrhage from the ear. On *post mortem* examination, there was found an extensive fracture of the base of the skull, symmetrical on the two sides. "Passing in a curved direction outwards and forwards from the foramen magnum, the lines crossed the base of the petrous portion of each temporal bone, and then passed forwards through the sphenoidal fossa to meet in the body of the sphenoid. On the right side, also, there was a line of fracture extending from the body of the sphenoid upwards through the wing of the sphenoid into the temporal bone. The tympanic cavity on each side was filled with blood; and the membrana tympani on both sides was entire; thus explaining the symptom of deafness without hæmorrhage from the ear."

Under the head of Organs of Special Sense, there are 12 contributions; 4 relating to the eye, and 8 to the ear.

Eleven cases are reported under the head of Tumours.

In the section on Diseases of the Ductless Glands are 10 contributions, mostly referring to disease of the suprarenal capsules. One of the contributions—the longest article by far in the volume—is an elaborate report on this disease by Dr. Headlam Greenhow. Dr. Greenhow has collected and tabulated the principal points in the history of 196 cases, which he arranges as follows: *a*. Bronzed skin without disease of the suprarenal capsules (10 cases); *b*. Cancerous disease of the suprarenal capsules (24 cases); *c*. Miscellaneous affections of the suprarenal capsules (10 cases); *d*. Cases imperfectly described, or of doubtful nature (24 cases); *e*. Addison's disease of the suprarenal capsules quite uncomplicated (24 cases); *f*. Addison's disease almost uncomplicated—lesions of other organs unimportant (17 cases); *g*. Addison's disease apparently uncomplicated—state of other organs not reported (5 cases); *h*. Addison's disease, complicated with vertebral disease or lumbar abscess (15 cases); *k*. Addison's disease, complicated with tubercle in lungs only (25 cases); *l*. Addison's disease complicated with tubercle in lungs and other organs (19 cases); *m*. Addison's disease complicated with phthisis (13 cases); *n*. Addison's disease with non-tubercular complications (10 cases). The first four of these classes consist of 68 cases which Dr. Greenhow does not regard as genuine and reliable instances of Addison's disease. Besides commenting on the various classes in the tables, Dr. Greenhow offers remarks on the nature of the disease, its extent, pigmentary deposits, the state of the blood, the duration, progress, and termination of illness, etc. On all these he treats fully; and, in regard to the influence of sex, age, and occupation, he says:

"Males appear to suffer much more frequently than females from Addison's disease; 92 of the true cases having belonged to the former, and only 36 to the latter sex. The disease seems not to occur in childhood, the earliest age at death having been 11

years in a boy, and 13 in a girl, one of my own cases; and it appears to be equally rare in advanced life, only 7 males and 4 females having died above the age of 50, and of these only 2 males and 1 female were beyond the age of 60 years. But, whilst among males the mortality is pretty evenly distributed over the hardworking years of life, among females the greater proportion of deaths take place between the ages of 15 and 25, and, again, between those of 35 and 50. The occurrence of Addison's disease seems to be in a great measure limited to the classes engaged in active manual labour; only 8 males and 3 females, so far as can be gathered from the reports, having belonged to the middle or higher classes of society. The facts thus brought out are, the almost exclusive occurrence of this disease among the classes most liable to local injuries from accidents or overexertion; its much greater comparative prevalence among persons of that sex which is most exposed to these causes of injury; and the pretty equal distribution of the mortality caused by it over the active period of life, to which it is almost entirely confined."

Six examples of Skin-Disease are described; and there are accounts of 13 "Miscellaneous Specimens", several of which illustrate the pathology of Cattle-plague.

We have of necessity omitted notice of many articles of interest both in their pathological and immediately practical bearing. But the extracts we have given will be sufficient to show that this volume of the *Transactions* of the Pathological Society is rich both in abundance and in value of material, and is one on which the members may well look with satisfaction. We must not omit to mention, in conclusion, that the descriptions given, although clear, are rendered still more intelligible by the addition of seventeen plates—some of them coloured, and thirty-seven woodcuts.

NOTES ON HEALTH IN CALCUTTA AND BRITISH EMIGRANT SHIPS: including Ventilation, Diet, and Disease. By W. H. PEARSE, M.D.Edin., Government Emigration Service. Pp. 160. London: 1866.

DR. PEARSE considers that there is a great want of practical knowledge respecting the ventilation, diet, and health of emigrants on board ship; and to supply this deficiency he has issued the little work before us. In it he treats, in nine chapters, of—1. Ventilation; 2. Calcutta Coolie Emigrant Ships; 3. Calcutta Coolie Emigrants' Diet; 4. Calcutta Coolie Emigrants' Water; 5. Varied Types of Disease on Ship-Board; 6. Ship *Adamant*, and first recognised Passage to Fever, etc.; 7. Prophylactic Treatment of Scarlatina; 8. Ship *Tarquin*, and Alliances of Fever, Inflammations, Cholera, etc.; 9. Cholera. The author's remarks are founded on personal observation; and his work is one which, we think, will be found instructive to medical men who are undertaking the charge of the health of emigrants on board ship.

DEMERARA. Great mortality has lately existed amongst the sailors coming to this port from yellow fever, which has also committed great havoc amongst the 3rd Buffs. The disease is exclusively confined to the shipping and the garrison; there is not a case of fever in the town.

We are requested to remind members of the Association that the Annual Subscriptions became due on the 1st of January. They can be paid either to the Secretaries of the Branches; or to the General Secretary, T. Watkin Williams, Esq., 13, Newhall Street, Birmingham.

British Medical Journal.

SATURDAY, DECEMBER 8TH, 1866.

THE CASE HUNTER v. "PALL MALL GAZETTE."

THE profession has watched with deep interest all the proceedings in the protracted trial just concluded in the Court of Queen's Bench, in which Dr. Hunter, of advertising notoriety, sought damages against the proprietors of the *Pall Mall Gazette* for imputing to him that he was an impostor, and that he was playing for his benefit upon delusions which he created by his writings. The language of the article was unquestionably of great severity; but it would be difficult to say what condemnation could be too severe for intentional tampering with the sick, and studied exaggeration of their fears, if such conduct could be proved. Written with an honest indignation, which found no words too fiery to brand the offence which it alleged, this article came within the law of libel. The defendants steadily maintained, however, the justice, the propriety of their comments. They had said what they meant; they had warmly expressed an honest indignation, from no private malice, and on no personal grounds; they had denounced what they believed to be an imposture dangerous to the public health, and practices contrary to the honourable rules common to all professions. The jury, enlightened by a protracted examination and cross-examination of medical witnesses of the highest character and ability, and directed by one of the ablest and most clear-headed judges who ever adorned the bench, found that the article went beyond the permissible bounds of comment, and was, in fact, a libel; but that, severe as the libel was, Dr. Hunter was entitled to no more than one farthing damages. Dr. Hunter, "by his allegation of innuendoes, represented that the effect of the passages of which he complained was to impute to him that he was a quack, a scoundrel, and an impostor." The defendant boldly justified; and the jury estimated the injury to his professional and personal character at the smallest coin of the realm.

This is unquestionably a practical triumph for the defendant; and, as members of a liberal profession, we cannot but feel well satisfied that, when transactions such as those which were proved, and

which Mr. Coleridge admitted, are publicly exposed, an English judge and an English jury will consider that the boldest and most unflinching censure is venial, when public interests only are considered; and that the journalist who fearlessly denounces what he holds to be dangerous to the public welfare performs a duty of which the importance is commensurate with the inevitable risk. We say advisedly inevitable, because censure is a weapon which never can and never ought to be wielded without a sense of responsibility and of personal danger. The journalist especially holds a vantage-ground, of which it is inconsistent with the public safety that he should make undue use. It is not that he is strictly anonymous: this (so far as it exists) is a matter of public convenience, more than of private advantage. He has an audience ready for his words, accustomed to accept his views, and more or less disposed to concur in any general argument which he advances, without very narrowly testing the cogency of its separate parts. Unfair partisanship, malicious misrepresentations, wilful detraction, in journalism, are more dangerous than elsewhere; but the fair, open, bold denunciation of acts detrimental to the public, is one of the greatest services which the journalist can render to society.

The proprietors of the *Pall Mall Gazette* have unquestionably, by the courageous and unselfish way in which they have conducted this case, rendered great service to our own and to other professions. We are little interested in the mere exposure of the groundlessness of the pseudo-scientific theories of Hunter. This is a very small matter to us as a profession: errors so flagrant cure themselves. The carbon theory, the oxygen theory, are pure nonsense, which mean no more than a dozen other equally absurd and ignorant theories which are put forward every year, and have a merely ephemeral existence. But what deeply concerns us all is the opinion which the judges on the bench, which jurymen in the exercise of their functions, and which public writers of all professions, entertain on the propriety of the method by which this carbon-oxygen theory were forced upon public notice. Here we refer with infinite pleasure to the summing up of the Lord Chief Justice. It is not the first time that Sir Alexander Cockburn has deserved the thanks of our profession for the dignified, convincing, and manly exposition of the leading principles which should govern its relations with the public. In referring to the circumstances of publication and the method of advertisement pursued, he pointed out that which is with the profession of medicine a primary rule, and which he thus authoritatively endorsed: "The giving or withholding information in its fullest extent of the precise means and manner of cure constitutes the characteristic difference between the honest scientific writer and the quack. The man who wants to impose on mankind keeps his remedy a secret: the man who desires that it shall benefit not only those who are brought into contact with himself as patients, but mankind generally, by its being placed at the disposal of every medical practitioner throughout the world, gives the fullest particulars as to all those matters which it is essential should be known." This is a canon in medical ethics. We recognise no secrets. We do not permit amongst ourselves any hoarding of a boasted knowledge limited to the one curer of patients. We require that any member of our body, who professes to have acquired knowledge of a means of cure not known or sufficiently appreciated by others, should explicitly say what it is, and how it is best applied—in what doses, and under what restrictions. It is thus that the greatest benefits have been conferred on mankind: it was thus that the prophylaxis of small-pox by vaccination was made known from the first in its minutest details: it is thus that cod-liver oil was introduced and tested in the treatment of this very disease, consumption: it is thus that chloroform was given to the world and to medicine: that local anæsthesia by etherisation has been lately presented as a boon to humanity. On this sole condition can truth prevail and science progress.

So as to advertising. It is a distinct benefit to all professions that the very trenchant criticism of the Lord Chief Justice should have been elicited. "What would be thought of a member of the bar who, having published one of those treatises by which we are all from time to time enlightened and instructed in our professional knowledge, were to take portions of it and from day to day advertise them in the columns of the newspaper, taking care to append this important piece of information, that 'Mr. So-and-so, the author of this very learned and valuable treatise, sits in his chambers from four till six, and will be happy to advise all those who may come to him upon the subject of the treatise?' Why, such an individual, so acting, would be scouted from the profession which he would be thought to have humiliated and disgraced by such conduct. What difference is there between the two professions? They are sister professions, equally guided by the same rules of professional honour and professional propriety." These are words which ought to be written in letters of gold. The ethical rules of the great professions are only the applications of the general laws of morality and social order. They have a general reference to the public good. In the first place, a rule which tends to maintain a decent reserve, and a modest abstinence from self-laudation by advertisement, recommends itself to gentlemen without argument. Once admit the propriety of a professional man seeking publicity by such forms of advertisement, let the long purse and the unblushing cheek become recognised elements in

professional success, and the temptations to exaggeration, to excess in self-laudation, to an estimation of the means at the advertisers' command, will soon undermine the regard for truth. Where modesty and reserve are destroyed, where the judgment of the ignorant is courted and that of the instructed is eluded, the result will not be likely to be favourable to true scientific progress. The principles which the *Pall Mall Gazette* advocated, were those to which our own profession, to which the educated members of all classes and of every profession instinctively adhere. It is a great gain that they have on this occasion been so openly and unflinchingly advocated in court; and that a judge so distinguished as the Lord Chief Justice Cockburn has emphatically and decisively endorsed them with his approval.

THE BERMUDA BLUNDERS.

The official papers regarding the epidemic of yellow fever at Bermuda in 1864, in return to an address of the House of Commons, dated July 23rd, 1866, have now been printed. They comprise extracts of a despatch from the Governor of Bermuda to the Secretary of State for the Colonies, forwarding the Report of the Committee appointed to inquire into origin and spread of the yellow fever by which Bermuda was visited in 1864, together with appendices.

Such of our readers as have read the official report of this epidemic by Deputy Inspector-General Barrow, published in the fifth volume of the Statistical, Sanitary, and Medical Reports of the British Army, or the commentary on that document by Professor Maclean, will find in the documents before us ample confirmation of the entire accuracy of Dr. Barrow's account, and a complete justification of Dr. Maclean's strictures on the local authorities.

The covering letter of Colonel Hamley, R.E., Lieutenant-Governor of Bermuda, forwarding this despatch, is, in many respects, a remarkable document. Colonel Hamley admits that the Commissioners have recorded the history of the fever fairly and faithfully; and he bears willing testimony to the fidelity with which the whole sequence of events has been traced in the Report. He goes on to say, "that the satisfaction is denied me of being able to announce that the inquiry has unveiled, even partially, the cause of the fever. Well known sanitary maxims are referred to and repeated, and inattention to them is condemned. But when it is remembered, that the fevers (*sic*) appear at intervals, with many intervening years of great salubrity, it is hard to understand how the state of the buildings, drainage, etc., can be the cause of the pestilence; because they (the buildings, etc.) remain from year to year much in the same condition, and, if they generate and emit a poisonous influence, that influence must operate constantly, though necessarily, to the extent of producing yellow fever." Now, without dwelling on the fact that the Commissioners nowhere say that the shameful state of the town of St. George and the military barracks therein situated was the sole cause of the yellow fever, the above statement by the Lieutenant-Governor is merely an echo of what is said daily in our vestries and town councils, in reply to sanitary reformers, by the wiseacres whose vocation it is to stand up for the vested rights of British subjects in stinks, bad drainage, and what Colonel Hamley calls "poisonous influences." Yet, in the next paragraph, the Lieutenant-Governor is forced to admit that, after the fever had once begun, "there is every reason to believe that it was fostered and propagated through the absence of sanitary precautions." Quite so. But, then, Colonel Hamley will not admit for an instant that the almost incredibly foul condition of the town of St. George is a "reproach" to anybody concerned; and he expresses his concern that the Commissioners did not, "in justice to Bermuda", do—what do our readers suppose? Why, set forth "that no civil engineer or master builder is to be found in the colony."

Really this beats the British vestryman hollow. Nothing equal to this ever came out of Marylebone. Bermuda, with its 12,000 souls, its dockyard, and British garrison, is to remain in the future, as it has been in the past, a place in which yellow fever is to run riot periodically for want of a civil engineer or even a master builder: the British empire, it is assumed, being unable to supply one or the other.

It will be remembered that one of the things most strongly condemned by Drs. Barrow and Maclean in the arrangements during the epidemic of 1864, was the action of the authorities in leaving certain establishments, with the people attached to them, and even the sick and the hospital establishments, in the centre of the tainted district, in the very focus of the disease. Professor Maclean, arguing from his past experience, sadly gave expression to his fear, that another epidemic of yellow fever would find the authorities in Bermuda not a whit better prepared to deal with it than they were in 1864. The Lieutenant-Governor has justified this fear in a manner for which, we confess, we were quite unprepared, by avowing in the most candid manner that, should another epidemic visit Bermuda, this frightful blunder, which was the cause of a lamentable loss of life, must be repeated. The reasons given are a fit pendant to the civil engineer and master builder excuse just quoted.

We sincerely trust that this Report will be carefully considered by the Secretary for the Colonies and by General Peel, than whom no one is more aware of the necessity of preventing, if possible, a repetition of the terrible blunders of 1864.

Most of the recommendations given by the medical members of the Commission are admirable, and they deserve the serious consideration of all whom they concern.

THE CAUSATION AND CONTAGIOUSNESS OF YELLOW FEVER.

The analysis of the causation and contagious character of yellow fever is at this moment a subject of particular interest, since this unwonted and unwelcome visitor from the tropics has now presented itself in three successive passenger-ships on our coast. It will be observed that Dr. Murchison, in the lecture which we print to-day from his pen on this subject, considers that the yellow fever of the tropics—that for which we are now imposing quarantine at Southampton—is in its origin essentially different from the "yellow fever of the British Islands", described by Graves in 1826, and by Scotch physicians in 1843, which were instances of the so-called relapsing or famine fever complicated with jaundice and cerebral symptoms. The important point in respect to this yellow fever with which we have to deal at Southampton is, undoubtedly, its contagious character. Although this has been strongly contested, yet Dr. Murchison writes: "Notwithstanding all that has been written to prove the contrary, the facts showing the contagious character of yellow fever appear to me to be as conclusive as in the case of typhus. There are numberless instances in which the disease has been imported into fresh localities by the persons or clothes of infected persons. It is true that healthy persons are more liable to contract the disease by visiting infected *localities*, such as ships; but this is only an illustration of what is also observed in the case of typhus, which only spreads under favourable circumstances. No one doubts that typhus fever is contagious. Yet Dr. Christison remarks that, during a period of twenty-two years, he and two of his colleagues had attended 280 medical students at their own houses, who had contracted typhus by visiting infected localities; that 1200 persons must have been more or less exposed in attending on them; and that in only one instance had there been any propagation of the disease."

Practically applying this, however, to the present enforcement of quarantine, it must be observed that he agrees with other authorities that yellow fever cannot be propagated at a low temperature—certainly not at the temperature which prevails at this season of the year in this country. The enforcement, therefore, of quarantine, as now carried out, is not justified by science: on this, all medical authorities with whom we are acquainted agree. The only ground on which it is justified is, we believe, the commercial necessity of taking such steps as will prevent the authorities at the Mediterranean and other ports from declaring Southampton to be infected, and subjecting all vessels coming therefrom to prolonged quarantine. Thus these passengers are made to pay a penalty which our knowledge of facts does not warrant, and which science cannot approve, for reasons of a purely commercial character, affecting others than themselves. They are "whipping-posts" in quarantine. An important point to which Dr. Murchison calls attention is the relationship of yellow fever and tropical malarious remittent fever. On this hinged the whole controversy as to the contagious character of yellow fever, which has occupied the attention of the profession for more than half a century. The fact seems to be, that those who, on theoretical and clinical grounds, classed yellow fever as a malarious remittent, were *ipso facto* debarred from accepting evidence of contagion; and to persons thus incredulous, the large number of cases in which no contagious results are observed easily afforded a practical confirmation of their view. So far as symptoms or clinical history are concerned, no specific distinction can be drawn between yellow fever and malignant malarious remittents. But this only affords another illustration of the danger of being misled by a sole attention to the symptoms, and neglecting the study of the causation of disease. Symptoms which bear a close resemblance to each other are produced in disease (as in cases of poisons) by agents and under conditions really essentially different from each other. So far as causes are concerned, no two diseases can be more different than yellow fever and malarious remittents. This essential point has to be borne in mind in dealing with yellow fever—its relation to population. Yellow fever is a disease of cities and crowded places—of bad hygienic arrangements. It is quite worthy of remark on this matter, that in all these three cases, the crew, who are badly lodged, and the purser and surgeon, who are brought in contact with them, are the sole victims. The history of the *Eclair*, the *Bann*, and other ill-fated ships in which the yellow fever has clung to the timbers, and has repeatedly broken out in successive voyages, shows that the most effective disinfection is required for the ship itself; for the fever clings to localities, rather than to persons.

MEDICINE IN THE ARMY AND NAVY.

The questions most interesting to our army and naval brethren, and, by relationship, to every medical man, are unfortunately still in dispute between the authorities and the profession.

The recommendations of the Committee, at which the Colleges were represented, were at the time commented on as insufficient to the desired end. The Navy Circular which followed fell notoriously short

of the recommendations; and the Army Circular which was drawn up has been only recently issued.

Doubtless a reactionary policy on the part of the Government offices was determined on, and has proved a lamentable failure, as sufficient candidates of the right calibre are not forthcoming for the public services; and those who are, are far from enough to meet the exigencies of either service. Expedients are found inadequate, and yet they are the order of the day, in the hope of still longer staving off questions which increase in weight as they grow by time, until at length every non-executive department takes part with the medical in its claim to equal justice. The latest of these is a production of the pen and scissors of some Admiralty official, striving to delude Scotchmen into the persuasion that all grievances are satisfied, and all questions at rest among medical officers of the navy.

It consists of a pamphlet published for the guidance of medical students and their parents, under a taking title; and, from the ignorance of medical literature and history, betrays at once that it is not the work of any professional man. A very small knowledge of the navy, and of life on the ocean wave, enables one to judge of many varnishings and of some errors, which are but little in character with the seeming tone of candour in which the pamphlet is written.

It is a pity that any reliance should be placed in such pretences; and it would be far better that the authorities should trust to plain and just dealing with the army and navy medical officers, and to a straightforward statement of its intention to remedy the defects in their previous circulars, than to writers who cannot far misdirect the tyros of our class by such small productions as "Everything about them, for the Information of Medical Students of the Scottish Universities, and of Parents, etc."

The following is the proposed scale of pay in the recommendations forming the basis of the Warrant for the Army Medical Officers, which General Peel has promised to issue at the commencement of next year. The increase of pay, however, will not commence until April next:—Under 5 years' service, 10s. a day; above 5 years, 12s. 6d.; above 10 years, 15s.; above 15 years, assistant-surgeons, 17s. 6d., surgeons, 20s.; surgeons-major above 20 years, 24s.; above 25 years, 27s.; deputy inspector-general of hospitals, above 20 years, 30s.; above 25 years, 32s.; above 30 years, 35s.; above 35 years, 37s.; inspector-general of hospitals, above 20 years, 40s.; above 25 years, 45s.; above 30 years, 47s.; above 35 years, 50s. In addition to this, the Warrant will, of course, give those privileges of relative rank which were conceded by the Warrant of 1858, and has since been most improperly withdrawn.

The journal which spread the report of the death of M. Trousseau, on which we last week commented, was, we are happy to hear, in error. His illness is not of a serious character; but the news spread great alarm in Paris, and his house was crowded with anxious friends.

We have received a characteristic and charming letter from Professor Trousseau, *à propos* of this widely spread report of his death and of the few appreciative words which we wrote. He says: "The news of my death which I read in the journals astonished me a little; for I was not yet very ill." After describing his temporary disorder, which has entirely passed away, he adds: "Nevertheless, posterity has commenced for me; and I am happy to find, in a journal so esteemed as yours, eulogies which I am far from meriting, but which prove to me at least that I find some feelings of sympathy among my brethren."

Cholera has recently broken out in the Isle of Man, which had, up to that time, altogether escaped the infection. Its presence is supposed to be due to importation, but of this there is not, we believe, any conclusive evidence; though, as the first cases appeared among some fishermen who had just returned from the fishing grounds on the East Coast of Ireland, there is good reason for looking upon the supposition as correct. As far as we have been able to ascertain, the number of cases up to the present time has been eight, and the deaths four.

At the annual meeting of the Royal Society on the 30th ult., Lieutenant-General Sabine in the chair, the President delivered the customary address. The subjects of medical interest were this year few. The paragraph relating to meteorology is of considerable interest; and we shall hope to discuss it further. In presenting a royal medal to Mr. William Kitchen Parker, M.R.C.S., the President alluded to his valuable investigations among the Feraminifera. The award of the medal was, however, based not so much on his work in this department of zoology, as on his labours in a very different and much more difficult branch of anatomy, vertebrate osteology. In 1860, Mr. Parker published a memoir, "On the Osteology of *Balæniceps Rex*"; and in 1862, another "On the Osteology of the Gallinaceous Birds and Tinamous," in the *Transactions of the Zoological Society*; while a third still more important memoir, "On the Skull of the Ostrich Tribe", was read before the Royal Society in March 1865, and is now published in the *Philosophical Transactions*. General Sabine observed that, in these elaborate and beautifully illustrated memoirs, Mr. Parker has not only displayed an extraordinary acquaintance with the details of osteology, but has shown powers of anatomical investigation of a high order, and has made

important contributions towards the establishment of the true theory of the vertebrate skull. Let us add that Mr. Parker, one of the most highly accomplished osteologists of Europe, pursues this difficult and laborious study amidst all the distractions of general medical practice.

Though the cholera epidemic may now be considered as over, both cholera and diarrhœa still hang about some parts of the country. North Wales especially seems unable to rid itself entirely of the pestilence; for eight fresh cases of diarrhœa are reported as having occurred last week in the Anglesea Union, while from the Ruthin Union twenty-nine cases of either cholera or diarrhœa are returned. Carnarvon, however, seems just now to be suffering most; for during the week before last there were in the Union forty-nine fresh cases and six deaths, and last week 271 cases and eleven deaths.

A statement has been widely circulated in the press this week, to the effect that the duties hitherto performed by the Meteorological Department of the Board of Trade are to be handed over to the Royal Society, and that the Society has undertaken to perform them. This is altogether a mistake. The Royal Society recommended that the Government should establish several stations in Great Britain and Ireland, as observatories for land meteorology, with Kew as a central station; and that the central direction should be under a scientific body. But the Royal Society never undertook to perform this duty or to carry out this superintendence; indeed, it would be quite out of the question that they should do so. The President and Council undertook to recommend a competent body in whom the Government could repose trust; but not to do the work themselves.

A very graceful and generous tribute has been paid to the memory of the late Mr. McCormick, house-surgeon for more than twelve years to the Bucks Infirmary. It was proposed at first by the Rev. C. Erle, that "from the funds of the institution a sum of £50 should be paid to the representatives of the late Mr. McCormick." This was lost by the casting vote of the Chairman, owing to an unwillingness to trespass further on the funds of the charity. But immediately after the meeting a subscription list was opened for the purpose among those present, "who thought something was still due in recognition of the valuable and ill-paid services of this pure minded and unpretending gentleman, who for twelve years and more had superintended this, one of the most beautifully arranged and best conducted hospitals in the kingdom." In a very few minutes, and before they separated, a private subscription to the amount of forty-two pounds was raised; Mr. Erle and Mr. Ceely heading the list with donations of ten guineas each. The manner of the gift, the delicate kindness of the sentiments which inspired, and the courteous and earnest acknowledgment of valuable service which accompanies it, must make it trebly valuable to the mourners for whose acceptance it is proffered. The high character of the donors will add further to the value of their testimony. To be warmly appreciated and esteemed, to be kindly remembered and praised by those from whom praise is of great worth, is next to the highest meed for duty well done.

Clean bills of health are now, we believe, issued to all ships leaving the port of London; the Commissioners of Customs having been authorised by the Privy Council to do so, as the epidemic of cholera in London may now be considered to have ceased. This will be a great benefit to our mercantile marine, as ever since the outbreak of cholera most vessels sailing from London have been subjected to quarantine at their ports of arrival.

New directions have recently been issued from the Admiralty for the medical examination of officers, men, and boys, for the royal navy and marines, in lieu of those hitherto in force. A list of fourteen classes of disqualifying affections is given; and, as the document is lengthy, and is only interesting in detail to those actually engaged in the duty, who will be able to obtain copies on application, we refrain from printing it. It is important to observe, however, that the examining medical man is instructed specially that no person is *to be reported fit*, unless he be likely to continue efficient and serviceable in any climate, and under all the vicissitudes of service, for a period of not less than *ten years*. This is with a view to diminish the great numbers of men who now break down and apply for invalid pensions after short periods of service. No man or boy who has been reported fit for the service by a medical officer of the Royal Navy or of the Royal Marines is to be again subjected to examination, unless he re-enter for continuous service, or there be reason to believe that he is labouring under some disability contracted or sustained since his entry, or on going on foreign service. It is not thought, however, that the new regulations will work so well as could be wished, and we shall not be surprised to hear of their early revision.

We regret to learn that Dr. Jeaffreson of St. Bartholomew's Hospital is very seriously, but it is hoped only temporarily, indisposed. Professor Hargrave of Dublin, who represents the College of Surgeons of Ireland in the Medical Council, has also, we are sorry to hear, been dangerously ill, and cannot yet be said to be out of danger.

It is rumoured that Government is about to institute a system of gratuities to public vaccinators, according to the degree of success, and that a sum of money has been provided for that purpose. It is known that such a plan was proposed in the Bill which was settled by the Select Committee of the House of Commons last session, but with which, as our readers are aware, the present ministry did not proceed. We have reason to believe that the present rumour is well founded.

Fresh outbreaks of Cattle-plague are occurring in Lancashire, Yorkshire, and Cheshire. There can be no question that this recrudescence of the disease in counties from which it had been effectually stamped out is of grave importance, and more especially at this period of the year. The farmers are now gathering the cattle into their sheds. Whilst cattle are in the fields, the means for preserving them from the plague are greatly facilitated by the ease with which they are separated. But now that they are being taken for the winter into sheds, previously the seat of this peculiarly insidious and active poison, the danger of infection of the herds is considerable, unless the most careful precautions have been taken for the thorough disinfection of these sheds. The manner of best effecting this is clearly pointed out by Mr. W. Crookes, F.R.S., in his able Report to the Cattle-Plague Commissioners on the subject. He recommends that every shed and all parts of the shed should be first washed, and then washed down with a hot solution of carbolic acid water, to the strength of one per cent. of acid in the water; then that the sheds should be closed, crevices stopped, and the interior fumigated by burning a roll of sulphur upon hot coals in a shovel. The total expense of this need not, he says, exceed a few shillings. The operation is one of the greatest simplicity; and by this we might probably guarantee ourselves against a recurrence of serious disasters. The caution is one which is certainly timely, and, we hope, will not be wasted. Farmers may think that six months' disappearance of the disease, while their cattle have been in the fields, renders a return of the pestilence unlikely in their sheds; but it has, we believe, been proved that the germs of the poison may retain their vitality for six months, and it is highly probable that they may do much longer.

Dr. Goodeve, one of the English Commissioners to the late International Conference on Cholera at Constantinople, summarised in a paper which he read this week at the Epidemiological Society the results and recommendations of the Conference. They were such as to confirm in the minds of all present the opinion which had already gained ground here, that the decisions and recommendations of the Congress are worse than useless. In the terse but expressive words of Dr. Farr, who spoke few words and to the point, they are "not only unpractical but irrational." The Conference has clearly been one in which the physicians have had to stand behind the diplomatists, except so far as they would serve the end of the policy which the Conference supports. The teachings of science, the past history of quarantine, the investigations and reasoning of previous modern quarantine congresses, have been ignored or contradicted. This Conference of Constantinople would have nothing less than a quarantine of exclusion: ten days in the lazaretto for healthy passengers in ships with a sound bill of health from all the ports of an infected kingdom. This is the mediæval form of error; it always has been utterly impossible to absolutely exclude cholera; it always will be. In these days of active commercial intercourse, the very attempt is absurd. The recommendations to impose a quarantine of obstruction upon all passengers and goods from India is not justified by experience more than by common sense. In the long course of years that the Peninsular and Oriental Company's steamers have been actively passing to and fro, bringing their cargoes of passengers, cholera has never once been introduced by them. The "Suez canal scheme" is singularly mixed up with this attempt to restrict our commercial intercourse with India; and the expressed desire to establish great quarantine establishments, under the charge of two or more nations, at Perim, is more readily translated by the light of diplomatic than of scientific interpretation. Other recommendations of the Conference are equally sweeping. They advise the universal abolition of all sewers, and the adoption of earth-closets. They fear the pollution of the ground by the soakage around drain-barrels. We shall have again to analyse the report at length; but the result of Dr. Goodeve's statement, and of the objections which were urged by Dr. Gavin Milroy, Dr. Jenner, Dr. A. P. Stewart, and Dr. Farr, all excellent authorities, make it sufficiently clear that the recommendations are not such as our Government can safely adopt.

Our readers will be grieved to hear that Dr. Aitken, of the Army Medical School, Netley, has met with a severe accident. His horse reared and fell upon him. When his groom extricated him from his dangerous position, it was found that he had sustained a fracture (simple) of the right thigh, just below the great trochanter. Professor Longmore and Staff Assistant-Surgeon Moffatt were soon in attendance; and we are happy to say that their patient is doing well. The accident happened on Thursday, at Dr. Aitken's own gate, just as he was starting for Netley to meet his class.

The tenacity with which yellow fever clings to ships makes the manner of disinfecting them a question of great importance. The following is recommended as a complete and satisfactory procedure. Every compartment of the ship should be well fumigated with chlorine or nitrous acid gas, and then the woodwork, as far as practicable, should be washed with a solution of chloride of soda or of lime. The bilges should especially be treated with some pounds of chloride of lime in water, or some gallons of chloride of iron in solution. All shingle, and such like ballast, should be removed. The cargo should be treated the same as the ship, and, in addition (before it is landed, and part by part as it is moved), be sprinkled with a solution of chloride of lime or of soda. The persons who have been engaged in disinfecting the ship and cargo should have complete baths of soap and water, and their clothes should be disinfected in the same way as the ship.

The Commissioners on the Pollution of Rivers will immediately proceed to investigate the condition of the River Lea and its tributaries, from which the East London Water Company have drawn the supply which has been suspected of spreading cholera through the East of London. For this purpose they will hold public inquiries at their office, No. 2, Victoria Street, on Monday and Tuesday, the 10th and 11th December, and subsequently at Hertford and other towns on the banks of the river.

The men accused of "feloniously killing and slaying" Edward Wilmott, by taking part in a prize boxing match, which ended in his receiving fatal injuries, appear to have been acquitted by a decided expression of opinion on rather a doubtful medical question. The judge directed the jury that, "if a prize fight took place, and death ensued, it was manslaughter, because fighting was a thing which did kill; but the medical witness for the prosecution said himself that he did not think such sparring as that which had been described was necessarily dangerous to human life." The jury returned accordingly a verdict of not guilty; and the judge said it would be well if such contests could be stopped *before they become dangerous*. So that killing in a sparring-match is not manslaughter; but in a prize-fight it is either that or murder. This is worth Professor Taylor's notice; to us it is a new point of legal jurisprudence.

The horrible murder at Sheffield of a boy, aged 18, by a fellow apprentice, aged 16, can hardly fail to attract the attention of alienist physicians. Without any preliminary quarrel, and on no discoverable ground, the murderer attacked his bed-fellow while asleep, beat in his skull with a hammer, and stabbed him several times. The jury returned a verdict of wilful murder, and regretted they could do no other. It is stated that the prisoner said he always felt that he should murder somebody, but he did not know who it was to be. He was a fatalist; and having accepted as something inevitable the belief that he should come to the ignominious death of a murderer, he made no attempt to resist the temptation that constantly beset him to bring about the realisation of his awful belief. His own account of the manner in which the murder was committed is this. He had contemplated it for a week; and on the night of the murder hid the weapons under the pillow. He sat up the whole night watching the poor lad; and he "repeated the Lord's Prayer, and then struck the blow." It does not appear that he had previously exhibited any signs of insanity, or that he had any difficulty of discerning between right and wrong; so that the case, thus far, does not seem greatly to differ from that of the boy Burton, who murdered a lad in Essex a year or two since, under "ungovernable impulse" and without motive, and was hanged for it.

The Emperor of the French has conferred the Order of the Legion of Honour on the following members of the late Cholera Conference at Constantinople. Saleh Effendi, Ottoman delegate, and M. le Comte de Lallemand, have been created Commanders of the Order; Dr. Bartolette, second Ottoman delegate, and M. Pinto de Soveral, Portuguese delegate, have been named Officers; and M. Kalergi, Greek delegate, Dr. Muhlig, Prussian delegate, Dr. Naranzi, and Baron Collongues, Secretaries to the Conference, have been made Knights of the Legion of Honour.

M. Tillaux has presented to the Surgical Society of Paris an "unfortunate victim of the illegal practice of surgery by religious bodies". It was a case of aneurism of the brachial artery, caused by the lancet of a *religieuse*.

The *Gazette Médicale* of Lyons notices with pain the disturbances created by the medical students of Paris at the opening of the courses of the Faculty of Medicine, and makes the following comments. "This sort of thing is capable of giving us great annoyance; but the measure of our surprise was filled up long since. 'Children,' says La Bruyère, 'are but men in miniature.' And when children see their fathers applauding *Thérèse*, and spending whole evenings in singing in chorus *Bu qui s'avance*, what is likely to be the tendency of their enthusiasm and their sympathies? Men have retrograded into children. Their children will surely find some ingenious method of still further degenerating. For this evil, the remedy is at hand—immediate and infallible. But it is not a sedative that is needed, nor even a caustic; but a general medication."

The *Pacific Medical and Surgical Journal* makes some strong remarks on the outcry lately raised against the employment of medicines, and the increasing tendency to trust to the curative power of Nature in disease. It observes, that Nature is doubtless competent to the cure of many diseases, acute and chronic; but that the action of drugs may co-operate with the efforts of Nature, and thus produce a more speedy cure. A splinter in the skin will be thrown off by suppuration; but extraction at once relieves the annoyance. A child, having eaten unwholesome food, is seized with convulsions: let it alone, and, in all probability, the convulsion will pass off, and the offensive matter will be discharged from the bowels without interference. But does this result prove that a cathartic might not have procured more speedy relief, without the wear and tear caused by the lengthened pain and distress? It is, indeed, doubtful whether exhaustion caused by protracted pain is not often much more injurious than the operation of active medicines—"drugs" so called.

The *Wien. Med. Wochenschr.* says that there is at the present moment a great hunting after medals on the part of Vienna doctors. Numerous applications have been made for the article to the Minister.

Dr. Cazenave of Bordeaux gives, in *Gazette des Hôpitaux*, a case of death of a man suffering from calculus, through fright immediately before the operation of lithotomy. The patient was a well-known veterinary surgeon, aged 60 years, once a very hale and energetic man. Lithotrity had failed to relieve him: resort was therefore had to lithotomy. The patient was bandaged up for the operation; and the operator was on the point of introducing the catheter into the bladder, when the patient suddenly became pale and pulseless, and, spite of all attempts to recover him, was dead in ten minutes.

This year, 166 medical students have entered the University of Brussels.

M. Barth, *à propos* of a discussion on the ingestion of blood at the Société d'Emulation, said that a young cachectic female under his care found benefit from the use of blood, of which she took a draught every morning at one of the *abattoirs* in Paris.

Mlle. Marie Bassetti has passed a brilliant examination in the Baccalaureat of Sciences, before the French Faculty. She is the second young lady who has done so.

Dr. Peters of New York has added a little volume —*A Treatise on the Origin, etc, of Asiatic Cholera*— to the modern library of cholera literature. He holds that cholera is portable and communicable, and that infectiousness resides mainly in the vomit and intestinal evacuations. No case, he asserts, of diarrhœa, etc., can be converted into cholera, unless the patient have been exposed to the peculiar infection of this disease.

Association Intelligence.

BATH AND BRISTOL BRANCH.

The second ordinary meeting of the above Branch will be held at the York House, Bath, on Thursday evening, December 13th, at 7.15 P.M.

The following papers are expected:—A Case of Gonorrhœal Rheumatism. By A. Prichard, Esq. An Extraordinary Case of Carcinoma in a Child. By W. B. Herapath, M.D. On the Internal Use of Tartar Emetic in Sudden Acute Inflammations. By J. K. Spender, M.B. An Unusual Case of Valvular Disease of the Heart. By Ezra Hunt, Esq. Clinical Temperature in Acute Disease. By H. W. Freeman, L.R.C.P.L.

R. S. Fowler, *Honorary Secretary.*

SOUTH EASTERN BRANCH: EAST SURREY DISTRICT MEDICAL MEETINGS.

The next meeting of the above Branch will be held at Longton's Hotel, Sydenham, on Thursday, December 13th. The chair will be taken by Dr. Ray, of Dulwich, at 4 P.M.

Papers, etc., will be read by Dr. Horace Jeaffreson, of Wandsworth; Dr. J. M. Bright, of Forest Hill; Mr. Roper, of Croydon; Mr. Sydney Jones, of London; and Mr. Cresswell, of South Norwood.

Dinner will be provided at 6 P.M.

Henry T. Lanchester, M.D., *Hon. Sec.*

Croydon, November 28th, 1866.

Cholera. No death from either cholera or diarrhœa has occurred in London since Tuesday week last.

The Utilisation of Sewage. An influential meeting of gentlemen favourable to the question of the utilisation of the sewage of Liverpool was held last week, to hear an address on the subject from Lord Robert Montagu, M.P. After some general arguments and observations on the importance of keeping rivers pure, and returning all waste products to the land, his lordship quoted from the report of the royal commission certain results of utilisation from experiments made during 1861, 1862, and 1863. These experiments showed that land unsewaged yielded 9, 8, and 4 tons of grass per acre—a decreasing quantity each year; while land irrigated by town sewage yielded from 27 to 37 tons. In Edinburgh, where the utilisation was adopted, land yielded £30 per acre; at Croydon there were four cuttings of grass each year at £10 per acre, yielding £40 per acre in all; at South Norwood Mr. Latham cleared £40 an acre. By adopting the utilisation system at Liverpool Lord Robert Montagu estimated that a revenue of £150,000 a year might be created. With regard to milk, the results of utilisation were most surprising, the calculation of the commissioners being, that 1,000 gallons of milk per acre might be obtained, which, at eightpence per gallon, would afford a revenue of from £30 to £35 per acre. In fact, boundless wealth lay in store for the towns by this plan of returning excreted matters to the soil, while the agricultural advantage was equally great. A company has been established to utilise the sewage of Liverpool in the way proposed. A discussion ensued at the termination of Lord Robert's address, in which Mr. Bateman, C.E., Mr. Neilson, Dr. Trench, medical officer of health, and other gentlemen took part,

Medical News.

THE MEDICAL EVIDENCE IN THE HUNTER CASE.

The medical evidence in the case Hunter *v.* Sharpe, was given by Dr. C. J. B. Williams, Dr. Cotton, Dr. G. Johnson, Dr. W. O. Markham, Dr. Quain, and Dr. Odling. To repeat the evidence and the admirable charge of the judge, would be to fill the Journal with matter which, although of great interest and importance, has for the most part already appeared. The evidence, however, in this case, was remarkable for its cogency, its moderation, and the unimpaired vigour in which it was left by a searching cross-examination. Scientific witnesses have rarely been more severely tested, and still more rarely have the attempts to shake any part of evidence so completely failed.

Convalescent Hospital. On Friday week a new Convalescent Hospital was opened at Clewer.

Scurvy. The members of the Hunterian Society assembled on Wednesday week to discuss the nature and treatment of scurvy, and the hygienic conditions under which it is produced. A paper was read thereon by Dr. Dickson, R.N., medical officer to her Majesty's Customs, and the meeting was attended by Captain Dawson, R.N., Captain Toynbee, and other non-medical visitors.

Promotion in the Naval Medical Service. Sir John Pakington has, in the exercise of his undoubted privilege, promoted Deputy Inspector-General of Hospitals and Fleets Alexander Armstrong to the coveted rank of Inspector-General over the heads of three of his seniors. Of these, however, one is incapacitated from a painful disorder from giving further service to his country, while another has but a scanty claim for further advancement. The remaining one, however, has served long and faithfully, and, many will think, was fully entitled to promotion before Dr. Armstrong. We allude to Dr. James Salmon, whose seniority dates as far back as 1855, while that of Dr. Armstrong only goes to 1858. Under other circumstances we should have heartily congratulated Dr. Armstrong on his good fortune. He has worked hard and faithfully for the prize of his profession, but such a preference at this moment is likely to act prejudicially on the Naval Medical corps, which has loudly expressed its grievance before the committee on the narrowness of the prospect of rising by talent or service to the upper grades, when it sees that even that limited prospect is still further closed by Court influence, as it does not require a man to be a seer to guess at the exact character of "the special service recorded at the Admiralty," for which Dr. Armstrong is indebted for his sudden removal from Melville Hospital by promotion. We do not suppose that Dr. Salmon, if he lives, will have long to wait for his next step; but in the meantime he is compelled to submit to the annoyance of seeing a junior promoted to be his senior officer, with the full conviction in his own mind, and in the minds of others that he was fairly entitled to advancement, and that he should not have been passed over. Sir John Pakington has been admitted by the naval medical officers to be their staunch and consistent friend; and we feel convinced, as the service generally feels, that the feelings of a meritorious man have been deeply injured, some step will be taken in order that the bad impression which has been created will be speedily removed.

OPERATION DAYS AT THE HOSPITALS.

Monday.....	Metropolitan Free, 2 P.M.—St. Mark's for Fistula and other Diseases of the Rectum, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.
Tuesday.	Guy's, 1½ P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.
Wednesday...	St. Mary's, 1 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.
Thursday.....	St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Great Northern, 2 P.M.—London Surgical Home, 2 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.
Friday.....	Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.
Saturday.....	St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1·30 P.M.—Charing Cross, 2 P.M.—Lock, Clinical Demonstration and Operations, 1 P.M.—Royal Free, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

Monday. Medical Society of London, 8 P.M. Mr. W. F. Teevan, "On the Diagnosis and Treatment of Diseases of the Urethra with the aid of the Endoscope."

Tuesday. Royal Medical and Chirurgical Society. 8 P.M., Ballot. 8.30 P.M., Mr. Christopher Heath's Case of Aneurism of the Arteria Innominata successfully treated by Ligature of the Subclavian and Carotid Arteries.

Wednesday. British Archæological Association, 8.30 P.M.

TO CORRESPONDENTS.

*** *All letters and communications for the* Journal, *to be addressed to the* Editor, 37, *Great Queen St., Lincoln's Inn Fields, W.C.*

Communications.—To prevent a not uncommon misconception, we beg to inform our correspondents that, as a rule, all communications which are not returned to their authors, are retained for publication.

Correspondents, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

The Publisher begs to intimate that orders for Journals sent by post must be accompanied by stamps for the amount. Price of each number is, by post, *sixpence*.

Erratum.—The word "nitric", at the head of Professor Bennett's note (Journal, Nov. 24, p. 593), should have been *acetic*.

F. S. wishes to know what is the best way of administering chloroform internally. He has lately seen milk recommended as the best vehicle; but he does not think it perfectly satisfactory.

An Associate, Cardiff.—Griffin & Co., Long Acre; Elliott Brothers, Charing Cross; W. Ladd, Beak Street; Jackson and Townson, wholesale dealers, 89, Bishopsgate Street Within.

A Guardian, Manchester.—If your pupil passed the ensuing examination in arts, etc., at the College of Surgeons, he could enter on his professional studies at once, and thus save half a session. Write to the Secretary.

The Medical Benevolent Fund.—Mr. A. B. Steele, of Liverpool, asks how it has come to pass that the Medical Benevolent Fund, originated by the late Mr. Newnham, in connection with this Association, has been, to all appearance, separated from the parent stem. He has for some time observed, with regret, that the support which the Fund receives from the members of the Association is by no means general; and he attributes this partly to the annual meeting for the election of officers being held apart from that of the Association, and from the arrangements not being such as to keep the Fund before the minds of the members in connection with the Association. He can imagine no better machinery for the extension of such an institution than would be afforded by the Association and its Branches, nor any object more worthy of its application. We commend this subject to the consideration of the managers of the Fund.

A Hospital Physician writes:—I wish you would ask your readers, holding similar appointments to myself, whether they consider the addition of an egg, a rice-pudding, half-a-pint of beef-tea, or other extras, to the ordinary diet, necessary for a large proportion of convalescent hospital patients. I do; but our secretary and some of the governors differ from me on this point.

Mr. Erichsen's letter shall appear next week.

Cholrine and Charcoal.—Dr. Farr, F.R.S., of the General Register Office, has communicated to us an interesting explanation of the sense in which he intends the statement to be understood that Dr. Frankland has shown "that cholera-stuff passes through filtering-paper, and that water containing one-five-hundredth part of the matter is not entirely purified by transmission through animal charcoal." This is in answer to the question which we put last week in the "Notes of the Week". From the documents forwarded, including the supplement to the weekly Report of the Registrar-General, Nov. 17th, we learn that "cholera-stuff" is used as descriptive of "rice-water evacuations", which is "neither a good nor an agreeable name for public use." In the Registrar-General's Report, Dr. Farr has called the zymotic matter of small-pox "varioline"; of cholera, "cholerine", etc. This word is not, Dr. Farr thinks, used by English writers for choleraic diarrhœa (here he is not accurate in his memory); but it is so used by the French. He has dropped, therefore, the *e*, and writes *cholrine*, to avoid ambiguity. This latter he commends to all who accept the hypothesis that there is some stuff that, taken into the system, does, in a certain proportion of cases, produce what is called "cholera". We shall take further opportunity of referring to the interesting letter of Dr. Frankland, and the rather inconclusive but highly important experiments referred to.

Dr. Edwin Hearne forwards us a letter, which he has addressed also to the *Southampton Times*, strongly denouncing the adoption by the Privy Council of the strict system of quarantine imposed upon the *Atrato*.

Dr. Kidd's letter shall meet with due consideration.

The Case of Hunter *v.* Sharpe.—There is one feature in the case of Hunter *v.* Sharpe on which an evident misconception prevails. The full and pointed reference to Mrs. Merrick's case, in the middle of the article, was not declared upon by plaintiff as libellous; and when the defendants pleaded a general justification, they were called upon by motion in the Court of Queen's Bench, on the 12th January last, as careful newspaper readers will remember, to furnish particulars of their justification. The Lord Chief Justice Cockburn then intimated that any other matter than that justifying the alleged libel charging professional malpractice or quackery would be excluded. How, after this published decision of the Court, any question concerning the Merrick case came to be submitted to the jury by the plaintiff's counsel, it is difficult to understand; but it may not have influenced the result. Leave was given to move for a new trial; but the defendants were probably well satisfied with the result.

Mr. R. L. Bowles.—The paper is one of considerable interest, and shall have early insertion.

Neuralgia after Shingles.—Sir: Would you or some of your numerous readers kindly inform me whether there is any remedy for the very severe neuralgic pains which often attend "shingles", even after they have got well. I have now under my care three cases; in one of which they have lasted for twelve months, coming on more particularly with damp weather; and in the other two cases, the pain renders the patients unable to sleep at night. If you can suggest any remedy, you will greatly oblige.

Dec. 4, 1866. I am, etc., A. C.

[We hope some of our readers may be able to reply to this question. We have known division of the frontal branch of the fifth nerve proposed by an eminent London surgeon in a severe and persevering case of neuralgia following upon herpes of the forehead. Editor.]

A paper by Dr. R. Liebreich on Strabotomy is in type, and will appear in the next number of the Journal.

The Indian Army Medical Service.—Sir: Will you kindly inform me in your next issue, whether the new Army Medical Warrant will in any way affect those entering the Indian service; or whether any *new* Warrant is likely to be issued for that service also. Apologising for so troubling you.

I am, etc., Chirurgus.

F.R.C.P. asks why pigs, whose flesh is swarming with live trichinæ, do not die of irritative fever, etc., while men, who eat their flesh, do. We believe, however, that it is not correct to state that pigs do not, or rather do never, die under these circumstances. In America, it is believed that death from this cause is frequently classed as what is known as hog-cholera. The danger from trichinæ is probably proportionate in animals, as in man, to the number of them which infest the body. We should be glad to hear what Dr. Cobbold, our greatest English authority on this subject, has to say about it.

Treatment of Cancer, etc., by Injections.—Sir: Whatever might have been Sir James Simpson's object in operating, I have nowhere stated that "sphacelus" was ever produced. For the production of sphacelus, I should have thought that the free access of oxygen was necessary—a very likely thing, indeed, to take place through an opening in healthy skin no larger than would be made by the introduction of a common darning-needle.

I am, etc., Tho. Skinner, M.D.

Liverpool, November 28th, 1866.

Mr. R. Moore writes concerning the case of a gentleman in practice before 1815, and duly registered as such; but who commenced practice by going into partnership with his father a few months before he was of age. "He is most anxious to ascertain whether that fact can affect his legal status now, after being in the profession more than fifty years." The fact mentioned may affect the validity of the partnership and of any acts done as partner. This is a legal question; but it cannot affect his present status as a registered practitioner.

Medical Students.—Sir: From the remarks made in your Journal last week, respecting the letter of "Medical Tutor" in the *Times* newspaper, it appears that all who are concerned in medical tuition are called upon to express their sentiments. I therefore beg to inform you that I consider the letter of "Medical Tutor" to be a most false and malicious libel, both upon students and their professional teachers. I am, etc.,

John Steggall, M.D.

2, Southampton Street, Bloomsbury Square, Dec. 3, 1866.

[Communications have been addressed to us, on the part of nearly every medical tutor in London, disclaiming participation in the sentiments expressed by "Medical Tutor" in the *Times*.]

Disinfectants and Deodorisers.—Sir: I see it announced in your last number, that the Lords of the Admiralty have ordered the use of Burnett's Fluid to be discontinued in the navy, because it has been "discovered" that chloride of zinc is not a disinfectant, but only a deodoriser, and moreover a frequent cause of fatal accidents. This compound having been in use in the navy twenty-five years, it would appear that it takes the Medical Department of the Admiralty exactly a quarter of a century to "discover" what a few simple experiments might have sufficed to make clear in the course of a day or two.

Carbolic acid, it seems, is to be substituted for the discarded preparation. It will be curious to note how many years will be required by the Admiralty to discover that this substance is neither a disinfectant nor a deodoriser, but merely an antiseptic. If the "tar acids", as the phrase now is (see the *Chemical News*), be really good for anything in place of disinfectants, would it not give rise to a considerable saving to the national exchequer, to let "the fleet" know that they can readily make their own, by the old plan of thrusting a hot poker into a bucket of tar.

London, Dec. 3, 1866. I am, etc., Jack Tar.

COMMUNICATIONS, LETTERS, etc., have been received from:—Dr. Acland, Oxford; Dr. Burrows; Mr. W. Bowman; Dr. Thomas Shapter; Dr. Gibson; Dr. A. W. Barclay; Dr. Warburton Begbie, Edinburgh; Dr. A. W. Barclay; Mr. Fry; Dr. Lionel Beale; Mr. Clarke; Dr. Cotton; Dr. Cyrus O. Daniell; Dr. Fuller; Dr. Fox; Dr. Greenhow; Mr. Harrison, Leeds; Dr. Hillier; Dr. Habershon; Mr. Holmes; Mr. Holt; Professor Humphry; Dr. Lyon; Dr. Liebreich; Mr. Harry Leach; Dr. Meryon; Dr. Maudsley; Mr. Charles H. Moore; Mr. Prichard; Dr. Paget; Mr. Pollock; Dr. Rollestone; Dr. Radcliffe; Sir John Fife; Dr. Daubeny; Dr. Letheby; Mr. Barwell; Mr. Lyde; Dr. James Russell; Dr. Hearne; Dr. Lanchester; Mr. J. T. Moore; Mr. R. L. Bowles; Mr. T. M. Stone; Dr. Handfield Jones; F. S.; F.R.C.P.; A Hospital Physician; An Associate, Cardiff; Mr. Erichsen; Dr. James Mitchell; Mr. R. Moore; Mr. Teevan; Mr. I. B. Brown; The Registrar of the Medical Society of London; Mr. A. Cox; Mr. Erichsen; Dr. Iliff; The Honorary Secretary of the Royal Medical and Chirurgical Society; Mr. Thos. Bryant; Dr. Robert Finch; Mr. John Liddle; Dr. Duckworth; Dr. Bazire; Mr. Paget; Mr. Holmes Coote; Mr. Teale; Mr. Hey; Dr. Charlton; Dr. Haldane; Mr. Berkeley Hill; Dr. Falconer; Professor Lister; Dr. Andrew Clark; Dr. Kidd; Mr. Critchett; Dr. W. Farr; Dr. Greenhalgh; Dr. Meadows; Mr. W. Crookes; Dr. Cruise; Dr. Sieveking; Professor Laycock; and Dr. Brodie.

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The Essay must not be in the handwriting of the Author, nor exceed in length twenty-four pages of the BRITISH MEDICAL JOURNAL.

It must be forwarded to the General Secretary on, or before, the 1st of July, 1867, under cover, together with a sealed envelope bearing the motto of the Essay, and containing the Author's name and address.

The successful Essay is to be considered the property of the Association, and will be published in the Journal.

T. WATKIN WILLIAMS, *General Secretary.*

13, Newhall Street, Birmingham, Nov. 2nd, 1866.

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CHEMICAL WORKS, BATTERSEA.

Description
OF
A MODIFICATION OF THE OPERATION FOR STRABISMUS.

BY
RICHARD LIEBREICH, M.D.,
PROFESSOR OF OPHTHALMOLOGY, PARIS.

It is well known that, if the internal rectus muscle be divided in the manner now generally practised, it is possible to correct a squint of from 2 to 2½ lines in adults, and from 2½ to 3 lines in children. But, if the deviation exceed this extent, it will be necessary to perform two, three, or even more, successive operations.

Whilst the division of the effect between two operations, one on each eye, offers certain advantages with regard to the symmetry and uniformity of the movements of the eyes, the performance of a third or fourth operation—*i.e.*, its repetition upon a muscle which has been already divided—is attended by great disadvantages. In fact, by such a repetition of the tenotomy, anything like an approximative calculation of the result is rendered impossible. In some cases the effect will be *nil*, in others excessive; so that, as was once said by a well known ophthalmic surgeon, when a third tenotomy has once been made, it is impossible to predict how many more it may be necessary to perform upon the same individual.

This is probably owing to the cicatricial adhesions which are formed after the first operation, as they prevent the performance of the usual simple tenotomy. For, if we be not careful to divide these adhesions completely, it may easily occur that a small band, which has escaped our notice, will mar the effect; or if, in order to ensure their complete division, we have been obliged to incise the parts freely, a divergent squint (in division of the internal rectus) not unfrequently results, with considerable loss of mobility inwards, sinking of the caruncle, etc.; in short, all the disadvantages of the old and now abandoned operation.

About a year and a half ago, I felt anxious to remedy, if possible, these defects by an alteration in the mode of operating; and I then determined to investigate with greater accuracy: (1) the anatomical relations of the muscles, with regard to the capsule of Tenon, the sclerotic, conjunctiva, caruncle, etc.; and (2) the mechanical effect of the operation for strabismus.

The capsule of Tenon, which encloses the whole eyeball with the exception of the cornea, consists of two very different portions. The posterior half, with its smooth, firm inner surface, forms a cup in which the eyeball moves freely, as the head of a joint in the socket. This cup is pierced by the four recti muscles, and forms, at the point of perforation, a sharply defined ring, which enters into so close a connexion with the muscles, as to render any displacement between the two impossible. This close adhesion between the muscles and the posterior half of the capsule is, moreover, increased by sheath-like processes, which run backward from the outer surface of the capsule towards the orbit, and which are, for a certain distance, firmly connected with the muscles. But, towards the eyeball, no sheath-like processes extend from the posterior capsule; the latter terminates abruptly in the form of a ring, which encloses the spot where the muscles penetrate, and whence, for a very short distance, the muscles are quite free from any adhesion. But before the tendon is inserted into the sclerotic, it penetrates between the sclerotic and the anterior half of the capsule, and becomes united with the latter.

This anterior half of the capsule, which may be considered as standing towards the posterior portion in the relation of a semicircular lid to a semicircular cup, is much thinner than it, and is difficult to dissect, more especially on the dead body; for, like the conjunctiva, it rapidly diminishes in thickness and firmness after death.

If we trace the anterior half of the capsule from the anterior pole of the eye towards the periphery, we commence with a circular opening which corresponds to the size of the cornea, and through which the latter projects. The margin of this opening is in close apposition to the sclerotic. Within a zone, which is bounded on one side by the opening on the margin of the cornea, and on the other by the line uniting the insertion of the four recti muscles, the conjunctiva, the capsule of Tenon, and the sclerotic, are firmly and immoveably connected together. At the periphery of the zone, this condition becomes, however, changed. The connection between the capsule and the sclerotic is interrupted by the passage of the muscles. The lax cellular tissue, which here connects the sclerotic with the capsule and the inner surface of the muscle, may perhaps have given rise to such complex and fanciful descriptions as those of Guérin. (*Gazette Médicale*, 1842, No. 6.) The idea that the muscles, after they have pierced the capsule, are accompanied as far as their insertion by sheath-like processes derived from it, has, owing to these descriptions, maintained itself in ophthalmology even up to this time, and has served as a basis for explanations of the effect of the tenotomy, the difference between the old and modern mode of operating, etc. This idea is, however, erroneous; for these sheath-like processes do not exist at all. But, as has been already mentioned, the anterior half of the capsule of Tenon certainly adheres to the upper surface of the muscle and is intimately connected with it. On the other hand, the conjunctiva is here also tolerably firmly connected with the capsule, as far as a somewhat irregularly circular line, which may be recognised by the fact that it lies at the bottom of a furrow when the eye is moved in an excentric direction. The formation of this furrow prevents the sinking and tilting forwards of the conjunctiva, which would otherwise occur near the caruncle, as, for instance, when the eye looks far inwards. From this marginal line, the connexion between the capsule of Tenon and the conjunctiva becomes quite lax. One portion of the connective tissue, which composes the anterior half of the capsule, is reflected, and passes over into the submucous tissue of the eyelids; another portion attaches itself to the edge of the posterior half of the capsule, in order thus to close the latter. These two halves do not really pass perfectly over into one another, inasmuch as the edge of the posterior half of the capsule is partly continued into the band-like adhesions between it and the edge of the orbit. From this description, we must call special attention to three points, as being particularly important with regard to the performance of the operation for strabismus.

1. The connection of the muscle with the capsule of Tenon is two-fold. On the one hand, there is the annular connection of the posterior capsule and its sheath-like processes (which are reflected towards the orbit) with the belly of the muscle; on the other, the firm adhesion of the anterior half of the capsule to

the surface of the end of the muscle, which penetrates into the capsule.

2. The conjunctiva is firmly connected with the outer surface of the capsule of Tenon, from the edge of the cornea to an irregularly circular, sharply defined, marginal line; and, consequently, it stands in a very important relation to the muscles of the eye.

3. The caruncle, together with the semilunar flap, rest upon a band-like ligament, which passes from the capsule of Tenon towards the edge of the orbit. Now, when the internal rectus is contracted, and the eye rolled inwards, this band is rendered tense; and the caruncle, which is fixed to it, is consequently drawn in towards the inner edge of the orbit. But the outer edge of the caruncle, together with the semilunar fold and an adjoining portion of conjunctiva, are drawn backwards into a furrow. This is partly due to the fact that, during the movements of the eye, the conjunctiva lies, up to a certain point, in close apposition to the eyeball; and partly also to the fact that, on contraction, when the muscle, on account of its connection with the anterior half of the capsule, must draw the latter backwards, where it will be followed by the conjunctiva (which is likewise connected with the capsule), the semilunar fold, and the caruncle.

From a consideration of the first of these three points, we learn with regard to the mechanical effect of the operation for strabismus, that a division of the insertion of a muscle can only be brought about by a division of the portion of anterior capsule which covers the muscle. For this portion, which passes over the muscle to become attached to the sclerotic just before the insertion of the tendon, keeps the muscle in a fixed position with regard to the sclerotic; so that, if we attempt to sever the tendon from the sclerotic without dividing this portion of the capsule, the tendon would become reunited exactly at its original point of insertion; so that, in fact, it would not have receded at all. It would, however, be not only very difficult, but almost impossible, to avoid incising this portion of the capsule, as, on account of its intimate adherence to the insertion of the muscle, it is always divided simultaneously with it. Even in the subconjunctival operation, although the conjunctiva which covers this portion of the capsule is left intact, the capsule itself is divided along the whole breadth of the insertion of the muscle. This vertical incision of the capsule of Tenon, which always takes place simultaneously with the tenotomy, is the cause of the retrocession of the anterior part of the capsule covering the muscle, and of the annular portion of the capsule which keeps the muscle fixed, and consequently, also, the retrocession of the muscle itself. By increasing the length of the incision in the capsule (Graefe's division of the lateral processes), we may certainly produce a somewhat greater retrocession; but, owing to the second point mentioned above, it cannot be very extensive. For the connexion of the conjunctiva with the capsule does not permit a more considerable retrocession of the latter, unless we make an extensive vertical incision in the conjunctiva, analogous to that in the capsule, and thus jointly divide the conjunctiva, capsule, and tendon. Such a proceeding is, however, accompanied by considerable disadvantages. On account of the connexion between the muscle, capsule, and caruncle, the divided muscle draws the caruncle and the semilunar fold backwards and inwards, as well as that portion of the conjunctiva which was divided by the vertical incision. In consequence of this, these parts assume the same position when the eye looks straight forward, which they do in the normal eye when it is turned very far inwards. At the same time, the distance between the semilunar fold and the inner edge of the cornea is increased, as also the portion of sclerotic visible at the inner angle of the eye; and this gives to the eye that peculiarly disagreeable appearance which was so characteristic of the old operation.

In order to obviate these disadvantages, and yet obtain a much more considerable effect, I am in the habit of performing the following modification of the operation for strabismus, which is based upon the above considerations.

If the internal rectus is to be divided, I raise with a pair of forceps a fold of conjunctiva at the lower edge of the insertion of the muscle; and, incising this with scissors, enter the points of the latter at the opening between the conjunctiva and the capsule of Tenon; then carefully separate these two tissues from each other as far as the semilunar fold, also separating the latter, as well as the caruncle, from the parts lying behind. When the portion of the capsule which is of such importance in the tenotomy has been completely separated from the conjunctiva, I divide the insertion of the tendon from the sclerotic in the usual manner, and extend the vertical cut, which is made simultaneously with the tenotomy, upwards and downwards—the more so if a very considerable effect is desired. The wound in the conjunctiva is then closed with a suture.

The same mode of operating is pursued in dividing the external rectus; and the separation of the conjunctiva is to be continued as far as that portion of the external angle which is drawn sharply back when the eye is turned outwards.

The following are the advantages of my proceeding.

1. It affords the operator a greater scope in apportioning and dividing the effect of the operation between the two eyes.

2. The sinking back of the caruncle is avoided, as well as every trace of a cicatrix, which not unfrequently occurs in the common tenotomy.

3. There is no need for more than two operations on the same individual, and therefore of more than one on the same eye.

With regard to point 1, we may, if we choose, produce either the effect of the common tenotomy, or we may correct a deviation of four lines or even more in adults, and of five lines or more in children. In order to prevent the repetition of misunderstandings which have arisen from my *vivâ voce* statements, I would remark, that it is by no means my intention, when the squint is so considerable in degree (four lines in adults, five lines in children), to perform in all cases only *one* operation. Indeed, in such cases, I entirely agree with the principles laid down by Von Graefe; viz., to divide the effect of the operation between the two eyes. It is only in exceptional cases, in which the mobility inwards of the squinting eye is much increased, and the aperture between the lids is not wider than in the other eye, that I correct so considerable a deviation by one operation. If certain personal considerations—as, for instance, the departure of the patient—render a repetition of the operation impossible, I prefer a single modified tenotomy to the proceeding adopted by other surgeons (*e. g.*, at Moorfields Hospital), viz., the simultaneous division of both internal recti muscles. If the deviation amounts to three lines in adults, or four lines in children, I generally perform only one tenotomy. It is probably chiefly owing to the possibility of curing a squint of this extent by a single operation, and without any sinking of the caruncle, that the prejudice against the operation for strabismus, which I encountered, not only amongst the public, but even

in the medical profession, when I first settled in Paris, has now nearly entirely disappeared. So I am able, by this mode of operating, to correct the deviation in those cases in which the patient, owing to this prejudice, would never have consented to an operation upon both eyes.

With regard to point 2, I need only mention that the suture is to be applied in all cases. I think it of consequence that the conjunctival wound should be completely closed, and in such a manner that the conjunctiva reassumes its original position, so that the edges of the wound cannot become shifted from each other. If the finest English black silk and fine curved needles be used, no disadvantages can accrue, even if it should be necessary to apply several sutures.

But I consider the third point—the avoidance of more than two operations upon the same individual—as the most important. I hope that all surgeons who agree with me as to the disadvantages of a third or fourth tenotomy, will adopt my mode of operating in all cases of very considerable strabismus. The permanent effect must not, however, be estimated according to the immediate, but the ultimate, result; for the difference between these two is far greater in the modified operation (more especially if it be done extensively) than in the common one; and this applies not only to the deviation, but also to the loss of mobility. We find more especially that the loss of mobility, which is very considerable immediately after the operation, subsequently diminishes more and more, until it finally does not in the least exceed that which follows the common operation.

The British Lying-in Hospital has just received a donation of £500 from an anonymous benefactor, who is also said to have set apart £25,000 for distribution amongst metropolitan charities.

Death from Hydrophobia. Mr. Humphreys held an inquiry last week relative to the death, from the bite of a stray dog, of Edward Raymond Beasley, aged five years. On October 2nd the deceased was in his usual health, playing in the garden in the rear of the house, when a strange dog came in, and seizing his hand in his mouth shook it violently. Mr. Davey attended him, and the wound rapidly healed. Nothing seemed to be amiss until the evening of Friday, November 23rd, when he became very ill. He foamed at the mouth a little. He never slept afterwards, and death took place on Monday last.

Hospital for Consumption and Diseases of the Chest, Brompton. The quarterly court of governors of this charity was held on November 29th. The secretary read the report of the committee of management. The working of the establishment as regards in and out-patients had been carried on with the usual beneficial results. The annual colouring and whitewashing had been completed, and the wards had been all filled up again. The financial progress of the charity had met with a slight check during the past quarter; but the committee did not attribute it to any diminution of favour on the part of the public. A donation of £500 had been received through Mr. E. J. Layton. The kind assistance of the clergy, by means of church collections during the last few weeks, was also gratefully acknowledged. The following legacies had been announced within the past quarter:—Miss Hannah Hopkins, 1,000 guineas; C. Beachcroft, Esq., £50; D. Falcke, Esq., £19:19. The number of in-patients admitted since August 9th was 320; discharged, many greatly benefited, 240; died, 46; new out-patient cases, 2327.

THE

Jacksonian Prize Essay

FOR 1865.

ON DISEASED CONDITIONS OF THE KNEE-JOINT.

BY

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Section III.—Operative Interference. (*Concluded.*)

Diseased Conditions of the Knee-joint which Require Amputation through the Thigh.

Perhaps the most pressing necessity for amputation arises in that condition of disease which we have noticed; viz., acute synovitis which has run on to suppuration and destroyed the entire mechanism of the joint. I have given the notes of a case of Mr. Kempe's, where excision of the joint was performed with excellent results; but, satisfactory as that may be to the surgeon who performed it, and upon whom the operation was thrust by the patient and his friends, yet there can be no doubt that amputation is the rule in such cases, when all other means have failed to procure remission of the severe symptoms which always accompany the disease. One of those means will doubtless have been free incisions into the joint; and these should be so made that they may form a portion of the incisions in the amputations should it be required. The disease is itself a great shock to the system; and although in its last stage amputation is positively necessary to save life, yet we cannot but feel that the dangers of the operation are very great, and that the chances are rather against than in favour of the patient. The other diseased conditions of synovial membrane requiring operative interference have been referred to when considering excision of the knee. I then stated that I believed there were few other cases, besides the one just mentioned, of disease of the synovial membrane alone, which might not be cured without resorting to the knife.

The gelatiniform degeneration, when in a very advanced stage involving the whole joint-tissue is, I believe, incurable, and is also very unfavourable for excision. It is just one of those cases where one would be loth to amputate without first endeavouring to save the limb by an exploratory excision of the knee; and, unless the bony tissue were then found to be in a very favourable condition, amputation had better be at once completed.

There is no diseased condition of articular cartilage, that I am aware of, which ever demands amputation of the limb. If the patient be worn out by pain and confinement, all other means having failed, relief should be sought, as before stated, in excision of the joint; but, as a primary proceeding, amputation of the thigh need never be resorted to.

It is more especially in *Diseases arising in or extending to the bones of the joint* that we are called upon to remove the limb above the seat of the disease. In cases of diffuse inflammation of the bone,

the joint being entirely destroyed, there is clearly no better means of relieving the patient than by amputating the limb. Preparation No. 4 very well shows this condition. The bones are entirely denuded of cartilage and inflamed. On making a vertical section of the femur and tibia, this condition was found to extend far into the substance of the bones, presenting a bright pink colour. In order to show the joint, the divided bones have been put again together. When caries or necrosis is present in the ends of the bones to such an extent as to leave very little sound tissue remaining, a shell of bone being almost all that is left, no benefit can accrue to the patient by the endeavour to save the limb. In both these cases, whilst every care is taken to save as much of the femur as possible, the section of the bone should be made well above the disease, which often extends high up into the shaft of the femur.

The following case well illustrates this condition. It was my intention to excise the knee-joint; but when first I saw the patient his state of health would not admit of this proceeding; at a later period, I attempted to perform the operation, but, finding the bones in a state of advanced caries, I amputated the thigh, and the boy made an excellent recovery. I send in a dry preparation (No. 5) of the femur and tibia; and a photograph of the case before the operation is appended.



Fig. 20.

Case. John Harper, aged 18, was admitted under the care of the author with disease of the knee-joint on July 7th, 1864.

History. He stated that he injured his right leg about five years ago. The only immediate effect of this was to cause swelling of the joint, which never subsided. At that time it was not very painful. For three years this swelling caused no great inconvenience, and he performed his ordinary avocations as a miner. At the end of that time the joint became stiff and painful. He kept on working, however, until ten weeks ago. The pain and inability to move the limb then compelled him to give over working. He had been healthy, and not subject to cough.

On admission, he was seen to be a healthy, but slightly formed lad. Pulse 90, quiet; skin cool; bowels acting. The right leg was extended almost to its full extent, and slightly wasted. The lower leg was longer than usual for one of his height. The knee-joint was much enlarged, of oval shape, much bulged on the inner side, and very tender on manipulation. There was some effusion into the joint. The patella was moveable, and in its normal position. The head of the tibia was considerably enlarged. The external condyle of the femur was enlarged; the internal condyle was likewise enlarged, but to a less extent. He had little or no power of flexing the joint. There was rather free lateral movement.

July 18th. He had an attack of acute inflammation of the knee, with much pain and swelling, and slept badly; skin hot; pulse 100; tongue furred. The knee was acutely painful on the slightest movement. The leg had been extended on a McIntyre's splint and swung in a Salter's swing. Poppy fomentation were ordered to be constantly employed; and three grains of Dover's powder to be given every four hours.

July 27th. Blisters had been applied, and had risen well; and fresh ones were ordered. The joint was less swollen. The pain had abated. He slept well, and had a good appetite.

Sept. 5th. The patient continued under treatment since the last note. Blisters and iodine were applied; and perfect rest maintained. The knee continued as much swollen as ever, with considerable tenderness over the joint. He had lost his health lately; was very thin and weak. On the 4th, a gutta percha splint was applied to the leg; and he was allowed to get up and walk about the ward. He was ordered to take cod-liver oil.

Sept. 21st. His chest was examined. There was dulness over the right apex; the vocal resonance was increased. There was diminished respiration, and slightly prolonged expiration. He had an occasional hacking cough. The boy walked about on crutches; he looked very phthisical.

Oct. 8th. Since the last note he had recovered strength; he was tolerably strong now, and walked upon crutches. He went out to-day to recruit his health; and was made an out-patient.

He was re-admitted under the author on March 8th, 1865. When seen, he was a tall, sparely nourished lad. The skin was warm and moist; he perspired at night, but not profusely. Pulse 90, of good volume, compressible; tongue clean and moist; appetite not very good; bowels rather relaxed; urine natural; no cough or expectoration. Breathing was coarse beneath both clavicles, with prolonged expiration.

The right knee was enlarged, chiefly at the inner condyle of the femur; it was one inch larger round than the left. The tibia and fibula were rotated outwards and fixed in a semiflexed position. The patella was fixed to the end of the femur. The circumference of the right thigh was 10½ inches; of the left, 13½ inches; of the right calf, 9½ inches; of the left, 12 inches. The right foot was red and brawny. While standing on the left leg, the right heel was about five inches from the ground.

March 11th. The author opened the joint with the view of excising the articular ends of the bones; but found them so far diseased that he thought it advisable to amputate in the lower third of the thigh, which he did by antero-posterior flaps. The wound was brought together by strapping without sutures,

and dressed with wet lint. A third of a grain of acetate of morphia was given.

March 12th. He slept some hours during the night; looked pale. Skin warm and dry; respiration natural; pulse 100, compressible; tongue clean and moist. He had no appetite; was thirsty; vomited several times since the operation. He complained of much pain across the epigastrium. The wound was not dressed. There had been slight oozing of blood ever since the operation.

March 13th. He was rather restless during the night. Skin hot and dry. Respiration was natural; he had a slight cough, and expectorated a little mucus. Pulse 140, jerky, compressible; tongue slightly furred, moist. He had no appetite; was thirsty; vomited after taking anything but cold milk. The bowels were relieved after a common enema. His urine was rather high-coloured; it passed freely. The stump looked quiet; it was still oozing blood. He was ordered to have six ounces of wine, an enema, and the following draught every four hours.

℞ Ammoniæ sesquicarb. gr. v; tinct. cinchonæ comp. ʒj; ether. chlor. ɱxx.

March 14th. He passed an indifferent night, but looked rather better. Skin not so hot, still dry; cough easier; pulse 120, rather jerky, soft; tongue thickly furred, moist. He took but little nourishment; could not take the wine. He vomited after taking the medicine. Bowels confined. The stump was not yet suppurating; still oozing. The wine and medicine were omitted.

March 15th. He had a pretty good night. Skin warm and a little moist; face sometimes flushed; no cough; pulse 108, rather jerky; tongue cleaner and moist. He had taken some chicken and drank some ale; he vomited less frequently. Bowels confined. The stump discharged a bloody fluid; no pus. He did not complain of pain. He was ordered to have a pint of Bass's ale.

March 16th. He had a good night. Skin warm and moist; pulse 96, soft; tongue slightly furred. He took his nourishment better; but vomited after the dinner. Bowels confined. The stump was discharging a small quantity of bloody serum; no pus. He complained of pain in it. He was ordered two pints of ale.

March 17th. He passed a fair night; complained of twitchings in the stump. Face sometimes flushed; pulse 108, a little jerky; appetite better; no nausea nor vomiting; bowels confined. The stump was discharging a little pus mixed with blood. Part of the wound was healed.

March 18th. He slept well; and looked much better. Skin cool and moist; pulse 108, soft; appetite improving; no vomiting. The bowels were well relieved by a common enema. He complained of twitching in the stump, which discharged a moderate quantity of bloody pus.

March 19th. He slept well. Pulse 100, soft; bowels acting; tongue clean and moist. The stump was granulating in parts; there was not so much blood with the discharge. He complained of twitching.

March 20th. He slept nearly all night. Skin warm and moist; respiration natural; pulse 108, rather feeble; tongue clean and moist; appetite not good; no vomiting. The bowels acted freely, rather loose. The patient complained much of twitching in the stump, which was discharging more healthy pus. He was ordered four ounces of brandy.

March 21st. He had a fair night. Skin warm and dry; pulse 100, rather feeble; tongue slightly coated on the dorsum, moist. He took his food better; had no vomiting. The bowels had not acted since yesterday. The stump was granulating and discharging tolerably healthy pus.

March 22nd. He slept well. Pulse 108, rather jerky, easily compressed; tongue slightly furred, moist. He took nourishment pretty well; vomited after breakfast. The bowels acted twice. The stump was granulating and discharging healthy pus.

March 23rd. He complained of twitchings. Skin cold and dry; pulse 96, rather feeble; bowels not open; no vomiting; appetite pretty good. The stump was looking well.

March 24th. He was looking better; slept well. Skin cool and moist. He had a slight cough, and expectorated a little nauseous mucus. Pulse 96, rather feeble; tongue slightly furred; appetite pretty good; no vomiting. The bowels had acted once. Two ligatures came away. The patient had pain, referred to his foot.

March 25th. Two more ligatures came away. The wound was granulating well.

March 30th. He slept well, and took his food well. He complained of occasional pain, referred to his foot. Tongue clear and moist; bowels open; pulse 96, rather feeble. The wound was contracting, and discharged healthy pus. The last ligature separated.

April 5th. He ate and slept well; and his general condition was improving. The stump was contracting well.

April 15th. The general health was much improved, and he was gaining flesh. The stump was almost healed. He had been out of doors each fine day this week.

June 20th. He left the hospital with his stump quite healed, and his general health much improved.

There are many cases of diffuse strumous deposit which are better treated by amputation, particularly in very young children enfeebled by disease, and with knee-joints quite disorganised. The history of such a case (Margaret Bolt) has already been given, and a cast (No. 3) of the limb, which I amputated, is also sent in. The poor little child much improved in health during her stay in hospital; but some few months after she left, to go to a miserable home, strumous abscesses formed in different parts of the body, and she at length died.

I have before referred to the great objection which exists to excision of the knee-joint when visceral disease is present. It often becomes the duty of the surgeon to decide as to what treatment he shall apply to a diseased joint, when his patient is affected with some other serious malady in addition to the joint-mischief. For instance, it frequently happens that tubercular deposit in the lungs is an accompaniment of knee-joint disease; and, probably from the extreme debility caused by it, the joint-disease goes from bad to worse, and is a source of constant distress to the patient. Moreover, there is no doubt that it acts as a direct irritant to the lung, and aggravates all the pulmonary symptoms. Now, as soon as this fact is established, it follows as a matter of course, that the removal of the cause of irritation is the proper course; and, as excision of the diseased joint is not admissible under the circumstances, nothing but amputation of the thigh remains. It is an operation quite justifiable, and calculated to prolong life; although, in all probability, the tenure of life will be but a short one. The following is the history of such a case up to the present time; and a cast of the limb, with a preparation of the joint, were sent in.

Case. Wm. Harris, miner, admitted under the

care of the author, September 30th, 1865, with disease of the right knee-joint, and phthisis.

History. He was a miner by occupation. His habits were regular and temperate; he was married. His knee began to swell and become painful about three years ago, after he had been working in water. For two years he had occasional pain and swelling. During the last twelve months, the joint had been gradually enlarging, and had been more painful, occasionally preventing his working.

He had been laid up for the last six weeks only. His father died of phthisis about twenty years ago, aged 41; his mother was still alive. He had several brothers and sisters, all healthy. He was a sparely nourished man, of fair complexion. He looked pale; skin warm and moist. He perspired very much at night. Respirations natural; occasional slight dry cough; pulse 110, rather feeble; tongue slightly coated with a white fur—moist; appetite bad. He had vomited several times lately. No thirst; bowels confined; urine natural. His sleep was much disturbed, but he had pain and startings in the left knee-joint at night. The knee was swollen principally over the internal condyle; circumference, right, 16½ inches; left, 13½ inches; right thigh, 11 inches; left, 13 inches. The patella was slightly moveable; no tenderness, except at a spot behind the internal condyle, which he could not bear touched. The knee was slightly flexed; leg œdematous.

Sept. 30th. There was dulness on percussion beneath the right clavicle, with pectoriloquy, prolonged expiration (coarse), and scanty moist crepitation. The heart-sound was heard abnormally loud over the right side. Puerile respiration was heard over the left lung. He was ordered a pint of porter, and

℞ Potassii iodidi gr. v; spirit. ammoniæ co. ʒss; tinct. cinchonæ ʒj; aquæ ℥j. M. Fiat haustus ter die sumendus.

A blister, an inch and a half by three, was applied to the knee; and twenty minims of solution of acetate of morphia were given at night.

Oct. 3rd. He was ordered a pint of milk, and four ounces of wine.

℞ Æther. chlor. ♏x; infus. gentianæ ℥i. M. Fiat haustus ter die sumendus.

Oct. 13th. He was ordered an ounce of cod-liver oil three times a day, and one egg.

Oct. 21st. He slept well; perspired much less. Respiration was easy; cough slight; no expectoration; pulse 108, of moderate volume, compressible; tongue almost clean and moist; appetite much improved; bowels regular. The painful startings at night were much less frequent.

Oct. 28th. The author amputated by anterior and posterior flaps immediately above the knee-joint. The wound was brought together by silver sutures, and the stump wrapped in wet lint. The joint was found to be full of pus and *débris*. The cartilages covering the external articular surface of the femur and the opposite surface of the tibia had disappeared. The internal surface of the femur was ulcerated, and the cartilage detached. The internal surface of the tibia was covered by cartilage, much thinned and separated at its edges. The crucial ligaments were present, but much softened. Only a vestige of the semilunar cartilages could be found. The cartilage on the patella was surrounded by a line of ulceration. The synovial membrane was in a state of pulpy degeneration.

Oct. 29th. He passed a good night, but looked pale. Skin hot and dry; respiration natural. The cough troubled but little. Pulse 132, easily compressed. Tongue coated with a dirty white fur on its dorsum, red at its tip, moist. He was slightly sick after the chloroform, and vomited once during the night. He took nourishment fairly; was thirsty. Bowels confined; urine rather scanty. He had little or no pain or twitchings.

Oct. 30th. He passed a pretty good night, but did not sleep much; perspired freely. Skin hot; lips dry; pulse 130; tongue much coated; appetite pretty good; bowels much confined; not much thirst; very little pain. He was ordered to have a common enema.

Nov. 1st. He slept fairly; looked pale. Skin cooler; cough troublesome; pulse 108, rather jerky; tongue still furred; appetite moderate. He vomited twice last evening; not much nausea. He was thirsty. Bowels open; urine plentiful, clear. The wound was suppurating; not painful.

Nov. 3rd. He did not sleep much. Skin warm, moist. He perspired freely at night. Cough easier; pulse 108; tongue clean, redder. He took but little nourishment yesterday. No vomiting; thirst slight; bowels confined. The wound was discharging freely; looking rather red around the sutures.

Nov. 4th. He was ordered a pint of ale.

Nov. 5th. Sleep was almost prevented by cough; there was very little expectoration. Skin dry; pupils dilated; pulse 108, of moderate volume; tongue cleaner, rather dry and red; appetite bad; bowels open. The stump was discharging a moderate quantity of healthy pus. It was dressed with a weak solution of Condy's fluid. Three sutures were removed.

Nov. 8th. He slept better; looked pale. The cough was easier. Pulse 96, moderate volume; tongue clean and red; appetite somewhat improved; bowels regular. The wound was suppurating freely. The last suture was removed; the ligatures were coming away.

Nov. 13th. The patient's nights were much disturbed by a very troublesome cough, with very little expectoration. Skin hot and moist; he perspired very profusely during sleep. Pulse 108, easily compressed; tongue clean, rather red, and moist; appetite very bad. He took his wine. Slight thirst; bowels regular. He complained of twitchings in the stump. The wound was contracting. About an ounce and a half of pus came away from one of the apertures left by the sutures during the dressing.

Nov. 15th. He was ordered to have two eggs, and eight ounces of wine; to have a drachm of tincture of cinchona added to the mixture; and to take twenty minims of solution of hydrochlorate of morphia.

Nov. 17th. He slept better, but perspired very much. Pulse 108, rather jerky; cough not so troublesome; tongue clean and moist; appetite improving; bowels acting regularly. The wound was contracting, and discharged a moderate quantity of creamy pus; it was rather more painful. He was ordered a pint of Bass's ale.

Nov. 23rd. His general condition was unaltered. The stump was looking full. About an ounce of pus passed out of the existing opening; it was evidently burrowing upwards between the muscles. Two ligatures still remained firmly attached.

Nov. 28th. He looked better; slept fairly. Perspiration was less profuse, and the cough easier; pulse 108, jerky; tongue clean; appetite pretty good; bowels rather costive. The wound was almost healed; it discharged a moderate quantity of pus from the ligature-openings.

Dec. 2nd. The patient's sleep was sometimes disturbed by cough, with slight expectoration. Pulse 108, rather feeble; tongue clean; appetite fair; bowels rather confined. He was not losing flesh. The stump was still discharging a moderate quantity

of pus. The two remaining ligatures came away. He was progressing favourably, and ultimately recovered.

Here was a case of far advanced phthisis. There was nothing in the condition of the joint itself to preclude excision, as the disease was confined to the surface of the bones; but the cavity in his lung at once decided me as to what I ought to do. He was a poor man; and, if I had sent him away with the joint, it would have been impossible for him to give it the rest necessary even to preserve him from great pain. I do not think the man will live long; but I believe he will live longer than if the limb had not been removed. I believe it should be a rule of practice to remove by amputation a diseased knee-joint, if it be satisfactorily proved that it acts as an irritant to more important visceral disease.

One of the gravest considerations for the surgeon is the treatment of *Wounds and Injuries of the Knee-joint*, when it becomes a positive necessity that the joint should be removed. I have already discussed this question, and have stated my opinion that it is possible to effect this by excision of the joint. The fearful mortality attending upon amputations of the thigh after injury is quite a sufficient warrant for the surgeon to look to some other method of treatment. There are, however, injuries to the knee of such a character as to necessitate the removal of the limb by amputation, at all risks. One of the most distressing cases I ever saw was under care of one of my colleagues. The man was caught in machinery. He sustained a compound fracture of the right tibia, with severe laceration of the soft parts. There was also a lacerated and contused wound into the right knee-joint. The left leg was immediately amputated; but an attempt was made to save the right. Tremendous suppuration set in, the pus burrowing back amongst the muscles of the thigh; and, five days afterwards, the thigh was amputated. The patient died on the third day. Now, under similar circumstances, if I attempted to save the other leg at all, I should certainly follow Mr. Kempe's plan, and perform primary excision of the joint, as I believe that much less suppuration and constitutional disturbance would have arisen.

The last condition requiring amputation, to which I shall refer, is that of the limb upon which *Excision of the Knee has failed*, and where, consequently, it is either an incumbrance or a positive source of danger to the patient. Of 238 cases collected by Price, 30 came to amputation at various periods after; and out of the 30 thus operated on, 5 died.

These amputations were performed at distances of time from the excision varying from a few days to over two years. In many of these cases, there can be no doubt that amputation was performed where a little patience would have avoided it; the bones being found healthy, and union taking place between them. Profuse suppuration, the remains of diseased synovial membrane, necrosis and caries of the bones, were the principal causes for the amputation in the others. The fact of five only out of thirty dying after the operation proves my assertion in a former portion of this essay to be correct; viz., that patients having undergone excision of the knee are seldom worse able to bear subsequent amputation than if it had been the primary proceeding.

It is a question of great importance to decide in any given case, at what period all hope of saving a limb, in which the knee has been excised, expires. Of course, if profuse discharge and continuous pain so wear down the constitution of the patient as to place his life in jeopardy, there can be little question as to the immediate removal of the limb; but the difficulty exists in those cases where, perhaps, there are sinuses leading to diseased bone, and where the union is only fibrous, and of such a nature as to be perfectly useless. I have before laid stress on the necessity for great patience in these cases. Much, I think, depends upon the feelings of the patient himself. If his position in life be such as to make it very needful for him to get about as soon as possible, or if he be tired of his limb, and urge on the surgeon its removal, I should not hesitate to comply with his request, unless I had very strong grounds for expecting rapid improvement. There are, however, indications of an entire lack of usefulness in some limbs, which would decide the surgeon in no longer allowing it to cumber his patient. We sometimes find cases in young subjects where the limb has not only ceased to grow longitudinally, but where its whole nutrition seems to have been arrested in all the tissues. It hangs loosely from the femur, seemingly attached to it only by the skin and soft tissues surrounding what was once the knee-joint. The muscles of the calf are quite atrophied; the foot is small and undeveloped; the temperature much below that of the sound leg: in fact, there is every indication that it hangs almost lifeless, and quite useless to its owner. There is little or no prospect of amendment here; and I think the sooner amputation is performed, the better. Appended is a drawing, taken from a case in which Mr. Holt of the Westminster Hospital performed excision of the knee, and amputated some time afterwards, on account of non-union.

It sometimes happens that disease is again set up in the bones by violence. I remember a case where Sir W. Fergusson excised the knee-joint of a young woman, with a most excellent result. Some years after, she fell, and necrosis of the bones took place; Sir W. Fergusson attempted to re-excise, but was obliged to complete the operation by amputation of the thigh.

I believe that all the varying circumstances demanding the operations of excision of the knee and amputation of the thigh have now been reviewed. I have endeavoured to perform this task in a fair, unbiassed spirit, neither unduly vaunting the merits of one proceeding, nor depreciating those of the other. I have contended that, whereas it is a glory to the surgeon to save both limb and life to his patient, he has no right unduly to risk the latter in attempting to save the former. Much as I admire, and desire to practise, in every fair case, excision of the knee, I have no wish to strike amputation of the thigh out of the roll of surgical procedures. It is a painful operation for the surgeon to undertake, and a still more painful and distressing circumstance for the patient to go forth maimed to so fearful an extent; but the prolongation of life is the surgeon's great triumph; and, if the loss of a limb to his patient is the cost at which this is procured, he must not hesitate to perform his duty. On the other hand, it behoves us as a profession to be more careful how we deal out such full measure to our patients. A great and important addition has been made to our operative resources by the revival of excision of the knee-joint; and we must be careful how we allow either

prejudice against, or ignorance of, the operation to prevent us from giving those who are under our care, and who may require it, the benefits of its use.

Illustrations OF HOSPITAL PRACTICE:

METROPOLITAN AND PROVINCIAL.

BROADMOOR STATE ASYLUM.

REPORT OF A CASE OF CONVULSIONS.

By F. W. Gibson, M.D.Lond., Assistant-Medical Officer; late House-Surgeon to the Taunton and Somerset Hospital.

Emile H., aged 43, a jeweller, admitted in February 1865, with symptoms of general paralysis, had on March 16th, 1866 a convulsive fit, lasting about two minutes, of which the account given in the case paper is as follows.

"Head drawn to right, and both eyes to right; right arm convulsed, and convulsive action of right pectoral muscles; no convulsions of lower limbs; temperature 101·2; pulse 80.

"March 17th. Has had three more fits since yesterday; temperature 100; respirations 40; pulse 88; no abnormal chest signs.

"March 18th. Temperature 97; pulse 65; has had no more fits."

He had no recurrence of the fits until July 28th; his temperature was taken constantly during the interval, and was always normal. At 6·30 P.M., whilst lying in bed. he became suddenly convulsed.

At 7·5 P.M., the temperature in the left axilla was 101; right 102·2; pulse 120; respirations 44. He was semiconscious; both eyeballs were drawn to the left; the pupils were equal, moderately dilated—they did not act to light; the muscles of the face on the left side twitched convulsively; those on the right did not move; but were not paralysed; the right side of the face was considerably redder than the left; the right temporal artery was markedly more distended than the left; the whole of the right half of the face was covered with beads of sweat; there was no visible perspiration on the left side; there were convulsions of all the muscles on the left side of the body; none on the right; there were slight twitches of muscles of right leg.

8·20 P.M. Convulsions continued; there was stiffness of the convulsed muscles.

July 29th. Temperature 101; pulse 120; respirations 44; the convulsions had continued, were very severe in character, and had not ceased for a single minute since the attack began.

July 30th, 7 P.M. Temperature 101·8; pulse 100; respirations 44; he was quite unconscious; he died comatose at 10 P.M.

Post Mortem Examination. The number and size of capillaries in the grey matter of the cerebellum were notably increased; some were varicose; there was fatty degeneration of the muscular fibres; the same condition, to a less degree, existed in the capillaries of the grey matter of the convolutions of the cerebrum; the pons, medulla, cord, and all the other organs, were healthy.

Remarks. The researches of Claude Bernard have proved that irritation of the cerebro-spinal system of nerves, by paralysing the sympathetic, produces dilatation of the minute vessels, increased animal heat and augmented chemical action.

The phenomena observed in this case would, at first sight, appear to be satisfactorily accounted for thus—"Here is irritation of the cerebro-spinal system, as shown by the convulsions, producing increased heat and increased flow of the cutaneous secretion;" but, on the other hand, the phenomena of the convulsive attacks of epilepsy are a direct contradiction of this theory, for while in these attacks there is, as I think I may affirm as the result of very numerous observations, no increase of temperature, there is irritation of the sympathetic causing contraction of the vessels; hence the loss of consciousness, the pallor of the face, and the small radial pulse, and dilatation of the pupils.

Physiological science does not, as far as I am aware, at present offer any data for a theory which would give a satisfactory reconciliation of these apparently contradictory facts.

The *post mortem* appearances are evidence in favour of the views of M. J. Luys, regarding the pathology of the obscure disease known as general paralysis; namely, that the cerebellum is affected primarily, the cerebrum secondarily, and that hence the motorial disorder usually precedes the mental. (*Recherches sur le Système Nerveux Cérébro-Spinal*, p. 618.)

I may mention, in conclusion, that I found elevation of temperature in another case of convulsions occurring in a general paralytic; also in a case of convulsions caused by acute cerebral softening. The non-elevation of temperature in epilepsy may, perhaps, when thoroughly established by further investigations, serve as an aid in the diagnosis between true epilepsy and non-epileptic convulsions.

The temperature is considerably elevated in tetanus and in chorea; and although I am not aware that any observations have been taken of the temperature during convulsions connected with acute Bright's disease, yet as it is, as I know from experience, elevated in that disease, that elevation of temperature, would, in all probability, not be affected by the convulsions; so in convulsions caused by tubercle in the brain or meninges, an elevation of temperature would undoubtedly exist as the result of the tubercular disease.

HULL GENERAL INFIRMARY.

[*Cases reported by* T. M. Evans, Esq., *House-Surgeon.*]

TERTIARY SYPHILITIC DEPOSITS.

Under the care of Owen Daly, M.D.

James Boddy, aged 39, a railway porter, was admitted on December 9th, 1865, suffering from severe headache, of a dull and constant character, and of four months' duration, which had been attributed to neuralgia, and treated as such. He was very thin and anæmic, and had a languid, vacant expression, with large, sluggish pupils. Three years previously he had primary syphilis, and enlargement of the inguinal glands, but he had not suffered from any eruption, sore throat, nodes, or other symptoms of a secondary character.

The headache increased in intensity, and was soon accompanied by dimness of vision, and a slow, tottering gait, so that he could not walk without support from surrounding objects; and a month after admission he became quite comatose, the pupils being much dilated, but not quite fixed, and there was no stertor. From this state he seemed to be roused by repeated blistering, and had so far recovered at the end of a fortnight as to be able to sit up, and to answer questions in a slow hesitating manner; but he did not appear to take notice of surrounding objects, being partially amaurotic. Several similar attacks

followed, in which the pupils were sometimes contracted, but more frequently dilated, and each attack left him in a worse condition. His strength failed, so that he was confined to bed, and, becoming emaciated to an extreme degree, large and deep sloughs formed on every prominent part, though he lay on an air-mattress. In this state he continued for six weeks, to all appearance insensible, and almost lifeless, and yet answering when spoken to, taking nourishment in large quantity, and passing excreta in the bed, his existence being prolonged till April 7th. During the first three weeks, he took iodide of potassium, quina, and pilulæ hydrargyri, then cod-liver oil alone was substituted, and changed at the end of another month for the bromide and iodide of potassium with bichloride of mercury. Counterirritation was also frequently employed, both by blistering the nape of the neck, and by the application of acetum cantharidis, and afterwards of croton oil liniment to the shaven head.

Autopsy. On removing the calvarium, some small depressions in the bone were noticed, corresponding to prominences on the surface of the brain beneath its membranes; and when the brain was lifted out a tumour of an inch diameter was left attached to the dura mater immediately above the tentorium on the left side, and a cavity of the same size on the surface of the posterior lobe was thus exposed, showing its white substance. Embedded in the grey matter on the surface of the convolutions were four more tumours of the size of a pea, which had caused the prominences before spoken of; and, on slicing up the brain, seven more of various sizes were found, some deep in the white substance, others nearer the surface; they all shelled out easily, and were covered with a network of fine vessels; on section, they appeared more or less fibrous, but soft, and of a light pink colour. Another was found in the left lateral lobe of the cerebellum near the surface.

Both lungs, especially the left, were thickly studded on the surface and throughout with similar spherical bodies, of the size of a small pea; and, from their pale pink tint, those on the surface of the lung, and covered only by pleura, were very conspicuous; these also were flattened next the pleura. There was no tubercular deposit. The heart contained a large number embedded in its walls, several of them projecting into the ventricles beneath their lining membrane, and some of these were situated in the columnæ carneæ. In the liver none were found, but its capsule was thickened in limited patches to a depth of three lines with similar tissue. The pancreas contained a mass of considerable size in its centre.

The pelvis of the right kidney was also completely filled with the same material, which encroached somewhat upon its proper substance. The left kidney and all the other viscera were perfectly healthy.

Under the microscope, sections of the deposits showed a granular basis, with some remains of the peculiar tissues of the organs in which they were found, elastic tissue in those from the lung, fatty matter in the cerebral tumours, and muscular fibres in those from the heart; but towards the centre of the deposits these were not discernible,

This case possessed such peculiar interest from the great number, general distribution, and remarkable distinctness of the deposits, that small portions of some of the viscera were forwarded to Mr. Paget, to whom I am indebted for a verification of the diagnosis, and at whose suggestion the viscera have been placed in the museum of the Royal College of Surgeons.

BRIGHT'S DISEASE AND TRICHINIASIS.

Under the care of Sir Henry Cooper, M.D.

Richard Wingfield, aged 45, a farm labourer, wasted and cachectic in appearance, was admitted on May 18th, 1866, with slight general anasarca, considerable dyspnœa, cough, and expectoration of bloody and plum-coloured mucus. Rhonchus and sibilus were heard over both lungs behind, with mixed crepitation toward the bases; and the urine contained a large quantity of albumen, becoming nearly solid when heated. He had had a previous attack of general dropsy.

After a few days of a stimulating expectorant treatment, the chest-symptoms were much relieved, and nearly all swelling had disappeared; but his strength gradually failed, and, for a few days before death, which occurred on June 12th, he became very dull and apathetic, almost comatose, taking no food, and passing excreta in the bed. The improvement in the renal symptoms, the absence of convulsion, and the incompleteness of the coma, appeared to point to some other cause than anæmic poisoning for this condition, The cause was afterwards discovered in a large abscess of the brain on the right side, communicating with the lateral ventricle.

At the autopsy, the kidneys only were examined, (as the body was intended for the anatomical school) and proved to be characteristic specimens of the large white fatty kidney. In the dissecting room it was noticed that the muscles were studded with small, whitish, oval bodies, which were most numerous in the pectoralis major and other superficial muscles, but affected the deeper ones also, and lay with their long diameter in the direction of the muscular fibres. About fifty of them could be counted in a square inch of surface. They were all more or less calcareous and opaque, but in the more transparent the worm was easily recognised, coiled up in the centre. Soaking in glycerine increased the transparency of the cyst walls, but, when digested in turpentine and put up in Canada balsam, the worm was rendered beautifully distinct.

The viscera also were examined, and a few trichinæ were found in the muscular walls of the heart, but in no other part.

Prominent amongst the symptoms of trichiniasis, Cobbold mentions diarrhœa and peritonitis as marking the period of the intestinal occupation and early migration of the worm; muscular pains, general œdema, and fever during its passage into the muscles, that is from the end of the second week to about the sixth or seventh; and debility, with a kind of consumption or marasmus in those who die at a later period.

In the present case the œdema was fully accounted for by renal disease; but the gradual wasting and failure of power, the cause of which was not very apparent, may have been due to the trichiniasis, though nothing of the kind was suspected during life.

SCURVY.

Under the care of Sir Henry Cooper, M.D.

Eleven sailors, ill of scurvy, were admitted into the Infirmary, between February 12th and 16th, 1866, having all just arrived from Calcutta, after a four months' voyage, during which they had lived almost entirely on salt provisions, with only an occasional allowance of preserved potatoes and lime-juice, the latter reported to be bad. Three of them were quite helpless, and the greater number in a very feeble state, and scarcely able to walk upstairs.

The symptoms from which all suffered, more or less,

were extreme pallor of complexion, lips, and tongue; swelling, sponginess, and ulceration of the gums, with a tendency to hæmorrhage; large, tender, and hard patches, of a purple, or greenish yellow colour, on the lower extremities, especially in the hams, due to extravasation of blood into the cellular tissue of the part; also numerous small purple spots, most abundant on the legs, having a dark, almost black, centre (corresponding to a hair-follicle), from which a hair projected, showing that these were due to hæmorrhage into the hair-follicles, and distinguishing them from the spots of purpura, which have not usually this character.

One patient had a circular sore on the leg, of two inches diameter, covered with very prominent granulations, from which there was a constant oozing of blood; it resulted from a slight graze received ten weeks before, and had gradually increased in size. By the application of perchloride of iron and glycerine, with subsequent water-dressing and bandaging, it rapidly became a healthy granulating sore, and at the end of a month was quite healed.

Another case was complicated with severe dysentery of two months' duration, and of this the patient died eleven days after admission.

At the autopsy, the whole of the large intestine was found greatly thickened, chiefly from deposit in its submucous tissue, and its mucous membrane ulcerated, covered with villous processes, and deeply injected with blood.

With these two exceptions, they all left, quite convalescent, in about a fortnight.

Treatment consisted of a liberal diet, with extra allowance of potatoes, and a mineral acid mixture; instead of the latter, four lemons daily were given in two cases with much the same result.

SPINAL CARIES: LUMBAR ABSCESS: PYÆMIA.

Under the care of OWEN DALY, M.D.

Joseph Ingamells, aged 29, was admitted on March 21st, 1866, having a prominent fluctuating swelling on the right thigh, situated in Scarpa's triangle, free from superficial redness, but with a decided impulse on cough. He complained also of pain in the back, with marked tenderness on pressure over the second and third lumbar vertebræ, from which he had suffered more or less for two years. The swelling on the thigh was first noticed three months ago, and had since gradually increased; there was no unnatural prominence of the spinous processes, nor loss of power or sensation in the lower extremities.

Strict rest in the recumbent posture, the application of tincture of iodine to the thigh, and a mixture containing tincture of sesquichloride of iron and quina, were prescribed; but the swelling continued to increase, and, on June 17th, it being of large size, pointing, and threatening to burst and leave a large opening, a small incision was made into it, and thirty ounces of creamy pus evacuated. Pus continued to flow, with great relief to the severe pain which the tension of the parts had caused, and no untoward symptoms appeared till June 25th, when smart general fever supervened, and it was noticed that bubbles of air were mixed with the pus that escaped. He was ordered a saline mixture.

July 1st. Numerous spots had appeared on the trunk and extremities, of a reddish colour, distinctly elevated, and varying in diameter from a tenth to a quarter of an inch, fading on pressure. He had still much fever.

July 3rd. The spots were more abundant, but less elevated, and were becoming petechial. There was occasional rambling delirium at night.

July 5th. He had constant delirium; eyes suffused; tongue dry and brown in the centre; bowels rather constipated; there were no flesh spots. He was ordered eight ounces of wine daily, and an ounce of decoction of cinchona, with twenty minims of dilute nitro-hydrochloric acid every four hours.

July 7th. There was more active delirium, and frequent moaning; the rash was more petechial, of a purple colour, scarcely at all elevated, and resembling that of typhus; pulse 140, very feeble; tongue dry; excreta passed in the bed. He died at 2 P.M. on the following day.

POST MORTEM EXAMINATION. There was much purple lividity of the face, arms, and depending parts of the body; some petechial spots also remained. All the viscera were quite healthy; with the exception of congestion of the lungs posteriorly. The bodies of the second and third lumbar vertebræ were carious, on the right side, to a depth of from a quarter to half an inch, and the abscess extended downwards through the obturator foramen, ramifying very extensively amongst the muscles of the thigh, and containing small spicula of bone. There were no purulent deposits in any other part.

Transactions of Branches.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT MEDICAL MEETING.

A COMPARATIVE REVIEW OF THE SMALL-POX, AS OBSERVED IN THE SMALL-POX HOSPITAL, AND IN THE PATIENTS' OWN RESIDENCES.

By GEORGE RIGDEN, Esq., Canterbury.

[*Read November 29th*, 1866.]

I PROPOSE, in the present communication, to compare my own experience of small-pox, as observed in patients at their own residences, with that observed by Mr. Marson at the Small-Pox Hospital, and recorded in the thirty-sixth volume of the *Medico-Chirurgical Transactions;* and I may observe, that a large proportion of my cases were in patients of a public institution—the Canterbury Dispensary, and would, therefore, probably belong to the same class of society as those who would obtain admission into a public hospital.

The record of the Small-Pox Hospital includes 5,982 cases, occurring during five epidemics; and my own report includes 381 cases, occurring during two epidemics.

Of the cases in the Small-Pox Hospital, 49 per cent. were unvaccinated; of those in private residences, 55 per cent.

The ages, arranged in periods, were as follows.

Under 5 years: in hospital, 13 per cent. of the unvaccinated, and 2 per 1,000 of the vaccinated; in their own residences, 29 per cent. of the unvaccinated, 4 per cent of the vaccinated.

Between 5 and 10 years: in hospital, 12 per cent. of the unvaccinated, and 1½ per cent. of the vaccinated; in their own residences, 23 per cent. of the unvaccinated, and 9 per cent. of the vaccinated.

Between 10 and 15 years: in hospital, 10 per cent. of the unvaccinated, and 5 per cent. of the vaccinated; in their own residences, 19 per cent. of the unvaccinated, and 17 per cent. of the vaccinated.

In hospital, of unvaccinated, 26 per cent. were under 10 years, and 35 per cent. under 15 years; of vaccinated, 1½ per cent. were under 10, and 6½ per cent. were under 15. In their own residences, of the unvaccinated, 52 per cent. were under 10, and 71 per cent. under 15; of vaccinated, 13 per cent. were under

10, and 30 per cent. under 15;—showing that a much larger proportion of young patients were attended at their own residences than at the hospital.

Under 5 years of age, in hospital, the deaths were 50 per cent. of the unvaccinated, and 28 per cent. of the vaccinated; under 5 years of age, in their own residences, the deaths were 22 per cent. of the unvaccinated, and 0 per cent. of the vaccinated. Between 5 and 10 years of age, in hospital, the deaths were 27 per cent. of the unvaccinated, and 12 per cent. of the vaccinated; between 5 and 10 years of age, in their own residences, the deaths were 10 per cent. of the unvaccinated, and 0 per cent. of the vaccinated. Between 10 and 15 years, in hospital, the deaths were 23 per cent. of the unvaccinated, and 4 per cent. of the vaccinated; between 10 and 15 years, in their own residences, the deaths were 0 per cent. of the unvaccinated, and 1 per cent. of the vaccinated.

Of the sum total, the mortality in hospital was 21 per cent., or about 1 in 5 of all the patients under treatment; while in those who were attended to at their own residences, the mortality was but 6 per per cent., or about 1 in 16 of the patients under treatment. Or, in other words, the mortality of small-pox in hospital was at least three times greater than the mortality among patients with the same disease when attended to at their own residences. It is, therefore, worth inquiry, What are the circumstances leading to this excess of mortality in hospital?

It will have been observed from the foregoing report, that the relative proportion of vaccinated and unvaccinated patients differed but very little in and out of hospital, the unvaccinated being in the greatest proportion among the patients attended to at their own residences; also, that the greatest mortality, both in and out of hospital, was in young children; but that a less number of children were admitted into hospital. The malignancy of the disease cannot be so easily compared; but it is scarcely possible that the very severe cases could have been removed to hospital, as such cases would not admit of removal. And the only conclusion that I can arrive at is, that the excess of mortality in hospital is due to the collection of a great number of small-pox patients into a limited space; and, if such be the cause, the advantages gained by the remaining members of a family by the removal of small-pox patients to hospital are considerably counterbalanced by the very great disadvantage to the patients themselves.

Royal Sea Bathing Infirmary, Margate. The half-yearly Court of Governors of this institution was held Friday, November 30th, in the board-room of the office, Queen Street, Cheapside; S. Tomkins, Esq., the treasurer, presiding. The report as read and unanimously adopted stated that the number admitted between January 1st and November 20th, was 783, of whom 188 remained, leaving 595 as treated and discharged, viz., 282 cured, and 228 greatly benefited. In addition to these, 118 out-patients had been provided with medical advice, medicine, and baths. The receipts for donations, subscriptions, legacies, the honorary secretary's 5*s.* fund, dividends, etc., were £7,135 : 9 : 4. The total investments were: Consols, £1,800, and Three per Cents., £7,974 : 12 : 9, and the balance in hand £1,227 : 12 : 2. The late James Taylor, Esq., had left a legacy of £100 to be paid at once, and a further legacy of £500 on the death of his widow. The report concluded by expressing deep regret for the loss of G. Y. Hunter, Esq., of Margate, one of the consulting surgeons. The proceedings concluded with thanks to the chairman.

We are requested to remind members of the Association that the Annual Subscriptions became due on the 1st of January. They can be paid either to the Secretaries of the Branches; or to the General Secretary, T. Watkin Williams, Esq., 13, Newhall Street, Birmingham.

British Medical Journal.

SATURDAY, DECEMBER 15TH, 1866.

RE-ORGANISATION OF THE INDIAN MEDICAL SERVICE.

We publish to-day the long looked for arrangements for the Administrative Staff of the British and Indian Medical Services.

It is deeply to be regretted that a thorough amalgamation of the two services was not effected some years ago. Some difficulties in the way of such a desirable result no doubt existed; but they were not a whit more serious than those faced and overcome in effecting the amalgamation of the Royal Engineers with the Indian scientific branches. Addiscombe and Woolwich, by a little gentle compulsion, and after a little coquetting on both sides, were made to kiss each other, and to close a long and honourable rivalry in an indissoluble union, to their mutual advantage.

A similar union was urged by the Secretary for India between the British and Indian Medical Services. The advantages to both services and to the public of the proposed amalgamation were obvious, and they were strongly urged by Professor Maclean in an introductory lecture delivered at Netley some years ago. It was pointed out on that occasion, that the double administration was costly, cumbersome, and inefficient, embarrassing to the authorities, fruitful in jealousies and strife, without a single compensating advantage. The truth of all this will be seen ere many days. It is well known that the bans were forbidden in obedience to the wishes and crotchets of some who had no experience of Indian military service. Three reasons were assigned for the course taken by the War Office in this matter. The first was, that Indian medical officers were too independent for the British Army. Sir Charles Wood replied, with great sarcasm, that he thought independence of character rather a good thing than otherwise. The second was, that the medical officers of the Indian Army were too often employed in civil appointments. The answer to this was, that the most distinguished medical men in India had always been so employed; that, so far from this being an objection, it was a positive gain. The so-called civil surgeons were in charge of great

hospitals and dispensaries at the presidency towns, the large civil stations, and native courts, where they enjoyed a vast field of experience and observation; and it is notorious that, when the urgent calls of military duty demanded the presence of the civil surgeons in the field, that class furnished the most experienced medical officers and the best operating surgeons in the East. It could not be otherwise. An Indian residency or civil surgeon performed more of the capital operations of surgery in a month than a surgeon of a British regiment in India was likely to do during his whole term of Indian service. Again, it was said that men who treated the diseases of natives could not be trusted to treat those of Europeans, their own countrymen! The sapient person who advanced this "reason", whoever he was, evidently thought that, in an Asiatic, an ague begins with the sweating and ends with the shivering stage; and that such men as Twining, Martin, Morehead, the Macphersons, the two Goodeves, Norman Chevers, *cum multis aliis*, must sit at the feet of their brethren of the British service to learn how to treat the diseases of the tropics. We need scarcely say that no such absurd pretensions were ever put forward by British medical officers themselves. We know that, as a class, they ardently desired union with their Indian brethren. But such, most certainly, were the "reasons" that prevailed.

Already we see the bad consequences of this ill-advised separation. The British and Indian Governments are bidding against each other in the market for recruits for their respective services—the right hand bidding against the left. It is notorious that, up to the present time, India has carried off the best men. Mark the absurdity. India commands the best available medical officers; but, when they go to India, it is not to them that the valuable lives of British soldiers will in a few years hence be committed: they are to be confined to the treatment of natives.

It is well known that this divided medical administration has been forced on the Governor-General of India, and that he makes no secret of his opinion that it will ultimately prove a failure. As to the arrangement itself, all that need be said about it is, that perhaps it is the best possible under the circumstances. The glory of the noble old Indian service is shorn of some of its beams. What one loses the other gains. So wags the world.

CLITORIDECTOMY.

The subject of clitoridectomy was brought before the Obstetrical Society of London at its last meeting, in a paper read by Dr. Tanner; and it is much to be regretted that the discussion of the question was made an occasion for the display of a good deal of personal feeling. This is unfortunate, although not very surprising; but the profession must fairly look to the Society for a very calm consideration of the points at issue, and for a decided but judicial opinion as to the practical value of the operation in the cases for which it is recommended. A perusal of the report of the meeting, as it appears in another part of our columns, will, however, leave no doubt in the mind of the reader as to the general drift of the discussion. With scarcely an exception, the opinions expressed were decidedly adverse to the proceeding. The results of experience seem to show, as might have been expected, that the operation fails in the great majority of cases either to check the habit of self-abuse, or to cure the disease for which it is performed. Very little was urged on scientific grounds for or against the proposal of Mr. Baker Brown. He asserts that certain nervous affections, hysteria, epilepsy, insanity, and idiocy, and not a few organic diseases of the generative organs, are directly produced by "irritation of the pudic nerve." But assertion is of little worth in such a case, unless supported by evidence of a very different kind to that which has been hitherto brought forward. It is impossible not to remember that nervous complaints have never failed to appear cured for a time by all kinds of violent remedies. When it was the fashion to cut off the uvula for the cure of stammering, some scores of stammerers lost their nervous vice from the mere shock and mental impression; and for no inconsiderable period this form of "ectomy" was a marvel to the vulgar. Unfortunately, that which is now proposed is associated with moral and social considerations of much greater moment; and it is urged against Mr. Brown, that he is so possessed with the idea of the universality of the habit of self-abuse, and its power of producing innumerable evils, that he resorts to the operation with lamentable frequency. As a consequence of this, practitioners are constantly meeting with patients who are not only unrelieved by this treatment, but are even left worse, to say nothing of the stigma which has been cast upon their moral character. On this point, we think Dr. Routh's remarks put the case as strongly as it could be expressed, and his testimony is valuable to Mr. Brown's position. But, as he says, granting that the diseases in question do in exceptional cases arise from irritation of the pudic nerve, it is clear that clitoridectomy only removes a portion of the irritation, leaving plenty of room still for a continuance of the evil habit.

Such being the state of this question, we would venture to make a suggestion to the Obstetrical Society, which, we think, offers a means of settling it in a way which will be satisfactory. Let a Committee be appointed to investigate the matter; let at least twenty cases of twelve months' standing be carefully observed, and their history both before

and after the operation be thoroughly inquired into; then let a report be drawn up, giving the general results of the Committee's experience. We see no other way by which the present very unsatisfactory state of this question, both as it affects the public and the profession, can be settled; and we shall be glad to learn that the Society has adopted this suggestion. Meantime, the less it is written about and talked about the better. The letter which we print to-day from Dr. West expresses, not one whit too strongly, the disgust which reasonable and thinking men must feel at the public discussion, before mixed audiences, of sexual abuses. It is a dirty subject, and one with which only a strong sense of duty can induce professional men to meddle; and then it needs to be handled with an absolute purity of speech, thought, and expression, and, as far as possible, in strictly technical language.

THE USES AND ABUSES OF GREENWICH HOSPITAL.

The present state of Greenwich Hospital is certainly suggestive of future rather than of existing excellence of administration. It presents some remarkable anomalies. The former establishment included 2400 men and 800 boys. This has been reduced to 400 men and 800 boys. One great reason for the change was the considerable cost per head; £60 yearly for each pensioner, against £40 a-year for maintaining the *invalides* at Paris. But the administrative staff is now so excessively disproportionate to the extent of the establishment, that the actual cost per head is at this moment considerably over £100 a-year. For the 400 old men and the boys, there are an executive staff, of a captain and two lieutenants, for discipline; a medical staff of seven medical officers, from an Inspector-General (recently appointed to complete the establishment) downwards; and a victualling staff of nine officers. No wonder that the cost of administration, which was thought to be exorbitant at £60 per head, has now risen to double that figure. We can only wish that the Lords of the Admiralty, having now added Dr. Davidson to the already very accomplished medical staff of that hospital, could be induced to make the hospital and the staff both useful, by draughting in the patients of the *Dreadnought* and employing this hospital as a training school for young naval medical men. Of the great—nay, the indispensable—utility of the Netley training school for army medical men, the military authorities are now perfectly satisfied. And it is quite clear, that that which is so exceedingly valuable and useful to the army cannot be needless for the sister service. It would be easy to show that it is, in fact, much more needed. In speaking of the claims of the *Dreadnought* patients to be housed in Greenwich Hospital, it is only necessary to recall the fact that for a hundred and thirty years sixpence a month was deducted from the wages of every merchant seaman in order to aid in the maintenance of Greenwich Hospital. They have never received any benefit from it; its wards are now empty. The old *Dreadnought* (which is wholly supported by voluntary charity for the use of poor merchant sailors) is always being knocked about by collisions; and the admission of the patients into the vacant wards of Greenwich Hospital would be an act of administrative wisdom and of large-handed, but just, national charity. The benefit to the royal action from the more perfect training of the medical officers would amply repay this.

SPECIAL DEPARTMENTS IN GREAT HOSPITALS.

The inclusion of special departments of practice within the great general hospitals is recognised to its very fullest extent in American practice. Thus, at the Bellevue Hospital of New York, an out-door department on an extensive scale has been organised by the Public Commissioners of Charities and Correction, which includes the following departments, having two medical officers attached to each: Diseases of the Chest; Digestive Organs; Nerves; Male Genital Organs; Skin; Women; Eye and Ear; Children; Orthopædic Surgery; General Surgery, with four surgeons attached. There are, we believe, over 2000 beds in this hospital.

POISONING WHALES.

M. Balard has been occupying himself with the problem how to poison whales rapidly. He combines a soluble salt of strychnia with a twentieth part of woorara. He loaded some explosive cartridges with two ounces each of this delectable compound, and started off on a whaler. He gives particulars of the whales which he shot at and wounded. They all either died almost immediately or very rapidly (usually in less than ten minutes) after general convulsion. He concludes that whales are even more sensitive to poison than land cetacea, and that, in future, it will be well to diminish the dose of poison, in order to determine a rather slower death.

THE IMPORTATION OF CHOLERA.

We learn that it is the intention of the Egyptian Government to institute precautionary measures against the importation of cholera by the Mahommedan pilgrims next year. The quarantine measures which it has been proposed should be adopted have, we believe, been framed with regard to both vessels and caravans, and are to the following effect. All vessels with pilgrims are to be subjected to interrogation; and, if found to have had cholera on board, are to be sent to perform quarantine. All caravans are likewise, if necessary, to undergo quarantine, for which special accommodation is proposed to be provided. And should cholera break out in the Hedjaz, it is proposed that no communication between that province and Egypt should be allowed by sea.

Dr. Jabez Spence Ramskill, who has been for some time the Senior Assistant-Physician to the London Hospital, has been elected Physician. Dr. Sutton is candidate for the vacant office of Assistant-Physician.

THE OUTBREAK OF FEVER AT DEMERARA.

We are enabled to state that the most recent letters from official persons at Demerara afford reason to hope that the white troops, amongst whom yellow fever had begun to cause a great mortality, are by this time at Barbadoes. When yellow fever appeared in Demerara, rather more than a year since, the troops were, with great advantage, moved some miles away. The military authorities applied to the Army Medical Department for advice in case yellow fever should again appear. They were recommended in that event to ship them away: the only expedient which experience has proved to be trustworthy and efficacious. According to the last letters received, the white troops were on the point of embarkation at the date of writing, their place being supplied by black troops. Authentic particulars of the extent of the mischief already done are not yet received; private accounts are gloomy.

AMERICAN DEGREES.

The *American Medical Reporter* agrees with one of its contemporaries in a complaint, that the facilities for starting so-called medical schools in America are so great that they spring up wherever a few aspiring physicians with a few dollars or credit may happen to congregate. Then follows a rivalry to get students and have graduates, so great that young men are rushed through at more than railroad speed, frequently without the least regard for their qualifications or medical acquirements. As an instance, the following is mentioned. A young man, after attending a set of lectures in a medical school, was permitted to take a diploma within less than one year from the time of his first commencing the study of medicine. The *Reporter* concludes that, to diminish quackery in America, it is necessary to control the facility for "rushing through" men who, when they get their diplomas, naturally claim to be "regular graduates of medicine."

MEDICAL CORONERS.

We are happy to note an addition to the list of medical coroners, in the person of Mr. Charles Mayo, M.B., of New College, Oxford, who has been elected coroner for Oxford University. Justice Blackburn has this week strengthened very much the grounds of advocacy of the appointment of medical men as coroners, by intimating that the coroner's inquiry ought *always* to be followed by a magisterial investigation of any charge arising out of it, before the accused or suspected person is committed for trial. He considers a legal enactment, making this imperative, to be desirable; and we quite concur in that view. The coroner's inquest *super visum corporis* is to ascertain the cause of death, not the guilt or innocence of persons implicated. Death may have been caused by injury, by maltreatment, by unsanitary conditions of all kinds, by illegal neglect of sanitary precautions enjoined by Act of Parliament; and habitually there is only a medical witness on one side. To judge of the full force and meaning of his evidence, it is essential that the coroner should be himself medical. The constant flounderings and bewilderment, the mock intelligence and sham summings up, of legal coroners, expose them to the ridicule of educated medical men, and endanger the purposes of justice.

DENTAL HYGIENE AMONG THE ARABS.

The Arabs are envied by more civilised people for the irreproachable whiteness of their teeth. How is it attained? Dr. Quantin has a good deal to say on the subject. In the first place, they live upon *couscoussou* and coffee prepared without milk or sugar—a diet devoid of the acids which occur in European dietaries. They rinse the mouth always at each of their four or five daily ablutions, filtering the water slowly between the teeth. They never take their food and drink at more than "very moderate heat." This protects the enamel, the conservative envelope of the teeth. To increase the whiteness of the teeth, of which they are proud, they chew once a week a piece of an indigenous root, called *sondte*. When partly softened, they withdraw it, and rub the teeth first with this and then with white woollen stuff. To what sobriety and modesty of diet the emulation of the teeth of these savages should lead us!

NATURAL SCIENCES AT CAMBRIDGE.

The following honour list of the Natural Sciences Tripos has just been issued at Cambridge. The examination papers are before us, and are drawn up with great care and thought. They are admirably adapted to test the scientific acquirements of the candidates to the very fullest extent.

University of Cambridge.—Natural Sciences Tripos.

First Class.

Earle, Jesus College } Equal.
Walker, Sidney College }
King, Caius College

Second Class.

Fenwick, Trinity College }
Ralfe, Caius College } Equal.
Smart, Caius College }
Wollaston, Clare College

Third Class.

Marshall, Trinity College
Semple, Caius College

G. M. Humphry, M.D. }
M. J. Berkeley, M.A. } Examiners.
W. Stokes, M.A. }
O. Fisher, M.A. }

December 11th, 1866.

AT SEA IN QUARANTINE.

We last week dealt briefly with Dr. Goodeve's summary of the recommendations of the Constantinople Conference; and we are so pressed with important matter this week, that we are unable to print his paper as read at the Epidemiological Society, which lies before us. The conclusions are precisely as we stated them; and nothing more absurd has, in our opinion, yet been suggested than the principal recommendation, that of a quarantine of exclusion—isolation for ten days—between European countries where cholera may appear. Spain has

been trying something like it for centuries; it tried it last year to the infinite distress of commerce, and the result was total failure, for cholera reached all the principal seaports, and spread even to the capital. We would suggest, and would even strongly urge, under present circumstances, that the Privy Council or Board of Trade should appoint a Commission or Committee to inquire into the whole subject of quarantine, as it affects this country, our colonies, and foreign relations. A vast amount of valuable information could be obtained from the medical officers of the navy, army, great steam companies, and other sources. This Constantinople Conference has sent us to sea again, drifting towards mediævalism. But, as we have hinted, it was a congress in which foreign diplomatists have had their first say (and have been decorated for their services), whilst English physicians have had to stand behind.

THE CHOLERA WATER-THEORY.

The Registrar-General seems to be quite clear that cholera mortality is directly traceable to water and nothing but water. He compares this week the deaths per 10,000 in the South London districts during the last three epidemics, after noting the successive improvements in water supply, thus:

"The deaths by cholera to 10,000 inhabitants of South London were 120 in the year 1849, 87 in 1854, and 8 in the year 1866. From cholera and diarrhœa, the deaths out of the same numbers living were 142, 104, and 15. As the water improved, the deaths declined to this marvellous extent. Similar, if less striking, evidence of the effects of pure and impure waters is supplied by the experience of the other London companies."

We may usefully direct attention to the second edition, by Mr. J. B. Hutchins, of the Privy Council Office, of the Sanitary Act 1866. This Act is the charter of sanitary progress; Mr. Hutchins's capital commentary and digest explains both its powers and shortcomings. Medical men will find this Act their most potent friend in attacking preventable disease. This edition is printed by Knight and Sons, printers to the Board.

Dr. Brewer, of George Street, Hanover Square, who was Chairman of Mr. Mill's Committee, has accepted an invitation to become a Liberal candidate for Colchester. He addressed a meeting of the electors at the Public Hall on Wednesday evening. He is a warm advocate of liberal measures and local self-government.

Mr. Berkeley Hill, Assistant-Surgeon to University College Hospital, has been appointed Instructor in Bandaging and the Application of Surgical Apparatus. The vacancy in the office of Assistant-Surgeon, produced through the resignation of the office of Surgeon by Mr. Quain, has been filled by the appointment of Mr. Christopher Heath, lately Assistant-Surgeon at Westminster Hospital, who has also been appointed to succeed Mr. Marshall as Instructor in Practical Surgery, a department of teaching in which he has for some years past been well known and appreciated by gentlemen about to present themselves for the higher surgical examinations.

We are glad to be able to state that the prevalence of cholera in North Wales, to which we last week drew attention, has somewhat abated. In the Carnarvon Union, the one in which there was the greatest amount of the disease, the reported cases for the week before last were 271 and 11 deaths; last week, however, the number of fresh attacks fell to 120 and the number of deaths to 7. In Ruthin Union, there is also a decrease in the number of cases and deaths; as last week the numbers were 19 cases and 2 deaths.

Dr. Muller recommends mixing one part of vaccine matter with ten of glycerine. He says that this increases the activity as much as it enlarges the bulk of the matter at disposal. It may be preserved well in tubes.

Professor Sigmund relates a case in which ligature of voluminous vegetations of the labium minus caused severe pain, tetanus, and death, eight hours after the operation.

The Municipal Council of Lyons have resolved, says the *Gazette Médicale de Lyon*, to name a large *place* in the city as Place Gensoul, in honour of the celebrated surgeon of that name. Another street in Lyons is named De Jussieu, and another Pouteau. We commend the example to Sir John Thwaites.

Dr. Palasciano announces, in the *Gazetta Medica di Venezia*, that the "unification of Italy" has been followed by some important advantages to the medical body, spontaneously accorded in the new civil Italian code. The debts for medical services rendered within six months of the death of the patient will be a privileged claim; the fees of a medical man will be legally recoverable within a period of three years; finally, medical men, freed by the legislature from an unworthy suspicion which alone gave rise to such an exclusive regulation, will, like other citizens, be capable of inheriting all legacies bequeathed to them.

In the Report of the proceedings of the Medical Congress recently held at Bordeaux, Dr. Sorlets of Aire calls attention to the occurrence in pellagra of hemeralopia, quoting the various opinions as to its cause; viz., diminution of the red corpuscles of the blood, as in anæmia; stomach-derangement; œdema of the retina, or disorganisation or fatty change in the optic nerve; the use of bad rice; etc. M. Cunier has seen a family pellagrous and hemeralopic at the same time. Dr. Sorlets also called attention to a *neurose* of the eye, he observes, never before described in pellagra, in which the loss of vision is instantaneous and intermittent, lasting sometimes for two or three minutes only, attacking a man perhaps in the middle of his work, and passing off again after a few moments, without leaving any trace of discomfort behind.

A SYSTEM OF GOVERNMENT GRATUITIES TO PUBLIC VACCINATORS.

Public vaccinators throughout the country will be glad to hear that the rumour, to which we drew attention last week, as to the introduction of a system of gratuities to contractors for meritorious services, is correct, and that Government has determined to make grants of money, in the shape of awards, to those contractors whose vaccinations shall be found, on examination, to come up to such a standard of goodness as will favourably illustrate the performance of that portion of the parochial vaccination which falls to the lot of each union contractor.

The fees, which those gentlemen who contract for the public vaccination of an union are entitled to receive, with but few exceptions, are settled by the Compulsory Vaccination Act of 1853 (16 & 17 Vict., c. 100), and the smallness of their amount has long been a source of widespread discontent, and the subject of loud complaint. The fees which a contractor for public vaccination is entitled, under that Act, to charge, are as follows:—viz., for every person successfully vaccinated at the residence of the contractor, or within two miles therefrom by the nearest public road, a sum not less than one shilling and sixpence, and beyond that distance, a sum not less than two shillings and sixpence. It may, perhaps, be well to remark, that though the act says, that sums *not less* than the respective amounts stated above are to be paid, we know of but few cases in which the guardians have been found liberal enough to pay more than the minimum statutory fee. We are sorry to say, however, that in one or two instances we have heard of Boards of Guardians having an understanding with their vaccinators that they should only be paid the eighteenpenny fee (no matter how far the vaccinator had to go to perform the operation), and this, too, in contravention of the terms of the contract, which (if it have been approved by the Poor-law Board, as it should be) stipulates that the contractor shall be paid as the law directs.

This system of cheese-paring and false economy on the part of parsimonious boards, has led to an immense amount of what we may call spurious vaccination throughout the country,—vaccination which may, perhaps, be said to comply with the strict letter of the law, but which utterly fails to bestow upon the recipient that protection against the direful effects of small-pox which efficient vaccination has invariably been found to give; and the consequence of this is, that Jenner's admirable and beneficent discovery is not only robbed of its fruits, but is also looked upon by many as fallacious, and devoid of that merit which is unquestionably its due.

It is, we suppose, with the view of rescuing vaccination from the odium and discredit which this practice of negligent performance has to some extent brought upon it, that the government has determined to initiate a system of awards to those contractors who meritoriously perform the duties which they undertake. Such a scheme was introduced into the vaccination bill which was before Parliament last session, and which, in all probability, would have become law had it not been for the change of ministry which took place. For, just as the bill was upon the eve of passing out of the Lower House for consideration in the House of Lords, some pressure was brought to bear upon the new ministry by a small dissatisfied section of the community, and in consequence the bill was not proceeded with, and a very useful measure was lost to the public.

Until the year 1859, little or nothing would appear to have been done with the view of increasing the efficiency of the public vaccination of the country. There was no supervision exercised over either the quantity or the quality of the vaccination performed; there was no guarantee that the vaccinator really understood this particular branch of his profession; proceedings were very rarely if ever taken; and, in fact, beyond the guardians dividing their unions into districts, and entering into contracts with medical men, little was done to bring about the desire of the legislature, which was, as the act says, that the parent of every child born in England or Wales after the 1st of August, 1853, should, within three months (or under certain circumstances, within four months) of its birth, have the child vaccinated by a legally qualified medical practitioner.

From the year 1855 to the year 1859, there was a gradual falling off in the percentage of the infantine vaccinations (*i. e.*, vaccinations under one year of age), as compared with the births for the same period. For in the year 1855, the percentage of infantine vaccinations was 55, while in 1856 it was 53; in 1857 and 1858 it was 50, and in 1859 it was 49.

This fact (which shows very plainly to what extent the statute was disobeyed), coupled with the fact that small-pox was very prevalent and fatal throughout the country, led to the suspicion that, in addition to the vaccination being much neglected, it was, also, of a very inferior quality; for how otherwise could such a frightful mortality, in 1858, as 6,400 deaths from that disease (which is, *par excellence*, a preventible disease) be accounted for?

It was in the face of this state of things that the Privy Council, in virtue of the powers vested in it by the Public Health Act, 1858, determined to inquire into the state of public vaccination in England and Wales; and with the results of this inquiry we have been made acquainted in the annual reports of that department of the government. In this inquiry, a state of things, as far as vaccination is concerned, was brought to light that tended to show the almost utter indifference with which guardians looked upon the carrying into effect the provisions of the Vaccination Act, 1853.

This, in general terms, is the report of the state of the public vaccination of the country; viz., "that the intentions of the legislature in this respect are but very imperfectly fulfilled; that the public defences against small-pox are in great part insufficient and delusive."*

But to show the necessity which exists for something to be done to stimulate contractors to a more faithful performance of the duties which they undertake, and to show the extent to which the public vaccination is neglected in some districts, we will give the following passage from the *Fifth Report of the Medical Officer of the Privy Council*, where, in speaking of the neglect of vaccination, he says, "there are whole unions where there is no reason to suppose that any important number of vaccinations is performed by private practitioners, and where yet the number of vaccinations performed by the public vaccinators does not equal a third of the number of births,—unions, even, where the public vaccinators' vaccinations are as few as 19, 18, 17, 12, and 7 per cent. in proportion to each hundred of births; and there are instances of districts remaining for long periods, even, in one instance, as long as three years, without a single public vaccination being performed."

In corroboration of the above statement of the medical officer of the Privy Council, we read in Dr. Stevens's *Report* of his inspections in 1861, that he

* *Fifth Report of Medical Officers of the Privy Council*, p. 6.

found the average of the infantine vaccinations in the Warwick Union, for the three years ended Sept. 30, 1861, to be less than 30 per cent. of the registered births; in the Blaby Union, less than 29 per cent.; in the Cambridge Union, less than 21 per cent.; in the Ely and Evesham Unions, less than 20 per cent.; and in the Ashbourne Union, less than 19 per cent. of the registered births. Dr. Seaton, in his *Report* for the same period, also records cases of neglect. Thus, in the Carnarvon Union, the percentage of vaccination for the year 1861, he states to be 27; in the Dolgelly and Haverfordwest Unions, 26; in the Llanfyllin Union, 23; in the Festiniog Union, 19; in the Aberystwith Union, 12; and in the Bala Union, 7.

In France, the system of giving awards for results of vaccination has, we believe, been in force for some time; but in this country, such a practice has not been adopted before. Still the system of giving awards from public money is not a new one; for all are aware that large sums, in the shape of gratuities of greater or less amount, according to the merits of each particular case, are annually expended as rewards to the masters of our numerous national schools, and this expenditure has been very beneficial in its results; for it has tended very greatly to improve the tone of the national education of the country. That similar results will proceed from this new application of the system, we firmly believe; and we trust that they will be such as to justify the government in changing what must be at present but an experimental and temporary measure, into a successful and permanent institution.

From the remarks which we have made on the manner in which the public vaccinators of the country are remunerated for the duties which they have to perform, it must not be inferred that we hold with the doctrine that a man is justified in neglecting his work because he does not consider himself sufficiently paid for what he has to do; for such a principle cannot for a single moment be upheld, much less could such a course of action find any apologists in the case of the contractors for vaccination. They, as a class, really have no ground of complaint. They undertake to do certain things for a certain remuneration; and so long as the one contracting party fulfils the terms of the contract, by paying the price stipulated for the work, the other contracting party is bound, both morally and legally, to honestly fulfil his portion of the contract.

The system of giving awards for results will, we have no doubt, go a great way to improve public vaccination throughout the country, and will induce a more zealous performance, by contractors, of the duties which they undertake. And not the least of the benefits which we may hope to reap from this expenditure of the public money, will be that at no very distant date the mortality from small-pox will, in all probability, be reduced to an infinitesimal amount, with the ultimate prospect of its total extinction in this country.

Royal College of Surgeons. Of the 2,456 members of the British Medical Association, it appears that 376 are Fellows of Royal College of Surgeons, viz., 105, by examination, and 271 by election. At the last annual election of Fellows into the Council of the Royal College of Surgeons, 41 Fellows by examination, being members of the Association, recorded their votes, and 51 by election.—A preliminary examination in arts, etc., will take place at this institution on Tuesday the 18th inst., and following days. It is stated that nearly 150 candidates have entered their names for this ordeal.

REORGANISATION OF THE INDIAN MEDICAL SERVICE.

The further arrangements for organisation of the Administrative Staff of the British and Indian Medical Services in India have been formally promulgated, and run as follows.

British Medical Service. The Staff of the Medical Department of the British Forces will be composed as follows.

Bengal: 1 Inspector-General; 6 Deputy Inspectors-General; and 2 Staff Surgeons-Major.

Madras: 1 Inspector-General; 3 Deputy Inspectors-General; 2 Staff Surgeons-Major.

Bombay: 1 Inspector-General; 3 Deputy Inspectors-General; 1 Staff Surgeon-Major.

The Staff of the Inspector-General in Bengal will consist, as at present, of a Secretary and a Statistical Officer; and that of the Inspectors-General in the Madras and Bombay Presidencies, of an Assistant-Surgeon as Secretary and Statistical Officer in one.

The Indian Medical Department will be composed as follows.

Bengal: 1 Inspector-General; and 11 Deputy Inspectors-General.

Madras: 1 Inspector-General; and 6 Deputy Inspectors-General.

Bombay: 1 Inspector-General; and 4 Deputy Inspectors-General.

The Staff of the Inspector-General of the Indian Medical Department will consist in Bengal, as at present, of a Secretary and a Statistical Officer; and in the Madras and Bombay Presidencies, of a Medical Officer as Secretary and Statistical Officer in one.

The Inspectors-General of both British and Indian Medical Services in Bengal will receive a consolidated salary of 2,700 rupees *per mensem;* and those in the Madras and Bombay Presidencies, 2,500 rupees *per mensem;* the Deputy Inspectors-General in all the Presidencies, the existing consolidated salary of 1,800 rupees *per mensem.*

The Secretaries of the Inspector-General and the Statistical Officers in Bengal will receive a staff salary of 700 and 600 rupees *per mensem* respectively, in addition to the unemployed scale of pay laid down in Paragraph 29 of G. G. O. of 23 Dec., 1864.

Although, from the changes that have recently been introduced affecting the pay, pension, and promotion of the Indian Medical Service, it has, in all its grades, derived considerable benefit, yet, with a view to rendering the effect of the reduction now proposed in the number of the Administrative Staff as little as possible prejudicial to the interests of the officers more immediately concerned, H. M. Government has resolved that the officers now holding the position of Inspector-General and Deputy Inspector-General of the Indian Service shall be permitted, to the extent of the proposed reduction, to retire when they think proper, upon the rate of pension severally allotted to those grades in Paragraphs 36 and 37 of G. G. O. dated 23 Dec., 1864, without reference to the time served in those grades. Vacancies caused by such retirements, or by ordinary casualties subsequently to the 1st October 1866, the date of the receipt of the instructions of Her Majesty's Government hereby notified, will be allowed to lapse until the establishment is brought to the strength now laid down.

Cholera in Orissa. The cholera and dysentery which have resulted from starvation in Orissa have carried off more than actual famine.

THE CASE OF MR. STATHAM.

At a public meeting of members of the medical and dental professions held on the 11th instant, Sir Wm. Fergusson, Bart., presided, and in introducing the proceedings, said,—If I am not mistaken, there is a growing feeling with the profession that it would be extremely desirable if we could, by any reasonable and honourable means, put an end to such attacks upon members of our profession as this recent one has been in our estimation. But the subject is exceedingly difficult; for, I think, if it were known in certain quarters that there was always a fund at hand to defray such legal expenses, there would, from the quarters to which I allude, be such frequent attacks in order to get hold of some of this money, that, instead of repressing that which we are endeavouring to repress by our meeting to-day, such subscriptions would, in all probability, rather encourage these attacks. With regard to this individual case, it seems to me one of particular hardship; for when we think of what, in our experience, we have seen done at our public institutions on behalf of those who apply, we cannot but feel that in this special instance there was, so to say, an excess of kindness, as it were, on the part of Mr. Statham towards this patient. No professional man of any experience, on hearing the story of this case, could for an instant think otherwise than that Mr. Statham had acted in every respect in accordance with the high position which we all know him to hold, and with that consideration which a professional man associated with a public institution ought to display towards his patients. He continued: I cannot, in my position here, let the opportunity pass by without making just some slight reference to what I have occasionally seen, in the course of my professional experience, with regard to the subject of chloroform and its administration. First of all, every one of experience knows that, in order to administer chloroform, a much longer period is required than the general public imagines. It is an idea very prevalent that merely holding or wafting a handkerchief with chloroform upon it before a person's face is sufficient to render the individual insensible—possibly not so insensible that he may undergo a surgical operation, yet so insensible that he may forget himself for a great number of hours. The sooner it is known and publicly stated that such a thing cannot be, so much the better. The late Lord Chancellor Campbell believed that such a thing might be done in the public streets as that one person might go up to another, wave in his face a handkerchief with chloroform upon it, and render him insensible immediately. So impressed was Lord Campbell with the truth of this, and with the danger of it, that he actually formed the intention to bring in some legal enactment to endeavour to prevent such occurrence. The late Dr. Snow, knowing that such a step was likely to bring ridicule upon this important subject of anæsthesia, actually took the trouble to write to Lord Campbell, to let him know that he was labouring under the greatest imaginable mistake. It is not, perhaps, to be wondered at that one not connected with our profession should fall into such a mistake; but I regret very much to say that gentlemen in our profession sometimes lean towards a mistake of that kind; and I regret, in particular, gentlemen who have had comparatively little experience take upon themselves to give opinions on this subject, for which they ought to refer to other men.

It it a common thing for a patient to come up from some distant part of the country, in whose case, it may be, there is involved an important question of operation. The patient says that Mr. ——, or Dr. ——, had given a most positive opinion that chloroform was not to be administered; but you find the patient in a state just as healthy for the taking of chloroform as the many others that you see in the course of a few years. We all remember what happened in the early days of anæsthesia. At the period when anæsthesia was exercising its influence, it often happened that violent struggles took place, and often under such circumstances the administration of the chloroform was arrested, even by our greatest physiologists. It was some time before we all became familiar with the fact that at that particular time it was only needful just to be cautious to administer a little more chloroform, when this dangerous condition would pass away. We can all in this room, I believe, estimate what may be the value of a man's opinion about chloroform, who has seen only some eight or ten cases in the course of his experienc. That is a kind of experience that ought not to have been brought before a court at all. If you could imagine a court held in some obscure district, where the evidence of more experienced men could not be readily procured, the thing must then take its chance; but in a place like London, where men could be brought forward who could speak to the influence of chloroform from an experience of hundreds and thousands of cases, it seems to me absurd that such evidence should not have had any weight; or if it had any weight at all, I am much afraid that the other kind of evidence that I have described had just sufficient weight to cause wavering. With these observations, then, gentlemen, I shall call upon the friends around me to lay before you what has been the result of the labours of the Committee; and I am delighted to know, as I dare say you will be, that the results which have been arrived at are of the most complimentary character to Mr. Statham, in whose honour this meeting is held. (*Loud applause.*)

Mr. Lawson moved that the Report of the Executive Committee be received and adopted.

Mr. Ibbetson seconded the motion, and remarked that charity begins at home; and if we find that in the exercise of charity we ourselves are likely to get, instead of gratitude, such a visitation as that which unfortunately has fallen to the lot of Mr. Statham, of course we shall have to be extremely cautious in exercising our benevolence.

Dr. Richardson said that three or four gentlemen concerned in this matter, as well as himself, came to the conclusion that these trials might possibly be stopped by making such a provision in the law of the land as this;—that before any prosecution of thie kind should be set up, the defendant should have the right to require that the costs on both sides should be first paid into court; and he had seen since that all the law journals, without exception, took the same view of the case.

It was then unanimously resolved—

"That this meeting, having taken into full consideration the evidence adduced at the trial of Absolon *v.* Statham, unanimously agrees that the professional treatment adopted by Mr. Statham, in the case of the plaintiff Absolon, was in every particular sound, skilful, humane, and beyond reproach; that the meeting warmly sympathises with Mr. Statham for the anxiety and expense to which he has been subjected by an unjust and groundless prosecution, and assures him of its entire and unabated confidence in his practical skill, professional integrity, and honour. The meeting would add that, but for Mr. Statham's own objection to such a course, it would gladly have defrayed the legal expenses to which he has been subjected."

It was further resolved, that a copy of this resolution be engrossed on vellum, and presented to Mr. Statham.

A vote of thanks to the chairman was carried, on the proposition of Dr. Anstie.

Mr. Erasmus Wilson moved, and Dr. Richardson seconded, a votes of thanks to Mr. C. J. Fox, the hon. secretary, which was unanimously carried.

THE CASE OF CALEB SHERAR WILLS, ASSISTANT-SURGEON IN THE ARMY.

We referred lately to the fact that Mr. Wills, after conducting for a period a branch business in connexion with Hunter in Edinburgh, had been readmitted into the staff of the Army Medical Service. We would beg to call the attention of the Commander-in-Chief and the Director-General of the Department to the subjoined letter, which explains some of the mysteries of the branch. The original document is at their service. We gather from the *Army List* that C. S. Wills is serving on the staff at the Bahamas, and that his appointment dates 9th March, 1866. This was after his connexion with Hunter had been published in open court.

"3, Melville Street, Edinburgh, Nov. 1865.

"Dear Sir,—The reason there is no formal prescription given in my book of letters is, that the medicines I use have to be *specially* prepared, and *cannot be procured at the chemists'* in the form I find it necessary to give them in order that they may have the greatest possible effect upon the diseased lungs. As you have read my little book, and express your opinion in favour of the system I advocate, I have only to state that, if your friend is placed under my care, I shall do all that lays in my power for him. *It is not necessary that he should consult me personally;* for by his carefully filling up the enclosed form, and returning it to me, I shall be in possession of the particulars of his case, and can send him *every requisite* for his treatment by train. From your statements, there can be no doubt as to your friend's lung or lungs being seriously engaged, and just as little doubt that, so long as he simply doses his stomach with medicines and leaves the lungs unaided, he cannot expect to be relieved, but, on the contrary, the disease must go on progressing daily. My fee is £6:6 for a course of treatment of one month's duration. This includes an inhaling instrument (you can get the proper instrument *only* at *Maw and Son's*, London, not in Glasgow), all medicines and advice for this period. Patients in the country are expected to report the progress of their case under treatment by writing at least once a week, when further instructions or medicines are given, if necessary.

"Yours truly, C. S. Wills."

Thoroughly Disinfected. According to the *New York Journal of Medicine*, Dr. Charles Brockhausen, assistant physician at the City Hospital, St. Louis, having finished his rounds through the hospital wards one day recently, was about to proceed to the cholera tents, but before doing so concluded to take a glass of what he termed metaphorically "disinfectant," but what in the vulgar is known as brandy. There happened to be on his shelf two demijohns, very similar in appearance, one of which contained brandy, while in the other was a disinfectant known as chloride of zinc. The doctor hastily mixed him a potation and swallowed it at a draught. His sensations after taking it were peculiar. He perceived at once that he had taken his disinfectant out of the wrong bottle. He communicated without loss of time with his two brother Esculapians, who, by the timely administration of antidotes, neutralised the action of the poison, and saved his life. Dr. Brockhausen has no fear of catching the cholera for some to come. He deems himself thoroughly disinfected.

Association Intelligence.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT MEDICAL MEETINGS.

The twenty-second meeting was held at the Fountain Hotel, Canterbury, on November 29th, at 3 P.M.

Communications. 1. Dr. Kersey brought forward three cases of Empyema, one death and two recoveries. These cases occurred after symptoms of pleuropneumonia, during which the usual treatment had been adopted, and blisters and iodine freely applied locally. In both cases of recovery, there was a tendency to pointing, as of an abscess; and the pus was evacuated by a lancet, from which time the patients gradually recovered. In the fatal case, there was no tendency to point, and the pus was let out by the trochar. After the operation, the appetite failed, exhaustion ensued, and death occurred on the tenth day. Trousseau's opinion, that "right-sided pleurisy is generally of tubercular origin," was quoted; and Thorp's, that "openings for empyema should not be made depending, but rather at the upper surface of the pus, to allow of the free exit of septic gases, should putrefactive changes take place, and thus prevent their being absorbed by the lining membrane of the cavity, which would excite inflammation, and contaminate the blood."

2. Mr. Reid made some observations on the advantages to be derived from altering the position of the head in certain cases of Face-presentation, and adduced some cases illustrating its good effects.

3. Mr. Reid also exhibited the Endoscope, and made some interesting remarks on its utility.

3. Mr. Rigden read "a comparative review of Small-pox, as observed in the Small-pox Hospital, and in the patients' own residences." (See page 662.)

Signs of Cholera. Dr. Hughes, of Charlton, informs the Registrar-General that in the recent outbreak of cholera at Charlton, two out of the four fatal attacks were not preceded by any premonitory symptoms whatever. He observes, also, "if there is one sign more pathognomonic than another, it is the cold tongue; I always feel it, and could diagnose a case in the dark; there are exceptions to that sign, certainly as frequent as the diarrhœa."

Attempt to Murder a Medical Man. Mr. Charles le Vescomte Godfray, medical officer of the General Hospital at Jersey, was fired at in the middle of the day, by a man named Thomas Roberts. The contents entered the doctor's left shoulder, and he fell on his knees, but rose instantly, seized the would-be murderer, and secured him with assistance. At the station-house the prisoner said he had long entertained a feeling of revenge against Dr. Godfray, and he was sorry he had not killed him on the spot. Dr. Godfray is progressing gradually. Several large duck-shot have been removed from his shoulder. The prisoner Roberts is about 50 years of age. Two or three years ago he was an inmate of the General Hospital, suffering from a bad leg, which was attended to by Dr. Godfray. Eventually Roberts went to England, where, his leg becoming worse, he had it amputated. He returned to Jersey about six months ago, and made no secret of his antipathy to the doctor, whom he blamed as the cause of his losing his leg, alleging that he was not properly attended to by him. He was formerly a sailor, but latterly has been employed as a labourer.

Reports of Societies.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, DECEMBER 3RD, 1866.

ROBERT BARNES, M.D., President, in the Chair.

THE following gentlemen were elected Fellows of the Society: Drs. Thomas Brown, C. Lovegrove, W. J. Pilcher, V. Saboia; and Mr. W. H. Vipan.

Specimens, etc. Dr. GREENHALGH showed a modification of his Metrotome, and also a new Intra-uterine Stem.

Dr. GRAILY HEWITT showed a specimen of Double Placenta, which he had received from Mr. Richardson of Battersea.

Mr. GEORGE ROPER gave the particulars of a remarkable case of Placenta Prævia.

Dr. NEWMAN of Stamford read a case of Cæsarean Section: Recovery of Mother: Child not viable.

Dr. HENRY MADGE read a paper on the Anatomical Relations between the Mother and Fœtus.

ON EXCISION OF THE CLITORIS AS A CURE FOR HYSTERIA, ETC. BY T. HAWKES TANNER, M.D.

After some introductory remarks, the author gave his reasons for believing that the operation of clitoridectomy will not prove of permanent value as a remedy for the cure of hysteria, epilepsy, insanity, etc. He first showed that extirpation of the clitoris in the female is analogous to circumcision in the male, though the latter has advantages not possessed by the former. But, as castration is not curative of epilepsy and insanity, even where these diseases are supposed to be dependent on improper practices, so, *à fortiori*, circumcision is perfectly useless in this respect. Secondly, he attempted to prove that, even if it be true that many of these diseases in women are due to "peripheral excitement of the pudic nerve", excision of the clitoris will not be curative, because by it several branches of this nerve are left uninjured. By tracing the distribution of these branches, he showed that in clitoridectomy, however extensively performed, the trunk of the pudic nerve cannot be removed or injured, but only that portion of it which corresponds to the dorsal nerve of the penis in the male, and which supplies the frænum and prepuce generally. Thirdly, indirect evidence was brought forward to show that, although certain nations have practised excision of the clitoris for many centuries, yet no evidence has been obtained of any useful results. Under this head, particular reference was made to some remarks on the circumcision of females in Western Africa by the late Mr. Daniell. According to this gentleman, the excisive process is not confined to one particular part, but is more or less varied, in accordance with the usages of the different countries where it is resorted to. The operation consists either of—1, simple excision of the clitoris; 2, excision of the nymphæ; 3, excision of both nymphæ and clitoris; 4, excision of a portion of the labia pudendi, with either or all of the preceding structures. The history of the operation is involved in obscurity; but Mr. Daniell surmised that it is one of the many singular customs faithfully preserved by the African races through the lapse of centuries, having probably been originally inculcated as one of those gloomy rites which the female proselyte had to undergo prior to her initiation into certain mythological creeds. When in Old Calabar, Mr. Daniell had the opportunity of witnessing the operation, which is performed there, as elsewhere, by aged females. The girl having been placed on the knees of a woman, with the legs apart, the clitoris was seized forceps-like by two pieces of bamboo or palm-sticks, and, being gently drawn forth, was severed with a sharp razor. The rather copious hæmorrhage was allowed to exhaust itself; the parts were bathed with cold water; the body dotted with some fetish preparation, to avert malign influences; and in two or three days the invalid was allowed to resume her usual occupations. That the operation does not prevent licentious and debased conduct seems certain; for Mr. Daniell asserts that "social life in most of the pagan towns of Western Africa is darkened by scenes of the grossest demoralisation. . . . An illicit and promiscuous sexual intercouse is constantly carried on by nearly all classes of slave subjects, who, not fettered by any moral obligations, and solely intent on the gratification of their passions, give them an unrestrained rein long before the age of puberty." In girls of high birth who have been guilty of prostitution, "another and more inhuman barbarity" is perpetrated, consisting of the introduction into the vagina of the unripe pods of the *capsicum fructescens*, or bird-pepper, beaten into a soft mass. The active inflammation which results produces severe pain, and often a permanent obliteration of the vaginal canal. Fourthly, Dr. Tanner detailed three cases in which he had excised the clitoris, and had been disappointed in the result; as well as the histories of two women who had consulted him, and who were operated on at the London Surgical Home without their deriving any benefit. In conclusion, the author stated that he had brought forward the subject of this operation for consideration more as a learner than as a teacher. It had been published to the medical world that very many gentlemen had adopted the operation of clitoridectomy in proper cases; and, amongst other names, those of Sir James Simpson, Dr. Beatty, Sir John Fife, Dr. Savage, and Dr. Routh, were mentioned as having done so. Was it not very desirable that these physicians should detail the results of their experience; and especially that they should communicate to the profession any information they possess as to the permanency of the cures which have been effected?

Dr. WYNN WILLIAMS said that, as no one appeared anxious to commence the discussion on this very interesting paper, he would do so by first relating the particulars of a case of a lady who had been under his care both before and after she had undergone the operation of clitoridectomy in 1863. She had been an occasional patient of his several years previous to this, and had been suffering from paralysis of the lower extremities, which he believed to have been caused by an injury to the lower dorsal vertebræ from a fall down some cellar-steps. In the year 1863, she having come to reside in London, came again under his care with her symptoms of paralysis very much aggravated; she could extend her limbs, which she did with a jerk; but appeared to be unable to put them to the ground in the place she wished. On his visiting her one day, he was informed she was going to be operated on. Being satisfied that it was not a case for surgical interference, he attempted, unavailingly, to dissuade her from this. He did not see or hear from her again for rather more than two years, when she informed him that she had been operated upon, but had derived no benefit from the operation, but, on the contrary, had gradually become worse and worse. He now found her with both limbs drawn upon the

abdomen, with the left under the right, so that the hand could not be passed between the thigh and the abdomen. There was also a sloughing sore in the groin, produced by pressure of the two opposing surfaces of integument. Dr. Williams was enabled, under the influence of chloroform, to forcibly extend the limbs; but it was with the greatest difficulty that he could prevent them from returning to their old position. Ultimately, anasarca of the integuments of the lower extremities and body took place, and formed him (being also confirmed by her sister) that sloughing; and she died of exhaustion. His patient inshe had not been in the habit of abusing herself; and that she was not at all aware what operation was going to be performed, or she would not have submitted to anything of the kind. This, of course, was the assertion of the patient, and must be taken for what it was worth. Dr. Williams stated he did not believe that clitoridectomy is a justifiable operation for the cure of hysteria, epilepsy, etc. It is true, we are ordered, if a member offend us, to cut it off; and he thought that the clitoris was not the offending member, but the arms and hands. These, then, were the members that should be cut off. Of course, he did not seriously recommend the amputation of the arms; but there could be no reason why they should not be put under restraint by being fastened behind the back. Indeed, it appeared that something of this kind was done after the excision of the clitoris. He had witnessed, on two or three occasions, at the Surgical Home, Mr. Baker Brown excise the clitoris; and was much struck with the fact, as pointed out by Mr. Brown, that in all these cases there existed small polypi in the rectum. He suggested the removal of the polypi in the first instance; remarking, that he believed these were the cause of the irritation, as we know worms to be when located in the rectum. But no: polypi and clitoris must be, and were, removed at the same time. In conclusion, he believed that cases of epilepsy and hysteria, curable after clitoridectomy, are curable without it; and cases not curable by other means are not curable by clitoridectomy.

Dr. Routh was surprised to hear his name mentioned as authorising the frequent use of clitoridectomy. Indeed, he might say that at the Samaritan Hospital it was not adopted, not because some of the staff did not think well of it in some cases, but because others held extreme opinions on the subject, and for the sake of peace it was very rarely practised. He did not know that Dr. Savage had performed the operation more than once in the Hospital; and altogether, including a case of elephantiasis clitoridis operated on by Dr. Rogers that day, it had been done three times. He (Dr. Routh) had, however, sought to obtain information on the subject; and, through the kindness of Mr. Brown, had seen several of his cases at the Surgical Home, and watched them closely. He would now speak of two he had seen there, which made a great impression upon him. One was that of an idiot girl, who, after the operation, gradually improved so as to be able to read the Bible and converse, and who, he understood, was now in service. The other was that of a lady, who used to have seven apoplectic fits daily, and who, after the operation, extending over a period of several weeks, had ceased to have them altogether. We could not shut our eyes to the fact that cases were occasionally brought to us where every preventive effort had been made and failed; and others in which treatment had been persisted in for years (two or three years), specially by caustics and blisters, beside internal drugs, and failed. These were the cases in which he thought this operation—which he, with Dr. Tanner, looked upon, after all, as a kind of extended circumcision—might be tried. Suppose it failed, was it necessarily a wrong step to have taken? We might argue with equal justice against the future use of caustics and blisters. Want of success, particularly at the beginning of trials, was common both in medicine and surgery. Doubtless, clitoridectomy was sometimes unsuccessful. Sometimes patients suffering from irritation in one part supplied by the pudic nerve, if cured in such part, and not desirous to be cured, and not morally controlled afterwards, would resume habits which would create irritation in other parts supplied by the same nerve. There were three parts especially in which this surgical irritation would be observed. 1, in the clitoris, most frequently; 2, in the fourchette; 3, in about the anus—a rare affection, and one, he trusted, more rare even than he thought. The proper operation would be to cut the nerve nearer its origin; but this, he feared, was a dangerous proceeding. Still it was philosophical in the case of clitoridectomy, that, if a patient were morally controlled also, the operation might turn out successful, not only as a salutary lesson, but by affording a break to a long continued injurious practice, which might be prolonged, and so bring about a permanent cure. He denied, however, that depravity was at the bottom of these practices. Religious, good, and honourable women, had learnt it without knowing it had any evil tendency or principle. Dr. Savage's case occurred in such a woman about 76. Mere defæcation induced the clitoric orgasm. Clitoridectomy cured her. This case was pathologically interesting in another point of view; because, though the orgasm was excited at a particular point to the organ affected, the removal of the latter resulted in a cure. Stating firmly his belief that Mr. Brown had practised his operations in an honest inquiring spirit, and on a scientific basis, he yet thought that, until statistics were produced to prove the contrary, clitoridectomy should not be practised until all other means, prosecuted over a long period, had failed, and never except after consultation with a brother practitioner, wherever practicable. It was a chance of recovery a patient should have the option to try, all circumstances being freely explained to her. This was not only the fair and honest straightforward course to pursue; it was also the philosophical course.

Dr. Tyler Smith said that, as the subject had been thrown into the arena of public discussion, he felt bound to relate his experience and express his opinion in the matter. In the first place, he must express his surprise that Dr. Tanner and Dr. Routh had spoken of clitoridectomy as analogous to circumcision in the male. The fact was that the prepuce or foreskin was a very unimportant structure as compared with the clitoris. As regarded sensation, the clitoris was the analogue of the male penis, and was the organ of sexual sensibility in the female. It had happened to him to have at one time in St. Mary's Hospital two patients in whom the clitoris had been removed at the London Surgical Home. One was a married woman, and the other a very respectable single person. Both of them declared they had not practised self-abuse. They were not in any way benefited by the operation. They further stated that the operation was performed without their being at all aware of its real nature. On one occasion, he was consulted by an unmarried lady of rank upon whom clitoridectomy had been performed, and who declared she had only consented to the operation, because she was assured that, unless she did so, she would become insane. This patient confessed to the existence of great sexual irritation; but she stated that the operation had not been of any service in this or any other respect. In another instance, he

had been asked to see a young unmarried lady, and give an opinion upon her case and its treatment. He found a number of small fissures round the anus, producing much irritation, which extended forwards to the vulva. He could detect no other sign of disease, and advised that the sphincter should be forcibly dilated so as to separate the cracks. He was then asked if he did not think some further operation imperatively required; and, on replying in the negative, was told that Mr. Brown had seen her and advised the removal of the clitoris; she also feared mental disease, though there was then no sign of it, and the patient strongly maintained that she had not excited herself beyond scratching to relieve the itching. He protested against the removal of the clitoris in this case; but, as he saw no more of the patient, it was probably performed. Such were some of the cases he had met with, and which had led him to the conclusion that the removal of the clitoris in cases of hysteria and self-abuse could not be justified. We might as well think of removing the penis in cases of masturbation in the male.

Dr. Greenhalgh considered that the frequency and evil effects of self-abuse in the female had been greatly exaggerated. He did not believe that it led to idiocy and epilepsy, as had been assumed; that girls suffering from these affections were occasionally addicted to such habits, he did not deny. He did not believe that the clitoris or nymphæ had anything to do with the habit; but that it must be rather referred to a peculiar mental condition requiring moral control. As, however, the value of clitoridectomy must be determined by its practical results, he would briefly narrate some cases which had come under his notice. The first was that of a single lady, about 42 years of age, who had been addicted to this habit for upwards of seven years, operated upon by Mr. Brown on June 5th, 1865. In a note, dated January 6th, 1866, this lady states: "The irritation has returned with its wonted force up the front and back passages. I feel grieved, having gone through so much, that there are no better results." The second case was that of S. W., aged 27, single, admitted into St. Bartholomew's Hospital under his care on July 14th, 1866. She stated that, four years ago, she was admitted into the Surgical Home for a slight periodic discharge of blood from the vagina, with pains in the lower abdomen and about the hips, for which her clitoris and nymphæ were cut out, without her knowledge by Mr. Isaac B. Brown. This operation was followed, in three months, by an abscess in the bowel, which burst and discharged matter for three weeks; since which she had been worse in every respect, suffering, in addition, from difficulty and pain in micturition and intolerable irritation, for the relief of which she "rubs the parts." (Clinical clerk's notes.) This poor girl assured Dr. Greenhalgh and others that she had never had any irritation of the vulva, nor rubbed the parts prior to the operation. A polypus was removed from her rectum while in the hospital; and she was discharged relieved. He referred to another case admitted into St. Bartholomew's Hospital of aggravated hysteria, who had been considerably worse since the operation, with the nature of which she was wholly unacquainted. She expressed great alarm when informed that the parts had been mutilated. Dr. Greenhalgh regretted that he had not taken notes of many other cases, about which he had been informed by many trustworthy practitioners, operated upon by the same surgeon, alike unsuccessful specimens in their results. He did not know of one case in which self-abuse, hysteria, idiocy, or epilepsy, had been permanently cured by clitoridectomy. He had, therefore, come to the following conclusions: that the operation was based upon a false theory as to the cause of these conditions; that, although self-abuse was temporarily checked by loss of blood, soreness of the parts, and moral control, ultimately the irritation and the habit recurred with increased intensity; and that, in one case at least, it actually produced the irritation, and led to the habit it was said to cure. He, consequently, regarded clitoridectomy as an useless, pernicious, and most unjustifiable operation for the purposes for which it has been recommended by Mr. Brown.

Dr. Aveling said that, as it was proper to commence every subject with its history, he would take the liberty of opening the discussion by expressing his surprise that the history of clitoridectomy had not been more fully gone into. It was not a new operation, and he could not help thinking a large amount of useful practical information might be gathered from the numerous authors who had written upon the subject. It was remarkable also, that no reference had been made to, and no explanation given of, the singular fact that, for eighteen hundred years, hysteria was treated by excitation of the clitoris. From the time of Galen up to the last century, this method of treatment was constantly recommended.

Mr. Baker Brown, having thanked Dr. Tanner for the kindly tone and scientific manner in which he had treated the subject, proceeded to review the various cases brought forward, and the remarks which *pro* and *con.* had been made upon his practice. Dr. Tanner's first case was unsatisfactory, because the inference was, that restraint and moral influence had not been brought to bear upon the operation. His second must be considered, as, at least in some degree, satisfactory, since the patient, from having been formerly bedridden, was, after the operation, able, for the first time in her life, to pursue the calling for which she had been educated, namely, that of a governess. Mr. Brown declined to deal with cases which came to Dr. Tanner, having been previously under his care, because all must acknowledge that the history given by patients of their treatment, previous to coming to us, can never be relied upon, and least of all in this class of cases, where there is not always an honest desire to be cured. These remarks would apply to Dr. Wynn Williams's case; and, supposing all that Dr. Williams had stated to be true, the operator had only done what many others had done, made a wrong diagnosis. With reference to polypi and fissures, Mr. Brown said, that these were most frequently coexistent with masturbation, that he had frequently cured patients of hysterical symptoms, by treatment of the bowels alone, but that, by experience, he knew now when to consider masturbation as the primary cause of disease, and when to treat both at the same time. Having thanked Dr. Routh for his speech, Mr. Brown passed on to the speech of Dr. Tyler Smith, and protested in the strongest terms against his remarks. Mr. Brown then argued against the soundness of Dr. Tyler Smith's physiology in considering that clitoridectomy unsexes a woman, and entered into a detailed account of the cases Dr. Smith had mentioned, with a view of showing that, instead of being no better, they were now quite well. Mr. Brown begged to tell Dr. Greenhalgh that his patient was so much better that she expressed herself as most grateful for the treatment she had received, and he gave an extract from a letter lately received from her, to prove it; and so far from the second case being no better, he had only left her that very day completely recovered from the operation, and with no return up to the present time of her distressing symptoms, to which Dr. Hawksley

and Dr. Harling could both testify. This patient had been under Mr. Trustram, of Tunbridge Wells, for five months, and that gentleman had recommended her to undergo the very operation which some months later he stigmatised in the strongest language. In answer to Dr. Head, Mr. Brown said that his operation did not alter sexual excitement on marriage, and that not only had many of his patients borne children after clitoridectomy, but he had now five cases in which, from having disliked marital intercourse, and preferred self-abuse, the state of things had been entirely changed after his operation. Mr. Brown concluded by relating three cases, as types of several under his care. 1. One of paralysis of the lower extremities, the girl having been unable to walk since her earliest recollection. In three weeks after operation she walked unaided across the ward, and lately left quite well. 2. One of incontinence of urine, it constantly dribbling away, in April, aged 15, sent from Salisbury. She left six weeks after operation, able to hold her urine for three or four hours at a time. 3. A single lady, aged 50, who had been for years subject to uterine hæmorrhage; the cause being diagnosed, clitoridectomy was performed, and since then she had been quite well. This was five years since, and many of Mr. Brown's cases had stood the test of seven and even more years. Mr. Brown regretted that his tongue was tied so frequently to secresy, that he could not relate the experience of his private practice. He would, however, engage to bring forward more than one success to every failure that might be mentioned; and if he could bring forward only twenty successes it would at least illustrate that his principle was right, and that, with increased experience in selection of proper cases, increased numbers of cures would be the result.

Dr. Rogers, having had every facility given him by Mr. B. Brown to see the patients who had been operated upon, and having conversed with several many months after the operation, felt bound to say that in some cases at least great good had resulted. It was admitted that it had entirely failed in others; but this was no reason for imputing improper motives, or for denouncing the operation altogether. Dr. Rogers thought the Society was bound to inquire into the facts in a calm dispassionate manner. Clitoridectomy had been very rarely performed in the Samaritan Hospital, as there existed a difference of opinion among the staff with regard to the result to be derived from it. Dr. Rogers had that day removed a diseased and elephantine growth of the clitoris, the necessity for which, however, had been fully agreed to by all the staff of the hospital.

The President observed that the discussion had, perhaps unavoidably, turned too exclusively upon the validity of particular cases operated upon. He himself could have wished for time to express himself more fully upon the main question of the relation between masturbation and epilepsy and insanity. He had had some experience in these diseases, and he could confidently say that, in the majority of cases, the vicious practice was resorted to after the disease had existed some time, when the mind had become degraded by disease, and when, being in confinement, the sexual passion could not be otherwise gratified.

Dr. Tanner, in reply, said that one of his chief reasons for bringing forward this subject was to ascertain from gentlemen who had had experience of the operation, if the cures were permanent. This fact could not be ascertained by simply describing the state of the patients when they were discharged from the hospital. There could be no doubt that, so long as the wound remained unhealed, and even for some few weeks afterwards, no improper practices could be resorted to, as the parts were left very tender. His own opinion was, that further evidence as to the condition of the patients some months after operation would be very valuable. It had been argued that, in those cases where irritation was voluntarily produced, other remedies than excision of the clitoris ought to be tried. But on this point Dr. Tanner had no hesitation in expressing his opinion that the use of caustics, blistering fluids, and the actual cautery to the clitoris, were cruel and perfectly useless proceedings. There seemed to be no lack of reliable evidence, that where such treatment had been adopted for many months, no benefit whatever had resulted. As regards tying the patient's hands at night, fastening the legs, and so on, such proceedings had failed over and over again. The weak point in Mr. Brown's cases was, that for some months after the operation, many of the patients had to be carefully watched; and the question could not be shirked, whether such watching would not succeed just as well without the excision as with it. In conclusion, Dr. Tanner urged that the subject was eminently deserving of the attention of all engaged in the treatment of women's diseases. He had no doubt that many distressing cases of bad health were really due to long perseverance in the practice of the bad habits which had been mentioned to the society. If clitoridectomy could effect a permanent cure, it would be a great boon; for, notwithstanding what had been said by one or two speakers, he adhered to the opinion expressed in his paper, that this operation was analogous to that of circumcision in the male.

We publish the following, at the request of Mr. I. B. Brown.

"Sir,—In your journal of the 17th inst. there appears a letter from Dr. West, setting forth his opinions on the subject of clitoridectomy.

"In his first proposition, Dr. West says he has seen more of the diseases of young persons of both sexes than most members of the profession. This may be so, but I am not aware that he has seen more than myself, and therefore my opinion, as far as experience is concerned, may be as good as his.

"Dr. West's second proposition is extraordinary. He says he believes 'the injurious physical effects of masturbation to be those of excessive sexual indulgence and no other.' This being so, it follows as a corollary that Dr. West must also believe the *physical* effects of moderate masturbation to be the same as those of moderate sexual intercourse and no other. Dr. West will not find many converts in the profession to this opinion. Nor would it be for the welfare of society that such a belief should prevail; the fear of the injurious *physical* effects of masturbation has, in many instances, a most wholesome deterring influence.

"Dr. West's third proposition is entirely opposed to the evidence of those who have paid much attention to psychological studies, and who have possessed the advantage of extensive observation among the insane—to wit, Drs. Forbes Winslow, Stilwell, Seaton, Maudsley, Drysdale, Holmes Coote, and others. The latest medical opinions are quite opposed to Dr. West's view. So recently as the 18th of October, in a discussion on a paper read before the Harveian Society, by Dr. Maudsley, 'On some of the Causes of Insanity,' it was brought out that there was no cause of insanity so common as self-abuse. The late Dr. Helps told me that, of the cases of insanity in the Royal Bethlehem Hospital, in three-fifths of the

women and four-fifths of the men the disease was due to masturbation; and I have the evidence of the resident physician of a provincial lunatic asylum to the effect that, with the exception of those whose mental aberration was hereditary, and the cases induced by drunkenness, nearly all the rest could be traced to the pernicious habit of masturbation. We cannot say much therefore for Dr. West's faculty of observation, if it be true, as he states, that he has never seen any instance in which hysteria, epilepsy, or insanity in women was due to masturbation. But, if I am correctly informed, Dr. West has had under treatment a lady afflicted with hysterical fits of an epileptoid character, which he attributed to masturbation, and for the relief of which he applied caustics to the clitoris without any good results. He then recommended the lady to come to London for the purpose of undergoing the operation of clitoridectomy. Further, in another case brought to me by an eminent physician in London, Dr. West had given his opinion to the effect that that case was a suitable one for my operation. How do these facts accord with Dr. West's statement in his third proposition?

"In his fourth proposition, Dr. West states that of the alleged cures of hysteria, etc., by excision of the clitoris, a very large number were not permanent, Does Dr. West admit that *any* of the alleged cures have been permanent? If so, he must allow the operation to take its place as one of the remedies, amongst others, for the relief of a most intractable class of diseases. But more permanent cures have followed the operation than Dr. West is inclined to admit, or is probably aware of. I never insisted that it was an unfailing remedy in every case, but I do insist that in suitable cases it has a marvellously beneficial influence on the whole nervous system of the patient operated on.

"Dr. West's fifth proposition deals with the moral aspect of the question. He reasonably rejects the idea of medicine or surgery having the power to remove from a mind its impurity. I have never advanced such an opinion. I cannot allow the operation of clitoridectomy to be considered as other than a means of curing a morbid *physical* condition. On this mental improvement generally follows. Having seen a very large number of cases, I have come to the conclusion that, in a very great proportion, the irritation, and the effort of the patient to relieve that irritation by friction, are, in their origin, quite unconnected, and have nothing whatever to do with impurity of mind. We have no right to attribute immorality to the victims of a habit which often commenced in childhood, and which was then purely physical in its origination.

"The sixth proposition contains Dr. West's opinion upon the physiological correctness of the operation of clitoridectomy. All I have to say on this point is that our greatest authorities in physiology, and among them Dr. Brown-Séquard, attribute epileptic fits to peripheral irritation. Then, as to the results which do or do not warrant the frequent performance of the operation. If Dr. West thinks the operation may be performed at all, as is the inference, what becomes of his physiology? But, practically, one fact is worth a dozen theories, so I will here quote from a letter I have received from Mr. Smith, surgeon, Clare, Suffolk, dated the 15th inst. I quote verbatim:—'My patient, Miss B——, having now been with me over six months, I think I am in some measure enabled to give my opinion in regard to the operation of clitoridectomy. Much has been said and written *pro* and *con.* on this operation, but in my humble opinion I am persuaded that, but for your operation Miss B—— would have been in an asylum long ere this. When she came to me she was suffering from all the symptoms of hysterical mania. Now she is calm and quiet, associates with the rest of the family, and in fact is a reasonable being; this, I consider, she owes mainly to you. I feel bound to offer this tribute to your skill, as I know many in the profession completely ignore the benefits resulting from your operation.'

"I am at a loss to know what Dr. West's seventh proposition aims at. My book *On the Curability of Certain Forms of Insanity, Epilepsy, Hysteria, etc.*, is written for the profession solely, and from its technicality could not, I believe, be understood by non-medical persons.'

"Dr. West's eighth proposition I entirely agree with, as applied to children and persons under age. But in the case of women of mature age, married or unmarried, I have yet to learn that an operation may not be performed, if thought necessary, for the well-being of the patient, without consulting her friends, if it be her expressed wish that it should be kept secret.

"Unwillingness to occupy more of your space prevents me from quoting the testimonies of undoubted authorities as to the value of the operation, and the excellent results which follow, but I am willing and anxious to do so if you can spare me the space.

"In conclusion, I cannot help remarking that, in the first edition of his treatise on the *Diseases of Women*, Dr. West devoted an article to prove how unscientific was my operation for prolapsus uteri, an operation which is now adopted by the first surgeons in every civilised country.

"I have well-grounded hope that the same result will follow his opposition to the present procedure for the relief of a still more distressing class of ailments.

"I am, Sir, your obedient servant,

"I. Baker Brown.

"Harley Street, Nov. 1866."

We have also received the following reply to Mr. Brown's letter from Dr. West.

Sir,—Since the appearance of Mr. Baker Brown's letter in your journal of December 1st, I have read again my own communication to you on the subject of excision of the clitoris.

My opinions appear to me to be expressed with clearness sufficient to prevent any misconception of their meaning. I therefore willingly leave the question of their correctness or incorrectness to the decision of the profession.

There are, however, some points with reference to which I must beg your indulgence to allow me a space in your columns, and must beg you to excuse the unavoidable length of this letter.

I have stated that "I have not in the whole of my practice seen convulsions, epilepsy, or idiocy induced by masturbation in any child of either sex; and that I have not seen any instance in which hysteria, epilepsy, or insanity in women after puberty, was due to masturbation as its efficient cause."

In opposition to this statement, Mr. Brown adduces the opinions of other medical men, and then proceeds as follows:—

"We cannot say much, therefore, for Dr. West's faculty of observation, if it be true, as he states, that he has never seen any instance in which hysteria, epilepsy, or insanity in women was due to masturbation. But, if I am correctly informed, Dr. West has had under treatment a lady afflicted with hysterical fits of an epileptic character, which he attributed to masturbation, and for the relief of which he applied caustics to the clitoris, without any good results. He then recommended the lady to come to London for the purpose of undergoing the operation of clitoridec-

tomy. Further, in another case brought to me by an eminent physician in London, Dr. West had given his opinion to the effect that the case was a suitable one for my operation. How do these facts accord with Dr. West's statement in his third proposition?"

Now, with reference to these so-called facts, my answer is very simple. In as far as my name is introduced into the histories of these two patients, they are utterly and absolutely incorrect. No patient was ever under my care with hysterical fits of an epileptic character, which I attributed to masturbation. In no instance have I applied caustics to the clitoris. No patient has ever been recommended by me to come to London for the purpose of undergoing the operation of clitoridectomy; nor in any instance has that operation been performed upon a patient who has been under my care, at my instigation, with my approval, or even with my knowledge.

These assertions are indeed prefaced by, "if I am correctly informed;" but it behoves everyone to ascertain the correctness of their information, lest they find, when it is too late, that they have, however unwittingly, been giving currency to statements so incorrect as to have not even one iota of truth in their composition.

And now, having corrected the mistake with reference to myself, into which, somehow or other, Mr. Brown has fallen, I should, if the question were one merely of medical opinion and medical practice, have nothing more to add. In such matters there is always room for difference of opinion; and truth is elicited, and the best interests of science and humanity are promoted, by discussion. It is not so, however, in matters which concern the ethics of our profession. We have in them to deal with right and wrong, with the principles which are to govern us in our relations with each other, with the patients who seek our aid, with society at large. These principles vary not in accordance with the fancy, the wishes, the interests of the individual; they cannot be deviated from by a hair's breadth, even though the motives which lead to such a deviation be above all suspicion, without more of evil than of good resulting.

I said, and I repeat, "that public attempts to excite the attention of non-medical persons, and especially of women, to the subject of self-abuse in the female sex are likely to injure society, and to bring discredit on the medical profession. I think that such attempts are the more objectionable when associated with a reference to some peculiar mode of treatment, and alleged cure practised by one individual."

With reference to this Mr. Brown says, "I am at a loss to know what Dr. West's seventh proposition aims at."

It aims at proceedings such as those which took place at the seventh annual meeting of the London Surgical Home, at which Mr. Hylton Jolliffe presided, and which was attended by non-medical persons, many of whom were ladies. The printed report of these proceedings was sent round "with the secretary's compliments" to the supporters of the institution, and probably to others from whom support might be expected.

From pages 36 and 37 I extract the following portions of a speech made by Mr. Baker Brown:—"You may recollect a few years ago I said I thought we had discovered a mode of curing a class of cases hitherto perfectly incurable, and most painful to the domestic hearth; I mean cases of epilepsy, sometimes including insanity and hysteria, and other affections so lamentable to witness, and hitherto considered incurable."

Then there follows a harrowing description of two such sufferers and of their perfect cure, told in a manner which could not fail to excite to the utmost feminine curiosity and feminine sympathy; and with reference to the second of these patients, Mr. Brown said, "She was here only a month when a rapid improvement took place, and the ladies could not believe it possible that the alteration was the result of the operation she underwent."

If this be not to call the attention of women to the subject of self-abuse in their own sex, and to a peculiar mode of its treatment and cure, then words have no meaning, and my censure has no application.

Lastly, I said "that the removal of the clitoris *without the cognisance of the patient*" (I have a reason for now using italics) "and her friends, without full explanation of the nature of the proceeding, and without the concurrence of some other practitioner selected by the patient or her friends, is in the highest degree improper, and calls for the strongest reprobation."

On this Mr. Baker Brown remarks: "Dr. West's eighth proposition I entirely agree with, as applied to children and persons under age. But in the case of women of mature age, married or unmarried, I have yet to learn that an operation may not be performed, if thought necessary for the well-being of the patient, without consulting her friends, if it be her expressed wish that it should be kept secret."

It is now a little more than a hundred years ago since the artificial induction of premature labour was first had recourse to in this country. Previously to the adoption of the practice there was, as Dr. Denman informs us, "a consultation of the most eminent men at that time in London to consider of the moral rectitude of, and advantages which might be expected from, this practice, which met with their general approbation." Rules, however, were then laid down which have since governed the conduct of medical men in the performance of this operation; and in no case of a first pregnancy, or where, from the early period at which the operation seems expedient, the child is unlikely to survive its birth, is it resorted to without previous consultation. In this rule the reputation of the practitioner has its safeguard as well as the interests of the public, and a great guarantee is furnished that no temptation which money can offer shall lead the practitioner of medicine from the course of rectitude and honour.

The distinguished men to whom we owe this great boon needed no rules to guard themselves from temptation, or to force them to perform the operation solely for the benefit of their patients. But they knew that a time might come when the practice to which they resorted for good, might, by some unworthy members of the profession, be employed for evil; and so they fenced it round with rules. If the operation of clitoridectomy ever be adopted, as Mr. Brown expresses his hope it will, by "the first surgeons in every civilised country," it will require to be guarded by rules no less strict than those which define the conditions for the induction of premature labour. A confirmed epileptic, a patient suffering from aggravated hysteria, with the prospect of insanity threatening her in the distance, is as little capable of deciding for herself whether or not to submit to this operation, as a child. Even though we assume the present advocates of the operation to be men of the highest tone, the most elevated principle, and completely superior to all temptations which money can offer, yet this would afford no guarantee against its abuse hereafter; and an unprincipled man would find it an easy task to frighten, for his own purposes, many a hysterical girl, by vague prophecies of certainly impending horrors, into an eager entreaty for her own mutilation. On these grounds, therefore, to avoid these future dangers, I still adhere to my opinion

that this operation should never be done without the concurrence of some other independent practitioner.

It may seem strange to some of your readers that I have printed in italics the phrase, which Mr. Brown has failed to notice in his letter, "*without the cognisance of the patient.*" The following history, which I have already published in my Lectures, explains my so doing:—

"I know a lady, aged fifty-three, whose youngest child was more than twenty years old, who had suffered from a painful fissure of the anus, for which she underwent the usual operation of dividing the mucous membrane of the ulcer. The surgeon who did this, without saying one word to the lady or to her husband, or hinting in any way what he was about to do, cut off her clitoris. The stump of the amputated clitoris became the seat of pain, such as sometimes follows the amputation of a limb, and for months the patient was in a state of almost ceaseless anguish, which, after the lapse of between two or three years, abated, but has not yet altogether ceased. In answer to her inquiries why some other operation had been performed in addition to that which she knew was requisite, she at length learned what had been done; and, further, had the humiliation of discovering that the justification was that she was assumed by the surgeon to be addicted to a vice with the very name and nature of which she was alike unacquainted."

The surgeon who performed this operation (as I have already stated on a previous occasion) was Mr. Baker Brown. I saw the patient in consultation with Mr. Paget and Mr. Barnes of Chelsea; and I append a note from the former of these gentlemen in corroboration of the truth of the above statement.

I republish it now, because I know, and I speak advisedly, that this is by no means a solitary instance of the removal of the clitoris by Mr. Brown without the consent, without the knowledge, of the patient.

I here leave the subject of clitoridectomy, both in its medical and its moral aspects, to the serious consideration alike of its advocates and its opponents, and shall return to it no more, for it would profit little to meet one opinion by another, or denial by repeated assertion. My life has been passed but ill if my assertion or denial of a fact could gain weight with my professional brethren by its repetition.

I am, Sir, your obedient servant,

CHARLES WEST.

Wimpole Street, Dec. 3rd, 1866.

"1, Harewood-place, Hanover-square, Dec. 3rd, 1866.

"MY DEAR WEST,—The passage from your lectures which you propose to send for publication is exactly true. With part of the facts I was personally acquainted; the rest are related just as they were stated to me by the husband of the patient, and by her usual medical attendant, who was present when her clitoris was removed, but was not consulted about the propriety of the operation. Both these gentlemen are well known to me, and are of unimpeachable integrity.

"Having to write what may be published on a case of removal of the clitoris, I am not willing to conceal my opinions on the practice of that operation for the cure of various maladies of the nervous system. They are in close accordance with your own. I believe that the principles on which the practice is said to be founded are entirely fallacious; and I greatly doubt whether, except for disease of its own structure, the clitoris ought ever to be removed.

"Sincerely yours,

"Dr. West." "JAMES PAGET."

MR. W. THURNALL has been appointed a magistrate for the borough of Bedford.

Correspondence.

MR. ERICHSEN'S WORK, "RAILWAY AND OTHER INJURIES OF THE NERVOUS SYSTEM."

LETTER FROM JOHN E. ERICHSEN, ESQ.

SIR,—In the last number of the BRITISH MEDICAL JOURNAL, you do me the honour to devote a leading article to a criticism on a small work recently published by me, *On Railway and other Injuries of the Nervous System.*

In that article you make two objections to the work: 1, to its title; and 2, to its alleged tendency to specialise railway accidents.

With reference to the term "railway injuries," I beg to say that I have used it in the same sense that the term "gunshot injuries" is commonly employed by surgeons: not so much as denoting any specific difference in the nature of the injury, but rather as indicative of the peculiar and exceptional agency by which it has been occasioned. In this sense, the terms "railway injury" or "railway accident" are commonly used in ordinary hospital practice.

A surgeon asks his house-surgeon, "Any fresh cases in to-day?" The answer is, "Yes, sir, a bad railway case." The house-surgeon would not say, "a bad cab case", or "a bad horse case", or "a bad brickbat case", in the event of a patient having been admitted with a kick from a horse, or a crush from a wheel, or a blow from a brick. But he knows and recognises that there is a peculiarity about railway accidents that causes him to place them in a category by themselves; and he says a "bad railway accident" just as he would a "bad gunshot wound."

With reference to the title on the cover of the book, I admit that the words "Erichsen on Railway Injuries" implies more than the book contains, and is so far erroneous. But I must add that this particular title—the "lettering" as I believe it is called—was devised by the publisher and the bookbinder; was arranged with a view to space rather than to accuracy. With it I had nothing to do; and it was, I understand, adopted because the small size of the work would not admit anything more explanatory on the outside.

The second objection you make to these lectures—viz., that they tend to specialise railway injuries—is refuted by almost every page of the book itself.

Its whole aim is to shew that, although railway injuries are peculiar in their cause and in some of their effects, there is nothing special about them, and that they cannot in justice be taken out of the domain of general surgery.

This is repeatedly stated most distinctly, and without the possibility of being misunderstood, throughout the work. Thus, at p. 10, I say: "Do not for a moment suppose that these injuries are peculiar to, and are solely occasioned by accidents that may occur on railways. There never was a greater error."

Again, at p. 46, the following passage occurs: "I cannot too strongly press upon you the fact that there is in reality nothing special in railway injuries, except in the severity of the accident by which they are occasioned. They are peculiar in their severity; not different in their nature from injuries received in the ordinary accidents of civil life."

I could multiply these quotations were it necessary to do so; but, if the above sentences do not express my opinion that railway injuries are not, and should not be, considered special, I am unable to put my meaning in clearer language.

With the view of proving most incontestably and conclusively, that there is nothing special in railway injuries, I have been at pains to shew by cases that had been published, and by opinions that had been expressed, many years before railways came into operation, that conditions of the nervous system resulting from accident, and in every respect resembling those that are now unhappily of such frequent occurrence from railway collisions, were well known to the profession. It was with this view that I related the case of the Count de Lordat, and made frequent reference to the writings of Bell, Ollivier, and Abercrombie.

If the public, to use your own words, "believe that there is a speciality in the injuries produced by railway accidents", that is none of my doing. I have always, in my lectures, in my writings, and in my consultations on these cases, done my best to disprove such an idea; and the work which I recently published had for its leading objects the endeavour to shew the fallacy of such a doctrine, and to prevent railway injuries from being looked upon as the special province of the "railway surgeon". Such a practice would doubtless be to the detriment of the profession at large, whether beneficial to the individual or not. But the attempt that I have made to bring these injuries within the general scope of ordinary surgery, can scarcely be considered as one likely to have the same injurious effect upon the art of medicine and surgery. I am, etc.,

JOHN E. ERICHSEN.

6, Cavendish Place, Cavendish Square, Dec. 4th, 1866.

[Our surgical readers will decide what resemblance there is (in the way inferred by Mr. Erichsen) between the term "gunshot injuries" and "railway and other injuries of the nervous system." Gunshot wounds are, it seems to us, of a special and peculiar character. The injuries inflicted by railroads are, as Mr. Erichsen himself admits, just like all other injuries. We cannot hold, with Mr. Erichsen, that an author is not responsible for the title on the outside cover of his book. At all events, Mr. Erichsen's admission on this point in the case of his own book, fully justifies our remark thereon. As to his assertion that the specialising of railway injuries is refuted by almost every page of the book, we must, in answer, refer back to our criticism. If there be nothing special about such injuries, why was the work entitled *Railway and other Injuries of the Nervous System?* Why does Mr. Erichsen say in his notice, that his "object has been to describe certain forms of injury of the nervous system that commonly result from accidents on railways, etc."? Why does he say that for various reasons "these cases are justly to be considered as somewhat exceptional from ordinary accidents"? Why does he give headings, such as "Pathology of Railway Concussion"; "Symptoms of Railway Concussion"; "Detail of Symptoms of Railway Concussion"; "Early Symptoms of Railway Concussion"; "Concussion from Railway Shock"; "Railway Injury"; "Railway Injuries peculiar but not special"? Why was the qualifying term "railway" applied in all these cases, if there were nothing specially "railway" in them? As, however, Mr. Erichsen asserts that his "whole aim was to show that there is nothing special about these accidents", we, of course, accept his assertion. But, with the above facts before us, as they appear in the book, we cannot admit that our criticism was either unfair or uncalled for. EDITOR.]

MR. PETER ARKWRIGHT, late of Willersley, Derbyshire, leaves by will £200 to the Derbyshire Infirmary.

THE LATE HENRY JEAFFRESON, M.D.

FEW have been removed from the scene of their labours amidst a more profound and general feeling of regret than the subject of this notice. From the very commencement of his sudden illness, and as his symptoms assumed a more and more serious aspect, the deep and wide-spread interest it awakened seemed to bear witness at once to his personal estimation, to the eminence of his position, and to the manner in which he fulfilled its obligations.

Let us for a moment, even whilst his voice is scarcely silent in our ears, recall him before us in these interesting relations of physician and friend; and here the thought occurs to us, How many are there at the present moment who would hesitate to say in which of these relations they chiefly mourn his loss? For those who perchance first knew him as his patients, soon claimed him as their friend, whilst the intimacy of friendship would naturally beget confidence as it disclosed the value of the physician.

That Dr. Jeaffreson was cut off in the full career of prosperity, is a fact which cannot be questioned. The day was not long enough to meet the demands which were made upon him; and much lucrative business destined for him was consigned to the care of others. There was a time for him when an evening summons was eagerly desired; but the period at length arrived when the labours of the day, with its sufficient emoluments, rendered this of all things the most undesirable. He was not, indeed, exempt from the common lot of early anxieties; but these, we think, must have been of short duration; and each succeeding year, as it brought ampler returns, opened up for him a brighter prospect, with the assured continuance of future progress. If we are asked to what we ascribe such eminent success, we cannot hesitate about our answer. It was undoubtedly won by distinguished merit; it was won from the public, but through the medium of the profession. The public might have given him, and did give him, wealth; but they could not place him in the position of honour which was assigned to him by his brethren. It may be interesting to know what was the view that Dr. Jeaffreson himself took of this question. We have heard him express it. "I owe," said he, "everything to my position at St. Bartholomew's." This, perhaps, is what might have been expected from his modesty; it was simply a disclaimer of all personal merit. Doubtless, it contained some truth; but how little way would it take us towards a full explanation of the fact under consideration. A hospital appointment carries a presumption of superior fitness, and thus affords an opportunity to the holder of approving himself; but the performance of such public duties is jealously watched; it becomes the subject of comment, perhaps of criticism; the place of honour is one also of peril, which may be held at a disadvantage.

The position which Dr. Jeaffreson occupied at St. Bartholomew's Hospital was that of a clinical teacher in the purest meaning of the word. He taught at the bedside, but never entered the lecture-room. Probably, his early introduction to private practice stood in the way of his undertaking formal lectures; and though repeated offers were made to him that he should take a part in the most important teaching of the medical school, he invariably declined. But, as a clinical teacher, it is enough to say that he was a worthy pupil of Latham, a worthy colleague of Burrows; he taught in their spirit, and

with a large measure of their power; and there are hundreds of medical men now scattered over the country who would gladly bear witness to the value of his instruction, and the fulness and accuracy of his investigations.

The estimation in which Dr. Jeaffreson stood as a friend has been shown in the profound grief at his loss. It would be a slur on the profession, and an injustice to the living, to say that any one, however eminent, cannot be replaced; but in private griefs a void is long felt, and memory will cherish that genial sympathising countenance, that genuine upright spirit, that has been taken from among us.

Dr. Jeaffreson was appointed Assistant-Physician to St. Bartholomew's Hospital about the year 1838, upon the Governors determining to increase the number of their staff; and he did not attain the higher office of full Physician until 1852, when a vacancy arose by the death of Dr. Roupell.

Dr. Jeaffreson was educated at St. Paul's School under the late Dr. Sleath, and won some distinction by his classical attainments. As an exhibitioner of St. Paul's School, he proceeded to Pembroke College, Cambridge, at which University he graduated in medicine.

On the 24th ultimo, Dr. Jeaffreson was in the country, and on his return home in the evening he felt greatly fatigued. Next day he continued to feel poorly, and was compelled to take to bed. In a day or two, marked symptoms of typhus fever appeared. For some days he appeared to be progressing favourably. Towards the twelfth day of the fever, however, he became very weak, and sank somewhat rapidly. He was attended by his friends, Drs. Burrows and Risdon Bennett. Dr. Jeaffreson was in his fifty-seventh year.

His funeral took place at Highgate on the 13th instant, and was largely attended by his colleagues and former pupils; while, as in the case of Dr. Kirkes's funeral, two years ago, a number of students from St. Bartholomew's attended at the cemetery, as a mark of respect. The work in the school at the hospital was suspended for the day.

RESIGNATION OF CÆSAR HAWKINS, Esq., F.R.S.

This distinguished surgeon has just resigned his chair as an Examiner in the Royal College of Surgeons, with which he has been connected since 1846, when he was elected a member of the Council; and so highly were his talents appreciated, that only three years afterwards he was elected member of the Court of Examiners, and Hunterian Orator. In 1852, he was unanimously called to the highest collegiate appointment, as the President, to which office he was elected a second time in 1861. Mr. Hawkins still retains his seat as representative of the College in the General Council of Education and Registration, in which position he has done very good service. Mr. Hawkins holds the appointment of Serjeant-Surgeon to the Queen.

Bequests. Mrs. Frances Ann Williams, of Wandsworth, lately deceased, has bequeathed in addition to large sums to other charities not medical, £5,000 to St. George's Hospital, to be expended towards building a ward for the general purposes of the institution, and £2,000, in sums of £500 each to the Royal Medical Benevolent College, Epsom, the Hospital for Sick Children, Great Ormond Street; the Cancer Hospital, and the Hospital for Incurables, Putney Heath.

Medical News.

Royal College of Surgeons of England. The following members of the College, having undergone the necessary examinations for the Fellowship, on Nov. 20th, 21st, and 22nd, were reported to have acquitted themselves to the satisfaction of the Court of Examiners, and at a meeting of the Council, on Dec. 13th, were admitted Fellows of the College.

Bond, Thomas, North Petherton, near Taunton; diploma of membership dated April 26th, 1864
Grigg, J. C., L.S.A., Royal Hospital, Greenwich; April 12, 1858
Harrison, Reginald, L.S.A., Liverpool; April 15, 1859
Kempthorne, John, L.S.A., Callington, Cornwall; July 20, 1846
Lawrence, H. J. H., 1st Batt. Grenadier Guards; April 16, 1852
Magill, Martin, M.D.St. Andrews, Royal Hospital, Haulbowline; June 6, 1856
Pick, Thomas P., L.S.A., Bolton Row, Mayfair; July 29, 1862
Wyatt, John, Surgeon-Major, Coldstream Guards; May 26, 1848

University of London. M.D. Examination, 1866.

Bastian, Henry Charlton, M.A., University College
Fox, Edward Lloyd Harries, University College
Green, Thomas Henry, University College
Lush, William George Vawdrey, St. Bartholomew's Hospital
Miller, Richard May, B.A., University College
Powell, Richard Douglas, University College
Sansom, Arthur Edward, King's College
Smith, Charles (Gold Medal), Guy's Hospital
Snow, William Vicary, University College
Stockwell, Frederick, St. George's and University

University of Cambridge. Degree of Master in Surgery, conferred in a Congregation on Nov. 29.

Mickley, George, Clare Hall

Examined and approved at the final examination for M.B. Degree.

Bradbury, J. B., B.A., Downing College
Dalby, W. B., B.A., Sidney College

First M.B. Examination. Examined and approved.

Airy, Herbert, Trinity College
Barff, Frederick S., Christ's College
Davies-Colley, J. N. C., Trinity College
Finch, J. E. M., Trinity Hall
Wilks, George, Trinity College

Second M.B. Examination.

Dickson, J. T., B.A., St. John's College
Wilks, G., B.A., Trinity College

Apothecaries' Hall. On November 29th, 1866, the following Licentiates were admitted:—

Palmer, William Grimes, Loughborough
Rainbow, Frederic, Lower Norwood
Richards, William Joseph, Redruth, Cornwall
Waller, Arthur, Milner Square, Islington

At the same Court, the following passed the first examination:—

Bedford, Charles Frederick, St. Thomas's Hospital
Causton, William Henry, London Hospital
Jones, George Francis, London Hospital
Newth, Alfred Henry, St. Thomas's Hospital
Rendle, Richard, Guy's Hospital
Saunders, Thomas Dudley, Bath United Hospital

Admitted on December 6th—

Anderson, James Goodridge, Theddlethorpe, Lincolnshire
Ridout, Charles Lyon, Egham, Surrey
Smith, Robert Shingleton, Charlton Horethorne, Dorset
Westmorland, Joseph, Cheadle, Cheshire

At the same Court, the following passed the first examination:—

Dobson, Nelson Congreve, St. Thomas's Hospital
Flower, Thomas, Middlesex Hospital
Milne, Charles Wilson, St. Thomas's Hospital
Norton, George Everitt, Middlesex Hospital
Perkins, Alfred Robert Steele, Guy's Hospital
Pern, Alfred, St. Thomas's Hospital
Pierce, Frederick Morrish, Manchester Royal Infirmary
Pollard, Frederick, St. Thomas's Hospital

APPOINTMENTS.

*Fry, Frederick, Esq., late Senior Surgeon, appointed Consulting-Surgeon to the West Kent General Hospital, Maidstone.

*Heath, Christopher, Esq., appointed Assistant-Surgeon to University College Hospital, and Instructor in Operative Surgery in University College.
Parson, Edward, M.D., appointed Physician-Accoucheur to the Charing-Cross Hospital.
Ramskill, Jabez S., M.D., elected Physician to the London Hospital.
Trubshaw, Alfred, Esq., appointed a Demonstrator of Anatomy in the Liverpool Royal Infirmary School of Medicine.

Indian Army. To be Surgeons-Major:—
Campbell, Surgeon A. L. S., Bengal Army.
Cannon, Surgeon H. M., M.D., Bengal Army.
Clemenger, Surgeon W. G. W., M.B., Bengal Army.
Dixon, Surgeon E., Madras Army.
Pirie, Surgeon J., M.D., Bombay Army.
Webb, Surgeon C. K., Bengal Army.

To be Surgeons:—
Anderson, Assistant-Surgeon T., M.D., Bengal Army.
Beaman, Assistant-Surgeon A. H., Madras Army.
Delpratt, Assistant-Surgeon S., Bengal Army.
Dillon, Assistant-Surgeon T., Bengal Army.
Eteson, Assistant-Surgeon A., Bengal Army.
Jones, Assistant-Surgeon H. D., Bengal Army.
Morton, Assistant-Surgeon J. S., M.D., Madras Army.
Nash, Assistant-Surgeon J. P., Madras Army.
Partridge, Assistant-Surgeon W. P., Bombay Army.
Sutherland, Assistant-Surgeon P. W., Bengal Army.
Waghorn, Assistant-Surgeon A. R., Bengal Army.

Royal Navy.
Adam, W. H., Esq., Surgeon (additional), to the *Canopus*.
Bridgeford, Richard, Esq., Assistant-Surgeon, to the *Hector*.
Duncan, David, M.D., Surgeon (additional), to the *Wellesley*.
Elliott, John, Esq., Staff-Surgeon, to the *Narcissus*.
Evans, E. H., Esq., Surgeon, to the *Virago*.
Hadlow, Henry, Esq., Assistant-Surgeon, to Greenwich Hospital.
Hurlstone, M. O., Esq., Assistant-Surgeon, to the *Virago*.
Irvine, Robert, M.D., Surgeon, to the *Formidable*.
Mansfield, Piere, M.D., to the *Racoon*.
Nicoll, John B., Esq., Assistant-Surgeon, to the *Asia*.
Wilson, James, Esq., Acting Assistant-Surgeon, to the *Racoon*.

Volunteers, (A.V.=Artillery Volunteers; R.V.=Rifle Volunteers):—
Kennedy, W., M.D., to be Honorary Assistant-Surgeon 4th Caithness-shire A.V.
Russell, W. S., Esq., to be Assistant-Surgeon 3rd Administrative Battalion Lancashire R.V.
Sutherland, D. McGregor, M.D., to be Honorary Assistant-Surgeon 5th Caithness-shire A.V.

BIRTHS.

Atkinson. On November 19th, at Iver, Bucks, the wife of William Atkinson, L.R.C.P.Ed., of a son.
Hawkins. On December 10th, at Bow, the wife of James S. Hawkins, Esq., Surgeon, of a daughter.
Kelsey. On November 23rd, at Redhill, the wife of *Arthur Kelsey, Esq., of a son.
Macgowan. On December 4th, at 5, Caversham Road, Kentish Town, the wife of Alexander T. Macgowan, L.R.C.P.Ed., of a son.
May. On November 28th, at Tottenham, the wife of E. Hooper May, M.D., of a daughter.
Pitman. On December 4th, at 94, Gloucester Place, the wife of *Henry A. Pitman, M.D., of a daughter.
Steele. On December 3rd, at Guy's Hospital, the wife of John Charles Steele, M.D., of a daughter.
Tuke. On December 7th, at Chiswick, the wife of *Harrington Tuke, M.D., of a daughter.

MARRIAGES.

Jackson, Peter Nevil, Esq., Staff-Surgeon, to Mary, second daughter of James Knight, Esq., of Farnham, on November 27.
Tylecote. John Horton, M.D., of Sandon, Staffordshire, to Emily Sarah, third daughter of Richard Lee, Esq., Surgeon, of Thame, Oxon, on December 6.
Zinzan, Robert Vaux, Esq., Surgeon, of Tisbury, Wilts, to Isabella Margaret H. T., youngest daughter of the late Rev. John F. G. Griffith, of Llansannor, Glamorganshire, at East Knoyle, Wilts, on December 6.

DEATHS.

Chambers. On December 2nd, at Boulogne-sur-Mer, Lillah Annabella, wife of C. H. Chambers, Esq., Surgeon R.N.
Chandler, Alfred T., Esq., Surgeon, at Chiddingfold, Surrey, aged 48, on November 22.
Coles, Henry, Esq., Surgeon, late of Cheltenham, at Hammersmith, aged 60, on December 3.
Edmonds, Edwin, Esq., late of Hayle, Cornwall, at Stoke Newington, aged 58, on November 16.
Greenhill. On December 9th, at Oxford, aged 21, William Scott Ridley, son of W. A. Greenhill, M.D., of Hastings.
Harper, John Cuff, Esq., Surgeon, of Whampoa, at Hong Kong, aged 46, on September 17.
*Haslehust, Thomas, Esq., at Claverley, Shropshire, aged 66, on December 10.
Hopkins. On December 7th, at Boulogne, aged 74, Mary, widow of William Hopkins, M.D.
Jeaffreson, Henry, M.D., Physician to St. Bartholomew's Hospital, at Finsbury Square, of typhus fever, aged 56, on Dec. 7.
Sharman. On December 4th, at Birmingham, Irene Louisa, wife of *Malim Sharman, Esq.
Smith. On December 5th, at Navenby, Lincolnshire, aged 9, Walter George, eldest son of Walter Smith, Esq., Surgeon.
Smith, Henry Tyrwhitt, M.D., at Arlington Street, Piccadilly, on November 17th.
Thomas. On November 28th, at Llanelly, Elizabeth, wife of *Benjamin Thomas, Esq.

Professor Oppolzer, of Vienna, has left for St. Petersburgh, to give Princess Dagmar the benefit of his advice.

Triple Birth. A few days ago the wife of an engineman named Urwin, living in Middlesborough, gave birth to three children.

The Royal Society. The three oldest members of the Royal Society are Lord Brougham, Sir Henry Ellis, and Mr. William Lawrence, the distinguished surgeon.

Mr. Thomas Nunn and St. Peter's Hospital. We are informed that Mr. Thomas Nunn has intimated to his colleagues at the Middlesex Hospital, that he will at once resign his recently accepted appointment at "St. Peter's Hospital for Stone", and will cease to have any connexion with it, from deference to the feelings of his colleagues, which accord with those of the profession generally in this matter.

Glasgow University Medical Society. The first annual meeting of this Society was held in the practice of physic class room, on Friday, November 23rd; Dr. Banks, in absence of Dr. P. Macdonald Bell, retiring president, in the chair. The following gentlemen were elected office-bearers for the ensuing year:—*Honorary President*, Professor J. B. Cowan, M.D.; *President*, Mr. James Macbeth, M.A.; *Vice-President*, Mr. Hugh Appleton; *Secretary*, Mr. J. T. Moore; *Treasurer*, Mr. George Hutchison.

Deaths from Small-Pox. Small-pox occasioned 58 deaths; more than half the number registered in the epidemic year 1863, and more than twice the number registered in 1860 and 1864. Of these 58 deaths, 21 were of children under five years of age, who, if they had not been left unvaccinated, or rather if they had been vaccinated properly, never would have died. They are 21 victims of ignorance, prejudice, or neglect. Twenty-three of the deaths took place in adults who had either never been vaccinated, or in whom the protection once obtained had worn out by lapse of time. Dr. Ballard says deaths by small-pox are the most unsatisfactory deaths that a health-officer has to record, because he feels they need never have happened.

Cattle-Plague. A committee of the Lords of the Privy Council sat on Saturday, at Whitehall, on the subject of the cattle-plague. The *Leeds Mercury* reports a fresh outbreak of the cattle-plague in the East Riding. On Monday the disease appeared in the herd of Mr. William Carlin, Keyningham Marsh, Holderness, and six cows and two calves have already been destroyed. The cattle-plague return for the week ended Saturday last shows an increase. Seven attacks are returned as having occurred in Great Britain, being an increase of five on the previous return. Fresh outbreaks took place in two farms or places where cattle are kept; the number in the week preceding was also two. Nine healthy cattle were slaughtered during the week on account of having been in contact with diseased animals.

QUALIFICATIONS OF A LUNACY COMMISSIONER. The Vermont Medical Society, at a late meeting passed the following resolution—"That as a Society we believe, and respectfully say, that in our opinion the duties of Commissioner of the Insane, to watch over the interests of a great hospital, its sanitary, dietetic, and medical management, to investigate that most intricate and difficult of all diseases, and to protect the unfortunate sufferers from improper treatment of every kind, can be most properly and efficiently performed by an experienced and judicious medical man; and we respectfully protest against the late action of the Legislature in electing an individual to that office who is outside of the medical profession."

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....Metropolitan Free, 2 P.M.—St. Mark's for Fistula and other Diseases of the Rectum, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TUESDAY. .... Guy's, 1½ P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.

WEDNESDAY... St. Mary's, 1 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.

THURSDAY.....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Great Northern, 2 P.M.—London Surgical Home, 2 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.

FRIDAY..... Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

SATURDAY..... St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1·30 P.M.—Charing Cross, 2 P.M.—Lock, Clinical Demonstration and Operations, 1 P.M.—Royal Free, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

TUESDAY. Pathological Society of London, 8 P.M.—Anthropological Society of London, 8 P.M.

THURSDAY. Harveian Society of London, 8 P.M. Dr. Drysdale, "On the Natural History of Syphilis."

TO CORRESPONDENTS.

*** *All letters and communications for the* JOURNAL, *to be addressed to the* EDITOR, 37, *Great Queen St., Lincoln's Inn Fields, W.C.*

COMMUNICATIONS.—To prevent a not uncommon misconception, we beg to inform our correspondents that, as a rule, all communications which are not returned to their authors, are retained for publication.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

THE Publisher begs to intimate that orders for JOURNALS sent by post must be accompanied by stamps for the amount. Price of each number is, by post, *sixpence.*

IN consequence of the pressure upon our space this week, we are compelled to omit the letter of our Liverpool correspondent; the record of the Progress of Medical Science; a review of Dr. Barclay's work on Gout; original papers; and other articles.

MR. G. GODWIN is thanked for his courteous communication.

DR. GOODEVE'S PAPER ON THE CONSTANTINOPLE CHOLERA CONFERENCE.

WE have received the slips of Dr. Goodeve's paper read before the Epidemiological Society, too late for insertion, even if we had been able to find room for it. Slips or copy of original papers should, in all cases, reach this office by Monday; and we would request the Secretary and Council of the Epidemiological Society to be so good as to request that this condition is observed by those to whom they furnish copy for general use. In case the resources of any other printing establishment should not enable it thus to be done, we shall always be happy in such cases to undertake to furnish slips within twenty-four hours.

THE HUNTER CASE.

SIR,—The omission of my name in the list which you give of the witnesses for the defence in the case of Hunter *v.* Sharpe, is not, perhaps, in any view of the matter of much consequence. But as you are the only journalist who thus excludes me, it would appear that I had no claim to share in the compliments you are pleased to append. I do not think that I am greedy of public notoriety; but, having shared in the risks of the battle, I, not unnaturally, am loath to believe that I am not entitled to share in whatever honour there may be in maintaining, in a court of law, the character of my profession. I am, etc.,

15, Finsbury Square, Dec. 8th, 1866. JAS. R. BENNETT.

[We much regret that Dr. Risdon Bennett's name should have been omitted. We need hardly assure him, that it was so omitted by a pure accident. No witness's evidence was more valuable than Dr. Bennett's in the case referred to. EDITOR.]

FOOD AS A MEDICINE.

M. A. B. sends us some remarks on Soup-kitchens *versus* Hospitals. We should have preferred to read the title—"Soup-kitchens in aid of Hospitals". We believe that, in one or two instances, sick kitchens are established in connection with the out-patient department of hospitals, and tickets placed at the disposal of the visiting officers, where a good kind of food is the urgent need of the patient, who is often starved into illness. Such an institution has been established by benevolent ladies at St. Mary's Hospital, Paddington, London, and works most usefully. It would be satisfactory to have details of similar establishments elsewhere; as the publication of such facts might perhaps enable medical officers of hospitals, when no such help is given, to induce friends of the charity to establish kitchens in the neighbourhood of hospitals for the benefit of the out-patients.

TREATMENT OF NEURALGIA AFTER SHINGLES.

SIR,—As you invite replies to the question of your correspondent A. C., on the treatment of neuralgia after shingles, I have much pleasure in giving him the result of my experience.

Numerous cases of neuralgia, in connexion with shingles, have fallen under my notice, and I do not remember one that did not readily yield to quinine; only it must be given in large doses. If quinine failed, I would try arsenic.

It may be, that your correspondent practises in a low and damp locality; if so, let him send his patients for a time to one of an opposite character. I am, etc.,

Bristol, December 10th, 1866. W. F. MORGAN.

DR. DAUBENY'S paper on University Medical Education will be published early in the forthcoming volume.

MANFIELD'S PROCESS FOR PRESERVING VEGETABLES.

THIS new process effects in a few hours a more complete and perfectly efficacious pickling of vegetables than the more elaborate processes hitherto in use have accomplished in months. The method by which the pickling process is attained, is as follows. The vegetables are placed in the receiver under atmospheric pressure, and all superfluous moisture is expressed without in any way injuring them. The air is subsequently exhausted by means of vacuum-pumps, when the spiced vinegar is admitted and forced into the fibres of the vegetables by an atmospheric pressure equal to forty-five pounds to the square inch, or about three ordinary atmospheres. When this operation is over, the pickles will be found perfectly ready for the table. No deleterious acids are used, and the only mineral with which the vinegar comes into contact is platinum. It permeates the whole substance of the vegetable. The process is worked by Messrs. J. Burgess & Sons, 107, Strand, and possesses freedom from every kind of deleterious agent.

GOOD ADVICE.

SIR,—I have read the good advice of your correspondent in the JOURNAL of November 17th, and have read it with great pleasure. That *good taste* which is the result of the study of the best masters, and is the refined gold in our social alchemy, is the mainspring of our success in society. The very key of our position admits of little doubt. It has always appeared to me, when trying to read the lessons afforded by the triumphs and defeats of men who have laboured side by side with me through life, that this almost indefinite principle lies at the bottom of all success to which we can take no exception.

I think I could point to more than one, two, or three men in our profession, whose path has been cut out on the same field as my own, where, whilst good and lucrative practices have been the rewards of their work, the brightest garlands of private and social honour have been denied to them. With such men it has not been enough that industry, science (true or false), "go-aheadism", or complacent self-possession, have conspired to help them on. When we meet them in the general arena, they are found to be hardly on a par with equally successful men in other professions.

I am, etc., HENRY DAYMAN.

Milbrook, Southampton, Nov. 27th, 1866.

Addresses and Papers

READ AT

THE THIRTY-FOURTH ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION.

[*Held in CHESTER, AUGUST 7th, 8th, 9th, and 10th*, 1866.]

ON THE

INFLUENCE EXERTED BY TREATMENT IN HOSPITAL UPON THE EVENT OF SURGICAL OPERATIONS AND ACCIDENTS.

A PAPER PREPARED FOR THE MEETING OF THE BRITISH MEDICAL ASSOCIATION AT CHESTER, AUGUST 8TH, 1866.*

By T. HOLMES, F.R.C.S.,

ASSISTANT-SURGEON TO ST. GEORGE'S HOSPITAL.

In endeavouring to estimate the influence which treatment in hospitals has upon patients suffering under surgical operations or severe injuries, it is necessary to separate from each other two things which, though essentially distinct, have been not unfrequently confounded together even by persons the most conversant with hospitals by long practice in them, and who, I am confident, are most sincerely desirous to set the question in its true light. These two things, which, as I contend, ought to be kept apart, are, the necessary influence of hospitals, and the unnecessary or avoidable evils which are allowed to creep into hospitals from negligent administration. It is highly probable (though, I submit, not yet proved) that some evils are inseparable from the aggregation of the sick and wounded to such an extent as the practical necessities of attendance and supervision in hospitals demand. If this be so, we may reasonably expect that evidence of the fact could be obtained by comparing the results (perhaps I should rather say, the progress) of cases treated in hospitals with those of cases in private practice; and, if the aggregation of the sick is a real cause of ill success, we might conjecture that it would be possible to compare the results in hospitals where such aggregation is extreme with those obtained in other institutions more fortunately circumstanced in that respect. But, in order that such comparisons may be made so as to carry any conviction to the minds of those who understand the question, it is necessary that they should be made fairly. The ultimate question proposed is no less than this; viz.: Do hospitals do more harm than good? Miss Nightingale and Dr. Farr have, in plain terms, intimated their opinion that, except as schools of medical and surgical instruction, hospitals have hitherto done as much harm as good. In other words, there is an impression in the minds of persons who, at any rate, ought to be well informed, that the diseases generated in hospitals are sufficient to counterbalance the effects of rest, cleanliness, good nursing, good diet, constant attention, medical skill, and any other requisites for successful treatment which can be provided in hospitals, but cannot be obtained at all, or only very imperfectly, in the wretched dwellings of the patients themselves. From this, the conclusion which these authors appear to draw is, that the plan of scattering the sick would be preferable, and that practical measures ought to be taken to ascertain its feasibility. With all due deference, however, to such eminent authorities, I would urge that two things have still to be investigated; viz., What is the real prevalence of the so-called hospital diseases? and secondly, Are the evils now existing in hospitals a necessary concomitant of such institutions? or could they be eradicated, and leave the system to work its good effects free from the present drawbacks?

In this communication, I will do the best I can to illustrate the real defects which, as far as I can discover, can be charged against the present system in surgical matters—apologising to the Association for the very imperfect answer which I can give to the important question proposed. The imperfection depends in a great degree on the absence of reliable and relevant information. If my present essay should have no other effect, yet, should it turn the attention of those of my hearers who hold office in country hospitals to the utter want of any data for such information at those institutions, it will be a sufficient reward for my labour.

Miss Nightingale commences one of her striking treatises with the following well-known passage: "It may seem a strange principle to enunciate as the very first requirement in a hospital, that it should do the sick no harm. It is quite necessary, nevertheless, to lay down such a principle, because the actual mortality *in* hospitals, especially in those of large crowded cities, is very much higher than any calculation founded on the mortality of the same class of diseases among patients treated *out of* hospitals would lead us to expect." Now, everything which falls from Miss Nightingale is entitled to respect; and, for my own part, I would wish to believe, if I could, that the accuracy of her investigations had contributed as much to the theoretical perfection of hospitals, as her heroic courage and Christian charity have to the relief of those who suffer there. But, in matters of this sort, assertions surely ought not to be made without proof; and, if the calculations which Miss Nightingale alludes to in the above passage exist, they ought to have been quoted or referred to, in order that their value might be appreciated by those of her readers who are conversant with such matters. For myself, I can only say that I am quite unaware of any calculations having been published which are worthy of serious attention; nor am I in the least aware of the diseases to which the sentence refers. It is more difficult than might appear at first sight to make such a comparison. When the words, "the same class of diseases," are thought over for a minute, who does not see the wide avenues which they open to fallacy of every sort? Who does not know the way in which the same names (such as "fever", "bronchitis", "disease of spine") are used in the performances dignified by the

* Accidental circumstances prevented the reading of this paper to the meeting. I was not able to resist the courteous invitation of the President to send the paper to the JOURNAL. But, in reading it, the members of the Association must recollect that it was only intended as a text for the discussion which I hoped would follow (but which was prevented by the same circumstances), and was not meant to be decisive of any part of the question. I shall have succeeded in my aim, if I shall have shown how gross is the exaggeration, and how total is the want of exact knowledge, with which such questions have been frequently treated; and, as a consequence of this, how great is the need of more accurate and reliable information as to the condition of our existing hospitals, than the present arrangements of most of them permit us to obtain.

name of statistical tables, to designate at one time affections devoid of all danger to life—at another, diseases almost inevitably fatal? If the calculations had been before us, we might have known on what diagnoses the wording of the tables had been founded; where, when, and by whom, the patients had been treated; and, above all things, who were the patients—for this is a matter at least as important as any other. We, whose hospital practice lies among the poor of our large cities, worn down as they are by hard toil, and still more by the reckless dissipation and vice which furnish most of them with their only respite from toil, know what expectations ought to be formed of the probability of their recovery from grave disease or injury, and what amount of confidence should be given to calculations transferred to them, if based on practice among persons more fortunately circumstanced. But still no one denies that actual and tangible diseases are generated in hospitals; and it is very probable (though, again, this is not proved, as far as I can discover) that some of those patients who escape such visible complications may yet be thrown back in their recovery by the influence of the hospital atmosphere. It is my purpose, in what follows, to inquire what evidence exists as to the reality and extent of such evils in the instances of amputations, as illustrating surgical operations, and of compound fracture, as illustrating injury. Some one will perhaps say, "But this has been done a thousand times over. We have heard of these statistics of amputations, from various hospitals, till we are sick of them." I allow that so-called statistics have often been published; but I cannot say that the greater part of them seem to me to have any practical value, inasmuch as they are deficient in all particulars. That a certain man had his leg cut off, and that he afterwards died, is a fact which does not in the least bear upon the healthiness of the hospital in which it occurred, unless there be some sort of evidence to connect the death with hospital influence. It is true that hospital influence is one of the conceivable causes of death, but there are a great many others; and, unless these others be excluded by the direct method of evidence (*i. e.*, by the notes of the case), it will require an immense mass of details to exclude them by the indirect method of statistics, as those who have studied Dr. Barclay's little work on *Medical Errors* will admit. The rough test, therefore, of the mortality after amputations, in various hospitals, may be allowed to be fallacious; and yet how often and how confidently is it appealed to. But, even if it were as useful as it is easy, no data have yet been published by which the mortality after amputations in private practice could be calculated; nor would such data be easy to collect. The poor who submit to amputation are almost always treated in hospitals; among the rich, the operation is far less common; nor would the comparison be a fair one if it could be made, in consequence of the different vitality of the subjects, as hinted above.

I propose, however, to bring before you the experience of the hospital to which I am myself attached, with regard to this matter—indicating the period of life at which the operation was performed (a most important element of prognosis); specifying the causes of death, and in fatal cases the existence of the affections usually considered as referable to hospital influence—viz., secondary hæmorrhage, erysipelas, phagedæna, and pyæmia.

In a paper contributed to the first volume of the *St. George's Hospital Reports*, I have tabulated the first 300 cases of amputation of the thigh, leg, arm, and forearm, comprised in our "amputation-book". In this paper, numerous other necessary particulars, not comprised in the following quotations, may be found. "These 300 cases may be thus summarised, according to the ages of the patients.

	No.	Died.	
Under 5 years . . .	1	0	
Above 5 and under 10 years	14	1*	
„ 10 „ 15 „ .	21	1	4.6 per cent.
„ 15 „ 20 „ .	47	8	17 „
„ 20 „ 30 „ .	74	14	18.9 „
„ 30 „ 40 „ .	53	21	39.6 „
„ 40 „ 50 „ .	41	15	36.8 „
„ 50 „ 60 „ .	34	17	50 „
„ 60 „ 70 „ .	13	5	38.5 „
„ 70	2	1	
	300	83	

Deaths, 27·666 per cent.

"I have classified the 83 deaths comprised in our table of 300 amputations as follows.

"I. From causes unconnected with the operation; death inevitable.

"II. From other causes coinciding with the operation; the other causes having a main share in producing death.

"III. From the operation—
By pyæmia,
„ gangrene and phagedæna,
„ erysipelas and diffuse inflammation,
„ secondary hæmorrhage,
„ exhaustion;
distinguishing, in each of these latter headings, those instances in which the viscera and the blood-vessels were healthy from those in which they were diseased. In some cases, the judgment has to be formed from the symptoms during life; but, in most instances, there has been a *post mortem* examination.

"In no instance has the patient died directly from hæmorrhage or other accident during the operation.

"The first class comprises 14 cases, in which the fatal result has been produced by other fatal injuries, by pre-existing disease, or by other causes quite unconnected with the operation, and *à fortiori* with any hospital influence.

"If it be conceded, as I contend, that these 14 cases ought to be subtracted from both sides of the list, it would leave us with 69 deaths out of 286 amputations.

"In classifying the causes of these remaining deaths according to the data furnished by our amputation- and *post mortem*-book, I find that death is due in about an equal number of cases, (1) mainly to causes antecedent to amputation (Class II), and (2) mainly to causes subsequent to amputation (Class III); there being 33 cases in which death was caused mainly by previous constitutional affection, or by the results of the injury which necessitated amputation, or by some other cause not necessarily connected with the amputation.

"These cases I have endeavoured to set out as follows.

"The second class comprises 33 cases, divided thus:

"A. *Death mainly due to visceral disease, or morbid conditions existing prior to amputation*—21 cases.

"B. *Death mainly due to the general consequences* (i. e., *the effect on the general system*) *of previous injury*—7 cases.

"C. *Death mainly due to injury of the parts concerned in the amputation*—3 cases.

"D. *Death mainly due to miscellaneous causes not necessarily connected with the amputation*—2 cases.

* This death was really quite unconnected with the operation, being occasioned by concomitant injury, necessarily mortal.

"Out of the 33 cases, the direct cause of death was:—Pyæmia in 8 cases; secondary hæmorrhage in 4; gangrene in 8; exhaustion in 11; and shock in 2.

"The third class comprises those cases in which the patient seemed to die of the natural results of the operation, uncomplicated by any amount of visceral or constitutional mischief which could fairly be regarded as the main cause of the fatal issue. This class comprises 36 cases, thus divided:

Pyæmia	24 cases	
Gangrene and phagedæna	6	*
Erysipelas and diffuse inflammation	3	*
Secondary hæmorrhage	1	†
Exhaustion	2	

"These tables lead to some general conclusions which are, I think, of interest and of practical value as bearing on the question of the intrinsic danger of amputations, and of the risks of the operation when performed in a large metropolitan hospital.

"They show us, in the first place, that, great as we must allow the danger of amputation to be, its apparent danger, as shown by the death-rates, is about twice as great as the real danger; that is to say, that of every hundred persons dying after amputation, the probability is that at least fifty die either because their disease or injury was absolutely incurable, or because the amputation failed to cure it, and it therefore proceeded to a fatal issue. In such cases, it is surely illogical to say that the amputation killed them.

"Another point to which much and deserved attention has been recently directed, is, as to the risks of operations (and especially amputations) performed in large metropolitan hospitals. It is a question most difficult to settle, and which has been much obscured by the hasty method in which it has been handled by well-meaning but ill-informed writers, who have jumped to extreme conclusions from mere figures, I do not say not founded on, but certainly not accompanied by, facts. I deny altogether that such figures are useful for establishing a comparison between different institutions. Thus, it is quite possible that a country infirmary may have a death-rate after amputation of the thigh only half as heavy as a metropolitan hospital, and yet the metropolitan hospital may be the more healthy institution, and its practice really more successful. The question cannot be settled without knowing many more details than merely 'out of so many amputated‡ so many died.' We must know, at any rate, in both cases, the causes of the operation, the age and previous health of the patient, the cause of death, and the results of *post mortem* examination.

"Now, judging by what has gone before, it seems that almost the only operative complication which leads to death *from* amputation (as contradistinguished from death *after* or *in spite of* amputation) is pyæmia. The other complications which are usually reckoned as 'hospital diseases', are phagedæna, erysipelas, diffuse inflammation, and secondary hæmorrhage. Of course, all of these are well known to occur in private practice; and no attempt has ever been made to estimate the relative frequency with which they take place among the same class of patients in and out of hospitals. By reference to our tables, it will be seen that none of them are of much importance as causes of death in cases where there is any fair prospect of recovery from amputation.

"It will also be seen that secondary hæmorrhage proved fatal only in two cases where the vessels were not known to be diseased; and in one of these, though no disease of the vessels was noted at the *post mortem* examination, it is most probable that such disease existed, judging from the fatty condition of the kidneys and the presence of arcus senilis at the age of fifty-one. In the other case, gangrene had attacked the parts before the amputation; and, on a recurrence of the gangrene, some of the vessels were involved. We are entitled to say, therefore, that secondary hæmorrhage is a rare cause of death, and need be taken little account of in cases where the arteries are healthy; that is to say, that in a well-managed hospital it does not occur from hospital influences, but from disease of the tissues.

"With respect to erysipelas and its congener, diffuse cellular inflammation, the report is equally favourable. Erysipelas occurred as a precursor of pyæmia in two cases; but only one death was directly caused by erysipelatous inflammation.

"Phagedæna, or the milder form of hospital gangrene, has been unfortunately prevalent at St. George's Hospital at intervals for a long time, and at least three such prevalences of phagedæna are included in the period over which our notes extend. It is worth while, then, to consider attentively what is the real influence of a prevalence of hospital disease which in this particular must be allowed to be beyond the average. It will be found, on examination, that only two persons died after amputation, having had hospital phagedæna; and in both those cases the immediate cause of death was pyæmia.

"Thus we come to the conclusion that, in ordinary hospital practice, the influence on the rate of mortality of secondary hæmorrhage, erysipelatous diseases, and hospital phagedæna, is very trifling; and that, *cæteris paribus*, the rate of mortality varies with the prevalence of pyæmia."

From these facts the following conclusions may be deduced.

1. That the mortality after amputation in hospital practice depends far more upon the age of the patient than upon any other extrinsic circumstance. How can this fact be explained, if we believe the hospital atmosphere to be the cause of a great proportion of the deaths which occur after amputation?

2. That the deaths which are due to hospital diseases (so-called), except pyæmia, are very few in number, if the hospital be moderately healthy. I say only moderately healthy; for it will be noticed that phagedena has been unusually prevalent at St. George's during the period comprised in these statistics. Notwithstanding this, however, in only two of the fatal cases out of three hundred amputations was death referred to phagedena, and in them pyæmia had supervened.

3. That, in about half the fatal cases, death is distinctly connected with, and, as far as we can see, caused by, previous injury or previous disease, and is, therefore, quite independent of any hospital influence.

4. That death "from exhaustion" hardly ever occurs, except as the result of previous organic or functional disease.

In the record of compound fractures of the thigh, leg, arm, and forearm, preserved at St. George's Hospital, 252 cases are noted, from the years 1852 to 1865 inclusive. Of these, 72 died, or 28.5 per cent., and 52 suffered amputation, 19 of whom died, and are included in the previous total.

* Out of these nine cases, pyæmia supervened in eight.

† It is very doubtful whether this case ought not to be referred to Class II, as being one in which hæmorrhage occurred in consequence of a diseased condition of the vessels.

‡ I speak, of course, of the same amputations. The method very generally followed of lumping all amputations together (as if the danger of removing the forearm for diseased wrist were the same as that of a primary amputation at the hip), is too puerile to need observation.

The causes of death are thus stated in the book kept by the successive surgical registrars.

Without amputation—inevitable:		
Collapse, or shock of the injury	5	
Other injuries	6	
Diseased viscera	5	
Scarlet fever	1	
Delirium tremens	2	
Meningitis	1	
Old age and exhaustion	1	—21
Sequelæ of injury:		
Gangrene	2	
Pyæmia	21	
Hectic and irritative fever	3	
Exhaustion	5	
Diffuse inflammation	1	—32
After amputation—inevitable:		
Other injuries	3	
Diseased viscera	1	
Shock	1	— 5
Sequelæ of operation:		
After amputation, from pyæmia	8	
Ditto, from gangrene	3	
Exhaustion	2	
Cause not stated	1	—14
	Total	...72

The general conclusion derived from this record coincides, in the main, with that derived from the list of amputations; viz., that nearly half of the deaths occur from causes quite unconnected with hospital influences, and that of the remainder pyæmia is the main cause of death.

If now we wish to estimate the real influence exerted by residence in hospital upon the results of a case, say of amputation, we should have to determine, in the first place, whether pyæmia is more common in hospital than in private practice, and, next, whether it is more common in one kind of hospital than in another. It is often assumed, as if it required no proof, that pyæmia is far more common in hospital than in private practice; but this has never been demonstrated, and, from the nature of the case, it is very difficult to do so. The injuries and diseases which lead to pyæmia are comparatively rare in private practice, so that one man's experience does not go for much. Besides, the class of patients is quite different; and, for anything we know, this may be a vital point in the question. Certainly, we should suppose, *à priori*, that little good could be done by comparing the results of operations performed in private upon temperate, well-nourished, healthy patients from the middle and upper classes, with similar operations performed on the dissipated, broken-down, and often dying, inmates of a London hospital.

More good may be expected from attempts to compare the practice of institutions of a similar kind, but placed in different localities; and I do not doubt that this would lead to most valuable results, if the comparison were fairly made. But, then, in order to be fair, the things compared must be in all respects similar. It will not do to lump all sorts of amputations together, and form a death-rate, without distinguishing even the causes of death. It will not do to put down the number of cases of pyæmia, and so to form a percentage of pyæmia, without letting us know even the affections on which the pyæmia depends. Yet this is constantly done. We hear continually that at such and such a country hospital pyæmia is almost unknown. On inquiry, it will almost always be found that the assertion rests on no definite proof, for that no proper records have been kept; and that the rarity of pyæmia, if real, finds a ready explanation in the rarity of acute cases. It is, of course, very difficult, especially in country hospitals, where the staff of assistants of all kinds is small, to obtain the services of qualified note-takers and registrars; but without such information as is furnished by accurate and full registration of cases—not mere enumerations of figures—it is really impossible to come to any correct conclusions as to the relative prevalence of pyæmia in different hospitals.

The inquiries which I made, in conjunction with Dr. Bristowe, on behalf of the medical officer of the Privy Council, into the condition of the various hospitals of the United Kingdom, tended chiefly to show, on this point, how very imperfect was the information available for an opinion as to the relative frequency of pyæmia in hospitals of different classes. I append a few extracts from our Report.

"There is a point of great importance, which must not be overlooked in comparing the results of hospitals of different sizes; viz. (if the expression may be used), their relative intensity of experience. To illustrate our meaning, the Essex and Colchester Hospital has 90 beds, and admits about 260 cases in the year; St. Bartholomew's has 650 beds, and admits about 5400 cases in the year. Now, in the latter institution, there is a vast experience concentrated into one year, and all circumstances such as outbreaks of pyæmia and spread of fevers, which seem to indicate unhealthiness, stand prominently forth; but in the former institution, even assuming the cases treated in it to be of equal importance with those treated in St. Bartholomew's, twenty years would have to elapse before its experience would be equal to that of one year's experience at St. Bartholomew's. In twenty years of unrecorded experience how many facts are likely to be either exaggerated by the memory, or distorted, or utterly forgotten! But what is true of St. Bartholomew's and of the hospital at Colchester, is true also, in various degrees, of numerous other town and country hospitals; and, in the difficulty or impossibility there often is of acquiring 'back' information, with regard to the latter institutions especially, comparisons have to be made on very unequal terms, and are thus deprived of much of their value and significance."

"But, admitting that hospital diseases occur at all times in all hospitals, the important question still remains—'Do they prevail in smaller proportion in one kind of hospital than in another kind of hospital, especially do they prevail in smaller proportion in country than in town hospitals?' We do not pretend to answer this question in any degree satisfactorily. We append, however, two series of tables which have some bearing on the point. The first series comprises three tables of 12 metropolitan, 23 provincial, and 43 rural hospitals respectively, which show, together with other facts, the number of cases of erysipelas, diffuse cellular inflammation, phagedæna, and pyæmia, present in the various hospitals at the time we visited them, and distinguish the cases of these affections which arose in hospitals from the cases which originated outside.

"The result of the tables is, that in 12 metropolitan hospitals, containing 1481 surgical cases, there were 41 patients suffering from diseases of the class under consideration, contracted previously to admission, while there were 29 in whom such affections had shown themselves subsequently to admission;

"That in 23 provincial hospitals, containing 1730 surgical cases, there were 13 patients only who had been admitted for such diseases, and 30 who had contracted them during their stay in hospital;

"And that in 43 rural hospitals, with 1798 surgical cases, there were 11 patients who had been admitted

while labouring under the diseases in question, and 14 in whom they had developed themselves subsequently to admission.

"To put the more important of the above series of facts into another form, there were, out of every 100 surgical patients in the metropolitan hospital, 1.9; out of every 100 in provincial hospitals, 1.7; and out of every 100 in rural hospitals, 0.7, suffering from erysipelas, phagedæna, or pyæmia, contracted in hospital.

"The statistics prove little; still that little is in favour of the opinion we have expressed, to the effect that the presence of these affections is dependent less on the kind and position of a hospital, than it is on the severity and number of cases likely to be affected by them.

"The proportion of deaths from pyæmia to total deaths is, from the tables, considerably greater in country hospitals than it is in town hospitals. In the former, deaths from pyæmia produce 3.4 per cent. of the total number of deaths; in the latter, deaths from pyæmia produce 1.7 per cent. only.

"But another yet more important fact is indicated, if not established, by these tables; viz., that pyæmia is, both in town and country, actually an infrequent cause of death when compared with all other causes of death, and with the total number of patients admitted for treatment. We allow that many of the returns from which our tables are compiled are far from trustworthy; but there are at least three London hospitals, for the accuracy of whose statements we can vouch; viz., Guy's, St. Thomas's, and St. George's; and the results furnished by them agree in the main with those given above. In these three institutions, there happened, during the periods specified in the tables, 21 deaths from pyæmia, and 1696 total deaths; and those occurred among 18,097 patients admitted for treatment. The deaths from pyæmia formed, therefore, 1.23 per cent. of the total number of deaths; and the death-rate due to pyæmia was 0.115 per cent."

Those who appeal to death-rates as a test of hospital salubrity, must be staggered by this last fact. In a year's experience of three of the largest London hospitals, where all the bodies of those who die are (as far as possible) examined after death, and the result of the examination and history of the case carefully noted, it turns out that the total deaths due to pyæmia are little more than one in one thousand patients. Considering that the deaths from erysipelas and phagedæna generated in the hospital are very much fewer than those from pyæmia, as the preceding researches show, it is fair to say that the addition to the death-rate of a large London hospital due to every kind of recognised hospital disease is much below two in one thousand patients. Yet, while the total death-rate in the class of hospitals where such deaths are most common does not amount to two in one thousand, the difference in the number of such deaths between one class of hospitals and another is constantly assumed to be an adequate explanation of a difference in death-rates amounting to thirty, forty, or even fifty, in one thousand.

It will be evident to any person who will take the trouble (which no sanitary writer on hospitals, as far as I know, has yet done) to go through the *post mortem* records of some hospital where, as at St. George's, the histories of all the fatal cases and *post mortem* examinations are preserved, that surgical injuries and surgical (so-called hospital) diseases furnish a very small percentage of the deaths, even at the largest and busiest institutions; and that the differences in their relative mortality depend chiefly on the difference in the nature of the medical cases they receive. It is constantly noticed that, while the number of cases of hospital disease is greater, the death-rate is smaller, and *vice versâ*.

I think, then, that I have shown: (1) that a large proportion—probably about one-half—of the deaths after surgical operation and accident are due to previous disease, to the inevitable effect of the accident, or to other unavoidable causes; (2) that, of those which remain, pyæmia is the cause of the vast majority; (3) that pyæmia causes a percentage of deaths far smaller than is generally imagined; (4) that there is much reason for believing that the death-rate, due to hospital diseases of all kinds, even in large metropolitan hospitals, does not exceed two in one thousand patients; (5) that no data exist by which we can estimate, or even form a conjecture whether this is a larger or smaller death-rate than would prevail in the same class of cases and patients if treated in smaller hospitals, in detached chambers, or in their own houses; and, therefore, that the influence for evil which hospitals exercise on the progress of this class of cases has been much exaggerated.

Yet it would be very idle and very uncandid to deny that such an influence does appear to exist. I have seen, in hospitals, operations in themselves of a very slight nature prove fatal by pyæmia; slight wounds converted into grave and often fatal injuries by erysipelas or diffuse cellulitis; ulcers, apparently trivial and easily curable, form the starting point of sloughing which has cost the patient his limb or his life. It is true that all these things happen also in private practice; and perhaps their apparent rarity may be due only to the comparative rarity of grave surgical cases in private, as compared with hospital practice. It is also true that, in hospital practice, though such disasters, from the impression they produce on the mind, appear common, they are seen to be really rare when brought to the test of exact record. Yet we cannot bring ourselves to believe that they are not preventable. Only, in order to prevent them, their causes must be exactly determined, which cannot be done without constant record and laborious observation. All this points to the necessity of more methodical and better note-taking and registration in our hospitals, both in town and country.

But I utterly deny that any great prevalence of hospital diseases in our large hospitals has ever been proved, or, with our present means of information, can be rendered probable. Hence no necessity has been shown to exist either for their removal into country districts, or for breaking up and disintegrating them into smaller institutions.

Tortoises in England. Sir William Williams, of Tregullow, Cornwall, has presented to the Zoological Society two live young tortoises, both of which have been reared in his garden, and the only ones ever bred in this country.

Utilisation of Cigar-Ends. Two years ago, a society was established in Berlin, the members of which agreed to preserve all the points of their cigars, instead of biting them off and throwing them away. These ends are collected, and then sold in large quantities, either for the manufacture of snuff or for smoking in pipes. The sum thus raised is applied to the maintenance and education of orphans; and some idea of the extent of the society, and the intensity of its affection for the weed, may be gained from the fact that the cigar-ends of two years' savings have brought in a sufficient sum for the maintenance of twenty-two children. Such a society, it is said, might be established in London to support an hospital for persons suffering from the deleterious effects of excessive smoking,

THE

Jacksonian Prize Essay

FOR 1865.

ON DISEASED CONDITIONS OF THE KNEE-JOINT.

BY

WILLIAM PAUL SWAIN, M.R.C.S.,

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Appendix of Cases.

Case I. November 11th, 1857. William Ellis, aged 9, of Tiverton. Under the care of Mr. Kempe, of Exeter. Scrofulous disease of the knee-joint, arising from a blow some years since. His health was very much impaired, rendering some operation imperative. Although the case was not the most suitable one for resection, the friends preferred its trial to amputation.

The joint was resected under chloroform. The articular surfaces of the femur and tibia, with the whole of the patella, were removed, although the latter bone was not implicated in the disease. No vessels required ligaturing. The boy was much exhausted by the operation and the effects of the chloroform. The H-incision was made.

No untoward symptoms followed; the healing process, however, was very slow; several sinuses formed, which had to be freely opened. At the end of six weeks there was a tolerably firm union of the bone. The sinuses showing no disposition to heal, and his general health remaining bad, it was thought best to send him home on December 19th.

I hear that ultimately the wounds healed, and his health was restored; but his knee became much contracted.

Ellis is now in good health and strong; the leg



Fig. 21.

operated upon is eight inches shorter than the other. He is learning a trade (shoemaker); he walks well, and at the rate of four miles an hour; he can walk fifteen miles in a day without any inconvenience or pain; he generally uses an ordinary walking-stick, but more to steady himself than from any use he makes of it to assist him; he wears a high-heeled boot; the heel is nine inches from the ground when standing, the toes four inches and a half; the foot is smaller than the other by an inch in each direction. He had used crutches for seven years altogether. The limb measured eleven inches when excision took place; the calf of the leg also measured eleven inches. (Fig. 21.)

Case II. November 17th, 1860. Ellen Bartlett, aged 11, of Tiverton. Under the care of Mr. Kempe. Scrofulous disease of the knee-joint, of one year's duration, with the knee bent and fixed at a right angle; her general health was not much impaired. Resection of the joint by one semilunar incision was performed; the articular surfaces, with the patella, were removed; the limb was placed in a Salter's swing with Price's splint.

This was a tedious case; several sinuses formed, and remained open. The general health having been very much improved, she was made an out-patient in May 1861.

The last time I saw this little patient she was in perfect health; the sinuses were all healed; the limb was quite straight, and union very firm, with very little shortening; and she could walk with very little lameness.

Mr. Bedell, of Tiverton, writes, December 1865:—"Ellen Bartlett, aged 17, general health good; the heel is five inches from the ground; the toe rests on the ground, she walks without a high-heeled boot, is strong, and can do three miles without in-



Fig. 22.

convenience; works at a lace-factory, and is standing all the day long. The limb measures eleven inches and a half at the knee, and eleven inches at the calf; the foot is of the same size as the other."

Case III. April 15th, 1851. Sarah Russell, aged 8, of Whitstone. Under the care of Mr. Kempe. Scrofulous disease of the right knee-joint, of three months' duration; she was a very puny and delicate child.

By a semilunar incision the joint was exposed; the articular surfaces of the femur and tibia (much diseased) were, with the patella, removed. The after treatment was conducted on general principles; and she was made an out-patient in July with several small sinuses not healed.

This case has been seen by me several times since, and is in all respects as favourable as No. 2.

Case iv. August 21st, 1861. George Curtis, aged 18, servant, of Newton Bushel. Under the care of Mr. Kempe. Scrofulous disease of the right knee-joint of two years' standing. The same case was trephined December 16th, 1859, and August 8th, 1860.

The joint was exposed by a semilunar incision, and the articular surfaces of the tibia and condyles were removed; both were much diseased, especially the inner condyle and corresponding surface of the tibia. There was very free bleeding from the bone after the operation, which it was somewhat difficult to restrain. The limb was put on a straight splint and treated in the usual way.

This case progressed most favourably without any drawback, and at the terminatiou of the seventh week the wound was entirely healed, and the union was complete. He was discharged cured November 5th.

There was, however, considerable shortening of the limb, nearly three inches and a half; but with a high-heeled shoe he walked about the ward quite well, and with very little lameness.

Case v. December 16th, 1861. W. Wellington, aged 6, of Exeter. Under the care of Mr. Kempe. Scrofulous disease of the knee-joint, of many years' standing.

The limb was exposed by a semilunar incision, and the patella and articular ends of the bones were removed in the usual way.

For a few days after the operation he suffered much from vomiting and restlessness, which, however, gradually subsided; he made a slow recovery; but after three or four months left the hospital quite well, but with incomplete union of the bones. About twelve months after this he was again taken in for a contraction of the same knee, which under chloroform was straightened and put on a long splint, and eventually did well.

Case vi. Of primary excision, by Mr. Kempe, appeared in the body of the essay. (See p. 542.)

Case vii. June 21st, William Holder, aged 7, of Exeter. Under the care of Mr. Kempe, Scrofulous disease of the left knee of six months' duration, producing great pain and emaciation.

A nearly straight incision across the joint was made, and the articular ends of the bones with the patella were removed; there was very little, if any, ulceration of the cartilage.

During the after treatment he was attacked with synovitis of the other knee, which pulled him down considerably; he was made an out-patient in September, much reduced in health and strength, but with the leg in good position and with fair union. The other knee was better.

This poor little boy never recovered his health. About ten months after leaving the hospital he suddenly became blind, and, at the early part of 1864, died of tubercular meningitis.

Case viii. November 10th, 1862. W. Holmes, of Ipplepen, farm labourer, aged 16. Under the care of Mr. Kempe. Acute synovitis of right knee-joint with abscess in the popliteal region; his health was much reduced.

After an anxious consultation, amputation above the knee was advised, as a less shock to the constitution, which was much depressed. On placing the matter before him, he preferred resection of the joint. Excision of the knee-joint was performed.

This case went on most favourably from the first, although it was complicated with bed-sores, and a large abscess of the opposite thigh.

The resected knee was quite healed in five weeks, with firm union between the bones; he had, however, a tedious recovery from the bed-sores, etc. He left the hospital quite well, and has not since been heard of.

Case ix. September 18th, 1863. William Ash, aged 22, of Torquay, servant. Under the care of Mr. Kempe. Scrofulous disease of the knee-joint, of three years' duration. He had been in one or two of the London hospitals, and many months in the Devon and Exeter Hospital, and, finding that he still became worse, was anxious to have the knee excised. The joint was exposed by an almost straight incision across it, and the articular surfaces, which were much diseased, with the patella, were removed.

The after treatment was conducted in the usual way, and he made a very good recovery. He left the Hospital in January following, with a well moulded leather splint.

He visited Exeter about two months since, when I found that he could walk at the rate of three miles and a half an hour.

A photograph of this case by Angel accompanies it; his general health, which had been much impaired, was perfect, and he expressed himself in very grateful terms for his recovery.

The lady who gave him his recommendation was so pleased, that she most liberally presented a donation of £25 to the hospital on the occasion.

Case x. February 2nd, 1864. Joseph Hammett, aged 18, errand boy, Exeter. Under the care of Mr. Kempe. Scrofulous disease of the left knee-joint, of eight months' duration.

He had been subject to the usual treatment; but, the pain increasing, and his health becoming much worse, he was anxious to have excision performed. The joint was exposed by a semilunar incision from one condyle to the other, and the articular surfaces of the femur and tibia, with the patella, were removed. The case went on favourably. At the end of two months the bones were firmly united, but the wound was not healed.

He was made an out-patient in May, and is still in attendance with a very small ulcer open, but with a very straight limb, and firm union.

There was considerable secondary bleeding after this operation, and it was found necessary to apply the actual cautery to arrest it.

It should have been stated that the end of the femur was found denuded of its investing membrane to some considerable extent, and there was some doubt whether, in consequence, this case would do well. A second slice of bone was removed, which of course further tended to shorten the limb, and which, from the termination of the case, I do not now believe to have been necessary.

Case xi. May 25th, 1854. Elizabeth Jolly, aged 33, Morchard Bishop. Under the care of Mr. Kempe. Disease of the knee-joint, of four years' duration. The joint was exposed by a semilunar incision, and the articular surfaces, with the patella, all much diseased, were removed. This case progressed favourably, and a most useful limb was procured.

Case xii. June 1st, 1864. William Squires, aged 9, Tiverton. Under the care of Mr. Kempe. Scrofulous disease of the left knee-joint, of some years' duration.

He was much emaciated, and suffered intensely from pain in the joint, and was most anxious to have some operation performed; this was against the wish of his mother at first.

The joint was exposed by an almost straight incision, and the articular surfaces, with the patella, were removed. The after treatment was conducted in the usual way, and the case was progressing most favourably till the beginning of July, when he was

attacked with tubercular meningitis, and died on the 17th.

The union of the knee was very firm; the soft parts were much ulcerated.

Cases xiii and xiv, Mr. Swain's excisions, have appeared in the body of the essay. (See pp. 490 and 543.)

Case xv. Mr. H. Smith's case. M. B., aged 30, female, admitted September 6th, 1865. Strumous disease of knee-joint commencing in the synovial membrane; joint greatly disorganised; pain and swelling in the joint commenced November 6th before, and this increased rapidly, the joint becoming gradually flexed. She went to St. Bartholomew's Hospital, when amputation of the limb was proposed; she would not submit to this, and came under Mr. Henry Smith's care into King's College Hospital. On admission, the joint was swollen, red, fluctuating in parts, causing her great pain on pressure, and flexed.

October 21st. Excision was performed; the joint was completely disorganised, and full of gelatinous matter; the lower end of the femur and the articular extremities of the tibia were removed. (Preparation 9.)

The patient went on very well until six days after the operation, when Mr. Smith, finding the femur somewhat overriding the tibia, placed her under chloroform and changed the splint. Two days after this, she got a rigor, symptoms of pyæmia were gradually developed, and she died on the 18th day after the operation. Mr. Smith fears he may possibly have carried infection to this patient from a patient with abscesses, the result of puerperal fever.

On *post mortem* examination, the limb was found in excellent position, but the ends of the tibia and femur, or rather their substance for the extent of an inch or more, were here and there infiltrated with pus. There were small circumscribed purulent deposits in one lung, and a collection of matter in the front of the pons Varolii, cerebellum, and fourth ventricle. Latterly, she had complained terribly of pain in the head.

Case xvi. A boy, aged 8, admitted into King's College Hospital, under Mr. H. Smith, with old disease of the knee, which resulted in permanent deformity, the leg being flexed upon the thigh, and the ankylosis being very firm.

Mr. H. Smith removed a wedge of bone (preparation 8) on October 7th, 1865. The boy has made a good recovery with a straight though somewhat shortened limb.

Case xvii. Mr. Wood's case. H. D., male, aged 4. Strumous disease of knee-joint, commencing in the bones; cartilage becoming involved. The patient was pale, flabby-looking; the right knee was swollen, and uniformly soft; the skin covering it was pale; the joint was semiflexed, immovable, and very sensitive. Four sinuses opened on the surface at the front part of the knee. No exposed bone could be detected on probing the sinuses, which were discharging puriform matter.

October 21st, 1865. Excision was performed by a semilunar incision; the lower end of the femur and the whole of the epiphysis of the tibia were removed. A small abscess was found in the head of the tibia; the cartilage and synovial membrane were as yet healthy; the patella was healthy. (Preparation 7.)

The child has made a good recovery, and there is now firm union between the bones.

Cases xviii, xix, xx, of amputation of the thigh, for disease of the knee, have appeared in the body of the essay. (Pp. 374 and 652.)

Case xxi. E. B., aged 50, labourer, admitted into the Taunton and Somerset Hospital, June 11th, 1864, under Mr. Liddon, with disease of the left knee-joint, of six years' duration, and a discharging sinus over the centre of the sternum connected with disease of that bone. There was no history of syphilis. The knee was slightly flexed, swollen, with an evident thickening of the synovial structures, very tender to the touch, and excessively painful at night. His general health was bad; tongue furred; occasional diarrhœa, and loss of appetite, but no cough.

The treatment consisted in keeping the joint at rest by a splint, etc., and supporting the strength by tonics and liberal diet. Instead of improving, the patient lost flesh gradually; suppuration took place in the joint, and sinuses formed.

On October 8th, 1865, the patient having somewhat rallied, amputation was performed about the middle of the thigh, as the bone was thickened in the lower third. He survived the operation for a few days, and then died with congestion of the lungs.

On his admission, Mr. Liddon thought that, if his general health could be improved, it would be a fit case for excision. Amputation was, however, resorted to, as affording the best chance, in not calling so much upon the restorative powers at his age, and in his weakened condition from the extent of disease in the femur.

Case xxii. Valentine Harris, cheesemonger, aged 49, was admitted into the Westminster Hospital, September 29th, 1864, under the care of Mr. Holt, with strumous disease of the left knee-joint. Amputation of the thigh was performed; sloughing of the anterior flap followed the operation; and he died on October 30th.

There was strumous disease of the knee-joint, of two years' duration; there was also a collection of matter below the head of the tibia communicating with the joint. This was opened fourteen days after admission, with temporary relief, and the limb was amputated on October 17th, 1865. A long anterior flap was left, and no posterior flap. On the day after the operation, three inches of the anterior flap had turned black, and appeared likely to slough. Sloughing commenced on the third day in the part first indicated; the patient became gradually weaker, and died on the fourteenth day after the operation. All the ligatures had come away except that on the femoral artery. The slough had not thoroughly separated when death took place.

[*To be continued.*]

Death of the Tycoon. The *Japan Herald* of September 29th gives an account of the death of the Tycoon of a disease peculiar to Japan, but resembling dropsy.

Serpents at Meals. Some rabbits, so young as to be almost helpless, were dropped into the cases of the rattle-snakes and puff-adder. They were soon struck, but the venom was much slower in its action than I should have expected. The bite of both these species is said to be fatal to man, yet these small animals survived about twenty minutes. The bites were effectually given, as in one instance blood oozed from the punctures, and in another it flowed from the nose and mouth. I paid particular attention to the act of striking, having understood that our English viper does not, strictly speaking, bite, that is, does not close the jaws, but with the mouth wide open drives in the fangs by a downward stroke of the upper jaw, like the blow of a hammer. The puff-adder, however, appeared to seize its prey with a momentary grip, leaving go immediately. (*Hardwicke's Science Gossip.*)

Progress of Medical Science.

ANATOMY, PHYSIOLOGY, & PATHOLOGY.

ACUTE RHEUMATISM: CONCRETION IN THE PERICARDIUM: MIGRATION OF A SWALLOWED THORN INTO THE HEART. A man, aged 27, died of an attack of acute rheumatism with cerebral symptoms. At the autopsy, numerous tuberculous granules were found in the pia mater; also in the liver, the end of the ileum, and the cæcum, and a few in the lungs. The pericardium presented numerous adhesions, formed by a very vascular fibrous tissue. In the pericardial cavity was a flattened, irregularly elongated body, of the size of a haricot bean, and of a yellowish red colour. On being divided, it was seen to consist of a large central nucleus, hard as stone, and of a thin envelope arranged in concentric layers, the inner being the hardest. On being examined under the microscope, the capsule was found to be formed of irregular lamellæ and fibres, among which (except in the outer layer) were deposited calcareous granules. The nucleus consisted of calcareous matter, separated by a little fibrillary substance. On placing a piece of the nucleus in hydrochloric acid, the calcareous matter disappeared with effervescence, leaving a soft transparent membrane, consisting of amorphous substance with numerous cells like those of flattened epithelium, separate or aggregated. On the posterior wall of the left ventricle, near the septum, an inch from the apex, was a cicatricial depression four lines in diameter. Within the ventricle, the point of a thorn (of the sloe) was found projecting into the cavity, being covered by a closely adherent layer of fibrine; the base lay in the septum. The valves were healthy. A year and a half before death, the man had swallowed a thorn, and had felt pain in the œsophagus, afterwards in the heart. M. Kussmaul, who relates the case, supposes that the thorn traversed the œsophagus and pericardium, setting up in the latter inflammation, the results of which were the adhesions and concretions, and finally became lodged in the heart. (*Würzburger Med. Zeitschr.*; and *Gaz. Méd. de Paris*, 2 June, 1866.)

THE VESSELS AND NERVES OF FIBROUS AND FIBRO-CARTILAGINOUS STRUCTURES. M. Sappey has communicated to the Academy of Sciences the results of his investigations on the vascular and nervous supply of articular fibro-cartilages, ligaments, tendons, and aponeuroses.

1. *Articular Fibro-cartilages.* Authors state that these structures possess neither vessels nor nerves. M. Sappey, however, says that he has been able to ascertain the presence of both. Among the articular fibro-cartilages, those of the knee are the most vascular. The vessels at first proceed parallel to the bundles of connective tissue, giving off a large number of branches at various angles, which anastomose and form a network. The vessels reach the middle part of the cartilage, sometimes even the vicinity of the edge. The arteries have at first their three coats; their ultimate ramifications end in loops which spread over the two surfaces of the fibro-cartilage, and are arranged in the most elegant and varied manner. The veins follow the course of the arteries. In the fibro-cartilages of other parts, the vessels pass from the circumference towards the centre to a depth of about one-tenth of an inch, and end in arches surrounding the centre, which is entirely destitute of blood-vessels. The periarticular fibro-cartilages are much more vascular, and do not in this respect differ from periosteum, of which they may be considered as an offset. The vessels are arranged in the same way as those of the inter-articular fibro-cartilages. The fibro-cartilages receive nerves, part of which accompany the vessels, while part follow a separate course. Those which follow the vessels are frequently separated from them, and sometimes cross them at a right or an acute angle. At some points, the nerves are larger than the vessels. They anastomose, and form plexuses with unequal, often very fine, meshes.

2. *Ligaments.* Vessels enter the ligaments in large numbers. They lie in the intestines of the fasciculi, which they surround with anastomoses. They gradually subdivide until they reach the surface covered by synovial membrane, where they form an extremely rich network. In the capsular and some other peripheric ligaments, the deepest layers, hitherto considered by many as almost completely destitute of vessels, are, on the contrary, very vascular; the vessels being distributed almost as in the skin. All the ligaments receive a large supply of nerves; some even more than the skin of the trunk and limbs, their supply being rather comparable to that of the fingers and toes. In their course, the nerves send off a number of branches and minute twigs, forming plexuses, which most generally accompany the vascular plexuses, but are sometimes isolated. The nerves become subdivided until they are reduced to one or two tubules, so that they seem to end in free extremities. M. Sappey does not assert that they do so; he cannot say that the isolated tubercles do not become united with others.

3. *Tendons.* Vessels and nerves are a little less numerous in tendons than in ligaments, but are arranged in the same manner.

4. *Aponeuroses.* In all the fibrous envelopes of the muscles there are ramifications of arteries and veins, accompanied by nervous filaments; the latter being sometimes larger than the vessels. Two orders of nerves are met with in the aponeuroses. Some, having run a longer or shorter course in the fascia, leave it and end in the subaponeurotic structures; while others, specially destined for the fascia, form frequent anastomoses, as in the ligaments and tendons. (*Gaz. Méd. de Paris*, 2 June, 1866.)

CONTENTS OF SPUTA. M. N. Friedreich describes the following bodies as having been met with in sputa.

1. *Bone.* A patient suffering from tuberculosis and vertebral caries frequently expectorated pieces of bone of the size of peas. They had the appearance of carious spongy bone, and, under the microscope, presented the true osseous structure. They evidently came from the vertebral column.

2. *Hæmatoidine.* A patient, who had pleurisy in the left side, was seized with circumscribed pneumothorax and pyopneumothorax, preceded by very severe pain, dyspnœa, and purulent expectoration. Examined under the microscope, the sputa were found to contain innumerable crystals of hæmatoidine. Crystals of the same substance were also found in the pus contained in the pleura.

3. *Tyrosine.* A woman expectorated fibrinous casts of the bronchi, of a dirty grey colour. Under the microscope, they were seen to be composed of pus-cells undergoing fatty degeneration, and of a finely granular detritus embedded in a fibrinous mass. There were also a large number of colourless crystals, having different shapes, but generally in the form of very long and fragile quadrangular octohedra. These were, M. Friedreich says, crystals of tyrosine.

4. *Amylaceous Corpuscles and Sarcinæ.* A woman

had narrowing of the mitral orifice, thrombus in the right auricle and in the pulmonary artery, hæmorrhagic clot in the apex of the right lung, and secondary pleurisy. She expectorated amylaceous bodies, having as their centre a dark or crystalline pigmentary mass; the sputa also contained very minute sarcinæ. These did not come from the mouth or stomach, but from the deeper parts of the air-passages. (*Archiv für Path. Anat.*; and *Gaz. Méd. de Paris*, 23 June, 1866.)

Tumour of the Choroid. At a recent meeting of the Pathological Society, Mr. J. Z. Laurence exhibited a Tumour of the Choroid. John S., aged 55, was admitted on October 2nd, 1866, into the Ophthalmic Hospital, Southwark. Two years before, the left eye was struck by a piece of timber; the sight of the eye was at once permanently lost, and ever since he had suffered most violent pain in the eyes and head. There was not the slightest perception of light in the injured eye. Latterly the sight of the other eye began to suffer. Under these circumstances, Mr. Laurence removed the injured eye-ball. This presented the following pathological appearances. To the outer side of the globe was a slate-coloured globular tense protuberance (staphyloma of the sclerotica). Below the cornea was a similar smaller staphyloma. The anterior chamber was obliterated by the bulging forward of the iris. The pupil was blocked up by buff-coloured lymph (?). On dividing the globe, a quantity of sanguineous serum poured out. The retina was found completely separated from its attachment to the choroid, traversing the eye-ball from before backwards, in the form of a funnel-shaped cord. Surrounding the optic papilla was a firm, buff, partially black growth, about the size of half of a large pea. This growth exhibited under the microscope cancer-nuclei, and cancer-cells, many of them multinucleated, of the most typically malignant character.

Imperforate Œsophagus. At a meeting of the Academy of Medicine, M. Tarnier related a case of imperforate œsophagus, and made some remarks on the malformation. Imperforate œsophagus generally coexists with absence of one or more portions of the face and mouth, or with other malformations; the author, however, speaks only of uncomplicated cases. Of these he has been able to collect twelve examples only. The anatomical arrangement of the parts may vary; but in most cases the upper end of the œsophagus ends in a *cul-de-sac* an inch or an inch and a half below the upper border of the thyroid catilage, while the lower end opens into the trachea a little above the origin of the bronchi. In one instance, the opening was into the right bronchus. It is not rare to find a fibrous cord stretching from the upper to the lower end. The diagnosis lies in the difficulty of deglutition, the rejection of drinks, and the paroxysms of dyspnœa; and is confirmed by introducing a sound. A circumstance that may mislead, is the vomiting of mucous or glairy matter which sometimes occurs; in such cases the œsophagus opens into the trachea, and the passage of the vomited matters into the latter produces dyspnœa. In M. Tarnier's case, blood was vomited. There has in almost all cases been observed a normal evacuation of meconium and urine. Death generally occurs on the third or fourth day. Gastrotomy is the only remedy which M. Tarnier regards as being likely to afford relief; but he does not recommend it, on account of the large development of the infantile liver and the small size of the stomach. (*Gaz. Méd. de Paris*, July 21, 1866.)

MEDICINE.

Acute Pemphigus in Children. The question whether non-syphilitic pemphigus is contagious or not, has been both affirmed and denied. Dr. A. Steffen treats of the subject in the *Berliner Klinische Wochenschrift*, founding his remarks on an epidemic (?) of pemphigus which occurred in the Children's Hospital at Stettin in the summer of 1865. From July 19th to September 17th, seven cases of pemphigus were observed among the children. For some time before the outbreak, as well as after the close of the so-called epidemic, no cases of the kind were met with, in spite of the admission of a large number of marastic children. On the other hand, careful observation shewed: 1. That the cases of pemphigus were confined to one ward containing the younger children; 2. That the cases occurred so close on each other as to favour the idea of the contagious nature of pemphigus. Dr. Steffen recognises three forms of pemphigus. 1. Pemphigus appearing without apparent constitutional disorder in strong and healthy newly born children, and ending favourably. 2. Pemphigus in children, who, through bad living or chronic weakening disease, have fallen into a state of marasmus, and in whom the eruption is only the external sign of an alteration of the blood—cachectic pemphigus. 3. Syphilitic pemphigus. In the obscurity attending the etiology and nature of this disease, its treatment is uncertain. Bamberger advises the use of albuminoid substances in easily assimilable form, objects to all local irritants, and recommends absorbents, especially vegetable charcoal. He also approves of promoting the natural secretions, especially those of the alimentary canal and kidneys, and the early opening of the bullæ. On the other hand, Von Bärensprung advises purgatives with chlorate of potash; while Hebra recognises no internal remedies, but has in a limited number of cases sometimes used cold water in various forms, sometimes lukewarm baths, either simple, or with the addition of bran, caustic potash, corrosive sublimate, or tar. According to Steffen, the pemphigus which occurs in healthy children requires only warm baths, to which bran may be added. In the cachectic form, to nourish the children and raise the depressed bodily powers, is the first consideration. Washing and bathing with warm water may be used; the parts from which the bullæ have fallen are painted with sweet oil or glycerine. (*Wiener Med. Wochenschr.*, 12th Sept., 1866.)

Treatment of Infantile Syphilis. Dr. R. Förster of Dresden gives the results of observation, made on 68 cases in a period of nine years and a half, with regard to the medicinal treatment of infantile syphilis and on certain circumstances connected therewith. He first calls attention to the fact, that syphilis, appearing in newly born children or soon after birth, generally in the form of pemphigus, is almost inevitably fatal; while the prognosis is more favourable, the farther the appearance of the disease is removed from the period of birth. Dr. Förster divides his cases into two classes; 1, children under half a year old, and 2, children above that age. As bearing on the question whether syphilis can be communicated through the milk, the first class is divided into children which were suckling, and those which were not. The 68 children (28 males and 40 females) varied in age from 12 days to 4½ years; 45 (about 66 per cent.) recovered; and 23 (or 34 per cent.) died. In five cases there was a relapse; in one there were two relapses. Of 36 children who at the commencement and generally through the course of the treatment continued to

suck, only 6 died; while of 18 children of similar age who were deprived of the breast, 13 died. It also appears from Förster's statistics, that artificially fed children are more imperilled, the earlier the syphilis has appeared. In the 36 cases, the children were, with one exception, suckled by their own mothers; one only by a nurse. There is, according to Förster, no certain proof that an infant suffering from hereditary syphilis can infect its mother. The treatment employed by Förster was chiefly mercurial. Of the 68 cases (increased to 74 by the relapses), protiodide of mercury alone was given in 51; in 21 other cases antisyphilitic remedies were given with mercury; in 2 only no mercury was used. Förster admits that diarrhœa sometimes follows the use of the protiodide of mercury. But, he says, diarrhœa often enough occurs in infantile syphilis when no mercury has been given; and that it did not increase, but diminished, when the use of the protiodide was commenced. He gave the medicine in doses of from one-twelfth to one-eighth of a grain twice daily, generally with powdered gum. Wine was sometimes also administered. Mercurial vapour-baths were not used, because their administration cannot be always entrusted to the attendants, and because the quantity of mercury taken into the system is less accurately defined than when it is given internally. In two cases only, of small atrophic artificially fed children, inunction was employed. Dr. Förster never found salivation to be produced in any of his cases, although large amounts of mercury were used. Of the 51 cases treated with protiodide of mercury, 17 died and 34 recovered. The quantity of the protiodide taken by the latter varied from $2\frac{1}{2}$ to 8 grains; the average being $5\frac{1}{2}$ grains. The duration of treatment varied from $2\frac{1}{2}$ to 13 weeks; the average being $5\frac{3}{4}$ weeks. But, if the time occupied in treating the diarrhœa, debility, etc., be included, the average is increased to 8 weeks. (*Deutsches Archiv für Klin. Med.*, and *Wiener Med. Wochenschr.*, 14 November, 1866.)

Apoplexy of the Medulla. M. Lévier, after describing a case of apoplexy in the lumbar region, comments on the cases of medullary apoplexy hitherto reported. In the medulla oblongata, there have been nine cases, four only being pure; the results were, loss of consciousness, involuntary epileptiform movements, and sudden death. Of apoplexy in the spinal cord there were seventeen cases; in two-thirds of these, the lesion was in the upper part of the medulla. The attack was rarely sudden; it was generally preceded for a week or a fortnight by pain in the spinal cord and symptoms of congestion. The first symptom is paralysis, which often occurs during sleep, and affects the sphincters; its progress is rapid, and it is not accompanied by contractions of the limbs; its extent depends on the seat of the apoplexy. Reflex excitability is destroyed. There are ordinarily greatly impeded respiration, feeble cough, difficulty in expectoration, aphonia, and impairment of speech. Paralysis of sensation generally follows that of motion; sometimes there is hyperæsthesia; the spine is not tender on pressure. Both sides, or one only, may be paralysed; in three instances of the latter which occurred, there was paralysis of sensation on the opposite side. There is elevation of temperature in the paralysed parts. The duration of the disease varies from a few hours to some months. The diagnosis may be difficult. In meningeal apoplexy, there are convulsions; the paralysis of motion is less complete; moreover, it is generally secondary, occurring in the course of tetanic or convulsive affections. Congestion of the medulla is distinguished by the short duration of the paralysis, the slightness of the symptoms, and the rapid return of health. (*Schweizerische Zeitschr.*; and *Gaz. Méd. de Paris*, June 9th, 1866.)

Reviews and Notices.

Gout and Rheumatism in relation to Disease of the Heart. By A. W. Barclay, M.D.Cantab. and Edin.; Fellow Royal College of Physicians; Physician to St. George's Hospital; etc. Pp. 214. London: 1866.

Dr. Barclay, in the work before us, does not attempt to give the reader a full account of the varied phenomena exhibited by Gout and Rheumatism, but confines his remarks more especially to these affections in relation to disease of the heart. Still, however, something will be found of the author's views of the nature of these disorders and of their relations and differences.

Dr. Barclay states, in his preface, that he has

"Thought it not unreasonable to venture on theoretical views which are certainly open to criticism. Let it only be remembered that they are put forward as hypotheses which seem to serve as an explanation of the facts observed, and that nothing more is claimed for them. The judgment of others must form the only true estimate of their value."

The first chapter is devoted to the consideration of the Theory of Gout; and although Dr. Barclay brings forward many facts which render it impossible not to connect almost as cause and effect the relation between the presence of uric acid salts in the blood and tissues, and the phenomena exhibited, still he is unwilling to admit, as too mechanical, the statement of Dr. Garrod, "that true gouty inflammation is *always* accompanied with a deposition of urate of soda in the inflamed part." Dr. Barclay allows, indeed, that his views are more in accordance with those of Dr. Gairdner, who gives it as his opinion that an attack of gout is *caused* by an absolute hæmorrhage into the part; a view not only rudely mechanical, but unsupported by a single fact. If Dr. Barclay really agrees in this latter view, we wish he had traced the reasoning by which such a result is arrived at.

With regard to the urate theory, Dr. Barclay asks several questions, and appears to answer them without much reference to facts; for he says:

"Must we find urate of soda in the stomach and bronchi before we can admit gouty gastritis or gouty bronchitis? Must we assume that 'the deposited urate of soda may be looked upon as the cause and not the effect of gouty inflammation', and that no gouty inflammation can occur till such a deposit has taken place, and that it must have happened whenever it exists? Such assumptions make large demands on our belief; and to us it appears that the very fact that urate of soda is not found in parts such as bronchi, where an inflamed condition of the membrane is so often associated with gout, is of itself a proof that 'true gouty inflammation' is not always associated with or caused by the deposit. This conclusion acquires additional force from the consideration that, though the deposit and the inflammation are associated together in the joints, the urate of soda is seen in other parts without any evidence of its exciting inflammation there."

Now we would ask Dr. Barclay, Has he ever, in

a case of gouty bronchitis or gastritis, examined the bronchi or stomach, and disproved the existence of an urate of soda deposit, or does he know of any one who has done so? or has he ever seen a deposit of urate of soda without more or less inflammatory action having occurred? The amount of inflammation surely depends much on the nature of the tissue which has been infiltrated. We do not expect as much inflammation if we run an instrument into the cartilage of the ear, as when we introduce it into the knee-joint; and we may assume that the same holds good of the deposit of urate of soda in these several parts.

In another part of the volume, Dr. Barclay appears to accept as a necessary consequence that which he had previously rejected. He says:

"If uric acid be contained in excess in the blood, and held in solution in the serum"—(a fact which he admits)—"it would seem impossible that serum should exude without carrying urate of soda with it."

Although Dr. Barclay cannot make up his mind to accept the urate theory, he nevertheless appears to be able to satisfy himself as to much of the difficulty of the subject. Thus he considers that the blood-corpuscles are altered, and, when so changed, are succeeded by other corpuscles which have received a like impress from the first; and thus the permanent nature of gout is attempted to be explained. Our author certainly allows that the means of confirming or contradicting such an hypothesis are as yet wanting; but the probability of it is, in his mind, great; for a *friend* of his, as a result of investigations, thinks it is true. From this it would appear that gout is due to some unknown change in the blood-corpuscles, which neither chemistry nor the microscope have yet been to unravel.

Again, he states, that "were it true that the non-elimination of uric acid from the blood is the sole cause of gout, it is manifest that we have only to secure a complete alkalescence of blood and urine—a condition in which deposit of uric acid is chemically impossible—to save our patients from any of the evil consequences of its presence." But does Dr. Barclay forget that the blood is always alkaline, and that deposition of urate of soda does take place from such a fluid?

Chapter II is principally devoted to Acute Rheumatism in Relation to Heart-Disease, but other points are casually touched upon. Dr. Barclay fully allows that rheumatism and gout are essentially distinct diseases; and agrees with some recent authors that the word rheumatic gout should be altogether banished from medical nomenclature, as implying a theory which is known to be false. He also thinks, with others, that the so called muscular rheumatism may be altogether distinct from rheumatic fever. As to the pathology of true rheumatism, he allows that our knowledge is very obscure; but he holds strongly the acid view of its nature. He says:

"The existence of some influence of a general character, associated with, and probably originating the disease, is proved by the presence of an acid in all the secretions. Tracing it backwards to its origin, we shall not be far wrong in asserting that this acidity begins in the stomach."

But he allows that overacidity of the stomach is not by any means followed by rheumatic fever, and therefore considers that

"There is some peculiar tendency in the system to develope and retain the acid which does not exist in mere acid dyspepsia; and if the acidity show itself in the process of digestion, it has some more deep seated cause."

The Treatment of Rheumatic Inflammation of the Heart forms the subject of the fourth chapter; and we shall devote a few lines to the discussion of certain theories therein contained. Dr. Barclay considers that medicine has not much power in the removal of cardiac alterations, when they have once taken place; and that the whole train of antiphlogistic remedies, as bleeding, blistering, calomel and opium, antimony, and so forth, have been miserable failures. In this opinion most practical physicians will probably agree with him. But, on the other hand, he believes that much can be done to prevent damage from ensuing; and, for this purpose, he advocates strongly the free employment of some alkaline plan of treatment, which, he affirms, has been followed by the unlooked-for result of preventing to a great extent the liability to cardiac complication. Dr. Barclay goes the length of stating, as "a matter now placed beyond question, that, when the secretions are maintained in a state of alkalescence by the free administration of potash, the tendency of the disorder to excite inflammation of the heart is almost entirely obviated." He admits, however, that the alkaline method does not arrest joint-disease. How, then, according to his own views, can it "incontestably prevent inflammation of the heart", if the view is correct, that "the acid of acute rheumatism forms the link between the articular and cardiac inflammations"?

Dr. Barclay thinks the recent observations at Guy's Hospital prove that although, when no drugs are administered, patients often recover in a remarkable manner, yet at the same time there is great liability to disease of the heart in such circumstances. Having carefully perused the results of the observations above alluded to, and compared them with others, we question if the deductions drawn from them by Dr. Barclay can be said to have been satisfactorily established.

Our author is strongly opposed to the stimulant plan of treatment, but is an advocate for the use of mercurials, given to cause an action upon the digestive organs.

There is one statement in Chapter V from which we differ completely; viz., that, as far as heart-disease is concerned, "a young adult may be considered perfectly safe, so long as one or two joints only are implicated, however sharp the pain, however great the heat, and redness, and swelling." We could bring forward instances of individuals certainly from 18 years and upwards, in whom the heart has been most seriously implicated with acute inflammation, and where the articular affection has been so slight as to attract little attention either from the patients or medical attendants. We do not, however, wish to deny the general truth of the statement as to the influence of age on the liability to cardiac inflammation.

The connexion between Gout and Cardiac Disease forms the subject matter of the sixth chapter. Dr. Barclay divides cases of heart-disease occurring in gouty subjects into three orders.

"First, we have to distinguish those in which heart-disease has sprung from some wholly inde-

pendent cause in a person who is subsequently attacked by gout. Secondly, a large number of cases may be met with where the malnutrition accompanying a gouty diathesis slowly developes disease of the heart; and thirdly, we recognise cases of metastasis to the heart; the organ being either previously affected, or, as is more commonly the case, affected by some organic lesion."

We find no fault with this division, although we cannot agree with all that is stated on this subject. For example, we do not see the slightest proof of the assertion that a gouty person escapes the great cause of cardiac inflammation by the acid-forming vice of his constitution tending to the formation of uric acid in excess, and not the acid of rheumatic fever. Alluding to valvular affections, Dr. Barclay states that, from his own investigations, urate of soda is only found on valves previously damaged by other disease. Now, without questioning the possibility of the valves of the heart becoming the seat of urate of soda deposit, we should like to ask Dr. Barclay if he has ever seen such. We can find no record in works more especially devoted to these subjects.

Dr. Barclay objects to the term blood-poisoning, as applied to such diseases as gout—looking upon the abnormal matters found in the blood, not as a poison in the true sense of the term, but only as an evidence of blood-change.

The Principles of the Treatment of Heart-Diseases occupy the remaining two chapters of the work. Dr. Barclay does not lay down specific rules of treatment, but simply indicates the direction which must be followed in each case, alluding merely to one or two remedies. When discussing the treatment of cardiac disease depending on or accompanying a gouty diathesis, the reader may possibly be somewhat surprised to find that he must not look in the volume before him, but must refer to a treatise by another author, which Dr. Barclay strongly recommends, and which he thinks so highly of, that, if he attempted to give the treatment, he could only lay down the same rules as those therein contained in a different phraseology. Truly this is an example of disinterestedness seldom met with in these times.

Having thus passed shortly in review the principal topics dwelt upon by our author, let us give, in a few lines, our opinion of the work as an acquisition to our medical literature.

In the first place, we look upon the volume as elegantly written, and the tone throughout in every way professional. If we ask ourselves whether, from its perusal, we have gained any definite knowledge of the diseases under consideration, not before made public—whether, in fact, Dr. Barclay has added to the previous existing knowledge on the subjects—we are constrained to reply in the negative. He has, indeed, given his opinion of the results of the labours of others, and has offered suggestions of his own; but, at the same time, these are little more than hypotheses, and are unsubstantiated by facts. We have examined somewhat carefully Dr. Barclay's book, and have just reason to do so. Dr. Barclay has complained much of the illogical doings of his brethren. In a work, therefore, from his own pen, the profession have a right to expect great accuracy in statements, and such logical deductions as leave no room for criticism.

We are requested to remind members of the Association that the Annual Subscriptions became due on the 1st of January. They can be paid either to the Secretaries of the Branches; or to the General Secretary, T. Watkin Williams, Esq., 13, Newhall Street, Birmingham.

British Medical Journal.

SATURDAY, DECEMBER 22ND, 1866.

THE HANDWRITING ON THE WALL.

THE members of the General Medical Council are at this moment performing, in various parts of the country, a duty which we hold to be among the most highly important of the various functions entrusted to them by the Government. They are renewing the visitation of the examinations conducted by the qualifying bodies, which they undertook for the first time last year. The visitations of last year were open to many objections, which have been urged with great vivacity by some who were originally disposed to doubt the possible efficacy of the system adopted. The reports drawn up by the visitors were confessedly, to adopt the language of the English Branch Council itself in presenting its part, prepared without any uniform plan, and differing much as to the degree in which they enter into details. But the Branch Council urge that these inspections should only be considered as an experiment. They "trust that the experience which they have acquired may lead to a more effective performance of the duties of visitation in future." This is language which is at once modest and dignified; it is so wide of excess of self-appreciation, that those who omit to examine the details of the reports alluded to will by no means adequately estimate, from this statement, the important conclusions to which they naturally lead.

There are two reports amongst the first series which are of great interest, and which might in many respects be accepted, in our opinion, as models of what documents of this kind should be. There are not any two qualifying bodies whose examinations are now of greater importance, in their influence upon the professional fitness to practise of the general body of practitioners in England, than the College of Surgeons of England and the Apothecaries' Hall of London. The report on the exminations at Apothecaries' Hall, London, is due to the pen of Dr. Parkes and Dr. Quain, the visitors appointed. It may be true that the reports of a few inspectors, specially appointed to visit the examinations throughout the country, and drawing up their conclusions in a systematic and regular form, accord-

ing to a given scheme, would have given a more thoroughly searching and more easily comparable analysis of the attainable information; but we doubt whether their conclusions would be so authoritative, and on that account so valuable, as those which men of the very highest standing and professional experience thus afford, without remuneration, and from the sole desire adequately to fulfil a serious public trust. Dr. Parkes and Dr. Quain report that the candidates for the licence of the Apothecaries are examined in all the branches of medical knowledge *except surgery:* anatomy and physiology, chemistry, botany, materia medica, medicine and pathology, midwifery (including the diseases of women and children), forensic medicine, toxicology. At the first examination, the examination, both written and oral, was upon the first four (scientific) subjects. They observe that the questions in anatomy are especially directed to *medical anatomy*, and are intended so far to differ from the class of questions given at the College of Surgeons. In physiology, *practical* questions are chosen. They mildly observe, that they consider the questions "well suited for the purpose; if well answered, they will show, we think, a fair knowledge of these subjects. *Probably, as the system is matured, the number of questions will be increased, and more time will be given for the replies.*" It is impossible to treat a fault more gently, or insinuate a wish with a more tender delicacy. They observe further, that the examination in *materia medica* is sufficient, "if the object is merely to see if the candidate is familiar with the physical characters and properties of drugs, and knows the pharmacopœial preparations. But we infer that the Examiners do not intend it to be an examination on therapeutics, which is, we presume, more properly deferred till the second examination, and is included in the examination on medicine."

Let us pass to the second examination. The subjects are, practice of medicine, forensic medicine, and midwifery. The examination takes place at the end of the period of study, the five years' pupilage being completed. There is a written examination on the first two subjects, and an oral examination on all the subjects. They observe that four written questions are given on medicine, and the same on toxicology. "This appears to us to be hardly in proportion to the importance of the subjects. Probably, as the Society of Apothecaries follow their invariable rule of gradually improving their examinations, they will increase the number of questions in medicine, and prolong the time of answering them." So, again, in midwifery, "there are no written questions; but we do not know the reason for this exception. We observe, however, that a certificate of attendance on no less than twenty labours is required; and therefore the Society may place reliance on the evidence of this previous experience." In medicine, they say: "There is no kind of practical examination; but we entertain little doubt that the Society will ultimately institute some test of this kind." Finally, they sum up: "On the whole, considering the importance of this examination, we are inclined to think it should exceed in duration and severity the first examination, in a higher degree than is the case at present." The whip is applied with so much lightness and dexterity, that it would barely flick off a fly, and would not turn a hair upon the skin. It is the Nasmyth hammer restrained visibly to crack a nutshell without crushing the kernel. We learn with pleasure that the compliments openly expressed, and the criticism delicately veiled, have had much of the intended effect. The pill so carefully gilded has been readily swallowed, and has a decidedly beneficial influence upon the venerable but "immature system" of the Hall; and it has produced much of the desired change in the constitution of the examinations. The number of questions have been increased; written examinations have been introduced in midwifery; more time has been given in medicine. Yet these two capital defects remain: a candidate may be—many are—put upon the *Medical Register*, and thus licensed to practise as a general practitioner, who has not been examined at all in surgery, and who has never given any proof at the bedside of the patient that he knows bronchitis from pneumonia, measles from scarlatina, or the aspects and signs of one disease from those of another. That a great number of such gentlemen do thoroughly well understand the things in which they are not examined, is a proposition which we should be readily disposed to accept and affirm. But, nevertheless, it admits of easy proof that not all are so informed; and it is a blot upon our system of medical examination, that any qualification entitling to general practice and to registration should be attainable without a complete, if moderate, investigation into all the ordinary departments of practice.

The report of the visitors of the College of Surgeons of England, Dr. Sharpey, Mr. Cooper, and Dr. Parkes, details cognate deficiencies extending over yet wider fields. Here, too, there are now two examinations for the membership: the first in anatomy and physiology; the second in surgery and pathology. The first examination is conducted in writing, for which four hours are allowed, and orally, for which twenty minutes are allotted. It appeared to the visitors to afford a fair and sufficient test of that degree of *anatomical* knowledge which may be reasonably exacted of candidates for a qualification to be registered as practitioners in surgery. "The subject of physiology is not embraced so fully in these questions; but we presume this subject is purposely made subsidiary to the anatomical part of the

examination." The second, or diploma, examination is conducted also in writing during four hours, and by oral examination during thirty minutes. In surgery and pathology, the papers contain "good practical questions on subjects with which every candidate ought to be familiar." But here the examination ends. Medicine, materia medica, botany, scientific physiology, the practical testing of the candidates by the bedside, the ascertaining whether they have any practical acquaintance with surgical proceedings and manipulations, are omitted from the programme of the examinations of this influential and extensively ramifying corporation. The visitors glance at this great *hiatus*, and indicate it with the finger; but they only venture on an indirect suggestion of the mischief which must accrue from the imperfection in the examinations. They say: "The candidates were practically tested, as far as it could be done, by the preparations on the table; but there was no practical testing of manual skill and readiness in such operations as passing catheters, putting on bandages, applying splints, etc.; nor were the candidates required to show that they could perform operations on the dead subject. It is for the Medical Council to judge what branches of professional and scientific knowledge it is expedient to include in an examination for a qualification in surgery. Our present duty, we believe, will be discharged by reporting on the examinations actually gone through. We have already expressed an opinion on the primary examination. Of the second, which is confined to surgery, strictly so-called, it appears, if we may be permitted to judge, very well conducted as far as it extends; but, as already hinted, it seems desirable, and we feel assured it is quite practicable, to subject the candidate to practical exercises in bandaging and other such appliances, and in operations on the dead subject, as far as the supply of subjects will permit." Mr. Cooper doubts the practicability; but what is necessary must also be practicable in such a case.

It is not necessary to add any comments to this plain statement thus isolated. We do not anticipate that it will be disputed that gentlemen, who have only undergone such an examination as that which is thus described, should not be so registered as to be justified in legally exercising their abilities in all the departments of general practice. We do not speak in the sense of reproach for the past; nor as implying any stigma of unfitness whatever upon those who are now so practising, in the case of those holding the diplomas of the one or of the other body. The great bulk of the hospital surgeons of this country—the Brodies, the Fergussons, and the Pagets—have never sought any other diploma than that of this College; because it is in the etiquette of the past that they should abstain from doing so. They have not the less thoroughly informed themselves on the subjects in which they have not been tested by examination. The hospital surgeon could no more dispense with a minute and accurate knowledge of therapeutics in all its branches, of chemistry and its medical application, and the art of prescribing for intercurrent disorders of constitutional character, than could the pure physician. But it is itself a severe condemnation of the present system of examinations, that surgeons find it necessary to study, for their own sake, subjects on which the College has not hitherto thought it necessary to make any adequate provision for examination, for the sake of the public. It confesses the importance of these studies, by requiring that all, who present themselves for examination, shall have attended full courses of lectures and hospital practice bearing upon them; but it has declined, up to the present time, to apply any test which shall prove that these lectures and that practice have been attended with profit.

The evils of the deficiency are mitigated by the fact that the great majority of candidates present themselves for examination at both College and Hall, or at the Colleges of Surgeons and Physicians; that the larger proportion of those who do not, still apply themselves to the study of the subjects in which they escape examination; but it should be borne in mind that examinations are intended to test incompetence and not competence. Incompetence now escapes undetected; and this evil is considerable and incontestable: one which these qualifying bodies ought to remedy, and of which the General Council ought to insist upon the cure. In all the public services a double qualification is now required. If it be not made equally essential in civil life, at least each corporation should be induced to make its own examination complete, or to unite with another of supplementary character, so as to afford combined and satisfactory test of the capacity and instruction of the candidate legally placed upon the official Medical Register. We cannot doubt that the College and the Hall will attach great weight to the reports which have suggested these remarks; and that, if they neglect them, the Council will be induced to give stronger expression to opinions such as we have uttered, and which, we have reason to speak, accord with the general conviction. Although the characters of the reports are lightly traced, they are not the less signs of the times, and for the corporations a "handwriting on the wall."

Diseased Meat. At the meeting of the Metropolitan Association of Medical Officers of Health, on Saturday, December 15th, Dr. Druitt in the chair, Dr. Letheby read a paper on Diseased Meat, and shewed fresh specimens of the principal varieties of such meat from the London markets, as well as specimens of meat and human tissue infested with parasites, as trichina, echinococcus, cysticercus, etc. He took the opportunity of showing the spectrum appearances of blood. Dr. Cobbold took part in the discussion which followed.

YELLOW FEVER ON BOARD THE "TASMANIAN."

We have again to announce this week the arrival of a ship at Southampton with yellow fever on board; and, if the particulars which we have been able to get are correct, this arrival would appear to be the worst of any which have yet come. The ship is the *Tasmanian*, another of the Royal Mail Company's line of steamers. She had a crew of about 130 or 140; and, out of that number, seventy-one have been attacked on the voyage here, and twenty-one fatally. The *Tasmanian* left St. Thomas's on November 30th, having, prior to leaving, sent some of her hands to the hospital there sick of the fever. With the exception of a medical man, the passengers have not suffered, the fever having been confined to the crew. We, however, are sorry to say that the surgeon of the ship, Dr. Hudson, in his praiseworthy efforts to save the lives of those entrusted to his medical charge has forfeited his life. Great praise is also due to three other medical gentlemen on board this fever-stricken ship, for they have voluntarily given their services for the good of their fellow passengers, and two of them have been down with the fever, though they are now convalescing. Every precaution was taken by the quarantine authorities at Southampton. The mails and specie were landed after fumigation. The healthy passengers were sent to the *Parana*, the healthy crew to H.M.S. *Æolus*, the convalescents were taken on board the quarantine hulk *Menelaus*, and the *Tasmanian* herself was ordered to the Motherbank to perform quarantine. We believe that two deaths only have occurred since the arrival of the ship, and in both cases the bodies were buried in the sea. The answers to our latest inquiries have been satisfactory, as no new case has occurred, and those who have had the fever are rapidly convalescing.

THE COLLEGE OF PHYSICIANS.

At a meeting of the College of Physicians on the 17th inst., the Registrar reported that the Foreign Office had forwarded to the College Reports of the Vienna Hospitals. The Science and Art Department of the South Kensington Museum had presented to the College photographs of the pictures of the College which had been lent to the Museum. The College also offered to lend to the Kensington Museum any other of their pictures for next year's exhibition. Application has been made to the College by a French Committee for a subscription to assist in paying off the expenses still due on account of the statue of Jenner lately erected at Boulogne. The application will be taken into consideration at the next meeting of the College. The Registrar had received a communication from a medical man, assuring the College that camphor was a sure cure for cholera; and also a nearly illegible note from a Frenchman, asserting that he alone had the secret of the nature of cholera. The College has also received a letter from Melbourne, pointing out the advertising vagaries of a Licentiate of the College of Physicians practising in New Zealand. The advertisement was read for the edification of the College, amidst much laughter and general condemnation. Eventually, it was decided, with the consent of the Solicitor of the College, that the licensed author should be cited before the College to give an account of himself and answer for his doings; and that if, in due season, he failed to present himself or to give a satisfactory explanation of his conduct, his name should be erased from the Roll of the College, as has already been done in another case of professional *lèse majesté*.

RELATIONS AT SEA.

Last week, at the Zoological Society, a very interesting paper was read by Dr. Günther, on the Fishes of Central America, in which he brought zoological research to bear upon the history of earth-changes. It had been supposed that the existing fauna of the Atlantic was quite distinct from that of the Pacific; but Dr. Günther finds (in a collection recently made by Mr. Salvin), of the total number of species taken on both sides of the Isthmus of Panama, 30 per cent. to be specifically identical. Nay, they do not even appear to vary enough for Dr. Günther to be able to tell whether any given individual came from the Atlantic or the Pacific side. There was, therefore, no doubt, a communication between the two oceans, since the existing species of fish came into being; and the land across the isthmus near Panama is nowhere above 400 feet high; while to the north, through Lake Nicaragua, there is another tract, nowhere more than 150 feet above the sea-level. That these low tracts of land mark the site of former sea-channels, is rendered still more probable from the fact that in the Lake Nicaragua a sea-fish still exists, the ancestors of which were probably imprisoned by the land's upheaval. Dr. Günther believes that there has been no such interoceanic communication since the latter part of the Pliocene period; in which case, the persistence of these piscine specific forms would be very remarkable. It is well known that, in ancient Miocene times, one fauna extended on both sides of what is now the separating land; but the *specific* identity of so many *existing* forms is quite a new fact.

FROM HALIFAX TO DEMERARA.

Private letters give us particulars of the fever at Demerara. The troops which have suffered so much from yellow fever are a small detachment of the 16th Regiment. They came direct from Halifax to Georgetown; and in the colony great blame is attached to the military authorities, for thus sending the men from an extremely cold to a very hot climate. The sudden change is believed to have had a very injurious effect in predisposing them to fever. This is readily understood. The present outbreak of fever in the garrison is attributed to flushing the trenches with sea-water (with a view to cleanliness); this leaves the ground moist and marshy, and sending up stinking exhalations under the hot sun. In the same way, the present prevalence of fever amongst the seamen in port is explained by the exhalations

from the wet mud at ebb-tide. Ninety-eight seamen had been sent into hospital in the fortnight before the mail left; of whom twenty-one were dead. The ravages amongst the garrison are described as positively sickening. The white troops left on November 9th, as our former letters stated that they probably would do. Previous application was made to the captain of the *Mersey*; but he declined to take them, or they would have left earlier. They sailed for Barbadoes in the brigantine *Hebe*. On the present occasion the town was free from the fever. Two years ago, the town was the seat of a great epidemic, and then there was only one case in the garrison. The army medical authorities then advised the Government, in the event of any future outbreak, to send the white troops to Barbadoes, as has now been done. We trust, and have reason to believe, that there is no foundation for the statement that the medical officer opposed this step. It probably arises from the objection which Mr. Bone is known to have entertained to the marching the troops to Bellfield, fifteen miles from George Town. The real responsibility rests, we apprehend, with those who persist in sending white troops to such a station, where they are wholly unnecessary, and where it has been more than once suggested, that black troops (such as are at this moment substituted) would answer all purposes; and with those who carry out that resolution by transferring men from Halifax direct to Demerara. The drainage and flushing of the trenches are important elements in the present outbreak; but for some reason the removal of the troops has stopped the inquiry by the Court of Policy into the causes of the present epidemic. We hope, however, that the Home Government will call for a more searching report than that which the Governor-General has now sent home. Outbreaks of yellow fever occur at close intervals at Demerara; and, as there are no hills for sanitoria, it is highly important that the general conditions should be carefully attended to.

FEVER AT WARRINGTON.

An outbreak and epidemic of fever has been reported to us as having occurred at Warrington, a town situated in Lancashire, on the banks of the River Mersey. From what we have been able to ascertain, the fever is confined to a low part of the town, where the population is composed principally of the workers who are engaged in the manufactures peculiar to the place, such as fustian, weaving, and glass and file making. The town itself does not appear to bear a very high character as to its sanitary state; for there seems to be a good deal of overcrowding, not only of houses but of people in them, in some instances, we believe, whole families living in single rooms, and these, too, devoid of proper ventilation; and it would appear that to these unwholesome habitations the present fever, which is reported as being very malignant, has been principally confined. This would be a state of things upon which, we should think, the powers given by the Sanitary Act might be brought to bear; for it would appear that it was to meet such cases as this crowding of families into single rooms that the 19th Section of the Act was passed. On inquiry, we learn that Dr. Buchanan has been sent down to Warrington to advise the authorities on the spot; so, no doubt, he will draw attention to all the powers which local authorities possess for removing such conditions as are favourable to the spread of fevers and such like diseases.

A VINDICATION.

In justice to our American medical brethren, to whom it was imputed, in the course of the case of Hunter *v.* Sharpe, in the speech of Dr. Hunter's counsel (although the imputation was rejected by the Lord Chief Justice Cockburn), that such forms of advertisement and practice as he employed were accordant with the American standard of professional ethics, we give the following extract from the "Code of Ethics of the American Medical Association," which lies before us.

"Art. I.—*Duties for the Support of Professional Character.*

"1. Every individual, on entering the profession, as he becomes thereby entitled to all its privileges and immunities, incurs an obligation to exert his best abilities to maintain its dignity and honour, to exalt its standing, and to extend the bounds of its usefulness. He should, therefore, observe strictly such laws as are instituted for the government of its members; should avoid all contumelious and sarcastic remarks relative to the faculty as a body; and, while, by unwearied diligence, he resorts to every honourable means of enriching the science, he should entertain a due respect for his seniors, who have, by their labours, brought it to the elevated condition in which he finds it.

"2. There is no profession, from the members of which greater purity of character and a higher standard of moral excellence are required, than the medical; and to attain such eminence is a duty every physician owes alike to his profession and to his patients. It is due to the latter, as without it he cannot command their respect and confidence; and to both, because no scientific attainments can compensate for the want of correct moral principles. It is also incumbent on the faculty to be temperate in all things, for the practice of physic requires the unremitting exercise of a clear and vigorous understanding; and, on emergencies, for which no professional man should be unprepared, a steady hand, an acute eye, and an unclouded head, may be essential to the well-being, and even to the life, of a fellow-creature.

"3. It is derogatory to the dignity of the profession to resort to public advertisements, or private cards, or handbills, inviting the attention of individuals affected with particular diseases, publicly offering advice and medicine to the poor gratis, or promising radical cures; or to publish cases and operations in the daily prints, or suffer such publication to be made; to invite laymen to be present at operations; to boast of cures and remedies; to adduce certificates of skill and success; or to perform any other similar acts. These are the ordinary practice of empirics, and are highly reprehensible in a regular physician.

"4. Equally derogatory to professional character is it for a physician to hold a patent for any surgical instrument or medicine; or to dispense a secret nostrum, whether it be the composition or exclusive

property of himself or of others. For, if such nostrum be of real efficacy, any concealment regarding it is inconsistent with beneficence and professional liberality; and, if mystery alone give it value and importance, such craft implies either disgraceful ignorance or fraudulent avarice. It is also reprehensible for physicians to give certificates attesting the efficacy of patent or secret medicines, or in any way to promote the use of them."

SPLENDID MUNIFICENCE.

Some further gifts to hospitals have been made by the benevolent and munificent gentleman who is understood to have set aside £25,000 for the benefit of the London hospitals. We are informed that the circumstances leading to this munificent appropriation are these. The gentleman in question is a member of the legal profession, and succeeded recently in recovering a sum of £150,000 for a pensioner of the metropolitan police. He made it a condition that, in the case of success, his client should set apart £25,000 for his poor relations, and that he should place in his hands £25,000 for distribution to hospitals. Both conditions, we understand, are being realised; and, remembering how often fortunes thus suddenly acquired have been squandered in such a manner as to prove a curse rather than a blessing, there is very great reason to admire the prudence and the nobility of the proviso.

MILK AND WATER.

The introduction of some 500,000 gallons of milk into London per month from the country has not diminished the practice of adulteration. The chief ingredient used for this purpose is now, as heretofore, water. Anything more noxious than this is not often used. This is, of course, objectionable, as a fraud; and, moreover, there is reason to fear that water may be employed which is itself impure. When the mixture is made in the country, as is not uncommon, the sources of water-supply are very liable to contamination from surface-drainage, and from proximity to manure-heaps, cesspools, etc. The country supply of milk to London is subject to the inconvenience of considerable delay between the period of milking and delivery to customers. The dairy farms are not always near to the railway stations, and the trains do not run at the times best adapted for the milk trade. In most cases, milk which is obtained in the evening is not delivered till the morning, and sometimes not till the next afternoon. As a consequence, the milk is, especially in summer, either sour, or on the point of becoming so, when delivered to customers. Special milk-trains are provided on some of the railways, and, as the trade increases, should be provided on others. Shaking the milk has the effect of preventing the cream from rising so readily on the milk, which to some extent impairs its commercial value, though not its nutritive properties. It would be a good thing if railway companies would turn their attention to supplying spring carriages which should reduce the shaking to a minimum. We believe carriages have been devised for this purpose. At the present time, it is probable that not more than half as many cows are kept in London as there were before the cattle-plague. It is very important that the arrangements for the conveyance of country milk should be made as satisfactory as possible; otherwise we shall, in summer months, have an outcry against country milk, and shall have a vast increase in the number of London cows, much to the contamination of the air of the places where they are congregated. Some limit is put on the number of cows which can be kept in London by the system of annual licensing. This has operated very beneficially; but it would be much better if some general principle were prescribed, so that the regulations in all districts might be equally stringent, instead of their being left, as at present, dependent upon the activity of local boards and the judgment of the county magistrates in petty sessions.

THE GENERAL MEDICAL COUNCIL.

The following vacancies will occur during the ensuing year, 1867. *Apothecaries' Hall, London.* The appointment of George Cooper, Esq., of Brentford, expires on April 11th, 1867. This gentleman was elected a member of the Council, for a period of five years, on the 11th of April, 1862—the late Mr. Nussey having then resigned.—*The University of London.* The appointment of Dr. John Storrar expires on November 9th, 1867. Dr. Storrar was elected first to represent the University, for a period of five years, in November 1858. Since November 1863, the appointment has been annual.—*The King and Queen's College of Physicians in Ireland.* Dr. Aquilla Smith has represented this body on the Medical Council since October 1858. The appointment is annual, and the same terminates on October 18th, 1867.—*The Apothecaries' Hall of Ireland.* Dr. Chas. Henry Leet has been the representative of this body since 1858. The appointment (annual) expires on October 2nd, 1867.

LUNATICS AT HOME.

If the Commissioners of Lunacy should be induced to supplement the asylum system of England by the farming lunatics in private dwellings—and the deficiency of existing accommodation has been so marked for some time, that we have before been induced to recommend that course—one thing must necessarily and immediately follow—a great addition to the inspecting power of the Board. At present, lunatics in dwellings are practically uninspected in England; that is to say, they are not inspected more than once a year, and if in the house of a relative, not at all. Chancery lunatics only are, under such circumstances, inspected four times annually. It is the characteristic danger of the cottage and private house system, that it lends itself very readily to abuse. The history of Scottish lunatics showed this very fully; and, until lately, the grossest abuses existed where lunatics were confined in private dwellings in that country. A more perfect system of supervision is believed to have cured this evil; and

we see no reason why what now works well in Scotland should not be introduced into this country. But, if lunatics are kept at home, one of the characteristics of the home which Englishmen prize—its privacy—must be surrendered.

A GOOD EXAMPLE.

To commemorate the memory of the late Lord Northbrooke, it has been resolved to apply the fund already subscribed, and such further sums as may be added, to the erection of a "Baring Ward" for fever patients at the Portsmouth, Portsea, and Gosport Hospital. This is a form of memorial which cannot, we think, be too widely made known, as it supplies an example which may with advantage be generally followed, in the presence of our constantly increasing population, with its attendant increase in the contingent of sickness and disease claiming admission to hospital wards. By multiplying hospitals, we shall do something to diminish permanent pauperism, and to lessen the number and size of our workhouses.

PERSISTENCE OF THE CHOLERA IN WALES.

Some abatement is observable in the epidemic of cholera which is still prevailing in the Carnarvon Union. The number of fresh cases reported to have occurred during the past week is 76, the number in the preceding week having been 120. Still we are sorry to have to state that the number of deaths last week is 17, while during the preceding week they were only 7.

PROFESSOR SELWYN.

The recovery of Professor Selwyn from the severe injuries which he received, has been singularly rapid and almost beyond hope. It is understood that the injuries were fracture of the base of the skull and concussion of the spine. The spinal symptoms first manifested themselves three days after the accident, and some paralysis ensued. The professor is now regarded as convalescent. Few men escape thus happily from fracture of the base of the skull.

PUBLIC GRANTS FOR SUCCESSFUL VACCINATION.

We have received information that gratuities in the shape of awards have been made to some of the public vaccinators in the country. We are not able to state upon what rule the different amounts are awarded, but we understand that they are for results. The Privy Council (the Medical Department) has the distribution of the money which has been devoted for this object; and, as that office has been for some time, and is still, inquiring into the state of public vaccination throughout the country, it is best able to undertake the distribution.

CHARING CROSS HOSPITAL.

We are glad to state that hopes are entertained that the points of disagreement between the staff of Charing Cross Hospital and the Committee, to which untimely reference has been made, will be privately and amicably arranged. The medical staff are, we believe, of one mind on the subject, and act in union.

A DOUBT AS TO THE WATER-CHOLERA THEORY.

Dr. Letheby does not seem to share the unqualified convictions of Dr. Farr as to the immediate dependence of the recent epidemic of cholera in the East of London upon the poisoning of the water-supply. He says:

"Forty-eight, therefore, or nearly three-fourths of all the choleraic deaths in the City, have occurred in the eastern division; but there is no evidence of its having been caused by the use of the water of either of the water companies which supply the City. On the contrary, its propagation and occurrence have been, as usual, among the poor and ill-conditioned; 18, in fact, of the 48 deaths in the East London Union, have been among the poor who were received into the cholera-ward in New Street; and it may be further stated, that 19 of the deaths were of labourers, 8 of porters and packers, 6 of charwomen and servants out of place, 6 of shoemakers, 4 of tailors, 3 of printers, and only 4 or 5 among the better classes of persons."

JUSTICE FOR INDIAN MEDICAL OFFICERS.

By the last overland mail came a copy of a despatch by which we observe that the Inspectors- and Deputy Inspectors-General of the Indian Medical Department are to be reduced from nine to five. The consequence of the reduction is, *first*, that the four who are to be reduced will have the advantage of the full pay of their rank immediately on their retiring, without being obliged to serve five years in it for the full pay, according to the despatch of the 7th November, 1864. But it will cause great disappointment to those expecting early promotion; for the present Senior Deputy Inspector-General of Hospitals will require *two* vacancies before he can be promoted now; and the Senior Surgeon-Major will not be promoted until five vacancies have taken place among the higher grades. In our opinion, compensation ought to be given for such a disappointment.

THE PSYCHOLOGICAL PHENOMENA OF ANÆSTHESIA.

Among the prize questions of the French Academy will be observed the following: "The Psychological Phenomena before, during, and after Induced Anæsthesia." On this subject a very interesting essay might be written, not omitting some remarkable modern trials; for one of the psychological phenomena subsequent to induced anæsthesia seems to be a strong tendency to prosecute the doctor.

We may direct the attention of our members to the letter of Dr. Sieveking, Treasurer of the Medical Benevolent Fund. That Fund is a child of the Association, one of which it may be proud, and should foster. It is a fine feature in the management of this admirable Fund, that its operations are conducted almost entirely by unpaid agency, and with a minimum of expenditure; and, above all, that no canvassing or public voting is required to obtain the beneficent assistance which it grants to the objects of its charity.

A HINT TO THE LUNACY COMMISSIONERS.

We would direct the attention of the Lunacy Commissioners to the paragraph in the *Times* which gives an account of Mr. Baker Brown's "Surgical Home". It seems that

"A peculiar feature of the Home is that, in addition to the ordinary maladies which come under the head of surgical diseases, women are received who are of unsound mind, provided that their infirmities are not hereditary or of long duration previous to their application for admission. In it the great experiment is being made, for the first time, of endeavouring to cure mental diseases by surgical operations."

Unless a house be licensed for the reception of persons of unsound mind, and unless intimation of their admission be given, the law is transgressed; and, under such circumstances, the offenders are usually prosecuted, even when no "great surgical experiment" has been performed upon the lunatic. It is worthy of note that, whereas Mr. Brown has stated that in many cases Dr. Maudsley attributes insanity to the cause which Mr. Brown declares to be so general, so fertile in insanity, Dr. Maudsley writes to us to-day flatly to contradict the statement, as Dr. West flatly denies the acts which Mr. Brown attributes to him. Dr. Maudsley said precisely the reverse. He has never known insanity to be traceable to this cause; and in the one case of insanity in which Mr. Brown performed his "operation", the patient was not one whit the better.

A SOLEMN PROTEST.

We have been favoured with a "form of solemn protest", which has appeared in the *Medical Reformer*, which is published by Mr. Morison's British College of Health. We give it for the amusement of our readers. Many other persons are occupied at this season of the year in giving birth to pantomimic productions. A good many people will be amused at the commencement of this singular agglomeration of words, and disgusted at the comminatory character of the end.

"*Compulsory Vaccination.* Form of solemn protest to be sent to the convicting justice and to the Home Secretary of State, London, where the vaccination is forced upon the parent—Know all men by these presents, that I, A. B., of C. D., having been forced against my will to vaccinate my child, which operation I consider as the sure promoter of disease, if not death, by *poisoning the blood*, do solemnly protest against such tyranny, and hereby invoke the judgment of the Almighty on those who may have been the means of passing such infamous, arbitrary, and unnatural laws. Dated this.....day of....., 186 ."

It has been recently decided by a vote of the Commissioners of Public Charities and Correction of New York, that, for the future, no professor be allowed to introduce at one time more than twenty-five students to his clinics in any of the charity hospitals. There can be no question that the presence of a great number of students in the wards of a hospital simultaneously is unpleasant and injurious to the patients, interferes with the efficiency of the clinical instruction, and favours disorder.

Letters from Canada inform us that, at the burning of the military hospital of Halifax, which occurred lately, the patients were all safely removed, but the building and the whole of its contents were totally destroyed. The loss is estimated at near £20,000. It was a large isolated wooden building, standing upon the lower flank of the glacis of the citadel.

Mr. G. Richards of London has been elected Corresponding Member of the Academy of Sciences in the place of the late Admiral Fitzroy. His opponents were Dr. Livingstone, and Cialdi of Rome.

The *British Pharmacopœia* is not the only one which is severely criticised. Dr. Jeannel finds serious faults with the new French Codex. The disuse of the Latin language is regrettable, he says, and illogical; for the work is called *Codex Medicamentarius*, and pretends to universality in use. By giving up this language, also, pharmacy gives up its title of belonging to the liberal professions.

The prize-list of the French Academy for the year 1867 runs as follows. Prize of the Academy: The Clinical History of Fibro-plastic Tumours. Portal Prize: On the Various Kinds of Melanosis. The Civrieux Prize: On Dementia. The Capuron Prize: On *Post Mortem* Changes of the Fœtus in the Living Uterus—their Character, and the Means of Ascertaining their Date. The Amussat Prize for Improvements in Surgery or Discoveries in Anatomy. Itard Prize: The best *recent* work or memoir on Practical Medicine. The Godard Prize for the best Memoir on External Pathology:—all of the value of 1,000 *francs*.—The prize-list for 1868 is also announced. The Academy Prize: On Sanguineous Effusions in the Substance of the Tissues. The Portal Prize: On Tumours of the Encephalon, and their Symptoms. The Civrieux Prize: On Psychological Phenomena before, during, and after Induced Anæsthesia. The Capuron Prize: On the Treatment of Uterine Affections by Mineral Waters. The Orfila Prize: On Digitaline. The Godard Prize, as before. The Argenteuil Prize for Improvements in the Treatment of Stricture (1863-1868)—8,000 *francs*. Lavison Prize: The Physiological and Pathological Effects of Climate on Men and Animals—2,000 *francs*.

Dr. Wimmer, Physician to the King of the Belgians, has been specially sent to Miramar, to report to his King as to the condition of the Empress of Mexico.

MM. Martineau, Gèry, and Thibault, at the Paris Medical Society, remarked that in the recent epidemic of cholera they had observed no signs of premonitory diarrhœa. "The onset of the disease was overwhelming, and the cyanosis very marked."

A testimonial, consisting of a silver salver, silver mug, and purse containing 100 sovereigns, was presented to Dr. Aldis by Dr. F. J. Farre and others, on Wednesday, December 19th, in recognition of the public sanitary services rendered by that gentleman during many years, and his connection, as physician, with several London charities.

Correspondence.

MR. WALTER COULSON AND THE HOSPITAL FOR STONE.

We have been requested to publish the following correspondence.

The undersigned, members of the surgical staff of St. Mary's Hospital, desire to express the pain and regret with which they learn that Mr. Walter J. Coulson, recently elected assistant-surgeon to the hospital, has, since his election, resumed the position of surgeon to the institution known as St. Peter's Hospital, or the Hospital for Stone.

When Mr. Walter Coulson, in 1864, being then Surgical Registrar of St. Mary's Hospital, became Surgeon to St. Peter's Hospital, it was intimated to him on behalf of a large majority of the surgical staff of this hospital, that (in common with the great body of metropolitan and provincial physicians and surgeons who had signed a protest against the establishment of the institution) they regarded it as useless and mischievous, an injury to the schools, and an insult to the hospitals whose officers made it their pride and pleasure to give their most earnest and particular care and skilled attention to cases of stone, etc.; and that they, therefore, considered his position as an officer of St. Peter's incompatible with harmonious action as their colleague, and should be indisposed to accept him as such, in case of a vacancy occurring, should he retain the office of Surgeon to the Stone Hospital.

A meeting of the Medical Committee of St. Mary's Hospital was summoned, July 26th, 1864, by special requisition, to consider the subject; but to that meeting the information was conveyed, on Mr. Coulson's authority, that he had resigned his appointment at the Stone Hospital.

At the next vacancy in the surgical staff of St. Mary's Hospital, Mr. Coulson became a candidate; and, having the support of his present colleagues, was unopposed, and was unanimously recommended to the Governors and elected.

Mr. Coulson was fully aware that he only received that support on the understanding that he had definitively and in good faith relinquished his connexion with the Hospital for Stone; nevertheless, almost simultaneously with his election at St. Mary's, he resumed his office at that institution.

The undersigned still retain the objections to the Hospital for Stone which they previously expressed; and they consider that Mr. Coulson's present position is, under these circumstances, incompatible with his honour, and with those mutual relations of confidence which should exist amongst professional colleagues. They are of opinion that he should retire from one or the other office; and, in the disagreeable position in which they are placed as his colleagues at St. Mary's, they feel bound to express that opinion.

(Signed) Samuel A. Lane.
H. Spencer Smith.
James R. Lane.
Ernest Hart.
Geo. G. Gascoyen.

November 27th, 1866.

The following are extracts of the Minutes of the meeting above referred to, and of a meeting of the Weekly Board.

Extract from the Minutes of the Weekly Board of St. Mary's Hospital, July 1st, 1864.

A letter from the Marquis Townshend, calling the attention of the Board to a statement in the *Morning Post* of the 24th ult., referring to the mortality after the operation for stone in general hospitals, and the want of attention shown to such cases in those institutions, was read; and the Secretary was directed, in acknowledging his lordship's letter, to furnish him with the percentage of deaths in St. Mary's, and to assure his lordship that in this hospital no class of cases received more attention than those referred to.

Special Meeting of the Medical Committee, Tuesday, July 26th, 1864. — Present: Alexander Ure, Esq., in the Chair; O. A. Field, Esq.; Ernest Hart, Esq.; Dr. Norton; H. Spencer Smith, Esq.; Geo. Gascoyen, Esq.; James R. Lane, Esq.; Arthur Noverre, Esq.; Edward P. Young, Esq.—

The Secretary read the following requisition.

"*To the Secretary of St. Mary's Hospital.*

"July 23rd, 1864.

"We hereby request you to convene a Special Meeting of the Medical Committee for Tuesday next, the 26th inst., at 3 P.M., to consider the position of the Surgical Registrar to this hospital, under the circumstances of his existing connexion with an institution known as the Hospital for Stone, and the correspondence recently published in the *Morning Post* concerning his statements at a public dinner.

(Signed) "Alexander Ure.
"Spencer Smith.
"James R. Lane.
"Geo. G. Gascoyen.
"Ernest Hart."

Mr. Spencer Smith said he was happy to be able to inform the Committee that the Surgical Registrar had no longer any connexion with the Hospital for Stone, and he had, therefore, much pleasure in moving that the Committee do adjourn.

The Committee expressed their satisfaction at Mr. Spencer Smith's statement; and the motion, having been seconded by Dr. Norton, was put from the chair and carried unanimously.

29, St. James's Place, Dec. 11th, 1866.

Gentlemen,—I have to acknowledge your communication, in which you call upon me to relinquish my position either as Surgeon to St. Peter's Hospital, or as Assistant-Surgeon to St. Mary's; but you cannot seriously suppose that I shall be ruled by your opinion in this matter. When I ceased to be Surgeon to St. Peter's in 1864, I gave up the appointment, not on any public grounds, but upon the urgent entreaty of one of your number, whom I regarded as a personal friend. I informed him at the time that I should still continue to act on the Committee of that hospital, and that I was resolved, as far as lay in my power, to make it a success; and this must have been known to you all.

When, therefore, you say I only received your support on the understanding that I had definitively and in good faith relinquished my connexion with the Hospital for Stone, you state that which is incorrect. No threatened opposition on your part would have had that effect.

My resumption of office at St. Peter's was from unforeseen circumstances, known to you, but which I cannot here particularise, an absolute necessity; and that it coincided with my appointment at St. Mary's was perfectly accidental.

You will perhaps permit me to remind you, that the Governors of St. Mary's are the elective body, and that the opposition of the very men whose names I find attached to the communication addressed to me was unavailing to prevent the election of Dr. Broadbent as Assistant-Physician.

As to what is compatible with my honour, I reserve to myself the right to judge; but I have the satisfaction of knowing that some of my colleagues at St. Mary's, who are acquainted with all the facts, concur with me in considering I am perfectly justified in the course I take. I have been long enough connected with St. Mary's to attach the precise value to the phrases "harmonious action and mutual relations of confidence," as applied to the staff; and, if my presence is to be made a perturbing element, my absence, I feel sure, will not remove all such influence.

I have no desire to enter into the question, whether special hospitals are justifiable. This has been answered by the public. St. Peter's will compare favourably with any of the numerous special hospitals in London; and, except that it is new, no unprejudiced judge would fail to see that it is as legitimate as the Lock, with which Mr. Lane and Mr. Gascoyen are connected, and that it is far more needed than the Hospital for the Treatment of Fistula and Piles, with which Mr. James Lane is connected; though, I presume, neither syphilitic affections nor diseases of the rectum are unworthy of this "earnest and particular care of surgeons." If any special hospital is justifiable under any circumstances, a hospital for lithotrity is more especially needed. The statistics of general hospitals shew that lithotomy is the rule, lithotrity the exception (*vide* Holmes's *System of Surgery*, art. Lithotomy); and a proportionate amount of mortality is the result.

The professicnal opposition now raised must soon cease, and I feel sure St. Peter's will ere long take a foremost place among the hospitals of London.

On every ground, I beg leave to decline the alternative you kindly offer me.

I am, gentlemen, your obedient servant,

(Signed) WALTER J. COULSON.

To Samuel Lane, Esq.; Spencer Smith, Esq.; Jas. R. Lane, Esq.; Ernest Hart, Esq.; George G. Gascoyen, Esq.

St. Mary's Hospital, Dec. 17th, 1866.

SIR,—We have to acknowledge the receipt of your letter of December 11th, which, in our opinion, in no way extenuates the evident breach of faith involved in your re-assuming the position of Surgeon to the Hospital for Stone after being recommended for election as Assistant-Surgeon to St. Mary's Hospital. We beg to reiterate the statement contained in our former communication, to the effect that it was solely upon the understanding of your having definitively resigned your appointment as Surgeon to the Hospital for Stone, that we, as members of the surgical staff and of the Medical Committee of St. Mary's, concurred in and supported the recommendation of you as a candidate for the office of Assistant-Surgeon; without which recommendation, as you are well aware, you could not have come before the Governors as a candidate with any probability of success.

We refrain from noticing the many irrelevant and offensive statements contained in your letter, with the exception that we feel it necessary directly to contradict your assertion that we, who now protest against a professional connexion with you while retaining your position at the Hospital for Stone, formerly opposed the election of Dr. Broadbent; the fact being, that we were unanimous in recommending him as a fit candidate for the office which he sought; and that, at his election, three of our number recorded their votes as Governors in his favour, one was neutral, and only one voted against him. The importation of Dr. Broadbent's name into your letter seems to us equally unnecessary and unjustifiable.

As previously intimated to you, we shall now forward this correspondence for publication.

We are, sir, your obedient servants,

(Signed) SAMUEL A. LANE.
SPENCER SMITH.
JAMES R. LANE.
GEORGE G. GASCOYEN.
ERNEST HART.

To Walter J. Coulson, Esq.

29, St. James's Place, Dec. 18th, 1866.

GENTLEMEN,—I have to acknowledge the receipt of your letter of December 17th. You still impute to me a breach of faith. I reply that the only communication between any member of the surgical staff of St. Mary's and myself, respecting St. Peter's, was at a private interview with Mr. Spencer Smith. At this interview, he urged me to give up the Stone Hospital, with reference to my future prospects at St. Mary's, and with reference to St. Peter's as a special hospital. His arguments on these points failed to shake my determination to remain attached to St. Peter's; and it was only when he brought pressure of a private nature to bear, that I yielded to his entreaties. This Mr. Spencer Smith will not deny.

You state that I am well aware that I could not have come before the general body of Governors as a candidate, with any probability of success, without your recommendation, and proceed to say that my importation of Dr. Broadbent's name into my letter is unnecessary and unjustifiable. As an answer to these statements, I beg to enclose a letter from that gentleman, which I shall be glad for you to publish with the rest of this correspondence.

I remain, gentlemen, your obedient servant,

WALTER J. COULSON.

To Samuel A. Lane, Esq.; Spencer Smith, Esq.; James R. Lane, Esq.; Geo. G. Gascoyen, Esq.; Ernest Hart, Esq.

23, Upper Seymour Street, Dec. 18th, 1866.

MY DEAR MR. COULSON,—In reply to your appeal, I am bound to state that, in my election at St. Mary's, I experienced the opposition, actual or virtual, of the entire surgical staff of the hospital, with the exception of Mr. Haynes Walton. It was matter of notoriety at the time, and I had the fullest evidence of it in the course of my canvass.

Stating this, I am equally open to contradiction with yourself; and I am, therefore, compelled to notice the reasons alleged in support of the contradiction given to you.

The unanimous recommendation of me as a candidate spoken of, can be no other than the formal resolution of the Medical Committee sent up to the Weekly Board, in which my name was coupled on equal terms with that of my opponent. I may say that I have referred to the minutes of the Weekly Board on this point. The value of this fact, as used against your statement, is evident.

Three votes are said to have been recorded in my favour, and one gentleman to have remained neutral. I can only repeat that the influence of all was, directly or indirectly, used against me; that of Mr. Lane, sen., being wielded by Mr. James Lane, and not, so far as I know, exerted personally.

I was aware that votes and influence went in opposite directions; and it will illustrate this when I call to mind the fact that, on the day of election, Mr. James Lane and Mr. Hart were openly and actively engaged on behalf of my opponent. As one only of the surgical staff voted against me, one or other of these gentlemen must at the same time have voted for me or professed to hold a neutral attitude.

Much as I regret an open collision with colleagues, I cannot refuse you permission to make what use you please of this letter.

I remain, yours faithfully,

W. H. Broadbent.

CLITORIDECTOMY.

Letter from Holmes Coote, Esq.

Sir,—My name having been mentioned in a correspondence on the subject of "Clitoridectomy" as a means of cure in cases of epilepsy brought on by self-abuse, I wish to record my protest against the performance of that operation under the circumstances referred to.

I believe that the operation is based upon a double error: first, the supposed prevalence of the vice, particularly in the female sex; and, secondly, the mistaken function of the organ which is removed.

That self-abuse prevails among the inmates of lunatic asylums, is most true; it produces great nervous prostration, and finally death. But such cases are readily recognised, and are treated accordingly. It is a disease of *the brain*, and not of the clitoris nor of the penis.

The cases are more difficult to treat in women than in men; because, in the former, the gratification of the erotic passion involves not so much the act of connexion, as the subsequent enlargement of the uterus in pregnancy, and the exercise after the birth of the infant of the various maternal cares, such as suckling, etc. The affection of the female is more comprehensive than that of the male, and involves, perhaps, the highest attributes of our race.

In the very commencement, marriage might rectify this morbid condition; but who would like to be the father of infants coming from such a source? In all probability, the same mental inability to control the passions which forms part of our being would be transmitted in due season to the offspring. In the male the treatment is easier, but the mental prostration and the vagaries of waywardness are lamentable and often disgusting.

It is with a feeling of indignation that I record the fact, that the operation was proposed in the case of a little girl aged seven years, the daughter of persons known to myself.

I am, etc., Holmes Coote.

7, Princes Street, Hanover Square, Dec. 1866.

Letter from Henry Maudsley, M.D.

Sir,—Will you permit me to correct a statement in Mr. Baker Brown's letter, published in the British Medical Journal, of last week? To my no small surprise and dismay, I find myself there placed amongst other medical men, who, having had experience in the treatment of insanity, have expressed an opinion in favour of self-abuse being a frequent cause of the disease amongst women. In the same letter it is said that the result of the discussion on my paper, read at the Harveian Society, was a general concurrence of opinion to the same effect. Both these statements are incorrect. What I really said was exactly the opposite of the opinion attributed to me: that I did not believe such practice to be a frequent cause of insanity in women; that I had carefully examined into the histories of fifty insane women, who had been under my care, and where I had the best opportunities of observation, and that in two only was there any reason to suspect the existence of self-abuse, but even in these it was certainly not the sole cause, though it might have cooperated; and, lastly, that it was most important to bear in mind that self-abuse was not a cause, but a consequence of insanity. I said further, that, I had met with one case of insanity in which the clitoris had been excised, without benefit to the patient, and without sufficient evidence, so far as I could judge, of self-abuse having been the cause of the disease.

I may now add that this case was that of a young lady demented after epilepsy; that the operation had done no good whatever; and that the operator was sufficiently skilful and experienced, for it was Mr. Baker Brown.

With regard to the discussion at the Harveian Society, so far as it touched upon the subject it certainly was not in favour of Mr. Baker Brown's views; on the contrary, the only speaker who expressed any definite opinion on the subject, coincided in what I had said.

I am loth to trouble you with this explanation, but, concurring as I do with the views expressed in Dr. West's letter of last week, I hope you will agree with me that the statement is not unnecessary.

I am, etc., Henry Maudsley.

38, Queen Anne Street, W.

Letter from R. D. Harling, M.D.

Sir,—I much regret to find that a case of clitoridectomy performed by Mr. B. Brown, at an advanced period of the patient's life, and associated with the names of Dr. Hawksley, Mr. Trustram, and myself, has been brought under the cognisance of the Obstetrical Society, and unadvisedly obtruded upon Mr. Brown's notice at a late meeting of its members. In the present immature state of its results, it is not possible to form a valid and abiding judgment respecting the propriety and the probable issue of that surgical adventure; and I accordingly refrain from offering or endorsing an inopportune opinion, favourable or otherwise, upon the operation in dispute. I feel, however, bound to declare that the facts of the case, so far as they were then, and are now developed, do not warrant the censure passed on Mr. Brown's procedure; nor do they, in my estimation of their significance, justify the congratulation retorted by that gentleman on the occasion referred to. I am sorry further to remark that, at this present time, the patient is in a pitiable and unmitigated plight of general nervous distress, and has sustained a return of the "irritation" which the excision of the clitoris was designed to eradicate. The relapse occurred within three weeks of the operation; and, although that source of evil is now very modified, and quite under the control of its victim, it has assuredly become yet more marked and importunate during the last twelve days.

I have no reflection to cast upon Mr. Brown's bearing in this transaction, which has been open and unreserved; but I may be permitted, I hope without such offence, to relate the part which I have taken during the progress of this case. For eighteen months, or more, the patient had been under the care of many London and provincial physicians and surgeons, and treated for a distempered state of nervous system, and, subsequently, a special manifestation of morbic nerve action, which I do not desire further to particularise. Every kind of local treatment had been practised without any favourable result, beyond a trivial and passing relief, often with obvious aggravation. All constitutional remedies, save those of a gently sedative nature, had been without the least avail, or had failed, equally with the former, to yield other than insignificant and fugitive ease, frequently with intolerance, and unquestionable prejudice.

Under these deplorable circumstances, she was urged by her friends to consult Mr. Brown, who insisted upon the immediate removal of the clitoris, as the adequate and only means of meeting the sad exigencies of the case. I did not assist at the consultation which resulted in this decision; but, in common with Dr. Hawksley, I had to consider and report upon Mr. Brown's proposal. We were jointly of opinion that the disease did not essentially consist in a mere peripheral affection of certain branches of the pudic nerve, but involved mischief of a far more extensive range of nervous structure, if not, indeed, of centric parts, and that the condition of general, preceding as it did that of local, neurotic derangement, and thus occupying an antecedent relation, could not be superseded by the removal of the latter, So far, we were actively opposed to the operation; but we were painfully conscious of the futility of all past and future methods of medical treatment; we felt the dire pressure of existing emergencies, and found ourselves in presence of our unfaltering promise of cure made by a surgeon of great experience in such contingencies. We felt also, that the relief, if practicable, of the local complication, would be in itself a vast gain, and, even without a corresponding alleviation of the general disturbance, a welcome justification of the operation. We determined to raise no insuperable objection to the proposed measure; but to yield a passive assent, with the caution that, in our opinion, the operation would not have the complete result predicted, and might even prove totally ineffectual. On being assured that little danger to life would be involved, the patient at once negatived our scruples, and elected to submit to Mr. Brown's surgical interference. The operation was thus devised independently of Dr. Hawksley and myself, and carried out without our active participation.

At the earnest solicitation of the patient, I was present on the occasion, and have since remained a passive observer of the still indefinite development of its consequences.

I cannot consider it imperative upon me to enter into any further details of this case; and am only too ready thus to avoid the objectionable risk of a most inconvenient and painful publicity.

I am, etc., R. D. Harling, M.D.

9, Upper Seymour Street, Portman Square, December 19th, 1866.

Letter from Forbes Winslow, M.D.

Sir,—As Mr. Baker Brown has mentioned my name in his reply to Dr. West's letter animadverting upon his excision of the clitoris in the treatment of certain forms of insanity alleged to be associated with sexual irritation and exaltation, caused or promoted by habits of masturbation among women, I think, in justice to myself, I may be permitted to say that I never saw the operation performed, and have not in a single instance countenanced it.

I have been obliged, during the course of my professional life, to examine many cases of insanity connected with great uterine irritation, and I am bound to confess that I have never detected any local vaginal cause for the mental condition. I now refer particularly to an enlargement or elongation of the clitoris, necessitating its removal. I believe that, in this type of mental disorder, the source of the disturbance is, in the majority of cases, situated in the *head*; and that Mr. Baker Brown begins his treatment of these cases at the wrong end.

I am, etc., Forbes Winslow.

Cavendish Square, December 20th, 1866.

Letter from I. B. Brown, Esq.

Sir,—I must claim your indulgence for a brief reply, not only to the letter of Dr. West in your impression of the 15th instant, but also to the discussion at the Obstetrical Society, a report of which is given in the same issue.

A. Dr. West emphatically denies that "a patient was ever under his care with hysterical fits of an epileptic character, which he attributed to masturbation, and for the relief of which he applied caustic; and also that any patient has ever been recommended by him to come to London for the purpose of undergoing the operation of clitoridectomy;" and I am taken to task rather severely for not having correctly informed myself of the facts before I stated them. Now, I have in my possession a prescription signed "C. W.", and written early in 1865, which I have shown to several medical friends; and there is no doubt that it is in the handwriting of Dr. West. Amongst other items is the following.

"℞ Argenti nitratis gr. v;
Aquæ destil. ʒi. M. Ft. lotio."

The nurse who attended the lady has stated to me in the presence of witnesses (and she is prepared to testify on oath before a magistrate to the truth of her statement) that she has known the lady for whom the prescription was written for seven years, and that the lady has been under Dr. West's care for nearly two years; that during that time she has suffered from what she calls cataleptic fits; that when in her house, twelve months ago, the nurse applied the caustic solution to the clitoris of this lady, as she was informed, according to Dr. West's directions. And the nurse has further placed in my hands letters received by her from the lady, of which the following are extracts.

1. Dated May 10, 1866. "I was very poorly after you left. One night I got into such a wakeful, *nervous* state, I was really almost crazy. I do not think I shall go up to London just yet. I am going on with the caustic and my arsenic mixture. The caustic takes away the white look, and stops the irritation whilst I am using it; but I do not know that it does much more good: it seems to me too weak to burn anything away." With reference to this last remark, the nurse states that the lady informed her that Dr. West had said that, if the part was not burnt away, it would be necessary for her to come to London to have the part cut. He declined to do it, saying that any apothecary could; and he also stated that it would be unnecessary for him to be present at the operation. The reason why the nurse heard all this was, that the lady asked her, in the event of any operation being performed, to nurse her.

2. July 29, 1866. "The reason I have not written before is, that I have been too ill. I was so utterly worn out with misery and want of sleep, that I felt I must have somebody to look after me; and as my husband was away, and I could not come to London alone, I sent for ———," etc.

3. November 19, 1866. "I have been suffering ever since from my head. I get at times such a feeling of fulness in my ears, and giddiness in my head, together with a strangled feeling in my throat, that I often think I am going to have a fit. . . . I must stop now, as my head is all wrong again."

I leave your readers to judge whether I "have been giving currency to statements so false as to have not even one iota of truth in their composition."

B. I did not say that in any instance "has clitoridectomy been performed upon a patient who has been under Dr. West's care, at his instigation, with his approval, or even with his knowledge." I have just

now given, I think, some colour to the assertion I made of recommendation of, or instigation to, the operation, to a patient under Dr. West's care; but what I said in my former letter was—and Dr. West has not denied it—that, "in a case brought to me by an eminent physician in London, Dr. West had given his opinion to the effect that the case was a suitable one for my operation." If Dr. West denies this, I am bound to accept his denial; but I am prepared to swear that I was so informed by the physician; that the physician was Dr. Greenhalgh; and that the case was the first one to which he refers in the recent discussion.

C. Referring to the other statement made in the first instance by Dr. West in his Lectures, the following is my version. The patient came to me with severe hysterical symptoms, complicated by a fissure of the rectum. She had suffered for many years, and had been under many surgeons; amongst others, Mr. Paget. She stated that she had not cohabited with her husband for many years, had occupied a separate room, and had been all this time in the habit of self-excitation; that she was so nervous when left alone at night, that she generally sat next the door until daylight, and consequently remained in bed during the day; that she drank largely of porter and wine. Having given this history, she extracted from me a solemn promise not to communicate the cause of her illness to her husband, nor to any one else. I sacredly maintained the secresy so enforced; and when I operated, in presence of her own medical attendant, I did so entirely on my own responsibility, without communicating to him my strong reasons for so doing, or in any way making him a participator in the operation. A small piece of the labia minora remained after the operation—not the stump of the clitoris. The patient was constantly interfering with herself; indeed, her hands were seldom from those parts. This portion of my version the nurse in attendance is willing to corroborate on oath, and further to say that she left the patient a week sooner than usual, so disgusted was she with her conduct. When I remonstrated with the lady on the continuance of the malpractice, she turned against me, and told her husband that I had performed the operation contrary to her wishes. Then followed the consultation, as described by Dr. West; and I have for years suffered under an ignominious imputation, rather than violate my promised word. I think I am, however, now released; and this is my explanation. After the circumstantial evidence I have just given in corroboration of my former statement, I feel it hardly necessary to add, "that my life has been passed but ill, if my assertion or denial of a fact could gain weight with my professional brethren by its repetition."

I now turn to your report of the discussion at the Obstetrical Society. As far as Dr. Tyler Smith and Dr. Greenhalgh are concerned, my answer appears inconsequent and ridiculous, because the first speaker has not put in print the unjustifiable language against which I protested; and because the speech of the second speaker is, as written, entirely different from the one spoken at the meeting. The first eight lines were, to my knowledge, never uttered. The first case given was brought to me to undergo clitoridectomy by Dr. Greenhalgh, and was operated upon in his presence, and afterwards attended by us conjointly for a month. This he admitted at the meeting, but suppresses in the report. In my answer (which, I regret to say, I abridged for the journals, but which will, I am promised, be given in full in the Society's *Transactions*), I drew attention to the fact that Dr. Greenhalgh's asking me to perform "this useless, pernicious, and most unjustifiable operation," was the result of his diligent and oft-repeated personal attendance on my practice at the Surgical Home, in his visits to which he was frequently accompanied by pupils of his own from St. Bartholomew's Hospital. I also mentioned that, in the letter from the patient to Dr. Greenhalgh, she had asked him to consult with me about her; but that, instead of doing so, he had shown the note to almost every one of his medical acquaintances except me; and that, indignant at not hearing from him, the lady afterwards came to me, was under my care, became convalescent, and, the day before the meeting, I received a letter from her, containing the following words. "For the last two months my nights are decidedly better. I am truly thankful for present relief, and trust it will continue, and that the last operation may prove effectual."

The second case given by Dr. Greenhalgh was one of a lady æt. 72, a private patient, at the time under the care of Dr. Harling, Dr. Hawksley, and myself, which he most unwarrantably brought before the Society, and on hearsay evidence stated she had been operated upon by me, and to be no better, but rather worse. My answer makes me say that the case of S. W., Dr. Greenhalgh's *second written one*, had only that day been left by me as recovered from an operation which had taken place more than four years previously.

Next, Dr. Greenhalgh mentioned two cases in St. Bartholomew's Hospital; but he at the meeting gave no details of initials, dates, patients' account, clinical clerks' notes, etc., as reported in your JOURNAL; nor did he venture to state before a learned society that the operation of clitoridectomy "was followed by an abscess in the bowel"; nor did he state in another case the patient "expressed great alarm when informed that the parts had been mutilated"; nor did he regret "that he had not taken notes of many other cases about which he had been informed by trustworthy practitioners, operated on by the same surgeon, and alike unsuccessful and pernicious in their results"; nor, lastly, did Dr. Greenhalgh give an exposition of the conclusions he had formed with reference to the value of the operation, in words bearing any similarity to those used in the report, viz., "As an useless, pernicious, and most unjustifiable operation for the purposes for which it had been recommended by me".

I call upon the secretaries to say whether the report of Dr. Greenhalgh's remarks is correct; and I have also asked a few gentlemen who were present at the discussion to state their opinion on this point. In conclusion, in a communication to the *Lancet*, November 3rd, 1866, I offered "to nominate, *jointly with that Journal*, a commission to report on the subject".

On December 4th, the day following the Obstetrical Society's discussion, I wrote to Dr. Tanner, offering him twelve or twenty cases to examine, which had been operated upon at least three months, on condition that he should report on them to the Society or to the medical journals. That offer he very frankly accepted, and is prepared to commence the investigation at once; but, instead of availing myself of it, I now intend, at the next meeting of the Society, to move for a committee under certain conditions for the same purpose.

Meantime, in deference to the opinion of many members of the profession, I shall not perform the operation in any case without the sanction of the patient and her friends, nor without consultation with another independent practitioner.

It is extremely painful to me to carry on a paper warfare of a purely personal character; I must therefore decline any further correspondence until the result of the investigation is known; and it would be

well if this line of conduct on so delicate a subject were pursued by others.

I am, etc., I. Baker Brown.

131, Harley Street, December 17th, 1866.

Sir,—At the request of Mr. Baker Brown, we, the undersigned, have no hesitation in stating our conviction that the report which has appeared in your Journal of Dr. Greenhalgh's speech at the Obstetrical Society December 3rd, differs *materially* from that which we heard actually delivered at the Society.

Thomas Ballard, M.D., Fellow.
Tho. Locking, M.D., Visitor,
William B. Owen, Fellow.
Thos. R. Pooley, M.D., Visitor.

THE MEDICAL BENEVOLENT FUND.

Letter from E. H. Sieveking, M.D.

Sir,—You were kind enough a short time back to draw the attention of the profession to an appeal which was largely circulated in behalf of the Medical Benevolent Fund, in lieu of holding a dinner.

The cause of the charity would doubtless be aided by the publication in your Journal of the donations and subscriptions received in consequence of the appeal. I accordingly beg to forward to you the enclosed list. I am, etc.,

Edward H. Sieveking, M.D.,
Treasurer to the Medical Benevolent Fund.

17, Manchester Square, Dec. 8th, 1866.

	Donations. £ s. d.		Subscriptions. £ s. d.
John Colebrook Esq., late Indian Medical Service	10 10 0	..	
Charles Pooley, Esq., Weston-super-Mare (by Jas. Paget, Esq., F.R.S.)	2 2 0	..	0 10 0
Dr. Sankey, Sandywell Park, Cheltenham	5 5 0	..	
Dr. Barnes, Carlisle		..	1 1 0
Dr. Lund, Richmond	1 1 0	..	
Dr. Holland, Matlock		..	3 3 0
Dr. Dartnell, Henley-in-Arden	2 0 0	..	
J. Roberton, Esq., Manchester	5 0 0	..	
Dr. Lingen, Hereford	1 1 0	..	
Dr. Bull, Hereford	1 1 0	..	
Thos. Pope, Esq., Cleobury Mortimer		..	0 5 0
R. L. Bowles, Esq., Folkestone		..	1 1 0
Dr. Lawford, Leighton Buzzard		..	1 1 0
Dr. Fawcett, Cambridge	5 0 0	..	
J. Covey, Esq., Alresford (additional)		..	1 1 0
Dr. Birch, Gore House, Kensington Gore		..	2 2 0
John Ellerton, Esq., Aberford	1 1 0	..	
C. H. Rogers Harrison, Esq., Lansdowne Road		..	1 1 0
R. Bryden, Esq., Uffculme, Devon	0 6 0	..	
Dr. Thomas Walker, Peterborough		..	0 10 6
Mrs. Sieveking, Manchester Square	5 5 0	..	
Dr. John Lowe, Lynn	1 1 0	..	
G. W. Pretty, Esq., Fressingfield		..	0 5 0
Dr. S. Wilks, St. Thomas's Street	2 2 0	..	
C. P. Bates, Esq., Ramsey		..	0 10 0
Dr. Bader, Finsbury Circus		..	2 2 0
Weeden Cooke, Esq., Upper Berkeley Street		..	0 10 6

DR. RICHARDSON AND THE MEDICAL PROVIDENT SOCIETY.

Letter from F. J. Brown, M.D.

Sir,—I hope that Dr. Richardson will withdraw his resignation, for we cannot afford to lose him as a member of the Association.

Respecting the miscarriage of the Provident Society, I assert that the cause is want of adaptation to the poorer members of the profession. Surgeons earning less than £500 a year cannot afford to pay more than two guineas, as an annual premium. Professional expenses, with literary and charitable subscriptions, leave a balance barely sufficient to provide a respectable maintenance for a family. It is not a question of what ought to be done, but of what can and will be done. "Better a little than none" is the motto of careful poor men. As for premiums of six or seven guineas, it is beyond the mark, more particularly as as there is no certainty of receiving an equivalent. Such a sum laid out in life assurance would provide a policy of certain value.

I trust that the directors of the Provident Society will take my advice in this matter, and will remodel the Society. Let them obey St. Paul in his injunction—"Condescend to men of low estate."

I am, etc., Frederick J. Brown, M.D.

Rochester, December 3rd, 1866.

STAMPING OUT THE CATTLE-PLAGUE.

Letter from W. Crookes, F.R.S.

Sir,—As you have done me the honour to mention my name in connection with the cattle-plague, will you allow me to make a few remarks on this subject? I should like to draw attention to a plan which is the result of some successful attempts to stamp out the cattle-plague from a considerable tract of country in the neighbourhood of Stafford, during May and June last.

Until the publication of the Third Report of the Cattle-Plague Commission, it was generally considered that an animal, after being infected, passed through a period of incubation, which varied from three to five days; and it was only towards the end of this period that the disease could be detected. At this stage the alteration of the mucous membranes has commenced, and the exhalations and discharges are loaded with virus, and are highly infectious. It followed, therefore, that the disease could not be detected in an animal until it was so far advanced as to be highly dangerous to others; and, even were the most rigorous measures of isolation and killing adopted, it would scarcely prevent the plague going right through a herd, when once introduced; for the disease could not be observed on the first animal until it had infected a second, and the second would not show signs of illness until it had communicated the plague to a third, and so on. The disease would commence with a start of at least forty-eight hours, and it would keep this much ahead until the last animal had succumbed. The precautionary measures might closely follow, but would never outstrip its progress.

Recent researches, and especially those of Dr. Sanderson, have now placed us in possession of a method of getting ahead of the disease in its progress through a herd. The judicious use of the thermometer (see Dr. Sanderson's report, page 17) will now point out when an animal is in the earliest stage of illness, when it is still in the exercise of its healthy functions. We are by this means placed in possession of the ground almost before the enemy approaches. We can seize upon an animal when it is in the first initial stage of the disease, and separate it from the rest of the herd at least twelve hours before it becomes capable of communicating infection to another.

The average normal temperature of a healthy beast is about 102° Fahr., but this has been found to vary in different herds, and even in the same individual; sometimes rising as high as 103·5°, without danger. A certain temperature, say 103°, should therefore be fixed upon as an arbitrary limit between health and disease, and the stock on an infected farm should be carefully examined with the thermometer once or twice a day, at milking time.

A thoroughly disinfected shed should be set apart, as far as possible removed from the healthy stock; and when a temperature above 103° is recorded, the animal should be placed in this shed in quaran-

tine. If on subsequent examination the temperature of an animal in quarantine were found to sink below the arbitrary limit of 103°, it might be considered as showing that it was not in an incipient stage of the disease; and it would, after verification, be safe to replace it amongst the general stock: but if its temperature were found to be rising, it should be slaughtered without a moment's delay, as soon as the thermometer registered a temperature—say of 104. At this point, the animal, if on an infected farm, is pretty certain to be in an early stage of the disease; but as generally no outward signs of it are visible, and a skilful expert, upon ordinary inspection, would probably pronounce it healthy, there would be little reason to fear that it had arrived at the infectious stage.

Armed, therefore, with the thermometer, and possessed of the responsibility instantly to kill apparently healthy animals, on the strength of its indications, and supplementing this with rigorous disinfection, stamping out the cattle-plague from any infected farm, district, or county, is in theory reduced to an almost mathematical certainty.

It may, however, be urged that a rise in temperature may take place without it being due to cattle-plague. This is true; but in an infected herd it is very much more probable that the increased temperature is due to the particular disease to which the animals are exposed, than to any other (Dr. Sanderson's report, p. 16); and when there are so many chances in favour of the rise in temperature being caused by incipient cattle-plague, and so few of its being caused by some other cause, it is certainly worth while to secure the safety of the rest of the herd, at the risk of slaughtering a healthy animal, when after all it might not be sickening for the disease.

In corroboration of your remarks last week, I may say that in September last, I drew the attention of the government to the danger of a renewed outbreak of the cattle-plague, which would arise when the cattle were taken up into sheds and houses for the winter, and predicted that if the disease were not entirely stamped out within six or eight weeks, it would begin to spread again.

There is great reason to apprehend that the evil is by no means diminished to the extent which a reference to bare statistics would appear to justify us in assuming. From all that I am able to learn, the disease has lost little, if any, of its virulence. When it appears on a farm it is as likely to go through the whole herd, as when it was at the height in February last; and were the cattle allowed to linger on, as in the early days, it is probable that the proportion of deaths would be equally great. The plague is simply being kept under by main force, and a relaxation of the stringent, although necessary, regulations now in force, will almost inevitably be followed by a renewed outbreak.

I am, etc., WILLIAM CROOKES, F.R.S.

London, December 18th, 1866.

NEW MEDICAL OFFICER OF HEALTH. We understand that Dr. Sutton of Finsbury Square, who is already well and favourably known by his professional labours, although still a young physician, has been elected Medical Officer of Health to the Shoreditch District, in the room of Dr. Robert Barnes, who has held the post for some years, and has resigned it by reason of the increasing pressure of practice. The appointment is one which is very creditable to the local vestry, who have in this instance selected, solely by reason of his superior professional testimonials, a candidate personally unknown to them.

Medical News.

THE VACANT EXAMINERSHIP IN THE COLLEGE OF SURGEONS.

THE resignation of Mr. Cæsar Hawkins leaves, of course, a vacancy in the Court of Examiners of the Royal College of Surgeons. This will probably be filled by election at the meeting of the Council next week. The member of the Council nearest to the examiner's chair, according to past precedent, is Mr. Cock of Guy's Hospital. There is reason to believe, however, that, without intending any shadow of slight upon Mr. Cock, and entirely without reference to his individual eminence or special fitness, an opportunity will be taken by some members of the Council to endeavour to obtain now a recognition of the true principles of the College Charter. This provides for the election of examiners from without the Council; and with the very obvious and distinct intention that the examinership should not be limited to the charmed circle of Councillors. The sincerity and earnestness of recently elected members of the Council, and the liberality and freedom from prejudice, will be severely tested of those elder Fellows who are fain to acknowledge that in this matter the plain meaning of the Charter, the best interests of science, the expressed opinions of Green and Brodie, and the known feeling of the profession, entirely concur in recommending the suggested course. What will be the result on this occasion, we abstain from forecasting; but the occasion will be one of considerable interest, and the voting will be scrutinised carefully by electors or thinkers who do not sit in the Council Chambers, but who have a legitimate interest in the carrying out of the principles of the Charter, and in the government of the College.

ROYAL COLLEGE OF PHYSICIANS OF LONDON. At a general meeting of the Fellows, held on Monday, December 17th, 1866, the following gentlemen, having undergone the necessary examination, and satisfied the College of their proficiency in the science and practice of medicine, surgery, and midwifery, were duly admitted to practise physic as Licentiates of the College:—

Arnold, John, St. Bartholomew's Hospital
Bainbridge, George, Harrogate
Browning, Benjamin, H.M.S. *Victory*, Portsmouth
Dougal, Daniel, Strathaven
Eastes, George, M.B.Lond., 43, Trinity Square, Southwark
Frampton, Thomas, Gloucester House, Gloucester Gardens
Grigg, Joseph Collings, School Infirmary, Greenwich
Nowell, Richard Bottomley, Guy's Hospital
Plomley, John Frederick, Maidstone
Reid, Lestock Holland, Toronto, Canada West
Sims, Francis Manley Boldero, 14, York Place, Portman Square
Stewart, William, Diss, Norfolk
Taylor, Henry Shinglewood, 2, Merrick Square
Taylor, James, General Infirmary, Chester
Thompson, Joseph, Nottingham
Thomson, Jno. Roberts, M.D.Edin., Royal Infirmary, Edinburgh
Turner, Arthur Cromack, General Infirmary, Sheffield

At the same meeting, the following gentlemen were reported by the examiners to have passed their primary examination for the licence:—

Baxter, Evans Buchanan, King's College
Brett, Francis Charles, St. George's Hospital
Chapman, Charles William, Guy's Hospital
Cole, Richard Mount, Guy's Hospital
Cox, William Ashley, St. George's Hospital
Dobson, Nelson Congreve, St. Thomas's Hospital
Evans, Ernest Richard, St. Bartholomew's Hospital
Greenhill, Arthur Francis, St. George's Hospital
Inglis, Walter William, St. Thomas's Hospital
McClean, Edward Henry, St. Bartholomew's Hospital
Pern, Alfred, St. Thomas's Hospital
Pierce, Frederick Morrish, Manchester

Pollard, Frederick, St. Thomas's Hospital
Richardson, William Edward, Leeds
Saundry, James Baynard, Guy's Hospital
Sharp, John Adolphus, Guy's Hospital
Shoppee, Edward Collett, University College
Wallace, Frederick, Guy's Hospital

ROYAL COLLEGE OF SURGEONS OF ENGLAND. The following members of the College, having undergone the necessary examinations, were admitted Licentiates in Midwifery at a meeting of the Board, on December 12th.

Archer, Edmond, F.R.C.S.Eng. (St. Bartholomew's), Cape of Good Hope; diploma of membership dated Dec. 29, 1846
Clarke, Edward Griffiths (St. Bartholomew's), Mold, Flintshire; dated May 1, 1861
Crew, Eli, L.S.A. (King's College), Tetbury, Gloucestershire; April 24, 1866
Crowther, Edward Lodewy, L.R.C.P.Lond. (Guy's), Hobart Town, Tasmania; April 24, 1866
Hayden, James Augustus, L.S.A. (Charing Cross), High Wycombe; April 27, 1866
Lowndes, Fredk. Walter, L.S.A. (Edin.), Liverpool; July 25, 1865
Pollard, William Fox Branch (King's College), Demerara; November 16, 1866
Rix, Richard Avery, L.S.A. (St. Bartholomew's), Beccles, Suffolk; April 26, 1865
Stainthorpe, Thomas Edward (Middlesex), Hexham, Northumberland; November 15, 1866
Visick, Clarence (St. George's), Fleet Street; May 10, 1865

It is stated that six candidates failed to acquit themselves to the satisfaction of the Board. The next examination for the licence will not take place until February.

APOTHECARIES' HALL. On December 13th, 1866, the following Licentiates were admitted:—

Burn, William Barnett, 72, Fore Street, Limehouse
Edwards, Edward Noble, 5, Kennington Terrace, S.
Gurdon, Charles Goate, Boxford, Suffolk
Smith, William, Spilsby, Lincolnshire
Welch, John Burges, Anglesea Place, Southampton

At the same Court, the following passed the first examination:—

Brett, Francis Charles, St. George's Hospital
Chapman, Charles William, Guy's Hospital
Cole, Richard Mount, Guy's Hospital
Evans, Ernest Richard, St. Bartholomew's Hospital
Johnson, Edward Reginald, St. Bartholomew's Hospital
M'Clean, Edward Henry, St. Bartholomew's Hospital
Webster, William, King's College Hospital

BIRTHS.

ASBURY. On December 12, at Broxbourne, the wife of C. J. Asbury, Esq., Surgeon, of a daughter.
REID. On December 15th, at Canterbury, the wife of *James Reid, Esq., of a daughter.
SMALLMAN. On December 17th, at Willingham-by-Stow, near Gainsborough, the wife of *J. C. B. Smallman, M.D., of a daughter.
TURNER. On December 14th, at Ryde, Isle of Wight, the wife of *W. F. J. Turner, L.R.C.P.Ed., of a son.
WILLIAMSON. On December 15th, at 1, Clarendon Villas, Mildmay Park, the wife of James Williamson, M.D., of a son.

MARRIAGES.

HOOD, John W., Esq., of Melbourne, Victoria, to Minnie, only daughter of P. BRADY, M.D., of Rathmines, Dublin, at St. Pancras Church, on November 23.
LEWER, Alfred, M.D., Royal Horse Artillery, to Bessie, eldest daughter of Colonel J. H. SHAW, Governor of the Herbert Hospital, Woolwich, at Lee, Kent, on December 13.
*SQUIRE, Alexander Balmanno, M.B., to Ann Margaret, youngest daughter of the late John MARSHALL, Esq., of Tunbridge Wells, at Southampton, on December 15.
WELLS, Lieut.-Colonel Frederick, to Georgina Mary, third daughter of G. R. DARTNELL, Esq., of Arden House, at Henley-in-Arden, Warwickshire, on December 12.

DEATHS.

GIRAUD. On December 13th, at Margate, Christina Georgiana, wife of Herbert Giraud, M.D., Surgeon-Major Bombay Army.
HILL. On December 14th, at Cumberland Street, South Belgravia, aged 43, Eleanor, wife of Arthur Hill, Esq., Surgeon.
LINDOE. On December 8th, at Bournemouth, Anna, widow of Robert F. Lindoe, M.D., late of Bath.
PAGE. On December 11th, at Calne, Wilts, aged 84, Ann, widow of George Page, M.D.

ACADEMY OF MEDICINE. M. Tardieu has succeeded to the presidency of the Imperial Academy of Medicine; and M. Ricord has been elected vice-president.

ATTEMPTED POISONING. A young servant girl named Matilda Somers has got a year's imprisonment at Taunton assizes for attempting to poison her mistress, Mrs. Towils, with muriatic acid in beer.

THE HOSPITAL FOR STONE. The members of the staff of Westminster Hospital have intimated to Mr. Teevan that they cannot support his candidature for the vacant assistant-surgeoncy at the Westminster Hospital, should he retain the office which he has recently accepted of surgeon to the Hospital for Stone.

HOSPITAL VACANCIES. Dr. Duckworth is candidate for the vacant office of assistant-physician at St. Bartholomew's Hospital. The vacancy is caused by the changes consequent upon the death of the late Dr. Jeaffreson. Mr. Teevan, Mr. Frank Marsh, and Mr. Bellamy, are spoken of as candidates for the office of assistant-surgeon to the Westminster Hospital, vacated by Mr. Heath on his election at the University College Hospital.

AN ADVERTISING DOCTOR IN THE BANKRUPTCY COURT. In the Court of Bankruptcy, December 13th, the bankrupt (R. Lalor) was a doctor of medicine, of Mecklenburg Street. This was an adjourned sitting for discharge. The debts are £736; no assets. Mr. R. Griffiths opposed. The bankrupt had brought an action for slander against his client, Mr. Job Caudwell, bookseller; and on the verdict going against him, came to this court *in forma pauperis*. Altogether there were thirty-seven creditors. His Honour said the bankrupt appeared to be one of those advertising doctors, of whom the public had heard a great deal lately. The order was suspended for six months, with protection (renewed) for three months.

CHARING CROSS HOSPITAL MEDICAL SOCIETY. The last meeting of this Society was held at Charing Cross Hospital, on December 6th, when the president, Mr. W. Calthrop, read a paper "On the Comparative Anatomy and Physiology of the Eye." He commenced by explaining the primary laws of optics, as far as they related to the passage of light through the eye, and the formation of images on the retina. He then gave a minute account of the general and microscopic anatomy of the tissues of the eyeball; and concluded by tracing the organ of vision, as far as it exists, through the whole scale of the animal kingdom. The meeting was not very largely attended, but a brisk discussion followed, in which Messrs. Buck, Hugo, Little, and Adams, took part. The proceedings terminated with a vote of thanks to the author of the paper.

PATHOLOGICAL SOCIETY. The following is the list of the officers and Council of the Society proposed for election for the year 1867. The gentlemen whose names are marked with an asterisk did not hold the same office during the preceding year. *President*—*J. Simon, Esq., F.R.S. *Vice-Presidents*—*T. B. Peacock, M.D.; W. Brinton, M.D., F.R.S.; J. W. Ogle, M.D.; F. Sibson, M.D., F.R.S.; G. Critchett, Esq.; T. B. Curling, Esq., F.R.S.; P. G. Hewett, Esq.; *W. Adams, Esq. *Treasurer*—R. Quain, M.D. *Council*—J. S. Bristowe, M.D.; W. Dickinson, M.D.; *Conway Evans, M.D.; *E. Headlam Greenhow, M.D.; G. T. Gream, M.D.; Graily Hewitt, M.D.; T. Hillier, M.D.; *Hermann Weber, M.D.; J. B. Sanderson, M.D.; H. T. Rooke, M.D.; *Campbell De Morgan, Esq., F.R.S.; *Ernest Hart, Esq.; W. Callender, Esq.; C. Heath, Esq.; A. Leggatt, Esq.; *Thomas Smith, Esq.; *J. Tanes, Esq., F.R.S.; Henry Thompson, Esq.; J. W. Trotter, Esq.; T. Spencer Wells, Esq. *Honorary Secretaries*—C. Murchison, M.D.; T. Holmes, Esq.

"The Poor-Law and Charity" is the title of a very thoughtful paper by the Rev. J. Llewellyn Davies, in *Macmillan's Magazine*.

Charm for Hydrophobia. The *Pall Mall Gazette* lately gave an extraordinary example of the tenacity with which the uneducated cling to old superstitions. At an inquest held lately at Bradwell, Bucks, on the body of a child, aged 5, who died of hydrophobia, Sarah Mackness stated that, at the request of the mother, she had fished the body of the dog by which the child had been bitten out of the river, and had extracted its liver, a slice of which she had frizzled before the fire, and had then given it to the child to be eaten with some bread. The dog had been drowned nine days before. The child ate the liver greedily, drank some tea afterwards, and died in spite of this strange specific.

Harveian Society of London. The following is a list of the names of gentlemen proposed as officers of the Society for the year 1867. *President*—*J. E. Pollack, M.D. *Vice-Presidents*—T. Ballard, M.D.; *W. F. Cleveland, M.D.; *E. Hart, Esq.; J. B. Walker, Esq. *Treasurer*—H. W. Fuller, M.D. *Honorary Secretaries*—J. B. Curgenven, Esq.; C. R. Drysdale, M.D. *Council*—V. De Méric, Esq.; J. Eardley, Esq.; J. Evans, Esq.; J. Gayleard, Esq.; *R. S. Jeffs, Esq.; J. S. Lamb, M.D.; J. R. Lane, Esq.; J. Z. Laurence, Esq.; *H. W. Lobb, Esq.; E. Lowe, Esq.; *D. Menzies, M.R.C.P.; *J. Rushforth, Esq. An asterisk is prefixed to the names of those gentlemen who did not hold the same office the preceding year. The election will take place at the Society's Rooms, on Thursday, January 3rd, 1867, at eight o'clock P.M.

Physical Degeneracy of the French Population. One of the causes which is said to delay the final decision of the Commission on the reorganisation of the French army is the difficulty experienced in making a proper selection, owing to the physical degeneracy and decrease of the population. A practical economist, Mr. Randof, has cited several facts in confirmation of that statement. From these facts it would appear that the population of France is each year on the decline, and that there is reason to apprehend that the moment is not far distant when the births will not be equal to the deaths. At the commencement of the present century more than five children in France and more than four in Paris were born to each marriage; whereas, at the present day, the average is three for France and two for Paris. And, if it be borne in mind that in France the mortality of children only, from one day to a year, is more than 20 per cent., there will be no surprise at the progressive diminution of the population. The number of births also tends to diminish each year; the children are less and less vigorous; and when they attain manhood are worse constituted in frame and lower in stature than in any period. This fact is proved beyond doubt by the official lists of the young men from 20 to 21 who are called upon every year to draw for the conscription; and they show that, while the population still increases by 0·20 per cent. annually, the number of young men from 20 to 21 remains pretty much the same, numerically, as they were forty years ago. This is not all. Not only the number of young men does not increase, but the relative number of healthy and vigorous subjects who constitute the strength of the country, tends more and more to decline. Any one who has chanced to be present at the Councils of Revision must have been painfully affected by the number of sickly or malformed young men, who comprise the contingent particularly in the industrial and manufacturing districts.

The French Codex. By an Imperial decree, dated the 5th December, the use of the new French Codex is made obligatory on *pharmaciens* from January 1st, 1867.

Diseases of Cats. It appears that there is one branch of pathology which scientific enterprise in this country has hitherto refrained from "attacking." In replying to his numerous correspondents, the editor of the *Field* informs "Nesciens" that "we know nothing of the diseases of cats." In the suburbs of Paris, if we are not mistaken, there is a cats' hospital on the line of the Chemin de Fer du Nord.

Caustic. Dr. E. Williams (*Cin. Lancet & Observer*) says:—The application of the pure nitrate of silver in substance to the eye, unless very exceptionally, and then with great care not to use it energetically, or let it touch the cornea, should be excluded from practice. It is an unmitigated outrage on humanity, both in its direct and remote effects. I have seen so many cases like the above, where terrible and irreparable injury had been done to the eye by reckless cauterisation, that I cannot too severely condemn it.

The Sanitary Act of 1866. The Poplar District Board of Works appear to have resolved to put in action the new powers of the Sanitary Act of 1866, for the regulation of lodging-houses. They have had printed a series of regulations prepared by their clerk, Mr. John Layton, jun., as to registration, number of lodgers, ventilation, washing accommodation, privy accommodation and drainage, water supply, yards and areas, cleanliness, powers of entry, fevers, complaints, and penalties. This excellent Act will require great discretion in the carrying of it out as regards the question of cubic space and number of lodgers. (*Builder.*)

Lunatic Asylum at Lahore. "The Lunatic Asylum is especially worthy of study as the finest in India. There 200 insanes of both sexes, and all classes, many of them once desperate murderers, are to be seen under no visible restraint, won over to work peaceably, if not always to sanity, by skill and kindness. When we took Lahore, we found a few miserable madmen chained and whipped, and these were the nucleus of the asylum. The visitor is struck by the appearance of one lunatic especially, who, in humble clothing, wrapped ludicrously about him, walks with mincing gait and dignified strut, and patronisingly condescends to shake hands. He fancies himself an emperor. He is a prince—Shahzadah, a son of the last King of Delhi, and, in spite of his imbecility, is looked on with some reverence by the natives. To this have the Great Moguls come."

Poor Relief Medical Returns. In the 39 workhouses of the metropolitan district there were 2,728 births in the year 1865, and 16 women died in childbirth, namely, five in Islington, three in St. Pancras, two in St. Marylebone, and one (each) in St. Martin's-in-the-Fields, in St. George's (Southwark), in Whitechapel, in East London, in West London, and in Hampstead. A Parliamentary return shows also that on the 7th of July last the number of sick cases on the books of the district Poor-Law medical officers of the metropolitan district was as follows:—Fever and zymotic cases, 2,542 (only 1,854 on January 7th), acute disorders, 3,299; chronic disorders, 4,507—total, 10,348. In the half-year ending at Michaelmas, 1865, these medical officers attended 101,345 cases. The number of persons in receipt of relief in the metropolitan district ranged from 90,000 to 107,000, more than two-thirds of them relieved out of the house. The list of the district medical officers comprises 156 names.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....Metropolitan Free, 2 P.M.—St. Mark's for Fistula and other Diseases of the Rectum, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TUESDAY. .... Guy's, 1½ P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.

WEDNESDAY... St. Mary's, 1 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.

THURSDAY.....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Great Northern, 2 P.M.—London Surgical Home, 2 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.

FRIDAY.....Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

SATURDAY.....St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1·30 P.M.—Charing Cross, 2 P.M.—Lock, Clinical Demonstration and Operations, 1 P.M.—Royal Free, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TO CORRESPONDENTS.

*** *All letters and communications for the* JOURNAL, *to be addressed to the* EDITOR, 37, *Great Queen St., Lincoln's Inn Fields, W.C.*

COMMUNICATIONS.—To prevent a not uncommon misconception, we beg to inform our correspondents that, as a rule, all communications which are not returned to their authors, are retained for publication.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

THE Publisher begs to intimate that orders for JOURNALS sent by post must be accompanied by stamps for the amount. Price of each number is, by post, *sixpence*.

MR. H. FISHWICK suggests that the mummy now in the Manchester Museum is that of a lady who is mentioned by De Quincey, in his *Autobiographical Sketches*, and who, having been attended for many years by Mr. Chas. White, F.R.S., of Manchester, bequeathed £25,000 to him, on the condition that she should be perfectly embalmed; that once a year, Mr. White, accompanied by two witnesses of credit, should withdraw the veil from her face. The lady was placed in a common English clock-case, having the usual glass face.

A STUDENT, GUY'S HOSPITAL, should communicate, in the first instance, with the Editor of the *Argosy*, who will no doubt correct misstatements.

DR. H. (Southampton).—Most acceptable.

A CORONER WITHOUT INQUESTS.

G. L. writes:—The office of coroner for the University of Oxford, which Mr. Mayo has recently accepted, is, I suppose, the nearest approach to a sinecure of any coronership in the country. The emoluments are commonly estimated at about one guinea a year; five guineas is the fee for an inquest; and one in five years is a fair average. The last incumbent of the office was a clergyman; and when a fatal accident, calling for an inquest, occurred, the kindly and excellent man was so much disturbed in mind, as to wish to resign, in anticipation of the disagreeable duty. He was persuaded to hold the inquest, but would not retain the office.

A GUARDIAN.—Dr. Wiblin wrote a Guide to the Schools of Paris. Inquire of Mr. Renshaw, Strand, London.

GOVERNMENT GRANTS TO VACCINATORS.

MR. WALTER MONDAY, Kennington, wishes to know who is to make the examination, how the examination is to be carried out, and what we consider the standard of goodness or the signs of successful vaccination. The authorities on the subject will be the inspectors appointed by the Medical Department of the Privy Council. The regulations are not drawn up yet. When they are ready, our correspondent and our readers generally will have full information on this important subject.

DR. WILLIAMS, Mr. H. LEESON, and F. B., are referred to the answer to Mr. Walter Monday.

EXCELSIOR.—Among the earliest amateur writers was the celebrated Needham, the author of the first newspaper. He wrote *Medela Medicinæ*, a Plea for the free Profession and Renovation of the Art of Physic, London, 1665.

TREATMENT OF NEURALGIA BY THE ETHER-SPRAY.

SIR,—Perhaps the following case may be of some service to others in the treatment of that painful, and often most obstinate, affection, neuralgia. A little girl, aged 7, having just recovered from measles, was attacked with most severe neuralgia in the right side of the face. The paroxysms of pain came on at regular intervals, the worst being generally about four o'clock every afternoon. She was treated with quinine three times a day, with port wine and good diet; but, after trying this plan for a week, the severity of the attacks did not seem to be in the slightest degree lessened. Being almost at a loss what treatment to adopt, I determined on the next attack to apply Dr. Richardson's ether-spray to the seat of pain. Accordingly, when the pain returned, a patch of skin was frozen on the cheek about an inch in front of the ear. The pain ceased immediately; and, to my surprise, has never returned from that moment to the present time, now nearly two months. The child's health rapidly improved after the cessation of pain; and she is now quite strong and robust.

I am, etc., HERBERT THOMPSON, M.R.C.S.

Sevenoaks, December 12th, 1866.

NEURALGIA FOLLOWING SHINGLES.

SIR,—In answer to A. C.'s inquiry in the JOURNAL of December 8th, respecting a remedy for neuralgia following shingles, I beg to suggest the ammoniated tincture of valerian in drachm-doses three times a day, mixed with three tablespoonfuls of camphor mixture. I have repeatedly found this remedy answer when others have failed.

I am, etc., RICHARD GRAVELY.

Newick, Uckfield, Dec. 12th, 1866.

NEURALGIA AFTER SHINGLES.

SIR,—In answer to your correspondent A. C., I would suggest, in respect to the "severe neuralgic pains attending or following shingles", that I have never found arsenic, either in the form of liquor potassæ arsenitis alone, or conjoined with the tincture of sesquichloride of iron, to fail in such cases.

I think I can also answer the question of F.R.C.P., "why pigs, whose flesh is swarming with live trichinæ, do not die of irritative fever", etc., while men, who eat their flesh, do. The fact is, the trichina, when it reaches its destination, and becomes fixed in its cyst, is comparatively harmless. It is only whilst effecting its passage through the intestine, peritoneum, and other sensitive textures, that it produces its irritative fever; and then the irritation produced is in proportion to the number acting at once. Thus, when introduced gradually, they may be unnoticed in their effect; but when in great numbers together, as in the recent celebrated instances, the aggregate effect of so many produces irritative fever and peritoneal inflammation, enough to kill. I will here mention a curious instance that came under my own observation. Some years ago, whilst lecturer on anatomy and physiology at the Bristol Medical School, I observed the muscles of a leg in the dissecting-room to be thickly studded with trichina-cysts; indeed, they must have been very numerous thus to have attracted my attention from a mere casual glance at the leg. I found, on inquiry, that the leg had been brought from St. Peter's Hospital by one of the students, and had been there removed from a patient by Mr. Stephens. I accordingly wrote to him, explaining the state of the leg, and asking him whether he could hear from the living patient—thus known to be suffering from trichina—anything bearing upon the symptomatology of the disease. He informed me that the leg had been removed from a man, aged 54, on account of a painful tumour above the knee-joint; that the man was otherwise in average condition; and that the only symptom, if such it were, that he could learn from him, was the occasional suffering from "rheumatic" pains in the limbs. The muscular power did not seem particularly impaired.

I am, etc., FREDK. BRITTAN, M.D.,

Senior Physician to the Bristol Royal Infirmary, and Lecturer on Practice of Medicine.

Clifton, Bristol, Dec. 8th, 1866.

J. BULT (Norwich).—The Preliminary Examination in Arts, etc., at the College of Surgeons, was brought to a close yesterday. Write to the Hall.

A PUBLIC VACCINATOR wishes to know on what authority we have made the welcome announcement that the Government have resolved to institute a system of grants to successful vaccinators, based on results of vaccination, comparable to the present Education Grants of the Privy Council. He "does not find any notice of it elsewhere in any journal, and is a little puzzled." Our correspondent will excuse us for merely assuring him that the announcement is correct in all its details; and it is one on which we have great pleasure in congratulating all "public vaccinators." It is a measure of unquestionably great public utility.

MR. WILLIAM BICKNELL.—The compliment is justly earned, and if the notice had arrived earlier in the week, we should have had a few words to say upon the subject.

THE

Jacksonian Prize Essay

FOR 1865.

ON DISEASED CONDITIONS OF THE KNEE-JOINT.

BY

WILLIAM PAUL SWAIN, M.R.C.S.,

SURGEON TO THE ROYAL ALBERT HOSPITAL, DEVONPORT, ETC.

Appendix of Cases. (*Concluded.*)

Case xxiii. Notes of W. F. Clarke, and Martin Oxley, dressers. James Haggarty, aged 11, admitted into King's College, under Mr. Bowman's care, on February 6th, 1861.

He had previously been in the hospital from February to August 1859, with his knee in much the same condition apparently as now. It was then put upon a splint, and extended till it was nearly straight. When he left King's College Hospital, he was able to walk pretty well by the help of crutches.

Eleven months before admission he discarded the crutches, and ever since then the knee had been becoming more and more bent. On the 31st of last January he fell downstairs and struck it against a sharp corner; this gave him great pain at the time. A swelling began to form, and he was unable to use the limb as before; after being laid up at home a few days he was brought to the hospital on February 6th. He was a pale, delicate, strumous-looking boy, but his general health seemed to be pretty good. The following was the condition of the left knee. The tibia was dislocated backwards; the femur projecting in front of it to the extent of about an inch. This made the condyles appear prominent; immediately below them, and a little to the outer side of the leg, the patella was firmly fixed; below this again, and also on the outer side of the joint, there was a soft elastic swelling, very tender and sensitive on pressure; below the joint, on the inner side of the leg, there was a hollow caused by the displacement of the tibia. The limb was bent at an angle of about 130 degrees, and was almost perfectly ankylosed; on the skin covering the joints were the scars of one or two old cicatrices; on the tendons of the outer hamstring was a small discharging sore. [Fig. 12, page 492, gives an idea of the appearance and position of the leg.] The patient suffered no pain, except in the swelling mentioned above; and he was able to walk, or rather to limp about, with the help of a stick, though he could only touch the ground with the toes of his left foot.

March 2nd. Since his admission he had had a liberal diet, and had rested his leg by lying in bed. By these means his general health had improved considerably, and the knee was no longer painful or tender. To day he was taken down to the theatre, and placed under chloroform; Mr. Bowman then proceeded to resect the knee; a lunated incision, with long sides, was made, crossing the joint immediately below the patella. The skin was then dissected upwards, close to the bone, until about an inch and a half of the lower extremity of the femur could be removed with the saw; the tissues were next cleared away from the upper part of the tibia, and a thin slice—averaging less than half an inch in thickness—was sawn off; it was then found that the surfaces of bone could be brought into perfect apposition; one artery was tied; the flaps of skin were brought together, and united by three sutures; the leg was then laid on a McIntyre's splint, and a bandage applied above and below the knee; the seat of the operation being covered only by a little simple dressing. The patella was firmly united to the femur, and came away with that portion which was removed; the ankylosis appeared to be partly fibrous, partly bony. On a vertical section of the end of the femur being made, it was seen that the whole of the epiphysis had been taken away, as well as a portion of the shaft of the bone.

March 3rd. Pulse 104; tongue clean and moist; he slept well after taking a draught, and was tolerably easy, and free from pain.

March 4th. Pulse 120. To day, as the femur seemed to project over the tibia, bandages were applied over the femur to keep it down; the straight splint was then attached to the McIntyre, and the limb extended; the wound was dressed with cold water.

March 5th. Pulse 128; tongue slightly furred; bowels rather confined; he complained of cough. He was sick yesterday afternoon. The knee was tolerably easy; he did not sleep well last night owing to the discomfort of the long splint.

March 7th. Pulse 120; the bowels had been slightly moved by a pill, and his tongue was cleaner. The knee was tolerably free from pain, except when it was being dressed.

March 10th. Pulse 140; tongue clean; bowels confined; the knee jumped a great deal, and gave him much pain; at other times it was tolerably easy.

March 12th. Pulse 130. Slept well last night, and felt better this morning. The knee was tolerably easy; bowels open.

March 16th. Pulse 130. He had a draught every night, and slept well. The knee was discharging freely, and gave little pain. Appetite good; bowels open; urine of specific gravity 1,015, no albumen.

March 19th. Pulse 120; tongue clean; bowels open. Yesterday the splint was removed, and reapplied, care being taken to raise the tibia, and depress the femur. To day he was easier, and his spirits seemed better.

March 24th. Pulse 104. He was going on favourably; bowels open; the knee was easy, and the front part had nearly healed. At both ends there was an opening, which discharged freely.

March 30th. Pulse 130. Tongue clean; bowels open; the knee was progressing favourably; it gave him less pain; indeed it was quite easy, except just when it was being dressed; the incision was healing; there was sufficient discharge from the ends of the wound. To day the splint was removed and reapplied, care being taken to depress the femur and raise the tibia, so as to keep the bones in a right line.

April 2nd. There was no pain in the knee; the discharge was less; he ate well, and slept well, and his spirits were excellent.

April 6th. His appearance improved daily; there was little or no pain in the knee, except just when it was dressed. He slept and ate well. The incision was almost healed along the front, but at the ends there were openings, from which a free discharge took place.

April 13th. He was going on favourably. His general health was excellent, and his appearance had greatly improved; the leg was in good position, and the bones were becoming firm; there was but little

discharge; the wound was dressed with water-dressing.

April 22nd. To day the limb was taken off the splint, and a plaster of Paris bandage applied.

May 20th. He could now walk slowly with a crutch, and could even bear the whole weight of his body on the left leg; the length of which, from the anterior superior spine of the ilium to the outer malleolus, was twenty-three inches and a quarter; the right measured twenty-five inches and a quarter. There was a small sore on both the inner and outer side of the knee, which discharged a little. His health had improved very much; he expected to go to Margate every day.

May 22nd. He went out to day.

October 7th. The leg that was operated upon measured twenty-four inches from the anterior superior spine of the ilium to the external malleolus, being two inches and a half shorter than the other. The boy's health was excellent. He walked a mile to the hospital this morning; he was on his legs all day; the limb had regained much of its plumpness, but remained thinner than the other; no movement could be perceived at the knee, but attempts at flexion gave a little pain, so that probably cartilaginous, and not osseous, union had taken place. The outer side of the incision still presented a small unhealed portion.

Cast No. 4 was taken from the knee in November 1865, when the limbs were carefully measured as given in the essay, and at the same time a photograph was taken (Fig. 13, p. 493).

Cases in South Devon Hospital. Emily Pemberthy, aged 25, married, was admitted May 4th, 1858, with scrofulous disease of the right knee-joint. The disease was of seventeen years' standing; it commenced with pain, followed in two years with swelling. She was attended by different medical men, and underwent a variety of treatment till July 17th, 1855, when she became an in-patient of the Truro Infirmary, and stayed there some time; no improvement taking place, in September 1857, she went into King's College Hospital, under Mr. Bowman, who twice applied the actual cautery, without relief. Mr. Bowman refused to resect, as there was not sufficient evidence of disease.

Excision was performed by Mr. Whipple, on June 2nd, 1858, by the H-incision, the McIntyre splint was used. The patient was discharged, having made a good recovery, September 10th, 1858.

Samuel Sargent, aged 28, sailor, admitted July 27th, 1859, under Mr. Fox, with rheumatic disease of the knee-joint. Excision was performed on September 23rd, 1859, and he was discharged December 28th, 1859, with good recovery. No notes were taken.

Richard Palmer, aged 25, waiter, was admitted January 13th, 1864, under Mr. Whipple. Excision was performed, (date not stated), death occurred on February 15th, 1864. No notes,

Eliza Brooks, aged 25, dressmaker, was admitted January 25th, 1864, under Mr. Whipple. Excision was performed February 17th, 1865. She was discharged, having made a good recovery, August 23rd, 1865.

Harriett Hillier, aged 32, servant, was admitted on August 2nd, 1865, under Mr. Whipple. Excision was performed on December 1st, 1865. She remained under treatment at the time of the report.

Martha Attrill, aged 15, was admitted September 5th, 1860, under Mr. Square. Excision was performed on March 13th, 1861. No notes. She died of phthisis, three to six months after her discharge.

Ann Batten, aged 29, tailoress, was admitted October 5th, 1859, under Mr. Square. Excision was performed January 13th, 1860. She was discharged cured.

List of Casts.

1. Cast of the knee of a child showing chronic disease, with enlargement of the end of the femur, and partial dislocation of the tibia backwards.

2. Cast showing the characteristic appearance produced by effusion into the knee-joint.

3. Cast of the limb of a child, amputated by the author (Case xviii), for strumous disease of the knee, with great distortion.

4. Cast taken recently of the knee of Mr. Bowman's case of excision, showing the growth of the limb, and the increase of bowing since the last photograph was taken.

5 and 6. Casts taken at five years' interval, from a boy from whom Mr. Heath excised the joint, for disease and ankylosis, in 1858. (See *Lancet*, July 7th, 1860, and drawing in body of essay.) The casts are intended to illustrate the material improvement in the nutrition and development of the limb in five years, and the slightly increased bowing at the joint.

7. Cast recently made from the limb of a girl, from whom the author excised the knee in May 1864, and who subsequently sustained a fracture of the thigh. (See Case xiii, and two photographs in body of essay.)

8. Cast of the knee-joint amputated by the author, for long standing disease in a phthisical patient. (See Case xix.)

Preparations.

1. A knee-joint amputated by Mr. Holt. (Case xxii.) The joint is opened and a bougie is introduced to show how the pus had passed along the tendon of the popliteus, and formed an abscess at the back of the joint, and in the calf. The joint was full of pus. The synovial membrane is much thickened, and is thickly coated with lymph; the crucial ligaments are nearly destroyed; there is caries of the articular surface of the tibia, but a portion of the articular cartilage is still left, though softened and ulcerating; the articular surfaces of the femur and patella are thickly coated with lymph, and the cartilage of the patella is slightly ulcerated.

2. A knee-joint amputated for destruction of the joint, with ulceration of the articular surfaces; the crucial ligaments are softened, and nearly destroyed; the interior of the joint is thickly coated with lymph; inflammatory deposit is present in the head of the tibia, and is shown by a horizontal section of the bone.

3. A knee-joint amputated for destructive disease, (Case xix) in a phthisical man, by the author. The structures of the joint are all more or less involved; the synovial membrane being much thickened and the ligaments softened, The articular cartilages are much thinned, and in parts ulcerated.

4. A knee-joint amputated for old standing disease. The synovial membrane has been in great part destroyed, as also the ligaments. The cartilages are most extensively ulcerated, so that the articular surfaces of the bones are exposed, and are carious. A vertical section, made when the preparation was fresh, showed, extremely well, inflammatory injection and thickening of the cancelli of the ends of the bones.

5. A dry preparation of the bones forming the knee-joint, amputated by the author (Case xx), for long standing scrofulous disease. The remains of the articular cartilages have been removed by maceration; but the articular extremities of the bones will be seen to be abnormally irregular and rough.

A vertical section has been carried through the bones, and shows them to be unusually thin.

6. A dry preparation of the bones forming the knee-joint, amputated by Mr. Liddon. (Case XXI.) The bones have been macerated, but when fresh, showed denudation of articular cartilage. The articular surfaces are rough, and the end of the condyles flattened; the bones are much thickened. The surface of the tibia is rough and carious; the spine of the tibia is gone, and there is a cavity on the inner articular surface. A small exostosis or osteophytic growth projects posteriorly.

7. Portions of bone and ossifying cartilage, removed by excision of the knee-joint of a child, by Mr. J. Wood. (Case XVII.) The slice of femur is very thin and nearly healthy on the surface, and the patella is healthy. The principal disease was in the tibia, two slices of which have been removed. An abscess may be seen on the lower surface of the head of the tibia (which includes the whole epiphysis); this has encroached upon the joint, and the articular cartilage is thinned, and the synovial membrane much thickened.

8. A wedge constituting an ankylosed knee, removed by Mr. H. Smith from a child. (Case XVI.) The wedge includes the articular ends of the femur and tibia, and half the patella, all bound together by strong fibrous tissue.

9. The portions of bone removed by excision, by Mr. H. Smith. (Case XV.) The synovial membrane is in great part destroyed, and what remains is much thickened. The articular cartilages are destroyed in great part. The patella is adherent to the external condyle, in which there is a carious cavity, and a corresponding one in the opposite surface of the tibia, the bones having mutually worn each other away apparently, in a remarkable manner.

10. Portions removed by excision, by Mr. Whipple. There is thickening of the synovial membrane, with thinning and communicating ulceration of the articular cartilages. The spine of the tibia was broken off during the operation, and is attached to the femur by strong fibres,

11 and 12. Two femurs are sent in to illustrate the correct and the incorrect modes of removing the articular surface, as described in the essay.

HORSEFLESH AS FOOD. According to the *Moniteur de la Meurthe*, hippophagy is making progress at Nancy. M. Pineau has already a dozen fattening in his stables. At present the consumption is two animals per week.

BURLINGTON HOUSE. The Pathological Society, like the Medico-Chirurgical Society, has applied to Government for apartments in Burlington House, and has received the same answer, that more applications had been received than could be met according to the existing accommodation. The circumstances, however, are somewhat different. The Pathological Society has not a library, and does not require apartments devoted to its sole use. It is at present paying a heavy rent for the use of an apartment on fifteen nights in the year. This, it is thought, might be granted without much inconvenience in some of the rooms now used by other learned societies in Burlington House, and a renewed effort will, we believe, be made by the Honorary Secretaries, Dr. Murchison and Mr. Holmes, to ascertain whether some arrangement cannot be made for this purpose. The Society devotes its limited funds in such large proportion to scientific purposes, as to leave a very narrow margin for other expenses; and the claim which they have to such public accommodation as can be reasonably afforded is very strong.

Original Communications.

REMARKS ON SYPHILISATION.

By GEORGE GASKOIN, Esq., Surgeon, Chevalier of the Order of Christ, Portugal; Surgeon to the Artists' Benevolent Fund; formerly House-Surgeon and House-Pupil, St. George's Hospital.

[*Continued from p. 258.*]

BOTH Vidal and Hebra support the opinion, that the influence and operation of soft or simple chancres on the frame is something more than local—something more than limited to the neighbourhood of their site. In default of direct proof, they adduce the protective power of vaccinia in illustration of a constitutional change established in the system, which, during the cycle of its occurrence, is betrayed by no other sign than such as may be read off from the vesicle as on a dial. That such a change does take place *pari passu* with the evolution of the vesicle and its decline, is a fact that will hardly be disputed. Syphilographers who entertain different views from the above insist that, beyond having afforded passage to the contagion, the manifestation at the spot of lesion in vaccinia has no kind of connexion with the concomitant interior change. They affirm that the elaborative process is distinct in each, and that each pursues an independent course. Hence, whatever may take place in the constitution, the appearance of the vesicle is neither to be regarded as a measure of its completeness, nor to be accepted as a token of its existence. Moreover, the failure, it is said, of definite incubation in vaccinia, destroys the force of the analogy; for a certain stage of incubation, subsequent to the implantation of the virus, is proper to syphilis. A better subject of comparison, they suggest, is to be found in variola, where a volatile animal poison received into the body is subject to an incubation of fourteen days' term. But here again analogy is at fault, in so far that variola, casually taken, exhibits no appreciable lesion at the point where it enters the system.

Such is this course of argument; no reference being made to the method of inoculation for small-pox, in the practice of which the matter of variola is dealt with as a fixed contagious principle. When variolar matter is inoculated, the stage of incubation is practically annulled, or reduced to an equality with that in vaccinia; meanwhile, as is well known, the communicated disease is neither altered in character nor destroyed. In this instance at least, it seems difficult to believe that the local and constitutional symptoms proceed independently side by side; for if, in three or four days' time, the wound of inoculation be seen to close, the inoculation is declared to have failed. If it should inflame rapidly, a bad eruption of variola may be expected; and a quantity of pus deposited, as the disease advances, in the inoculated part, is often found to diminish towards the end, and it has commonly been supposed to be assimilated or absorbed.

There is some difficulty, it may be remarked, in regarding disease (under a fair interpretation of the word) as exclusively local, or exclusively general. The existence or prolongation of a local affection presupposes a consent, or at least a tolerance, on the part of the economy. A constitutional malady seems to imply the idea of some local expression, sooner or

later pronounced, in one or other part, in one or more organs. Diseases display textural preferences in general disturbance, and take their character thence. The soft chancre, when contracted in disease, is multiple (averaging perhaps as many as six in number); its term of existence is moderately long, and the amount of secretion independent of the bubo is considerable. To what extent pus-formation influences the course of other disorders, and modifies diathesis, is perfectly well known. However much, then, the soft chancre may seem to differ in type from the more chronic or so-called infecting sore, however much in its consequences it may be found to differ from the other, it not unlikely has a searching influence on the economy, and entertains sympathies with it—there is much, indeed, which might persuade us that the secretion of the soft chancre does not find a pathway in the tissues; but it must be remembered that modern physiological research is far more favourable to the idea of rapid diffusion among our organs, than to the limitation, of fluid substances inserted or received within the frame.*

This is all that need be said on so obscure and difficult a subject; the *onus probandi* remaining with those who maintain a proposition so little self-evident and capable of proof as the localisation of the soft syphilitic sore, and its independence of the general system. But we may be permitted, perhaps, to draw attention to another point of comparison. In inoculation for small-pox, a roseolar rash, with papules, frequently precedes the expected eruption. This rash is an indication of a mild infection, and promises a good event. *It may also precede a mitigated form of casual small-pox.* (See *Library of Medicine*, vol. i, p. 318; art. Small-Pox, by Dr. Gregory.) Now, some such eruption, but very characteristic and definite, altogether different from the syphilides, will sometimes occur during the course of syphilisation; and that indifferently, whether the matter from soft or hard chancres be used; and it is equally regarded as a favourable prognostic. This point, in common with variolar infection, may still further incline us to believe in a constitutional influence exerted by the artificial inoculations on the constitution. Syphilisation not being based on these analogies, but founded on experience and ascertained facts in the natural history of syphilis, it seems scarcely fair, on grounds so poorly established and disputable, to debar those who practise it from an interpretation of its phenomena such as best accords with their experience. If there is much that is inexplicable in the difference between venereal forms, we may reflect that what is known on these subjects bears no proportion to what is unknown. The study of syphilis is full of pitfalls, and this localisation of the soft sore may very well be one of them.

It may be further objected that, even if these forms of disease be shown to have a common origin, that of itself is not a sufficient proof of their being identical diseases; and if the soft sore be, as some suppose, derived from the implantation of the virus on a syphilitic, yet, the immediate effects of inoculation of soft and of hard sores being different, they are practically two different diseases. Now this, indeed, is what has been insisted on with regard to variola and vaccine, one of which excludes or supersedes the other. Let us not, where all is conjecture, be deterred from observation and practical suggestions by vain and uncertain arguments, or be fettered from attempts at improvement by the vain babble of schools. It was not thus that Hippocrates understood physic; and when some refuse to entertain the question of syphilisation until it has been found that the inoculation of the soft sore, at some time or other, shall have produced consecutive syphilis, this only marks a departure from a right line of observation, and shows how ill the true spirit of medicine is upheld amongst us; for, although it might be possible to adduce some recorded case,* a confuted argument is but a slight persuasive to a novel field of research; and the real question before us is, whether a number of patients have been relieved of the pressure of their disease by the method of syphilisation, and whether they have enjoyed full health afterwards.

Perhaps it may not appear a contradiction in terms, to say that this disease of syphilis is less formidable when acute than when displayed in more chronic forms. It is even possible that, being derived, as far as tradition guides us, from individuals of a very low type and organisation, it may find its path to extinction through more energetic vital processes in highly organised frames. Diseases with which syphilis has some points of resemblance, such as leprosy, pellagra, etc., are aggravated by want, dirt, and distress, if not engendered by such causes; and they are known to disappear under better phases of culture. It is possibly thus that Dr. W. Boeck and other syphilographers have come to consider the soft chancre (with suppurating bubo) as a more acute form of the same disease, which drags out its slow length in consecutive syphilis, being formidable in proportion to its chronicity. Under such a view, the term chancroid might seem inappropriate, as signifying an enfeebled or decaying syphilis, however much that in certain cases its analogues, vaccinoid and varioloid, have been known to return to their types vaccinia and variola. We have ventured the statement that the chancroid carries infection; for, in a certain number of recorded cases, this has been proved by the event, although, indeed, a wider field of experiment is much to be desired. It is extremely probable that in many, nay, in by far the greater number of cases, inoculation from the chancroid, in subjects hitherto exempt from syphilis, would not be followed by consecutive symptoms. The cases of Bidenkap and others tell as much in favour of this class of facts, as those of Ricord, Fournier, Cullerier, and Robert for the other; yet none of these facts are probably irreconcileable, though we have, indeed, to regret that our views are limited with respect to them.

The following passage of Fernel may be appended as not without interest, to show the ideas of an earlier age with respect to the contagion of syphilis, in contrast with modern doctrines.

"Now, this communication (of disease) either happens to one who is entirely free from it, through (contact with) an infected person; or it may be communicated to one who has it already, from some other who is very much worse (*plus gasté*). It never occurs between persons who are infected in the same degree; nor is it received from one who has it not so bad as his companion. Those who are in the same degree of the malady may sleep together without danger, and yet for all that, they might communicate the disease to others less diseased than themselves." (Fernel, *Path.*, liv. vi, chap. 20, *De la Vérole.*)

* The recent experiments of Dr. Bence Jones, the prompt results of subcutaneous injections, and the constitutional effects occasionally shown of mineral caustics, are here referred to. Not less to the point are the paralytic affections which follow the inoculation of diphtherial poison.

* Such a case, indeed, is quoted by Hebra, of a pustulous syphilide ensuing on repeated inoculations of the soft chancre in a patient afflicted with lupus. (Bericht der Allgem. Krankenhaus, in Wien für 1859; and Zeitschrift der Gesellschrift der Aerzte, 1860, N. 9.) One of Wallace's experiments might be quoted to the same effect. Certain cases to are on record of hard sore following infection from soft chancre.

Reviews and Notices.

CENNA SOPRA UN NUOVO RIMEDIO DA SERVIRE COME MEZZO IGIENICO, COME PROFILLATTICO E PRESERVATIVO, E FORSE COME CURATIVO, CONTRO IL CHOLERA MORBUS. Pel Farmacista VINCENZO FROSINA MERLETTA, Socio di varie Academie, etc. P. 16. Catania: 1866.

REMARKS ON A NEW REMEDY, RECOMMENDABLE AS A HYGIENIC, PROPHYLACTIC, AND POSSIBLY AS A CURATIVE AGENT IN CHOLERA. By VINCENZO FROSINA MERLETTA, Pharmaceutist, Member of certain Societies, etc.

THIS pamphlet has originated in a commendable desire on the part of the author to introduce the permanganate of potassa to the notice of his countrymen. It is to be used hygienically, and also internally as medicine. The latter suggestion we find supported by no kind of experience, but simply by references to pharmaceutical and other publications. The perusal of this *brochure* is only interesting from the glimpses it affords of the class and character of medicines most prized as efficacious in far-off Sicily. These, as regards cholera, are the phenate of bismuth, the camphorated phenic acid, the acetous tincture of camphor with phenic acid, the ammoniated tincture of camphor with arnica, etc. We had almost forgotten the permanganate of alumina and bismuth. For all of these formulæ are given, and each and all are recommended with that complacency which may be expected where endeavour is not yet chilled by experience or made humble by defeat.

ON AMPUTATION AT THE HIP-JOINT. By RICHARD G. BUTCHER, M.R.I.A., President of the Royal College of Surgeons in Ireland, etc. Pp. 30. Dublin: 1866.

FORTY-SEVEN years ago, Mr. BUTCHER tells us, Mr. Richard Carmichael amputated at the hip-joint for a large osteo-sarcomatous tumour in the Richmond Hospital. The patient died on the fifth day. From that day until the beginning of the present year, the operation had not been repeated in Ireland, until Mr. Butcher himself performed it for the relief of an enormous osteo-sarcomatous tumour extensively involving the leg and thigh. The entire history of the case, and the details of the operation, together with many practical remarks of great value, are now submitted to the profession in the publication before us; and we can only express our regret that the distinguished President of the Irish College of Surgeons had not the good fortune to be the first to operate successfully in the sister kingdom; the patient having died of pyæmia on the sixth day.

We think the duties of assistants in this important operation are most clearly and satisfactorily defined by Mr. Butcher. The number, six, who are told off to their various stations, seem none too many to meet thoroughly the exigencies of the case; and the manner in which the arteries of the posterior flap are secured, is deserving of marked commendation. Mr. Butcher relied on a skilled assistant to control the external iliac artery at the groin, and did not use Professor Lister's clamp for the abdominal aorta. At the same time, he very candidly admits the immense advantage that must attend, under different circumstances, the use of this most effective instrument.

We relate his own account of the manner in which the femoral vein, in the face of persistent hæmorrhage, should be dealt with.

"In amputations of the thigh high up, I have often been troubled with hæmorrhage from the femoral vein, and, when neither plug or adjustment of flaps would check it, have invariably pursued the practice, in the last few years, of passing a wire suture, by means of a tenaculum with an eye near its point, through the skin, beneath and around the vein, and through the integuments in the opposite side of the vessel to where the instrument entered; thus the vein was pressed up by the ligature against the integuments, and a few twists of the wire perfectly controlled the flow of blood. The ligature was unravelled and withdrawn in twenty-four hours; and in no instance was there a return of this untoward complication."

The entire memoir should be carefully perused.

Progress of Medical Science.

SURGERY.

EXOSTOSES OF THE FRONTAL SINUS. At the meeting of the Academy of Medicine on September 4th, M. Dolbeau read a paper, of which the following are the conclusions. 1. The Schneiderian membrane lining the different sinuses, etc., connected with the nasal fossæ, may become the seat of osseous growths, independent of the cranial and facial bones, but capable of attaining a large size. 2. To this category may be referred an exostosis removed by M. Michon from the maxillary sinus; exostoses of the orbit originating in the ethmoidal cells; an osseous tumour removed from the nasal fossæ by M. Legouest; and osseous tumours described by M. Cloquet under the name of ossified mucous polypi of the nasal fossæ. 3. The membrane lining the frontal sinus may also be the seat of exostosis, as has been shewn in cases described by Otto, Roux, Jobert de Lamballe, Holmes Coote, and Dolbeau. 4. All these exostoses are more or less free in the cavity in which they originate. They may, in being developed, become more or less firmly fixed; but they always remain independent of the bone, and may be removed, if a sufficient opening can be made; hence it is important to operate at an early period. 5. Exostoses of the frontal sinus may be enucleated, notwithstanding the proximity of the brain. As their growth is undefined, it is wise to operate as soon as their presence is distinctly ascertained, in order to avoid their extension into the cranial cavity. 6. In operations, all attempts to attack the tumour with the gouge or trephine must be abandoned. Even the best made Liston's pliers have been broken on one of these tumours. The cavity must be freely laid open; and the tumour may then, by being shaken *en masse*, be readily removed entire without any very great effort. (*Gazette Médicale de Paris*, 8 September, 1866.)

INCOMPLETE LATERAL LUXATION OF THE CERVICAL VERTEBRÆ. M. L. Martin has observed five cases of this lesion; three in adults, two in children. In all three cases, the symptoms were the following. The head assumed an oblique position, and was rotated

and inclined laterally; the muscles of the nape formed a very strong tense projection on the side from which the head was inclined; the other side of the nape was depressed, and the posterior middle line of the next formed a curve with its convexity turned towards the muscular projection. The sterno-mastoid on the side to which the head was inclined was relaxed; on the other side, it was tense. Symptoms of compression of the cord (paralysis, cramps, etc.) were present in the adults only; not in the children. To reduce the dislocation, the patients were lifted by the head, so that counter-extension was made by the mere weight of the body. In four cases, recovery was complete; in the fifth, some general symptoms remained after the reduction. (*Wochenbl. der Zeitschr. der Gesellsch. der Aerzte in Wien;* and *Gaz. Méd. de Paris,* June 9th, 1866.)

Local Medication of the Bladder. Professor Crawcour of New Orleans has introduced into practice an instrument to apply vapours directly to the internal surface of the bladder, by a modification of Richardson's apparatus. The tube of this celebrated atomiser is simply lengthened out in the form of a catheter. For obvious reasons, the smaller tube of the apparatus is continued to the extremity of the larger one, where there is a small aperture for the escape of the vapour. The bladder is first emptied, and the stopper of the bottle being removed, the catheter is passed, after which, the cork being replaced, everything is ready for the application. As the vapour is thrown in by the pressure upon the hand-bulb, the bladder gradually expands, and every part of its internal surface as it is unfolded receives the vapour. (*New York Medical Record.*)

Traumatic Aneurism in the Orbit. A man, aged 41, fell, in September 1860, on the back of his head, and was carried home insensible. Dr. Collard, who was called to him, found him in a state of stupor, with small slow pulse and cold skin. There was a small contused wound in the occipital region, but no fracture. Leeches were twice applied near the base of the skull, and counterirritation and purgatives were given; and the patient was able to move about tolerably well in a few days. Noises in the ears, however, still continued. After a time, there was developed in the left orbit a swelling which, eight or nine months after the accident, presented the following characters. It was as large as a haricot-bean, lay on the inner wall of the orbit, and had an undefined base. Pressure with the finger from before produced a sensation of *frémissement,* and pulsations isochronous with those at the wrist were perceived; on lateral pressure from left to right, the arterial pulsations were most strongly marked, and the buzzing experienced by the patient in the right ear was notably increased. The eyes were congested and projected much, the left more than the right. Leeches were applied to the mastoid region and the anus, and purgatives, calomel, belladonna, etc., were given; but the patient fell into so anæmic a state that in February 1862 this treatment was exchanged for tonics, when the patient's strength returned, the tumour gave less distress, the eyes became less congested, the projection of the left eye was less marked, and the diplopia, of which the patient occasionally complained, became less marked. On August 9th, the patient, after having, contrary to advice, engaged in hard labour, and perhaps also in consequence of suppression of a hæmorrhoidal flux, was seized with an exacerbation of his symptoms. The left eye was considerably projected forward, as if it were about to burst from the orbit; the upper lid was swollen. The right eye remained in place, but was drawn inwards. Diplopia became persistent; the patient was obliged to cover one eye in order to see objects distinctly. Leeches were applied to the arms, purgatives were given frequently, and a pill of calomel and belladonna was administered daily; and cold lotions were applied to the forehead and eyes. In July 1863, the patient obtained a situation on a railroad, which relieved him from hard labour. In two months, vision began to improve distinctly; the amelioration increased rapidly, and in three or four months the tumour had disappeared, the eye returned to its place in the orbit, and the diplopia ceased. In short, there remained no trace of the disease under which the man had suffered during three years and four months. M. Collard believes that in this case there was a dilatation of the ophthalmic artery and its branches, arising from and maintained by a morbid state of the ophthalmic ganglion, which furnishes vaso-motor filaments to the arteries of the eye. This ganglion he believes to have been injured by *contre-coup,* and to have remained in a state of hyperæsthesia which produced dilatation of the walls of the ophthalmic artery and its branches, increase and acceleration of the pulsations, and the other symptoms which have been described above. He hence concludes that it is advisable to try the effect of medicinal treatment before having recourse to operation. (*Revue Médicale,* and *Gaz. Méd. de Paris,* 29 Septembre, 1866.)

Dermoid Tumour upon the Anterior Fontanelle. M. Giraldés relates the following case. A little girl, three months old and in perfect health, presented in the region of the anterior fontanelle a tumour of the size of a pigeon's egg. It was covered with a whitish down, showed no pulsation or vibration during respiration, and was transparent, as could well be seen by transmitted light. Size, shape, and transparency, favoured the presumption of its being a meningocele. An exploratory puncture caused a transparent liquid to issue. A few days afterwards, a fine trocar was introduced; through the cannula nearly ten *grammes* of a most limpid fluid escaped exactly similar to that yielded by a spina bifida which had been punctured just before. This fluid had a saltish taste; and with nitrate of silver gave a white curdy precipitate of chloride of silver. The diagnosis of meningocele thus appearing to be corroborated, a corresponding treatment was adopted. After the cyst was completely emptied, the surface was covered with a layer of collodion, and compressed with wadding and a bandage. Puncture and compression were repeated once a week. After six puncturings, however, there was no diminution in size. The liquid which escaped was invariably of the same quality. After six months' treatment, the child was lost sight of. When, at the end of another three months, she re-appeared, she had had measles in the interval. The tumour had lost its transparency and increased in size. A fresh puncture gave exit to a reddish fluid, a little thicker, and carrying white clots like the grains of semolina. These appeared, under the microscope, to be composed of epithelial elements. There were also present scales of cholesterine. An able microscopist declared the clots to be the membranes of fat-cells. A slight inflammation following the last puncture caused a delay in the treatment. It was resolved to dissect the integument down to the base of the tumour, ligature its communication with the arachnoid by a thread of wire, and cut off the strangulated portion. Should the communication be found to be very extensive, the tumour was to be opened, its inner surface touched with nitrate of silver, and agglutination sought to be obtained. Chloroform having been given, half of the base of the tumour was circum-

scribed by a curved incision, and the hairy scalp completely dissected, when a tumour was laid bare invested with a fibrous membrane of bluish appearance, and much resembling the dura mater. The broad implantation of the tumour caused the plan of strangulation to be abandoned. The cyst was laid open throughout its extent; a reddish fluid escaped, containing a very large number of white clots; the inner surface, constituted as it was by an array of white crystalisations intermixed with a down of pretty long filaments, presented a whitish granular aspect. The cyst was found to be entirely closed, and without any communication whatever with the cranial cavity. So the case was not one of meningocele; but a rare and brilliant specimen of a dermoid cyst. The tumour, which completely covered the anterior fontanelle, was removed *in toto*, the flap of skin re-applied, and lightly compressed with wadding and bandage. A few months afterwards the wound was thoroughly healed. The tumour, a sphere of three *centimètres* in diameter, had two distinct investments, the outer of a fibrinous character, the inner of cutaneous nature, as was proved by dissection and by maceration in a solution of tartaric acid. The outer membrane presented all the histological elements of fibrous tissue, and was studded with vessels, forming a plexus of narrow meshes and merging with a rich network into the inner membrane. This latter was constituted like true skin, with a finely granulated surface. These two membranes were traversed by whitish and pretty long hairs. The aspect of the epithelial layer contiguous to the inner membrane, contains the prolongation of the epidermic follicles of the hairs and sebaceous glands. The inner surface of the cutaneous membrane was covered with a great number of hairs, the bulbs of which were perfectly constituted, as they contain very complete sebaceous glands opening in the hair-tubes. A magnifying power of three hundred diameters suffices fully to verify these morphological details. The white granular mass which lines the cyst, and gives its inner surface a milky aspect, is due to epithelial cells without nuclei, and to cholesterine. Hardly any traces of fatty matter are observable in this compound of epidermic elements. The seat of the swelling on the one hand, and its fluid contents on the other, constitute the interest of the observation. No analogous example is known; although dermoid cysts of the skull, and even within the cranial cavity, have been described by Morgagni, Ogle, and Stanley. According to Rouget and Lenoir, cysts of this kind may, by their growth, induce atrophy and even perforation of the bone. Hence the necessity for an early removal. A large number of cystic tumours must be held to be of intrauterine origin. (*Gazette Méd. de Paris*, Oct. 20th, 1866.)

MEDICINE.

Benzine in Hooping-Cough. The object for which children are advantageously carried to gas-works, of diminishing the intensity and number of the attacks of hooping-cough, Dr. Lochner obtains more conveniently by administering benzine in small doses internally, and likewise sprinkling it cautiously over the bed of the patient. A number of drops are given in a teaspoonful of water several times a day. Dr. Lochner has treated his own child, 21 months of age, successfully in this way. The premonitory symptoms lasted eight days; the disease itself only six days. The attacks were very violent, especially in the evening at bedtime; but their number never exceeded five or six in the twenty-four hours, and they did not last so long as in the cases of other children. He gave his child from ten to fifteen drops during the day; and as soon as it had fallen asleep, he poured some drops of benzine on the bed. This outward use of the drug requires the ventilation of the room to be specially attended to. (*Gaz. Méd. de Paris*, Oct. 20th, 1866.)

Hooping-Cough. Dr. Unsicker (*Cin. Lancet and Observer*) reports favourably on the use of strong tea made of the dried leaves of the common chestnut-tree (*Fagus Castanea*) in mitigating the paroxysms of hooping-cough. He also asserts that its employment is attended with an actual shortening of the disease.

ANIMAL CHEMISTRY.

On Oxalurate of Ammonia in Human Urine. Mr. E. Schunck, in a paper read before the Royal Society, says that when ordinary healthy urine is passed through animal charcoal, several organic substances are separated and absorbed by the charcoal, to a fatty acid. Among them is one which by treatment with strong acids is decomposed, yielding oxalic acid and urea. Its composition was found to correspond with the formula $C^6H^7N^3O^8$, which is that of oxalurate of ammonia. The author's experiments were not sufficiently numerous to decide the question whether this salt is a normal constituent of human urine or not. There is no doubt, however, that its presence, whether exceptional or not, affords an easy and satisfactory explanation of a phenomenon which has until now proved very puzzling, viz., the formation of oxalate of lime in urine long after its emission. It is doubtless owing to the decomposition of oxaluric acid, which takes up water and splits up into urea and oxalic acid; the latter then combines with lime, of which there is always a sufficient quantity present to saturate the acid. There can be little doubt also, that oxaluric acid is derived in the animal frame, as in the laboratory, from uric acid, the oxidation of which is its only known source.

After referring to the various forms in which fatty matter occurs in human urine, and to our extremely defective knowledge regarding its physical and chemical properties, the author proceeds to describe a process whereby he obtained from healthy urine a small quantity of a substance having the properties characteristic of the fatty acids which are solid at the ordinary temperature.

The author inclines to the opinion that it is a mixture of stearic and palmitic acid, which according to modern investigations constitute together what was formerly called margaric acid. The author does not venture to assert that it forms a normal constituent of the healthy secretion, though the urine employed in his experiments in no case exhibited anything peculiar. The experiments described do not throw any light on the question how this acid, which belongs to a class of substances almost insoluble in water, comes to be dissolved in a liquid like urine, which is itself usually acid.

A Tell-tale Flavour. We read in the *Chemical News* that, at Oxford, some drains and sewers were disinfected by means of carbolic acid, during last autumn, and the characteristic flavour of carbolic acid was soon afterwards detected in the drinking water, to the great indignation of some householders, who doubtless would have preferred the sewage, if undetected, to the flavour of carbolic acid, so easily perceived. This is of course quite a matter of taste; but if one must drink water polluted with sewage, it is perhaps best to be aware of it.

We are requested to remind members of the Association that the Annual Subscriptions became due on the 1st of January. They can be paid either to the Secretaries of the Branches; or to the General Secretary, T. Watkin Williams, Esq., 13, Newhall Street, Birmingham.

The Publisher begs respectfully to inform the Secretaries of District Branches and the members of the Association interested in extending its numbers, that the prospectus of the forthcoming volumes of the Journal for the year 1867 is reprinted in a separate form for distribution, and that he will be happy to forward it where desired.

British Medical Journal.

SATURDAY, DECEMBER 29TH, 1866.

EDITOR'S FAREWELL.

We cannot lay down the pen as editor of this Journal, without offering to the members of the British Medical Association our thanks for the invariable support which we have received from them in our efforts to maintain the high standing of our calling, as well as to widen the influence of the Association by improving the condition of its Journal. Thanks to their support and generous sympathy, we may venture to congratulate the Association that we have been enabled not only to hold our own in the struggle of journalism, but to have conquered for our Journal an unquestioned position in the field of medical literature, and effectually carried on no mean struggle in the cause of professional morality.

Perhaps we may be pardoned if, at this moment, we venture with some little self-complacency to congratulate the Association on its present state of vigour, on its influence and its usefulness. Surely we may affirm, that never at any period of its existence has the Association had a firmer hold on the profession than it has at this moment. Year after year the highest illustrations of medicine and surgery have been proud, at its annual meetings, to present themselves as exponents of the scientific labours and of the sentiments of our profession, thereby acknowledging the Association to be the worthy representative of its honour and its science. This is the high position now assumed by our Association; and it is not a little significant of its solidity, that we no longer hear whispered from within, or cried aloud from without, "*Cui bono?*" when men speak of its operations.

As regards our conduct of the Journal during the past six years of its existence, we must speak with moderation; but yet, after the many votes of thanks to us, recorded, we believe, by every Branch of the Association in the kingdom, it would be an affectation of modesty if we were to pretend that the Journal, in our hands, has not somewhat contributed in raising the Association into its present high condition of scientific vigour and of social influence. And if we speak of this, it is that we may remind our readers of the struggles for its very existence which the Journal has had to maintain; or rather, we should say, of the many and constant efforts which have been made by ill-judging friends and open enemies to bring it to a close. This struggle, happily, is now at an end. Friends have become convinced of the error of their intentions, and enemies of the inutility of their attacks; and no one now ventures either to question or to doubt the propriety of its existence. Its special object and usefulness are now accepted facts. It encourages medical science by recording the transactions of the Branches of the Association; it promotes fraternity in the profession, by being a bond of unity and goodwill between its members; it gives power to the will of the profession by imparting to it the force of unity; and, above all, it sustains the morality and honour of the profession. Being the mouthpiece of the sentiments of the profession, it is bound by the very terms of its existence, without fear or favour, to maintain and proclaim those sentiments of morality which are the guiding rules of our professional life. Whoever subjects himself to the rebuke of this Journal may be sure that he subjects himself to the rebuke of the profession at large—that he sins against professional morality. The editor's pen does not express the opinion of an individual; it records the judgment of the profession. Swayed by no interests excepting those of the Association which he represents, the editor of this Journal is bound uncompromisingly to denounce what the Association—*i.e.*, the profession as a body—condemns. The necessity for the existence of such a journal has been proved by its deeds. Those deeds have been appreciated; and the British Medical Journal, as the fitting exponent of the will and intention of the profession, is now an accepted fact.

We may be forgiven if we thus refer to the immediate past history of this Journal. The lesson to be learnt from the past is one which may be usefully remembered in the future. The editor, to work manfully and usefully, requires the united and firm support of the Association. His efforts in the advancement of science, and while doing battle with professional disorder, are paralysed so long as he is forced to defend the very ground upon which he stands.

Sincerely, therefore, do we congratulate the profession that the Journal has at last lived down all the many attacks made on its existence. And no

small matter of congratulation is it to ourselves, that we are enabled to hand to our successor the JOURNAL at a moment when the voice of opposition, both from within and from without, is heard no more. Gladly also do we record the fact, that we leave it in peace with all our medical contemporaries.

For these reasons, then, we may be forgiven if at this parting moment we indulge the honest pride of having been in some degree instrumental in the progress and expansion which the Association has undergone during the past few years. And surely, also, we may fairly indulge the sanguine hope that, in the vigorous and practised hands of its future distinguished editor, the JOURNAL will not fail still further to extend the usefulness of the Association, and to exercise a salutary and guiding influence in promoting the well being of the profession at large.

Perhaps there never was a moment in the history of our profession when a firm and honest criticism was more needed in dealing with its literature; for assuredly there never was a time when the press *per fas et nefas* has been so widely resorted to as a means of gaining fictitious notoriety, as well as a true scientific reputation; never a period when books have been made so extensively available as a means of advertisement. Moreover, in the ethical character of our profession, there is, unfortunately, still work enough for the exercise of an uncompromising condemnation of things professionally dishonest. And who is to do this work, if not the medical press? The profession (and not unnaturally) are apt to underestimate, and even overlook, the real value of an earnest and determined monitor engaged in directing and preserving the credit and character of the profession; and sincerely therefore do we hope to have done something in elevating the position of journalism in the eyes of our medical brethren; in bringing them to regard it as the exercise of talent worthy of all that consideration which attaches to high professional skill honestly exercised.

In conclusion, we must add one word especially personal to ourselves. We have, in the performance of the work delegated to us, been forced at times to say that which may have hurt the feelings or the prejudices of individuals. An editor cannot avoid such criticisms and be honest. We hope, nevertheless, that those who may have thus taken umbrage at our words, will regard them as in no sense personal, but simply as the conscientious and necessary expressions of an editor engaged in the performance of his duty. And, in asking this for ourselves, we would ask the same for our successor. Fortunately or otherwise—we think fortunately—the editor of this JOURNAL is a known and responsible person; and just, therefore, in proportion as the justice of his criticism is guaranteed by his personal responsibility—just in proportion to its sincerity and value—ought the consideration and protection of the profession to be extended to him.

A great future, we verily believe, is in store for our Association. In that future its JOURNAL must ever play a conspicuous and leading part; and if there be one earnest wish we would impress upon our readers in these our parting words, it is this, that they should in the future cement and foster the relations of the JOURNAL with the Association.

THE STONE HOSPITAL CORRESPONDENCE.

OUR silence on the subject of the Stone Hospital Correspondence seems likely to be misinterpreted. The particular case, however, of Mr. Walter Coulson can be judged, we think, without comment. His letter admits, in fact, the practical misleading of the members of the surgical staff of St. Mary's Hospital who signed the document which we published, on a subject on which, in common with other professional men who signed a protest against the Stone Hospital, they feel strongly. But he declines to remedy the breach of faith by the only reparation which he can offer, resignation of one or other appointment. He pleads that the deception was not premeditated. This lessens the offence, but by no means lessens the honourable obligation to repair it. Mr. Nunn has already marked out, we think, the better course, in deferring to the opinions of his colleagues at the Middlesex.

As to the general case of the Stone Hospital, we think it ought by no means to be confounded—as the attempt is being made—with that of other special hospitals. They profess to provide for the superfluity of the hospitals—the tedious and overflowing cases of cancer, paralysis, consumption, syphilis, and the like. This proposes to abstract the scanty cases of stone, which are earnestly sought after and carefully provided for, and which are necessary for clinical instruction in the general hospitals, on the offensive and absurd ground that they will be better treated by Mr. Coulson, junior, Mr. Herbert Scott, and whoever else may be induced to join them, than in the hands of such men as, say, Fergusson, Curling, Prescott Hewett, Paget, Henry Thompson, and the great body of hospital surgeons generally. It differs from all other special hospitals in its *raison d'être*; and amply deserves the proscription which for three years has been imposed upon it. At least, any one who patronises such an assumption and becomes party to the offence is out of place amongst the staff of any general hospital.

A NEW DOUBLE QUALIFICATION.

We rejoice to announce that the important change which we only last week warmly advocated is likely to be quickly commenced.

A communication, which is likely to have much influence on the future status of our profession, has been made to the College of Physicians by the College of Surgeons. Some of our readers may remember that, on more than one occasion, the College of Physicians has earnestly and seriously endeavonred to enter into mutual agreement with the College of Surgeons for the purpose of instituting a joint examination, and granting by a single examination a high and effective double qualification. Hitherto, however, the College of Surgeons has not been sufficiently advanced in progressive modernism to accept such a proposal; and it may certainly, therefore, now be hailed as one of the cheering signs of its advancement in liberalism, that it now comes forward in its turn expressing a desire to bring about some arrangement of the kind referred to. Great credit is due to Mr. Partridge, the President of the College of Surgeons, for the active part which he is taking in bringing the College up to a level with the requirements of the age. Mr. Partridge informs the College of Physicans, in a letter addressed and read to them on the 22nd inst., that a Committee of the College of Surgeons is desirous of meeting a Committee of the College of Physicians to confer as to the propriety of joint cooperation in the matter of granting diplomas. The College of Physicians at once unanimously accepted the proposal, and then and there the President nominated, as members of the Committee to represent the College, the President, the Treasurer, the two Senior Censors of the College, with the Registrar and Dr. Risdon Bennett. As the College of Physicians have always had a strong feeling in favour of this system of joint examination, and as the College of Surgeons now comes forward, we must suppose, with a *bonâ fide* intention of assisting in bringing it about, and as there assuredly exists intrinsically no difficulty in coming to suitable terms, we may regard this important movement as almost as good as an adopted conclusion.

NEXT SESSION.

Who is to blame for the continuance of that system of nefarious extortion and obscene fraud which is carried on by the authors of "secret guides", "private friends," and "physiological handbooks," and the like? Not the press; for the advertisements of these men are now excluded by respectable journals, and their tactics have been many times exposed before, as they are again this week, by the *Saturday Review*, in an able article on "Secret Terrorism." Not the medical profession; it has expelled the very few rogues who sought to legalise the traffic by obtaining diplomas from various Colleges; their names have been erased from the rolls of the registered practitioners of the country and have been struck off the lists of their Colleges. Moreover, this has been done publicly, and the names have been printed in all the professional and political journals. But they flourish almost unhurt, and will continue to do so while the law countenances by inference the illegal assumption of medical titles by men who no longer possess them, or who never had any just claim to them. A penalty is, indeed, imposed by the Medical Act upon those who assume to be "registered practitioners"; but the punishment is reserved for the pretence of registration, and not for the false assumption of the title. This, of course, makes it a dead letter. The Register is a big and costly volume, which, we should suppose, hardly a layman in the kingdom possesses, and to which very few have access. This state of the law is an obvious evil; it is not merely absurd, but very injurious. A very simple and efficient clause has been proposed to the Government by way of a short amendment of the Medical Act. This clause has been approved by Mr. Thring, and sanctioned by the last Government. The bill containing it was in the Home Office, drawn and ready for the House, when Mr. Walpole came into power. Its introduction had been greatly delayed by the reform debates; and Mr. Walpole was unable to press it on, in the then crowded state of the business of the House. The draft of the Bill is before us; and the clause is simple, and would be effective in preventing the fraudulent assumption of medical titles, which is the kind of protection really needed by the public. We have reason to believe that the Bill will be introduced early in the ensuing session; and a more useful piece of legislation could hardly be accomplished.

THE PERSISTENT EPIDEMIC IN CARNARVON.

We are glad to hear that the attention of Government has been drawn to the continued prevalence of cholera in the Carnarvon Union. Some weeks ago, we reported the outbreak, and we have each week since given an account of the fresh attacks and deaths which have taken place. It will be remembered that our last notice recorded the fact that the deaths had increased from seven to seventeen, though the fresh cases had not been so numerous. We understand that the Medical Department of the Privy Council has directed one of its inspectors to go to Conway to ascertain the cause of the outbreak, and to advise the authorities as to the best way of dealing with the epidemic, with a view of arresting its extension and progress. Last week, the fresh attacks were 145, but the deaths 15, only two less than in the preceding week.

ROYALTY.

The loyalty of Englishmen (if not their love of taxation) gives them always a great interest in anticipated additions to the numbers of the royal family. The recently published statements on this subject are understood to be correct, except that the accouchement of the Princess of Wales may be expected in March, and that of the Princess Christian in April. The Princess Royal of Prussia has quite recovered her health and spirits, which were depressed by the loss of her infant. The recent in-

disposition of the Prince of Wales was, we believe, nothing more serious than an attack of boils, probably consequent upon a great deal at fatigue, but attributed by *cognescenti* at court to partaking of frozen meat at St. Petersburg, which has the reputation of producing such mishaps.

WASTED LIVES.

It seems that the old hunt for slavers is continued on the old principles, spite of the useless waste of life involved, and the utter absence of results. The "poor old *Oberon*", which cannot sail over 2.8 knots, or steam more than about 6 knots, was, on the 7th of November (according to the *Army and Navy Gazette*), on her way to Lagos, one of the most deadly stations on the West Coast of Africa; then, if there were any slavers to be found in their old haunts, they might have the satisfaction of laughing at her. Meantime the assistant-surgeon and others had been down with the coast fever. It is suggested that a run up to Ascension would be a prudent step, *if the commander could take the responsibility upon himself in the absence of his senior officer.*

A DIFFERENCE WITHOUT A DISTINCTION.

If the Medical Council should succeed, as we hope they may, in obtaining a legal protection for the various medical titles conferred by the chartered colleges and universities of the kingdom, so devised that it will be a penal act to assume them without warrant or to imitate them fraudulently, it is possible that some difficulty might occur as to the letters M.R.C.P. They, of course, indicate that the owner possesses the diploma of the College of Physicians of London; but they also distinguish (or confound) the members of the Royal College of Preceptors, and between the two colleges there is a very great difference, although between the initials there is no distinction.

THE YELLOW FEVER NEST.

The Lords of the Privy Council have just made an order directing that every vessel coming from or having touched at the port of St. Thomas "shall come to an anchor at such place or places as may from time to time be appointed by the Commissioners of Her Majesty's Customs, for the purpose of having the state of the health of the crew of such vessel ascertained, before such vessel shall be permitted to enter the port whereto she shall be bound, or any other port of the United Kingdom; and shall remain at such place or places until the state of health of such crew shall have been ascertained;" and further directing that every vessel is "thereafter to be subject to such lawful direction as may be made in that behalf by or under the direction of the said Lords."

The President and Council of the Quekett Microscopical Club have issued cards for a *soirée* on Friday, January 4th, at the University College Library, which has been lent for the occasion by the authorities.

CHRISTMAS IN THE HOSPITALS.

The sick in the London hospitals have not been forgotten during the Christmas season; they have been made to feel, so far as it has been possible, something of its festivity, and all its religious import. The wards of many hospitals are gaily decorated not only with holly and mistletoe, but with every variety of bouquets and floral devices; and some present a singularly gay and pleasing aspect. Such change in their fare as can be permitted has occasionally been made. The chaplains and lady visitors are chiefly to be thanked for this seasonable labour of love.

GOOD NEWS FROM THE EAST.

It is reported that the cholera epidemic in Persia has come to an end, and that since the beginning of this month not a single case has occurred. The presence of cholera in Persia is a matter of the highest importance to us in Europe, as a rigid quarantine against India would be of little value in the face of endemic or epidemic cholera in Persia. We are glad to learn, also, that the cholera which had recurred at Constantinople has been confined to a few isolated cases, and has disappeared since some weeks. It has also ceased, we are informed, in Alexandria, since the 20th ultimo. Vessels from the above ports will now, therefore, be admitted to free *pratique*.

THE QUEEN'S AT BERMUDA.

We have received a communication from Lieutenant-Colonel Attye, the officer commanding the Queen's at Bermuda at the time when they were so decimated by yellow fever and were retained in the very hotbed of the epidemic, contrary to urgent medical representations and to all experience. The object of this communication is to show that the blame lies not with himself, but in a higher quarter; and we feel bound to add that we have received another communication this week of like effect from a gentleman who was in a position to be well informed, but who desires to withhold his name. Colonel Attye writes:

"On the morning after the Queen's landed at St. George's, Dr. Hunter, the Health Officer, called on their commanding officer and reported that a fatal case of decided yellow fever had occurred the former day in St. George's, and that a few days before there had been also a suspicious death, but which had been called jaundice. He, therefore, recommended the removal of the regiment to the Ferry, where communication with St. George's could, in a great measure, be cut off.

"The commanding officer of the Queen's, being the junior of four lieutenant-colonels on the islands, could act only 'under authority.' He at once went with his adjutant to the senior officer on the spot (the second in command), and requested that immediate steps might be taken for the removal of his corps. A telegram was sent to the Commandant, who refused to sanction it, but his own corps, the 39th, was sent there a day or two later; and, although their tents were purposely left standing on their embarkation, it was not till after repeated applications that the commanding officer of the 2nd obtained authority for the move, and then only for a limited proportion."

THE BOULOGNE STATUE OF DR. JENNER.

The College of Physicians, on the 22nd instant, considered the application for a grant from the French Committee engaged in erecting the statue of Jenner at Boulogne, and subscribed £25 towards defraying the still outstanding amount due on account of the statue.

THE DYSTER ENDOWMENT.

The College of Physicians have adopted the following regulations for the management of the money presented to them by Dr. Dyster.

"That the memorial shall consist of a gold medal of the value of £20, to be called the 'Baly Medal', and to be awarded, as provided, every alternate year to the person who shall have distinguished himself in physiology. That the honour shall be extended to foreigners without exception. That the medal be presented after the Harveian Oration, by the President of the College. That of the sum of £400 placed at the disposal of the College by Dr. Dyster, such part shall be first expended as may be required to procure the dies for the medal; and that the interest accruing from the remainder shall be expended on the medal. That the medal shall present on the *obverse* the portrait of the late Dr. Baly, surrounded by the words, 'In honorem Gulielmi Baly, M.D.,' surrounding the head, and beneath the bust, the words, 'Ex instituto F. D. Dyster, M.D., MDCCCLXVI'; and on the *reverse*, a view of the College, with the words, 'Coll. Reg. Med. Lond.' under the same. And that the name of the medalist, in his native language, with the date of the award, be engraved on the rim of the medal."

"WORTHY OF THE SPONGE."

The name of George Frederick Thomas of Melbourne, Member of the Royal College of Surgeons of England 1859, Licentiate of the Royal College of Physicians of London 1864, has been removed from the *Medical Register* by virtue of the powers entrusted to the General Medical Council under the Sect. 14. This person, besides representing himself as a member of the Council of Medical Education, London, had been guilty of unprofessional conduct, of which it will be remembered that the College of Physicians, as mentioned in our report of last week, then took serious cognisance. Unfortunately, in the present state of the law here, this, which is intended to be a very serious punishment, is practically robbed of its intended efficacy; since the deprival of diploma and the erasure from the Register, still leaves the culprit free to assume his medical titles as of yore, and to practise undisturbed, as many others do under similar circumstances at present, in England.

DR. GOOCH.

A portrait of the late Dr. Gooch has been presented by his daughter to the College of Physicians. "Not many of you," said the President, in speaking of this gift, "may remember Dr. Gooch. But some of us personally knew him, acute, sagacious, and successful. He died too early, in the very zenith and at the acme of his reputation." His daughter hoped that the portrait might be allowed to take its rank amongst the worthies of the College.

BURIED ALIVE.

A horrible instance of neglect and ill-treatment of a lunatic in Scotland, which was brought to light through the vigilant activity of one of the Deputy-Inspectors in Lunacy, has been published in most of the daily papers. The patient, a young woman, had been walled up in her room, and had lived there naked and filthy for years; the relatives who had the poor creature in their charge having evidently acted in this barbarous manner from an ignorant horror of insanity, and from an unwillingness to let her be taken from them to an asylum, rather than from any positive cruelty of disposition. A few years since, before the Board of Lunacy was established, many cases of a like kind occurred; but, in consequence of the active exertions of the deputy-inspectors, whose special duty it is to visit the registered lunatics in private dwellings, and to search out those who are so placed illegally, these terrible cases have almost entirely disappeared. It is only now and then that such a case is discovered in some remote country district. Their past frequency and present great rarity testifies to the value of the rigid system of inspection, and the excellent progress made in this matter in the last few years.

THE CHOLERA-POISON AND CHOLERA-DISCHARGES.

Dr. J. S. Alleyne, of St. Louis, in his Report on Asiatic Cholera, which has been epidemic in that city, says:

"The cholera-discharges were not always copious or frequent; indeed, we may say with truth, from our own observation, sustained by the remarks of others, that there did not appear sufficient reason, in the quantity of secretion from the bowels, for the rapid and profound collapse. The most malignant cases, as we now can recall, by reference to notes, were those where the vomiting and purging were insignificant. Judging from them, the prognosis was favourable; but the rapidly fatal termination showed the fallacy of our belief. As an extreme instance of the powerful impression of cholera poison, without the usual symptoms, we witnessed, in what we could not otherwise term than a case of cholera, all the symptoms, such as cold extremities, cramps, sunken eyes, choleraic voice, depression of the nervous and circulatory systems, and yet no vomiting, not even nausea, and no dejections. The patient, after a week's sickness, gradually recovered. On the other hand, large evacuations seemed to throw off at once the poison from the system—if such an expression may be allowed—and the patient recovered as rapidly as he sank."

Use of Tobacco by Children. In Fall River, Mass., the children in the public schools use tobacco, and become intoxicated to such an extent that the Superintendent of Schools has written a public letter on the subject.

St. Mary's Hospital will presently benefit to the extent of £5000 by the will of Mr. J. Scrivener, lately deceased; this amount is bequeathed in reversion. Landed property, believed to be of considerable value, is devised by the same testator to St. George's and Middlesex Hospitals.

THE EXPECTED WARRANTS FOR THE ARMY AND NAVY MEDICAL SERVICES.

THE Army Medical Warrant, of which so much has been said, is ready, and in type. It is not yet, however, promulgated, and will not be separately published, but will be included, we are informed, in the second volume of the Amended Army Regulations, which is about to be published. We understand that it will grant rates of pay in some respects rather higher than those suggested by the Committee on whose recommendation it is founded. Sir James Gibson's protest on behalf of the officers of higher rank has been attended to, and they will receive an increase (of no considerable amount, however) beyond the scale of pay published in the recent blue-book. The amended Naval Medical Warrant is not yet ready. We believe that the benefits which it will confer will chiefly consist in improved retirement in the higher ranks and better allowances for officers on shore.

AT the last meeting of the Academy of Paris, M. Larrey asked if the officers had any news of MM. Follin and M. Rayer, who were reported to be very ill. "The Academy could not by its silence show itself indifferent to the state of these two honourable members." M. Trousseau and M. Broca reported that M. Follin was out of danger; and we learn from another source that M. Rayer is also doing well. M. Follin has just been elected President of the Société de Chirurgie.

Dr. Thiersch of Erlangen recalls attention to some earlier researches on the question, Are non-volatile combinations produced in the spontaneous decomposition of choleraic dejections which, introduced in small quantity into the healthy animal organism, give rise to the disorder? The dejections were without injurious action on the animals during the first three or six days of the decomposition; but in the following days of the decomposition a poisonous principle was developed, attached to the dry residuum of the dejections, of which a small portion produced in the animals a disease presenting the symptoms characteristic of cholera. This poisonous principle disappeared at a later period of the decomposition. The decomposition took place at a temperature of from 43° to 52° Fahr.

M. Preterre, a well known dentist of Paris, states that, after a considerable experience of the protoxide of nitrogen as an anæsthetic, he considered it a most precious agent. In one or two minutes, at most, a sufficient sleep is obtained to extract a tooth or to practise an operation of short duration. After awaking, the nausea, the loss of appetite, the helplessness, and the fatigue, which ordinarily follow anæsthesia obtained by chloroform or ether, never occur.

M. Ricord has been elected Vice-President of the Academy of Medicine, so that he will succeed in turn to the presidency. This has not occurred without opposition from the Faculty, by whose influence M. Denonvilliers was nominated. The opposition to M. Ricord was by reason of his position external to their body. But the Academy maintained its position as the equal platform for all worthy celebrities, and M. Ricord triumphed easily.

REPORT ON LEPROSY.

A REPORT on Leprosy by the Royal College of Physicians has been prepared for Her Majesty's Secretary of State for the Colonies. It is a very bulky, very elaborate, and very valuable contribution to our knowledge of this intricate subject. The College have performed this great labour at the request of the government. The suggestion arose out of a letter from the Governor of Barbadoes to the Duke of Newcastle, stating that this fearful malady is on the increase in that colony, and suggesting that, hopeless as the case of the unhappy leper may be, the collection of reports from all the colonies on the character and progress of the disease, the treatment and dietary observed, and the general regulation of leper-houses, might be attended with some possible advantages, and tend to ameliorate the condition of these unhappy sufferers. The College assured the Duke of Newcastle of their willingness to cooperate in this humane work; on the nomination of the President, Dr. Budd, senior censor, Dr. Owen Rees, Dr. A. Farre, Dr. Gull, Dr. Milroy, and Dr. Greenhow, were appointed a committee to frame interrogatories and report on the disease. These were dispatched to all the colonies, and a considerable mass of evidence has thus been obtained, and is here elaborately digested and collated. One most important conclusion at which they have arrived discredits entirely the belief that leprosy is contagious, or communicable by proximity or contact with the diseased. The evidence derived from the experience of the attendants in leper asylums is especially conclusive on this point. Thus there is not, in this great mass of reports from all parts of the world, "anything which justifies measures for the compulsory segregation of lepers." In India no such segregation is attempted, but in many countries, including some British colonies, the slightest ascertained taint of the malady carries with it a seclusion tantamount to banishment from the rest of the community, or even to perpetual detention in a lazaret. Enactments for the arrest and imprisonment of lepers have been proposed or passed even within the last few years in some of our Indian colonies. In the villages of Syria, lepers are required to go to Damascus, or some other town where there may be a public asylum; and if they will not conform to this rule, "they are made to live in a cave or hut outside the village, where they remain in perpetual quarantine." All such enactments or regulations should be abolished. The Report constitutes a book of great size, and will require further analysis.

THE DANGER OF USING CHEMICAL POWDERS IN COOKING. A very narrow escape from poisoning a whole family has occurred at Wilmington. As Mrs. J. Davis was making a hard pudding for dinner, she went to a shelf to get a pinch of "baking powder", as she thought, to mix with it; but, in mixing, she fancied it did not feel just like baking powder, and, on taking up the packet and looking at it, she saw "poison" labelled on the packet, and which was found to contain oxalic acid, which had been left there unknown to her, for cleaning boot tops. She was much frightened, and at once threw it all away. (*Brighton Paper.*)

Association Intelligence.

BATH AND BRISTOL BRANCH: ORDINARY MEETING.

The second ordinary meeting was held at the York House, Bath, on December 13th, 1866; J. S. Bartrum, Esq., F.R.C.S., President, in the Chair. There were also present thirty-two members and seven visitors.

The minutes of last meeting were read and confirmed.

New Members. Mr. H. Wintle (Bristol), Mr. J. R. Dunn (Keynsham), and Thos. Barrett, M.D. (Bath), were elected members of the Association and the Branch.

Dr. Tunstall and Mr. R. N. Stone gave notice that they should introduce amendments to the present law regarding the mode of ballot for new members. The President suggested that they should confer together, and give notice to the Secretaries to make the next meeting *special* to discuss the subject.

Communications. The following communications were made.

1. On Gonorrhœal Rheumatism. By A. Prichard, Esq. A discussion followed, in which Drs. Cooke, Tunstall, and Martyn took part.

2. An Extraordinary Case of Carcinoma in a Child. By W. B. Herapath, M.D. Mr. Leonard, Dr. Gourlay, and Mr. Mason took part in the discussion.

3. The Internal Use of Tartar Emetic in sudden Acute Inflammations. By J. K. Spender, Esq.

4. Mr. H. W. Freeman showed some interesting readings of the Sphygmograph from patients under his charge at the hospital.

SOUTH-EASTERN BRANCH: EAST SURREY DISTRICT.

A meeting of this Society was held on Thursday, December 13th, at the Longton Hotel, Sydenham. Edward Ray, M.D., of Dulwich, was in the Chair; and eighteen members and visitors were present.

The Late Mr. W. T. Sargent. The following resolution was proposed by Dr. Lanchester, seconded by Mr. Bottomley, and carried unanimously.

"That this Society has heard with the deepest regret of the untimely death of Mr. W. T. Sargent of Redhill, which occurred only a few days after he had attended and read a paper at its last meeting. The Society desires to express its appreciation of his high professional worth, as well as of the general esteem in which he was held; and to tender the expression of its warm sympathy with his widow and family in their sad bereavement."

Communications. 1. Dr. J. M. Bright, of Forest Hill, read the notes of a case of Intrathoracic Cancer. The symptoms, at first obscure, were ultimately such as to enable a correct diagnosis to be formed. Dr. Bright was thanked for his paper, and requested to allow it to be published.

2. Mr. Sydney Jones gave the history of a recent case in which Gastrotomy had been performed for the relief of a patient suffering from Stricture of the Œsophagus. The patient survived the operation twelve days—a longer period than in any previously recorded case. He eventually died of pneumonia—an apparently accidental complication.—Mr. Cooper Forster congratulated Mr. S. Jones on the degree of success he had met with, and made some remarks on the operation, which he himself had twice performed.

3. Mr. Cresswell, of South Norwood, read the report of a case of Fatal Obstruction in the Small Intestines, occurring in a patient who had been the subject of gastric fever some time previously. The *post mortem* examination showed great constriction of the intestine at one point, due, Mr. Cresswell believed, to the contraction of an old typhoid ulcer.

4. Mr. E. Reynolds Ray showed a large Gall-Stone, which had passed by ulceration into the intestines of a patient, producing a fatal result; and read the notes of the case.

5. Dr. Ray exhibited the Bones of a Fœtus, which had been passed *per rectum*, at different times in the course of two years, by a woman the subject of extra-uterine fœtation. The patient eventually did well.

6. Dr. Braxton Hicks exhibited his Cephalotribe, and promised, at a future opportunity, to make some remarks on its use, and on the advantages to be derived from it.

Next Meeting. It was arranged that the next meeting should be held at Croydon, on Thursday, March 14th, 1867; and that Mr. Berney be requested to act as chairman.

The Dinner took place at 6.15 P.M., and was attended by sixteen of those who were present at the meeting.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH: GENERAL MEETING.

The third general meeting of the present session was held at the Midland Institute, December 13th, 1866. Present: T. A. Carter, M.D., President, in the Chair; and twenty-four members.

Communications. 1. Dr. B. W. Foster exhibited a specimen of Rupture of the Aortic Valve from muscular effort. The specimen was taken from a soldier who had been discharged on account of the symptoms produced by the rupture, which occurred while the man was stretching over a high obstacle in order to reach something beyond. The left segment of the aortic valve was torn from its attachment at its angle of junction with the posterior; it was still attached about three-eighths of an inch below the other segments. The curtain of the valve was also perforated in two places. The pulse-traces, taken with the sphygmograph, were also shown.

2. Mr. Oliver Pemberton read notes of a case of Foreign Body in the Larynx, and exhibited the *post moriem* appearances of the same. The child, 7½ years old, came under Mr. Pemberton's care in August last. She was said to have swallowed, in the September of the previous year, a portion of a japanned buckle. She was seen by a surgeon within half an hour of the accident, when she presented an anxious appearance, and suffered from difficulty of breathing and loss of voice. There was no difficulty in deglutition. The symptoms began to abate; and, when Mr. Pemberton saw the child, she was healthy, and suffered no inconvenience beyond the weakness of voice. There was no stridor; and no abnormal physical signs could be discovered upon auscultation of the lungs or of the larynx. On account of the absence of urgent symptoms, laryngotomy was not deemed advisable, and the child returned home. Three days after her return, she was seized with violent vomiting from an overloaded stomach. This probably stirred the foreign body, set up inflammation of the laryngeal mucous membrane, and caused death. The body of the buckle, an inch long, was found lying vertically in the larynx posteriorly, while the teeth lay in the angle of the thyroid cartilage.

3. Dr. Russell read a paper on Cholera and the Water-supply. Dr. Russell alluded to the origination by Dr. Snow of the theory of the propagation of cholera through the water-supply, and said that the experience of the present epidemic accorded entirely with this theory. According to Dr. Snow's theory, cholera is the result of a specific poison which lives and multiplies in the alimentary canal; and further, the cholera poison is extensively contained in the discharges from the stomach and bowels of the cholera patients, and is disseminated by them. Being dried, the poison may be conveyed by the atmosphere or by clothing, though by far most frequently by water; the water holding in solution the germs of the disease, which it conveys into the system when used as a drink. He noticed that the salient facts which had been established respecting the extension of recent epidemics accorded with this theory. He said that man was the main, if not the sole, agent in multiplying the disease and conveying it to distant places. Even a single individual may be the means of introducing the disease into a locality, and thereby originating an epidemic; and the infecting power was intensified when man moved in masses, as in pilgrimages, armies, etc. Dr. Russell then gave details of some of the most remarkable epidemics of cholera, and showed how in each instance it might be attributed to impure water; and mentioned cases in which the disease had been traced to privies, and through these to the infection of land-springs. He mentioned Dr. Budd's aphorism, that cholera is a disease that infects the ground; and said that this infection of the ground was the principle which connects itself with the relation which subsists between cholera and the water-supply. Dr. Russell then detailed many instances in which the outbreak of cholera was distinctly traced to infected water; and stated that authors, and also the medical officers of health, were agreed in this view almost unanimously. Dr. Russell concluded a very interesting paper by some practical remarks upon the prevention of an outbreak of cholera, and called attention to the frequency with which the pump-water of large towns was found to be unwholesome, such unwholesomeness in many instances not being recognisable by taste or smell.

Each of the papers was followed by an interesting discussion.

New Members. At a Council-meeting of the Branch, the following gentlemen were elected members of the British Medical Association:—Dr. Wylie, the General Hospital, Birmingham; Dr. Overend Drewry, Walsall; Mr. Charles Iliffe, West Bromwich; Mr. George Elkington, jun., Birmingham; Mr. C. J. Bracey, M.B., Birmingham; Mr. E. H. Addenbrook, the Children's Hospital; Mr. Francis Wm. Underhill, Tipton.

The Blane Medals. The Council of the College of Surgeons has just forwarded these naval medical prizes to the Director-General of the Medical Department of the Royal Navy, to be distributed to the successful candidates.

Longevity. A question which has long been agitated and argued *pro and con* is, whether the work of the brain is injurious to health, and whether it shortens life. In relation to this subject, the Paris correspondent of the *Morning Star* notices that most of the clever men of France reach a great age. Of the members of the French Academy, M. Viennet is 89; M. de Ségur, 86; de Pougerville, 76; Lebrun, 82; Villemain, 76; Lamartine, 76; Flourens, 78; M. Guizot is 79, and M. Thiers, 69; Berryer is 74; the Duke de Broglie 82. The ages of the younger members of the Academy range from 60 to 70.

Reports of Societies.

WESTERN MEDICAL AND SURGICAL SOCIETY.

Friday, Nov. 2nd, 1866.

W. Marcet, M.D., F.R.S., Vice-President, in the Chair.

A Case of Rupture of the Heart. By G. F. Blandford, M.B. R. T., aged 71, who had been for thirty years an inmate of an asylum, summoned the resident medical officer to see him early in the morning of May 13th. He appeared to have caught a severe cold, had some cough, and much pain in the chest; was shivering. His face and eyes seemed swollen; and he had vomited. His pulse intermitted regularly every three beats; the heart's sounds were muffled, and the action feeble. The feet were cold, and all appetite gone. Mustard plasters were applied to the chest, and ammonia and other restoratives were given; and, before the day was over, he expressed himself greatly relieved. On the 14th, he had had a restless night, but was better in the morning. He was sitting on the sofa; was unaccountably languid and weak; pulse very irregular; the heart's sounds were very muffled. On the 15th, he was much better, but still languid, and could not eat. When Dr. Blandford saw him at 2 p.m., he was sitting up at his table, trying to eat some dinner; but he said he could not get on with it. His pulse then was of an extraordinary character; it was so irregular, that it was impossible to count it. At six o'clock, the medical officer saw him again, and took him the newspaper, which he came forward to receive in his usual manner. Shortly afterwards, his attendant, going in with his tea, found him on the sofa, apparently asleep, but in reality dead.

At a *post mortem* examination, the pericardium was found distended with bloody serum; and the whole of the heart was covered with blood-clot, which, after being removed, weighed about 5½ oz. At the very apex of the heart was a small orifice, through which the blood had come, the muscular tissue round being also stained for some distance. This orifice opened into the right ventricle. The valves were healthy; and the muscular structure generally did not appear either softened or fatty, neither was it dilated or thinned. There was no fat upon the surface of the organ. The other organs were healthy.

Acute Pericarditis apparently from Pyæmia. By A. Godwin, M.D. A boy, C. W., aged 5, well nourished, who had nearly all the prepuce removed on account of phimosis, eight days afterwards had severe rigors, and was very ill. The author saw him on the tenth day, when he was lying on his back with his knees drawn up; much fever; hot dry skin; tongue foul and dry; pulse rapid; and breathing hurried. The whole abdomen was very painful to the touch, more especially in the hepatic region. The heart-sounds were healthy, and nothing but a few moist *râles* were heard at the base of the lungs. He went on much the same for three or four days, sometimes appearing better, but soon relapsing. The pain shifted to the epigastrium; he had once or twice partial sweats at night, more especially of the head; but the author never found his skin in the least degree moist. He would take no nourishment but wine. Occasionally he asked for food, but would not eat it when given to him. He was at times delirious, but was never observed so by Dr. Godwin. He had tenderness of both knees and the right wrist, lasting for a few

hours only, and shifting from one to the other, but unaccompanied by swelling. On the fifth day, he was decidedly worse; there was now a loud endocardial murmur and a to-and-fro sound; the bases of both lungs were dull on percussion; the breathing was more hurried; the pulse intermitting, etc.; and he died the next morning. The urine was clear all through his illness, without any deposit.

On *post mortem* examination, the small piece of prepuce that was left was found to be œdematous. On raising the sternum, a small quantity of ill-looking pus appeared, as if from the right sterno-clavicular articulation. The liver was large and softened, easily broken down, and had a mottled appearance. The pericardium contained about two ounces of fluid; and both layers were covered with an extensive deposit of lymph, with a few slight adhesions. The right chambers of the heart were filled with clot, that in the auricle being entirely decolorised, that in the ventricle less so, the valves bound down by adhesions; the left chambers were tolerably healthy. There was much fluid in both pleuræ; and the bases of both lungs were intensely congested, appearing almost solid. The ascending cava appeared quite healthy; and there was not any deposit of pus found, except the one mentioned.

LIVERPOOL MEDICAL INSTITUTION.

November 15th, 1866.

W. M'Cheane, Esq., Vice-President, in the Chair.

Specimens. Dr. Graham exhibited a Larynx with a Pendulous Growth attached to the inferior vocal cord, completely blocking up the opening of the glottis. The tumour was epithelial. The patient was 75 years of age, and had suffered from laryngeal symptoms for seven years. He was found one morning dead in his bed, death being caused by sudden suffocation.

Mr. Edgar A. Browne showed a specimen of Hydatids of the Liver. There were no special symptoms in the case during life suggestive of their presence.

Dr. Cameron brought under the notice of the Society a specimen of Pneumonia complicated with recent Pericarditis. A negro sailor, aged about 60, was admitted into the Southern Hospital, and died on the tenth day of an attack of pleuropneumonia of the left lung, complicated with recent pericarditis. There was hepatisation of the whole of the lung. Thick layers of lymph had been effused on its pulmonary and diaphragmatic pleura. In the diaphragm were several highly vascular patches. The opposed surfaces of the pericardium were adhering extensively, on the left side of the heart especially, by soft recently effused lymph. The following points in this case seemed worthy of notice. 1. The occurrence, during the whole time of the patient's residence in hospital, of troublesome hiccough, explained by the condition of the diaphragm. 2. The development of pericarditis independently of rheumatism, evidently by extension of disease from the inflamed pleura. 3. The results of thermometric observations. It was found that the temperature *decreased* from 100° Fahr. to 96.6°, notwithstanding the progressive *aggravation* and eventual fatal termination of the disease. In another case of pneumonia which died in the Southern Hospital some time ago, the same discrepancy was observed by Mr. Evans between the movements of the thermometer and the progress of the case. 4. The density of the urine, instead of being above the healthy standard, was throughout the patient's illness 1013; the quantity passed not being excessive. It did not contain albumen; nor were the kidneys diseased. The chlorides increased considerably in the urine passed the day before he died, having been previously exceedingly scanty. Urates were found in considerable quantity in the urine passed on the eighth and ninth days of his illness.

Pyæmia. Mr. Long read the notes of some cases of Acute Pyæmia, and made some remarks on the nature of the disease and its complications.

Correspondence.

CLITORIDECTOMY.

Letter from Charles West, M.D.

Sir,—I fancied that I had, in my former letter, denied the truth of all Mr. Baker Brown's statements with reference to myself. It seems, however, that in his opinion I have still left one uncontradicted. I therefore hereby deny that I have ever given an opinion to the effect that any case whatever "was a suitable one for Mr. Brown's operation".

The mention of "arsenic" in the letter quoted by Mr. Brown has furnished me with a clue which I should otherwise have failed to find to the case which he designates "one of fits of an epileptic character, which I attributed to masturbation, and for which I applied caustics to the clitoris without any good results, and then recommended the patient to come to London to undergo the operation of clitoridectomy."

The case was *not* one of fits of any kind whatever, nor did the patient mention having ever had any; but one of chronic eczema of the external organs, in which the suffering caused by the disease would have rendered any attempt at masturbation absolutely impossible. I fortunately have preserved a record of the case in my note-book, from which I make the following extracts.

"Jan. 11th, 1865. Mrs. ——, aged 40?, has undergone several operations for lacerated perinæum, which have been successful in great measure; but she suffers very much from irritation at perinæum and vulva, with occasional external redness and swelling. It causes much distress at night. Besides that, however, is not very well, sleeping badly, and having nervous sensations of various kinds. Menstruation regular, slightly postponing; but has much backache. Leucorrhœa is but slight. Bowels act with an enema every other day, not else. Youngest child 7 years old. I find perinæum and all parts at vulva itself perfectly healthy; but the præputium clitoridis and upper and inner surface of nymphæ in a state of chronic eczema, with hard white cuticle, a little cracking of skin, and adhesion beginning between præputium clitoridis and nymphæ.

"℞ Zinci oxydi ʒij; glycerini ʒiij; aquæ ʒvj—for lotion once a day. Argent. nit. gr. v; aquæ ℥j.

"℞ Liq. pot. arsen. ℥iv; ferri citratis gr. ij. Bis die.

"March 17th. Has not taken medicine regularly; had earache and erysipelas, which called for other treatment; but has used the glycerine lotion a little, and the nitrate of silver solution frequently, which latter allayed the irritation very much.

"The condition is decidedly one of much improvement, the white condition and thickened cuticle being limited almost entirely to the præputium clitoridis; but there are adhesions between the two surfaces of clitoris and nymphæ. Not menstruated for six weeks, when she had an attack of severe pain.

"To try the arsenic again steadily for two months.

"April 7th. Wrote to say she could not now bear the medicine; she had had aching of head and eyes, lost appetite, and had some rash over face.

"Acid and serpentary; then quinine and iron.

"July 9th, 1866. Has varied in condition; has been on and off better; but is now worse again than she has ever been."

Since this date I have not seen the patient.

I have no recollection, nor do my notes, the whole of which I have published, bear any record of any "operation" having been suggested by me; for, indeed, no one but a person who can state that a case of chronic eczema is one of epilepsy, can assert the habitual practice of masturbation by a poor woman whose local disease rendered the slightest touch most painful, and can allege that an application once a day of a weak solution of nitrate of silver to the diseased and thickened skin was designed to burn away the part, would see in the patient's history the possibility of clitoridectomy having been suggested for her cure.

It is, however, possible that, though I do not in the least remember it, I may have said that some small portion of thickened and indurated nympha which caused great irritation to the adjacent tender parts might be snipped off with a pair of scissors by "any apothecary". No one knows better than Mr. Brown the difference between an operation which "any apothecary could do," and which was so trivial that "I did not need to be present at it," and clitoridectomy, which sets its mark upon a woman for life, and calls for an amount of surgical skill in its performance which the operator considers not overpaid by an enormous fee.

I have remarked in my former letter, with I trust no undue severity, on the careless propagation of statements which a little inquiry would have ascertained to be inaccurate. I have no comment to make on the reiteration of a charge which has already received my positive denial. It lies beyond the pale of criticism, below the reach of censure.

I am, etc., CHARLES WEST.

61, Wimpole Street, Dec. 24th, 1866.

LETTER FROM ROBERT GREENHALGH, M.D.

SIR,—It is with great reluctance that I occupy my time and your space by noticing the letter which Mr. Isaac B. Brown has inserted in the last number of your JOURNAL. That letter, however, contains sundry statements reflecting so acrimoniously on me, that I think it due to myself to trouble your readers with this brief reply.

I will take Mr. Brown's statements in order. A. If I may judge from the tenor of Dr. West's last letter on the subject of clitoridectomy, he will scarcely think it worth his while to descend again into the arena of controversy; though Mr. Isaac B. Brown may "swear" ever so stoutly, and his nurse take "oaths" without number "before a magistrate." If I may be permitted to place reliance on the evidence adduced in the prescriptions and letters, as quoted, I should imagine that the case was one of chronic eczema. The lotion, I may observe, was stimulating, not "caustic". The allusion to the part being "burnt away", or "cut out", refers probably to some hypertrophy, or adhesion of the nymphæ not very uncommon in that affection.

On the delicacy of giving publicity to the letters of the lady to her nurse, I too "leave your readers to form their own judgment."

B. Mr. Isaac B. Brown, referring to my first case, says: "In a case brought to me by an eminent physician in London, Dr. West had given his opinion to the effect that the case was a suitable one for my operation." He adds: "I am prepared to swear that I was so informed by the physician; that physician was Dr. Greenhalgh." *To this assertion I give the most emphatic denial.* Dr. West had never seen the patient, at least in consultation with me, as Mr. Brown might have ascertained from her before he made so reckless an assertion. We know on the best and most unquestionable authority that Dr. West never has advised and never would advise clitoridectomy for the object specified, and we are asked to believe that he made an exception to this rule in favour of a patient whose case he had not personally diagnosed, and whom he had never even seen! Mr. Brown complains that this lady had asked me to consult him about her, and I had omitted taking any steps. I submit that Mr. Brown's forgetfulness of professional etiquette in this case seems to have blinded him to the consideration that it would have involved a loss of dignity and self-respect to which I, at least, could with difficulty be reconciled, if I had consented under the circumstances to such a course. The patient, I may simply observe, had been taken out of my hands by the very man to whom I had introduced her! I deny that I ever recommended removal of the clitoris for self-abuse. The patient just referred to stated that she could not and would not discontinue the habit to which she was addicted, and that she would have the part cut out, *coûte qui coûte.* Such being her determination, I advised her to have Mr. Brown's opinion, who was at that time, as I believe, the only surgeon who performed the operation on which she was so resolutely bent. Mr. Brown urged the excision, and promised it would effect a cure. Mr. Brown must know as well as I do that when I was appealed to, I declined to express an opinion, stating that I had no experience, and could have no faith in the result thus confidently promised. The operation was performed in July 1865, by Mr. Brown, and in January 1866 she was worse than ever. In presence of this signal failure of clitoridectomy, it would be an inquiry of great interest to the profession to know what treatment it is which has proved, as Mr. Brown alleges, successful.

C. The profession have now before them two versions of what it is difficult to believe can be the same case. It is no part of my business to determine whether Dr. West, corroborated as he is by Mr. Paget, is more deserving of credit than Mr. Isaac B. Brown. The last named surgeon is, I think, not always felicitous in conveying an exact idea of what actually occurred in particular cases. Whether he has been more fortunate on the present occasion, others must judge.

With regard to the report of my observations at the meeting of the Obstetrical Society, I think it will be generally agreed, that neither the interests of societies nor of the profession at large would be promoted by the publication of the *ipsissima verba* uttered on the spur of the moment at any particular meeting. At the same time, I quite see the difficulty involved in the publication of a report which is not taken *verbatim* from the lips of the speaker. On the whole, however, I suppose the greatest advantage must accrue from the system of reporting in journals which best conveys what the writer really meant to say, and would actually have said, if he had had more time to prepare his words and curtail his observations within a moderate space. It was under the influence of these views that, some days after I spoke at the meeting, I endeavoured to put down on paper as well as I could the purport of what I had uttered impromptu. It seems to me it was my bounden duty to take all care that what appeared in print should be free from any of the inaccuracies incidental to an unpremeditated address unassisted by notes. I can honestly say that, if

have erred in thus amplifying or correcting what escaped from me at the meeting, it was out of no sinister intention, but solely from a desire to be accurate.

Mr. Isaac B. Brown refers to my visits to the Surgical Home. They were paid on the following occasions: March 24th, April 14th, May 19th, June 2nd, December 1st, 1864; and March 6th, 1865. I have the greatest pleasure in recording these visits, and in adding that on every occasion I was received by Mr. Brown with the greatest courtesy and attention. The fact that I paid them at all, and that I paid them so frequently, is a proof that I was determined to judge for myself the merits of that institution; and that, if I now pen an adverse verdict upon it in one of its most important features, I do so "by mine own experience, not by others' talk". I shall always do Mr. Brown the justice to admit that I there saw surgical operations of considerable difficulty executed with conspicuous success. But I saw more than that. Truth compels me to add, that I there saw scenes and heard details which I will not further characterise than by saying that I thenceforth advised my class never again to visit that institution, and came to a like resolution as regards myself.

I desire to express my regret at having alluded, as it is alleged, prematurely to Dr. Harling's case. It is, however, a satisfaction to me to find, from that gentleman's letter, that the statement I made was correct. "A relapse occurred within three weeks of the operation, and at the present time the wretched patient is in a pitiable and unmitigated plight of general nervous distress, and has sustained a return of the irritation which the excision of the clitoris was designed to eradicate."

To conclude this thoroughly nasty subject, I am of opinion that Mr. Isaac B. Brown's theories are founded on the most unwarrantable assumptions respecting practices to which it is calumniously pretended the women of England are largely addicted; and I am further of opinion that the operation to which Mr. Brown gives such offensive publicity is not only utterly futile in effecting the alleged cure, but is further fraught with considerable danger to the morals of the public and the high tone of the profession. I am, etc., ROBERT GREENHALGH.

77, Grosvenor Street, W., December 26th, 1866.

[Dr. Greenhalgh's theory of reporting at societies can hardly pass without remark. The object of speakers who report their own speeches should obviously be to give them with as nearly as possible literal accuracy, and to avoid introducing new matter. Dr. Greenhalgh's intentions on the present occasion were clearly of the best kind, and we have no intention of impugning his motives in criticising his theories. The system of reports made by speakers after "due thought" or the lapse of days is, however, open to objection; and we think that the time has come for a revision of the system of reporting at societies. EDITOR.]

INFLUENCE OF NERVE-DISORDERS ON NUTRITION.

LETTER FROM E. M. C. HOOKER, L.R.C.P.Ed.

SIR,—In your JOURNAL a few weeks ago, was a letter from Mr. Paget, calling attention to, and courting inquiry in, what appears to me a matter of great interest to the physician: viz., the effect of nerve-disorders on nutrition.

My attention was forcibly directed to this subject by a case published by myself in the *Lancet* seven years ago, but which I had better briefly recapitulate.

Jane B., aged 26, had been for fifteen years the subject of a very painful condition of the leg, attended by ulceration and atrophy. She had been treated by the most eminent London surgeons, but had received little or no relief. With a view to afford some ease to the tormenting pain, I cut down on, and made a section of, the popliteal nerve as high up as I could well reach it.

The result was most satisfactory; within three months, the ulceration was at an end; the limb, from being wasted to the last degree, assumed the appearance of most perfect development. The patient, who had been for years dependant on crutches, was able to walk four miles without any aid from crutch or stick. So much for the case.

The question at once arises: if this degenerate limb could be so thoroughly restored by such direct interference with nervous supply, why should not more highly organised tissues be repaired? If tuberculosis, etc., is ever to be under the control of the physician, I feel strongly that it will be by directing attention to the matter of nerve-supply.

I am, etc., E. M. C. HOOKER.

Tunbridge, November 28th, 1866.

FACTS CONNECTED WITH THE EARLY HISTORY OF VACCINATION.

LETTER FROM R. T. HUNT, ESQ.

SIR,—The following correspondence between the late Dr. Jenner and my father, may perhaps be interesting to the members of the Association.

"136, New Bond Street, 1st February, 1802.

"My dear Sir,—Knowing that you have carried the vaccine inoculations to a very considerable extent, I take the liberty of requesting you to favour me with the general result of your practice; particularly with your opinion respecting the fact, whether the inoculation of the cow-pox is a safe and efficacious preventive of the small-pox.

"My motive for making this request, is the possibility that in a little time the subject may undergo Parliamentary discussion, and I wish to be prepared with correct statements for the inspection of the House of Commons. Allow me to observe, that I by no means want you to take the trouble of going into detail, but only to give a compressed statement of facts. Perhaps it would be as well to state the numbers inoculated; then to point out instances of resistance to the small-pox; and, finally, your opinion of the merits of the new mode of inoculation.

"The sooner you can indulge me with a reply, the more you will oblige,

"Dear sir, yours very faithfully,

"E. JENNER.

"P.S. Say nothing of Parliament in your letter.

"I have enclosed one of my late papers of instructions; which, I fear, you will hardly think worth the price of a double letter.

"To Mr. Hunt, surgeon, Burford, Oxon."

"Dear Sir,—Not long since, I had the pleasure of seeing my friend Mr. Dutton in town, and expressed a wish to him, if he should chance to see you, to request the favour of you to send me your evidence upon vaccine inoculation. I know you have gone far into it, and can give me some strong facts. I would not wish to trouble you in going much into detail. Be so good as to say what numbers you have inoculated, and with what success, and give me your opinion whether or not the small-pox might not be driven from the earth by the universal adoption of vaccine inoculation?.....

"Dear sir, your very faithful humble servant,

"E. JENNER.

"New Bond Street, March 3rd, 1802."

"Burford, Oxon, March 8th, 1802.

"Dear Sir,—Having tried the vaccine inoculation in 817 patients, many of whom have since visited patients in small-pox houses in all the different stages of that direful disease, both in the natural and inoculated small-pox, and ate and drank in company with them; and having also repeatedly inoculated some of my vaccine patients with the most active small-pox virus; all of which tests they have all uniformly resisted—I feel fully justified in stating that the vaccine inoculation, when judiciously conducted, and the requisite attention is paid to the progress of this benign disease, is a safe and efficacious preventive of the small-pox.

"I am, dear sir, with great respect,

"Your obedient servant,

"THOMAS HUNT.

"To Dr. Jenner, 136, New Bond Street, London."

In reference to the manner in which my father tested the efficacy of vaccination, I may mention that my native town Burford was so severely visited by small-pox during the last century, that a pest-house was built about half-a-mile from the town, to which the small-pox patients were removed. After my two elder brothers had been successfully vaccinated, my father sent them, together with my mother, who had in early life had the natural small-pox, to live for some weeks in the pest-house, which was then full of small-pox patients. The result was their perfect immunity from the disease. The original letters, together with a report of the different numbers vaccinated at each town or village, were shown at the last meeting of the Manchester Medical Society.

I am, etc.,

R. T. HUNT.

Manchester, Nov. 10th, 1866.

GREAT NORTHERN HOSPITAL. The Right Hon. Earl Grosvenor, M.P., has kindly consented to take the chair at the anniversary dinner of this hospital, to be held in the spring. The Committee intend trebling the number of beds, and are liable for £7,000 to complete the purchase and furnishing of the *new hospital*. Additional wards will be opened as soon as funds warrant the Committee in doing so.

SWINGING AS A REMEDY. Dr. Brown-Séquard recommends the use of the swing as a preventive of nervous paroxysms which recur periodically. In certain cases of hysteria and epilepsy, he has prevented the paroxysm by engaging his patient in violent swinging at the first indication of the accession of the fit. The *modus operandi* is easily explained.

VITAL STATISTICS OF THE PUNJAUB. A first attempt has been made to collect vital statistics of the general population in the Punjaub. In a population of 14,820,845, there are said to have been 253,838 deaths, or only 1.71 per cent. As the death-rate in England is 22.36 per thousand, this is evidently considerably understated, The rate varies from 3.95 per cent. in Montgomery district to 0.42 in Simla, and only 0.92 in hot Mooltan, and 0.79 in sickly Peshawur. Of the total number of deaths, 3,148 were from violence, 66,222 from small-pox, 3,310 from cholera, 139,065 from fever, and 40,969 from other diseases. Epidemic cholera did not appear except in Ferozepore. There were 156 suicides, 30 were poisoned, 601 died from snake-bite, 204 from wounds, 176 from wild beasts, and 1,981 from accidents. These statistics were collected by Dr. Dallas, inspector-general of dispensaries, through the district officers who employed the village police. The people gave information very willingly.—*Homeward Mail.*

Medical News.

ROYAL COLLEGE OF PHYSICIANS OF LONDON. At a general meeting of the Fellows, held on Saturday, December 22nd, the following member of the College was duly admitted a Fellow of the same.

Travis, Nathaniel Allen, Nice

At the same meeting, the following gentlemen, having undergone the necessary examination, were duly admitted members of the College:—

Bateman, Frederic, M.D.Aberdeen, Norwich
Bäumler, Christian Gottfried Heinrich, M.D.Erlangen, 10, Finsbury Place North
Headley, Walter Balls, M.B.Cantab., 5, Tavistock Place
Lee, Robert James, M.B.Cantab., 4, Savile Row
Paxton, Francis Valentine, M.B.Oxon., West Dean, Chichester
Whipham, Thomas Tillyer, M.B.Oxon., St. George's Hospital

UNIVERSITY OF OXFORD, 1866. Final Medical Examinations for the Degree of B.M.

Whipham, Thomas Tillyer, M.A., Oriel
Whitwell, John Maude, M.A., Pembroke

First Medical Examination.

Corfield, William Henry, B.A., Pembroke
Flowers, William Field, B.A., St. Alban Hall

APPOINTMENTS.

ARMY.

BRYSON, Surgeon A., M.D., 76th Foot, to be Surgeon 27th Foot, *vice* W. A. Thompson, M.B.

HOOPER, Staff-Surgeon A., to be Surgeon 30th Foot, *vice* Surgeon-Major R. W. Read.

READ, Surgeon-Major R. W., 30th Foot, to be Staff-Surgeon-Major, *vice* A. Hooper.

THOMPSON, Surgeon W. A., M.B., 27th Foot, to be Surgeon 76th Foot, *vice* A. Bryson, M.D.

WALL, Staff-Surgeon T. F., to be Staff-Surgeon-Major, having completed twenty years' full-pay service.

AN UGLY CANARD. It is stated (says the *Sunday Gazette*) that, at a large military hospital established in Breslau-on-the-Oder, in Silesia, by order of the Prussian Government, a circular saw worked by steam is to be used for the purpose of amputating such limbs of wounded soldiers as the surgeons shall direct to be taken off.

DONATION. A lady named Dimond, residing in Southampton, has given her house and its furniture to the Committee of the Royal South Hants Infirmary for the benefit of that institution, and has gone to reside in lodgings. The furniture has been sold by auction, and fetched £500; and the house has been let for nearly £100 a year.

CARNARVON. The authorities are said to have for the last few years uttered continual warnings on the subject of want of drainage and filthy courts. In the various quarters of Carnarvon where deaths have taken place, there is no difficulty, it appears, in tracing the causes either to crowded neighbourhoods, overflowing cesspools, absence of drains, or drains without traps. About one-fourth only of the town is at present supplied with water, by no means of the best or purest, by two companies, which have been bought off by the corporation, which body obtained an Act during the last session of Parliament for supplying the whole town with water from Quellin Lake, about five miles from the town, on the Beddgelert road. This water was analysed by Mr. Herepath, who pronounced it to be the purest water he had ever tasted. But for the opposition of some small landed proprietors, the new waterworks would be now almost completed. All propositions for a thorough system of drainage, too, have been met by popular clamour and objections to pay the requisite rates.—*Builder.*

Bequests. St. Mary's and the Cancer Hospitals have just had £100 each bequeathed to them by Sir John Pollard Willoughby, Bart., of Westbourne Terrace, formerly of Bombay, who has also bequeathed 2,000 rupees to the Grant Medical College, Bombay, and sums to other institutions not strictly medical.

Arms and Legs. Since the beginning of the late rebellion up to May 11th of the present year, the American Government has furnished gratuitously to disabled Union soldiers the following number of artificial limbs:—arms, 2,134; legs, 3,784; hands, 144; feet, 9; apparatus for excision, 104. The cost of the same amounted to $357,728.

The Bengal Medical Service. The offer made by the Government, of a retiring pension of £250 a year, without putting in the required period of service, has naturally found ready acceptance amongst the inspectors-general and deputy inspectors-general of hospitals in the Bengal medical service. The *Englishman* believes that there is a race amongst them who shall first accept the proffered pensions and get away; that Dr. E. Hare, deputy inspector-general of hospitals, Lahore circle, has sent in his papers to accept the pension and retire from the service; and that other officers either have accepted or intend doing so, in order that the reduction of the administrative medical staff to the minimum desired by the Secretary of State, and prescribed in his orders recently published, may be carried out. [We pointed out last week the injustice involved in delaying the promotion of those next in rank, to whom compensation should be made, as we think.]

The Contagious Diseases Act.—The necessity for putting in force at Aldershott the provisions of the Contagions Diseases Prevention Act has formed the subject of a memorial from the Farnham Board of Guardians to the Secretary of State for War, the Guardians complaining of the heavy expense entailed upon the Union by the admission to the workhouse infirmary of a large number of women requiring a long course or medical treatment. The following reply to the memorial has been received, addressed to the Clerk of the Guardians:—"War-office, Dec. 10, 1866. Sir,—I am directed by the Secretary of State for War to acknowledge the receipt of your letter of the 6th inst., and to acquaint you in reply that he is anxious that arrangements should be made for putting the Contagious Diseases Act into force without delay at Aldershott, a building for a hospital having already been selected, and that he has called for information which he hopes may enable him to do so effectually. I am to add that the delay which has occurred has been mainly due to the difficulties interposed by the Hampshire magistrates in occupying the War Department building (chosen for a hospital) by the constabulary at Aldershott.—I am, sir, your obedient servant, Edward Lugard."

Milk and Water.—The water cholera theory of the Registrar-General is not yet accepted by scientific men as proved, for a good many reasons, of which we shall probably hear more as the more deliberately worked out reports of the medical officers of health and the special commissioners of the Privy Council are completed and published. Meantime it has been a matter of some difficulty to merely practical and unscientific persons to understand how, amongst a population of whom a very small proportion ever drink unboiled water, the cholera should be so widely spread by that agent. Will the prevalence of adulteration help to solve the difficulty? Beer we all know to be largely adulterated with unboiled water, and London milk equally or more so. Even country milk, it appears from a statement in a medical contemporary, is not free from admixture with water drawn from surface-wells suspiciously near to cesspools and dungheaps and drains. We have no hope of stopping this sophistication; but may we appeal to the consciences of the adulterators—or such remnants of conscience as may be presumed to be in their possession—to boil the water before they adulterate our beer and our milk? It would, perhaps, be too great a stretch of indulgence to expect that it should be filtered through charcoal.—*Pall Mall Gazette.*

OPERATION DAYS AT THE HOSPITALS.

Monday.....Metropolitan Free, 2 P.M.—St. Mark's for Fistula and other Diseases of the Rectum, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

Tuesday. .... Guy's, 1½ P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.

Wednesday... St. Mary's, 1 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.

Thursday.....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Great Northern, 2 P.M.—London Surgical Home, 2 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.

Friday. ..... Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

Saturday.....St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1·30 P.M.—Charing Cross, 2 P.M.—Lock, Clinical Demonstration and Operations, 1 P.M.—Royal Free, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

Tuesday. Pathological Society of London, 8 P.M.—Anthropological Society of London, 8 P.M.

Wednesday. Obstetrical Society of London. 7 P.M., Special Council Meeting. 8 P.M., "Fœtal Peritonitis in Utero", by W. A. Hunt, Esq.; and other papers. 9 P.M., President's Address.

Thursday. Harveian Society of London, 8 P.M. A paper by the President; "Report of the Committee on Infanticide and Infant Mortality"; Conversazione.

TO CORRESPONDENTS.

*** *All letters and communications for the* Journal, *to be addressed to the* Editor, 37, *Great Queen St., Lincoln's Inn Fields, W.C.*

Communications.—To prevent a not uncommon misconception, we beg to inform our correspondents that, as a rule, all communications which are not returned to their authors, are retained for publication.

Correspondents, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

The Publisher begs to intimate that orders for Journals sent by post must be accompanied by stamps for the amount. Price of each number is, by post, *sixpence.*

A Junior, Cheltenham.—The result of the preliminary examination in arts, etc., at the College of Surgeons, will not be made known for two or three weeks. There were nearly one hundred and forty candidates, including seventeen for the Fellowship.

A Free Vaccinator shall receive a detailed answer next week.

Mr. Robert Marchant, Taunton, wishes to know how the sulphate of iron is used for the purpose of poisoning rats.

We are indebted to Mr. C. C. Wallis for his good wishes.

Vacant Assistant-Surgeoncy at Charing Cross Hospital.

Sir,—I was very much startled last week by reading an announcement in a medical journal to the effect that I was to have the vacant assistant-surgeoncy at Charing Cross Hospital. I beg to inform you that not only is there *no vacancy* at the Charing Cross Hospital for an assistant-surgeon, but that I have not the honour of being either directly or indirectly connected with that institution.

I am, etc.,

10, Portman Square, Dec. 27, 1866. W. F. Trevan.

GRANTS FOR SUCCESSFUL VACCINATION.

A FREE Vaccinator has seen the notices which we recently gave of "Public Grants for Successful Vaccination", quoted in the *Scotsman*, and asks whether Scotland is to participate, etc. In reply to his questions, we have to say, that the powers of the Privy Council in the matter of vaccination are confined to England and Wales, *ergo* the granting of awards to public vaccinators is limited to the same portions of the United Kingdom. We are not aware of a similar system of awards being in operation in Scotland, the public vaccination of which division of the United Kingdom is under the direction of the Board of Supervision in Scotland.

PRELIMINARY EXAMINATIONS.—In reply to several correspondents anxious to know when the reports of the examiners on the recent examinations in arts, etc., at the College of Surgeons will be made known, we have ascertained that at least a fortnight must elapse before the result can be communicated to the Council.

NEURALGIA AFTER SHINGLES.

SIR,—I fear your correspondent A. C. will find his case of "neuralgia after shingles" very rebellious to treatment. Some months ago, I attended a gentleman with a most severe attack of "herpes zoster". His general health much improved after the eruption; and, instead of being sallow and depressed, as he was before the attack, he became clear in his complexion, and active in mind and body. The neuralgia that has succeeded bids defiance to all remedies. As he is disposed to slight gout and rheumatism, iodide of potassium, colchicum, and afterwards steel and quinine, have been ordered, without any relief to the local pain and irritation. Belladonna, tincture of aconite with laudanum, rubbed into the part, as recommended by Mr. Erasmus Wilson, have also failed. Change of air, and the most regular diet, have done no good for the neuralgia. In other respects, my patient is so much better in health than he has been for years, that he objects to a course of arsenic, which I have frequently advised. I have some faith in this powerful alterative; and I fully agree with Mr. Morgan of Bristol, that it would be well to give it a fair trial. I may observe, that my patient's eruption commenced on the left side of the neck, extending from the shoulder to the back of the ear and side of the head, in the course of the cervical nerves; it then appeared on the right forearm, and afterwards in the abdominal region. Mr. Wilson never saw the patient; but, in answer to a letter which I addressed to him, he thus writes:—"As a herpes zoster, the case is anomalous; for that disease never attacks more than one side of the body, and generally confines itself to the distribution of an approximatal group of nerves," etc. It was not complicated with eczema, nor any other eruption. The pain and irritation now generally come on at night, followed by heat and redness of the left side of the neck. Nothing affords so much relief as a lotion made with the liquor plumbi diacetatis and laudanum. This my patient used in the acute stage; and for temporary relief it answers equally well in the chronic.

I am, etc., W. H. DAY.

10, Manchester Square, W., December 18th, 1866.

NEURALGIA FOLLOWING SHINGLES.

SIR,—In a recent number of your JOURNAL, a correspondent asks what remedy best relieves the neuralgia following shingles. It so happens that I have just had two cases under my care; and, after trying quina internally, and local applications of iodine, veratria ointment, and various opiate lotions, with but little benefit, I bethought me of aconitia (Ph. Brit.) in the proportion of two grains to half an ounce of rectified spirit. The good effect was most marked, after painting it once or twice over the affected part. The only drawback is the expensiveness of the remedy.

I am, etc., G. GODDARD ROGERS, M.D.

Grosvenor Street, W., December 18th, 1866.

THE DERBY GUARDIANS have engaged in a squabble with Mr. Lindley, their surgeon. The dignity of the chairman and the members was terribly hurt by some observations, and especially by some "gesticulations" of Mr. Lindley. The result of the matter has been that Mr. Lindley, whose "gesticulations" are described as having been fearful, has resigned; and, perhaps on the whole, it was the best thing that he could do under the disagreeable circumstances.

F. C. H. can best protect himself by openly and plainly denouncing the conduct which he describes, taking care that his language be moderate though firm, and that the facts of which he speaks have been rigorously tested. The position is, no doubt, a very difficult one. Misstatements of any kind from which specific damage can be shown to have resulted will, of course, carry damages if it should be necessary, which we trust it will not, to resort to law.

ERRATUM.—In the correspondence on Mr. Walter Coulson and the Hospital for Stone, that gentleman wishes to substitute a reference to the "Article Lithotrity" on Holmes's *System of Surgery* for "Lithotomy".—In Dr. Harling's letter of last week, for "our experienced surgeon," read "an, etc."

MR. EDWARD BELLAMY writes to say that he is not a candidate for the Vacant Assistant Surgeoncy for the Westminster Hospital, for which his name has been mentioned.

H. S.—Mr. Elliott, Surgeon to the Chichester Infirmary, performed lithotomy *three* times on the same subject. Another distinguished provincial surgeon, Dr. Scott of Southsea, Hants, was the first person in this country who successfully performed the operation of œsophagotomy. It has been done since by Mr. Cock of Guy's Hospital.

MILES.—We have not lost sight of the question; but it is desirable to wait a little longer before discussing the subject openly.

THE BERMUDA BLUNDERS.

THE *Bermuda Colonist* states that the epidemic of yellow fever which proved so fatal to the Queen's Regiment, was traced to an external source.

"A steamer from Wilmington arrived here, and as she was by some suspected as a 'tainted' vessel, the cry of warning was raised against her by an unfortunate journalist at the time; but mercantile interests and influence were brought out to smother the cry, and a card was immediately published over the signatures of certain *army* medical gentlemen, contradicting the warning raised against the ship as an infected vessel; but, after the disease had developed itself, there was no doubt whatever in the public mind concerning its introduction."

It concludes as follows:—"However, the object of Dr. Barrow's report, and the article of the BRITISH MEDICAL JOURNAL referring to it, being obviously intended to strengthen the position of the medical gentlemen of the army in their science, and thereby to enable them to carry out a more efficient system of sanitary provisions than has been hitherto carried on in towns like ours, we feel very sanguine that much good will be brought to light from this very important subject."

MR. BOTT of Bury shall receive an answer shortly. We are making further inquiries on the subject.

BERMUDA will see that the same series of facts are stated in Colonel Attye's letter, which we publish elsewhere.

X. asks:—Can any of your readers tell me what is "a camphor moxa", of which I read as being extremely beneficial in some obstinate cases of sciatica, where hypodermic injection of morphine has failed? also, what is the best and least irritating formula for the solution of morphia for hypodermic injection?

PAPERS are in type by Mr. Paget, Professor Christison, Professor Longmore, Mr. Henry Thompson, Mr. Berkeley Hill, Dr. Down, Dr. Wm. Newman, Dr. A. T. H. Waters, Dr. S. W. D. Williams, Dr. Cossar, etc., and will be published in early numbers.

COMMUNICATIONS, LETTERS, ETC., have been received from:—Lieut.-Colonel Attye; Dr. Cogan; Mr. Walter Coulson; Dr. Harling; Dr. William Budd; Dr. E. Waters, Chester; Dr. Lingen, Hereford; Mr. Brendon Curgenven; Dr. Maudsley; Dr. J. Marion Sims, Paris; Mr. Charles Lahee; Professor Christison; Mr. T. B. Bott, Bury; Mr. Trotter, Durham; Mr. Donelly, Dublin; Dr. Peacock; Dr. M. Mackenzie; Dr. W. Newman, Stamford; Mr. William Copney; Mr. T. Sympson; Mr. T. M. Stone; H. B. F.; Dr. Charles West; Dr. Harling; F. C. H.; Dr. Miller, Glasgow; Secretary of the Great Northern Hospital; Mr. E. Bellamy; Mrs. Baines; Mr. Marchant, Taunton; Mr. C. C. Wallis, Castle Carey; Dr. Gibbon (with enclosure); Dr. S. Wood (with enclosure); Dr. J. L. H. Down; Dr. Greenhalgh; Mr. W. Corke, St. Stephen's, Tonbridge; Dr. Parkes; The Honorary Secretary of the Obstetrical Society; and Dr. W. B. Herapath.

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INDEX.

A.

Abdomen, cyst of, 217
Abscess of breast, Mr. Bryant on retraction of nipple in, 635
Academy of Medicine, foreign correspondent of, 223; prizes of, 702
——— of Sciences, legacy to, 339
Accidents in coal-mines, 350; in factories, 537
Acetic acid, treatment of cancer by, Dr. Broadbent on, 232, 539; Dr. J. Barclay on, 512; Dr. Hughes Bennett on, 593
Acne, furuncular, Dr. Balman on excess of urea in, 519; pathology of, 562
Actions, Wright *v.* Field, letters on, 83; for extraction of a wrong tooth, 452; for libel, case of J. Manning, 465; Absolon *v.* Statham, 558, 583, 584, 670; for illegal reception of a lunatic, 564, 617; Hunter *v. Pall Mall Gazette*, 617, 641, 650, 651
Addison, Dr. A., chemical pathology of the brain, 440
Addison's disease, Dr. E. H. Greenhow on, 1, 33, 640
Advice gratis, 270
Ague in Cambridgeshire, Mr. Evans on, 96; in connexion with gout, 510
Air-vesicles, epithelium of, 440
Aitken, Dr. W., accident to, 647
Albuminuria after eruptive diseases, 366
Alcohol and the doctors, 86; influence on temperature, 289; in fever, 363
Aldis, Dr., testimonial to, 702
Alford, Mr. H. J., ovariotomy, 117; amputation at hip-joint, 353
Alkali Act, report on, 85
Allbutt, Mr. T. C., premature menstruation, 171; myeloid transformation of lung, *ib.*
Alleyne, Dr., cholera-poison and cholera-discharges, 724
Althaus, Dr. J., Epilepsy, Hysteria, and Ataxy, *rev.*, 611
America, children in, 450; medical fees in, 487; degrees in, 666
Amputation of foot, anæsthesia by nitrous oxide in, 151; of lower limb, Mr. W. P. Swain on improvements in, 303; at hip-joint, Mr. H. J. Alford on, 353; at elbow-joint, 525; of thigh, Mr. Swain on conditions requiring, 627, 655; at Hip-Joint, Mr. Butcher on, *rev.*, 717
Amussat, M., galvanic cautery in varicocele, 462
Amylaceous corpuscles in sputa, 691
Anæsthesia by ether-spray, 84, 163, 177, 270; by nitrous oxide, 151; by mixed vapours, 217; psychological phenomena of, 701
Andrew, Dr. E., Fowler's solution in lupus, 291, 420
Aneurism of femoral artery, Mr. Gilchrist on, 99: popliteal treated by puncture, 382; of aorta, 639; of innominate artery, *ib.*; of iliac artery, *ib.*; traumatic, of orbit, 718
Ankylosis of knee-joint, Mr. W. P. Swain on, 376; of lower jaw, 552
Annandale, Mr. T., Surgical Appliances and Minor Operative Surgery, *rev.*, 524
Ansell, Dr. T., death of, 141.
Aorta, rupture of within pericardium, Mr. Bracey on, 38; dilatation of, 99; obliteration of, 134; abdominal, pulsations of, 359; aneurism of, 639; rupture of valve of, 726
Apes, caries in, 440
Aphasia, leading article on, 258; authors on, 320; Dr. W. T. Gairdner on, *rev.*, 384. *See* Expression, and Speech.
Aphthæ, local application of ether in, 283
Aponeuroses, vessels and nerves of, 691
Apoplexy, Dr. Wardell on case of, 381; M. Trousseau on, 500; Dr. W. B. Mushet on, *rev.*, 524; of the medulla spinalis, 693
Apothecaries, Society of, prizes in Botany, 318; prizes in Materia Medica, 537; pass-lists, *see* Medical News, *passim*
Appetite, a morbid, 3
Arabs, dental hygiene among, 666
Archæology, bearing of on ethnology, 294
Armstrong, Dr., South-Eastern Branch on case of, 23, 27; contributions to fund, 32
Army, American, rank and pay of medical officers of, 287; annual report of Surgeon-General of, 339; constitution of medical department of, 377
Army, Austrian, wounded in, 46; loss of medical men in, 104
—— British, medical service of, effect of change of ministry on position of officers, 20; adoption of recommendations of committee in, 77; proceedings of Parliament in regard to, 104, 142; degrees, etc., of candidates, 161; candidates admitted, 199, 244; remarks on an appointment in, 411, 442; the new warrant, 464, 725; action of commander-in-chief regarding, 528; proposed scale of pay, 645; asylum for insane soldiers of, 151; sanitary reform in, 176; instance of mistaken economy in, 270; mismanagement regarding in Bermuda, 441, 643; lady-nurses in hospitals of, 444
—— Indian, medical service of, proceedings in Parliament regarding, 142; successful candidates for, 292: defective sanitary regulations, 623; reorganisation of medical service of, 663, 669, 701
—— Italian, pay of medical officers in, 163; medical officers killed in, 457
—— Prussian, medical service of, 62, 99; doctors for, 84; cholera in, 165, 272; statistics of sick and wounded, 224; syphilis in, 444
Arsenic in shaving-paste, 20; solution of in lupus, 291, 316, 420; in cancer-paste, poisoning by, 395
Artery, femoral, Mr. Gilchrist on aneurism of, 99; popliteal, aneurism of, 382; innominate, aneurism of, 639; iliac, aneurism of, *ib.*
Artisans' dwellings Bill, 86
Association, British Medical, notices of annual meeting, 22, 49, 106, 136; President's address at annual meeting, 145; thirty-fourth annual meeting, 166, 200; the late Sir Charles Hastings, *ib.*; report of Council, 167, 202; address in medicine, 179, 211; address in surgery, 186, 227; members present at the meeting, 200; vote of thanks to the retiring president, 202, 203; election of secretary, 203; report of the Medical Provident Society, *ib.*; thanks to the Council of the Association, 206; new Committee of Council, 207; invitation of the Association to Dublin, *ib.*; alteration of law, *ib.*; representation of the profession in Parliament, *ib.*; place of meeting for 1867; president elect, 209; representative of the American Medical Association, 209, 225; discussions on medicine and surgery, 209, 227; election of treasurer, 210; president of council, *ib.*; auditors, *ib.*; Hastings prize medal, *ib.*; leading article on the meeting, 220; Medical Benevolent Fund, 226; deputations to the Home Secretary, *ib.*; the Sydenham Club, *ib.*; medical witnesses' committee, 227; memorial of Sir Charles Hastings, 227, 313; charter of the Association, 228; report of Committee on Observation and Registration of Disease, *ib.*; Dr. Christison's paper, 229; time allowed for reading papers, 230; election of Mr. G. W. Hastings as an honorary member, *ib.*: votes of thanks, *ib.*; papers, *ib.*; the myographion, 236; endoscope, 237; dinner, *ib.*; list of members, 467; proceedings of committee on Observation and Registration of Disease, 511; Dr. Skinner on reading of papers at, 290; Dr. Tilt on, 343
——— Committee of Council, meetings of, 50, 419, 618; members of, 207, 468
——— Bath and Bristol Branch, president's address, 120; annual meeting, 138; ordinary meetings, 560, 726
——— Birmingham and Midland Counties Branch, general meetings, 449, 561, 726
——— Cambridge and Huntingdon Branch, annual meeting, 29; president's address, 96
——— East Anglian Branch, annual meeting, 107
——— Metropolitan Counties Branch, annual meeting, 78, 107; deputation to the Lord President of the Privy Council, 110; president's address, 152
——— Midland Branch, annual meeting, 29
——— North Wales Branch, annual meeting, 50
——— Northern Branch, annual meeting, 28; president's address, 158
——— Reading Branch, president's address at annual meeting, 155; annual meeting, 169
——— Shropshire Ethical Branch, annual meeting, 482
——— Shropshire Scientific Branch, annual meeting, 538
——— South-Eastern Branch, annual meeting, 22; improvement of sanitary laws, 24; the Peter Martin Memorial, 26; Dr. Armstrong and Mr. Bonney, 27; president's address, 67; East Kent district meetings, 671; West Kent district meetings, 389, 510; East Surrey district meetings, 560, 726
——— South Midland Branch, autumnal meeting, 482
——— South-Western Branch, annual meeting, 80
——— West Somerset Branch, annual meeting, 137; intermediate meeting, 419
——— Yorkshire Branch, annual meeting, 169
Association, American Medical, representative of, 209; extract from code of ethics, 699
——— American Pharmaceutical, 483
——— British, for advancement of science, proceedings in, 269; report of, 294; meeting of, 396
——— Herefordshire Medical, on discussion of medical subjects in public journals, 444
——— Lothian Medical, 114
——— Metropolitan Poor-law Medical Officers', 114
——— a proposed new, 162, 245
——— Social Science, arrangements for meeting, 370
——— Victoria Medical Benevolent, 514
Astragalus, Mr. T. T. Griffith on compound dislocation of, 236, 323
Asylum, Carlow Lunatic, superintendent of, 31; North Riding pauper, 245, 623; for insane soldiers at Netley, 151; new pauper, at Newcastle-on-Tyne, 269; New York State Inebriate, 294; at Lahore, 711
Asylums, proposed new, in France, 311; for idiots, origin of, 370
——— sisterhoods in, 59
Ataxy, progressive locomotor, M. Trousseau on, 502
Atheroma of arteries, causation of, 639
Atrato, yellow fever on board the, 615
Atrophy of muscles from disease of spinal cord, 219
Attye, Lieut.-Col., yellow fever at Bermuda, 723
Auenbrugger, life and writings of, 79
Australia, medical news from, 461
Azoturia, Dr. Balman on a case of, 519

B.

Babington, Dr. B. G., will of, 269
Baker, Mr. A., origin of pyæmia, 629
Balard, M., poisoning whales, 665
Balfour, Dr., polarisation of light by oxalate of lime, 61
Balman, Dr., case of furuncular acne with azoturia, 519
Barclay, Dr. A. W., Gout and Rheumatism, *rev.*, 693
———, Dr. J. (Banff), ether-spray in strangulated hernia, 437; injection of acetic acid in cancer, 512
Barlow, Dr. G. H., death of, 486
Barnes, Dr. R., colloid disease of uterus, 170
Barrow, Dr., cholera on board the *England*, 505
Bartlett, Mr. J. J. H., erythema nodosum, 36
Bartrum, Mr. J. S., president's address to Bath and Bristol Branch, 120

Barwell, Mr. R., introductory lecture at Charing Cross Hospital, 394
Baths, of France, Dr. E. Lee on, *rev.*, 127; in treatment of disease, Dr. G. B. Mead on, 330, 484
Battye, Dr. R., uterine affections and phthisis, 218
Bazire, Dr. V., translation of M. Trousseau's Lectures on Clinical Medicine, *rev.*, 500
Beale, Dr., emphysema of lungs in cattle-plague, 43; pathology of cholera, 444; Todd and Bowman's Physiological Anatomy, *rev.*, 574
Bedford, Messrs., cod liver oleine, 366
Bell, Dr. J. V., ague in connection with gout, 510
——, Dr. Joseph, Manual of Operations of Surgery, *rev.*, 524
Belladonna, poisoning by external use of, 596, 621
Bennett, Dr. J. Hughes, address in medicine, 179; treatment of cancer by injection of acetic acid, 593
——, Dr. J. Risdon, the Hunter case, 682
Bequests, 30, 85, 270, 339, 363, 370, 396, 564, 617, 663, 679, 680, 724, 732
Berguesse, Dr., sudden death of, 339
Bermuda, yellow fever in, 441, 643, 723, 733
Biology, Professor Huxley on objects of, 345
Birchenall, Mr. J., notes from practice, 522; cholera, 637
Birkett, Mr. J., results of removal of cancer, 350; reduction of dislocations by manipulation, 512
Birth, triple, 7, 681
Black, Dr. J. J., local application of ether, 283
Blandford, Dr. G. F., general paralysis of the insane, 172; rupture of heart, 727
Blood, use of as food, 134, 649
Blower, Mr. B., training of nurses, 271
Blue mist, 425
Bodington, Dr. G., cholera, 368
Boils, treatment of, 534; Dr. T. Fox on, 606
Boinet, M. ankylosis of lower jaw, 552
Bone in sputa, 691
Bonnet, A., inauguration of statue of, 113
Bonney, Mr. F., remarks on conduct of, 27
Bottomley, Mr., cholera, 56
Bouisson, M., lumbar hernia, 462
Bowman, Mr. W., address on surgery, 186
Bracey, Mr. A., rupture of aorta within pericardium, 38
Bragg's vegetable charcoal, 366
Brain, absence of great commissure of, 289; Dr. Wardell on softening of, 381; chemical pathology of, 440; Dr. Monckton on disease of, with chorea, 498; pathology of softening of, 551; calcareous deposit in, 638; abscess of in a child, *ib.*; state of capillaries in motor paralysis, *ib.*; wound of from *contre coup*, *ib.*
Braithwaite, Dr. J., excretion of iodide of potassium in urine, 282
Breast, Mr. Bryant on the retracted nipple as a diagnostic sign in disease of, 635
Bristowe, Dr., his inquiries into the propagation of disease by rags, 386
Brittan, Dr. F., neuralgia after shingles, and trichinæ, 712
Broad Street pump, the, 133
Broadbent, Dr. W. H., prognosis in heart disease, 214, 277; treatment of cancer, 232, 539; Mr. W. J. Coulson and St. Mary's Hospital, 704
Bromides as therapeutic agents, Dr. Drysdale on, 58; Dr. E. L. Fox on, 175
Bronchitis, Dr. Copland on, *rev.*, 127
Brown, Dr. F. J., on the constitution of the mind, 331; Dr. Richardson and the Medical Provident Society, 708
——, Mr. I. B., the actual cautery in ovariotomy, 231; testimonial to, 296; cases of ovariotomy, 297; management of pedicle in ovariotomy, 421; clitoridectomy, 674, 675, 706
——, Mr. I. B., jun., chloroform in dying, 88
——, Dr. John, health of, 339
Browne, Dr. H., introductory lecture at Manchester School of Medicine, 416
——, Dr. W. A. F., on sisterhoods in asylums, 59
Bryant, Mr. T., elephantiasis Arabum treated by ligature, 288; the retracted nipple as a diagnostic sign, 635
Buckland, Dr. F., cultivation of salmon in rivers, 317
Budd, Dr. W., prevention of cholera, 311
Bullar, Dr. J., chloroform in dying, 10; the testimonial to Dr. Richardson, 88; epithelial cells conveying cholera, 301
Burd, Dr. E., president's address to Shropshire Scientific Branch, 571
Burning, death from, 244
Burns, Dr. J. J. D., treatment of cholera, 536
Burrell, Dr., death of, 537
Bursæ of knee, Mr. W. P. Swain on diseases of, 375
Butcher, Mr. R. G. H., Amputation at Hip-joint, *rev.*, 717

C.

Cæcum, Dr. Wardell on displacement of, 379
Cæsarean section in double uterus, 134; local anæsthesia by ether spray in, 163; case of in twins, 383
Callender, Mr., stricture of urethra, 592
Cameron, Dr., pneumonia and pericarditis, 728
Camps, Dr. W., prevention of cholera, 583
Canada, order regarding medical officers of militia, 413
Cancer, Mr. R. H. Meade on, 94; Dr. Broadbent on treatment of, 232, 539; secondary of lungs, Dr. H. Day on, 234; Mr. Birkett on results of removal of, 350; a "curer" of, 395; injection of acetic acid in, Dr. J. Barclay on, 512; remarks on, 528; various letters regarding, 539, 593, 596; Mr. C. H. Moore on, 548; Mr. Moore's report on, 599; epithelial, in internal organs, 525; of uterus, new treatment of, 591
Canton, Mr. E., testimonial to, 85
Carbuncle, treatment of, 534, 606
Caries in apes, 440; spinal, 662
Cartilage, vessels and nerves of, 691
Cartilages, loose, in joints, Dr. Dick on removal of, 232, 274, 343; articular, of knee, Mr. W. P. Swain on diseases of, 349
Castration among the Mahomedan Indians, 639
Cataract, traumatic, Mr. J. Walters on, 17; treatment by suction, Mr. W. P. Swain on, 303; Mr. Greenway on, 395, 450, 539; Dr. J. G. Davey on, 422, 487; relative merits of operations, 408
Cats, diseases of, 711
Cattle-plague, decline of, 31, 244, 269, 451, 513; report of commission on, 42; drawings of pathological changes in, 45; in Cheshire, Dr. Waters on, 148; in Gallicia and Hungary, 258; increase of, 545, 681; prevention of, 647; Mr. Crookes on, 708
Cauliflower excrescence of uterus, 313
Caustic, application of to the eye, 711
Cautery, actual, in ovariotomy, 231; galvanic, in varicocele, 462
Cazalas, M., contagion of cholera, 411
Cazenave, M., resignation of, 339
Cells, Dr. Beale on structure of, 576
Cephalhæmatoma treated by collodion, 552
Cerebral congestion and hæmorrhage, M. Trousseau's views on, 500
Cerebrum, convolutions of, 78
Chancre, hard, inoculation of, 264
Change of type, Dr. Flint on, 51; Dr. Markham and Sir T. Watson on, 581
Chapman, Dr. J., his work on cholera, 579
Charcoal, vegetable, 366
Chemistry of Common Things, Dr. Macadam's, *rev.*, 41; animal, Dr. Hughes Bennett on, 180
Chervin, M., his treatment of stammering, 444
Chester, Dr. E. Waters on, 147
Chevallier, Dr. B., the medical club, 425
Chevers, Dr., tracheotomy in hydrophobia, 45
Child, Mr. R. W. Dunn on syphilis in a, 325; nutshell in trachea of a, 534; abscess of brain in a, 638
Children, nursing of in France, 871; in America, 450; prolapsus of urethra in, 552; acute pemphigus in, 692; treatment of syphilis in, *ib.*; use of tobacco by, 724
Chloroform in dying, Dr. Bullar on, 10; Mr. I. B. Brown, jun., on, 88; deaths from, 269; in eye-operations, 407
Cholera, leading articles on, 18, 20, 75, 102, 132, 133, 221, 261, 263, 308, 309, 336, 337, 338, 360, 409, 410, 505, 526, 553, 579; Dr. Skinner on, 52; Mr. Morgan on, 55, 112; Dr. Stevenson on, 55; Dr. T. M. Greenhow on, 55, 305; Dr. Wilks on, 56; Mr. Bottomley on, *ib.*; Dr. Mayo on, 58; Dr. G. Johnson on, 63, 150, 436, 515; Mr. Trustram on, 70; Mr. Firth on, 83; Mr. J. J. Evans on, 98; Mr. C. Johnson on, 111; Dr. D. A. Reid on, Dr. Lavies on, 173; Mr. Gardner on, 174; Dr. G. K. Hardie on, 213; Dr. Handfield Jones on, 251; Dr. Rendle on, 267; Dr. Kinglake on, 281; Dr. Bullar on, 301; Dr. A. Clark on, 317; Dr. Bodington on, 368; Dr. Woakes on, 403; Dr. H. Browne on, 418; Dr. Norris on, 460; Dr. Cockle on, 535; Dr. J. J. D. Burns on, 536; Dr. Gramshaw on, 562; Dr. Fuller on, 619; Mr. Birchenall on, 637; Dr. Macpherson's views on, 18; Dr. Wilks's views on astringents in, 20; in merchant-vessels, recommendations of College of Physicians, 48, 75; proceedings in reference to epidemic of, 85, 104, 199, 223, 451; venous injections in, 102, 526, 562; treatment of in Liverpool, 105; Mr. Simon's views on communication of, 114; various theories and modes of treatment of, 132, 221, 308, 410, 505; effect of water in propagating, 133, 222, 262, 309, 310, 667, 701, 727; donation from Queen to fund, 161; lady nurses in, 199; alleged effect of gas on, 212; absence of premonitory symptoms in, 223, 264; immunity of Jews from, 223; discussion of in newspapers, *ib.*; Dr. Macpherson's statements on mortality from in India, 261; Dr. Kingsford's theory of, 263; period of burial after, 267; removal of the dead from, 270; hospital for, 311; proceedings of international sanitary conference on, 336, 360, 553, 647; in hospitals of Paris, 338; a preparation for, 358; deaths of medical men from, 363, 561; alleged protective power of small-pox, 464; Dr. Howe's theory of periodicity of, 509; Dr. Gibbon's instructions regarding, 523; mortality from during the quarter, 530; efficacy of preventive measures against, 532; *Pall Mall Gazette* on, 538; Dr. Chapman's opinions on, 580; prevention of, 583; Dr. Hearne's opinions on, 584; Dr. Farr on "stuff" of, 615, 651; a sign of, 671; Signor Merletta on a remedy for, *rev.*, 717; poison and discharges of, 724; in America, 135, 224, 265, 311, 365; in Austria, 365; in Belgium, 224, 445; in Berlin, 113, 135, 199, 224, 265, 286, 445, 564; in Bohemia and Moravia, 265; in Bristol, 510; in Constantinople, 615, 723; in Doncaster, 423; in Dublin, 224, 265, 286, 341, 389, 445; in Edinburgh, 285; in England, 530, 565, 595; in France, 20, 46, 113, 135, 265, 445; in Holland, 224; in Hungary, 265, 510; in the Isle of Man, 645; in Italy, 265, 286, 312, 340, 445; in Kent, 341; in Liverpool, 85, 105, 135, 265, 266, 286, 389, 466, 531; in London, 113, 135, 165, 199, 223, 265, 286, 311, 340, 365, 389, 445, 466, 510, 530, 622; in Malta, 409; in Manchester, 389; in Paris, 104, 135, 264, 444; at Pill, 557; in Plymouth, 265; in Prussia and Germany, 46, 113, 165, 199, 445; in Russia, 46, 286, 445; in Scotland, 595, 610; in Vienna, 286, 339, 389, 445; in Wales, 135, 312, 646, 667, 701, 722
Cholerine, 651
Cholmeley, Dr., the case of Mr. Statham, 624
Chorea, Dr. Handfield Jones on case of, 495; Dr. Monckton on, 498; letter on, 562
Choroid, tumour of, 692
Christison, Dr., progress of the University of Edinburgh, 219; address at the Edinburgh University, 284
Christmas in the hospitals, 723
Chromolithographs of Diseases of the Skin, Mr. Squire's, *rev.*, 611
Chrzonszczewsky, M., structure of the kidney, 525
Cicatrisation, subcutaneous, 264
Cigar-ends, utilisation of, 687
Cinchona, cultivation of in India, 79
Clark, Dr. A., stimulants in cholera, 285, 317
—— Sir James, order conferred on, 60
Clarke, Mr. W. M., disease of elbow-joint, 561
Clay, Mr. J., the Medical Provident Society, 290; management of the pedicle in ovariotomy, 449
Clitoridectomy, letter on, 32; unsuccessful case of, 134; Dr. West on, 585, 676, 728; remarks on, 664; discussion on in Obstetrical Society, 672; Mr. I. B. Brown on, 675, 706; Mr. Holmes Coote on, 705; Dr. Maudsley on, *ib.*; Dr. Harling on, *ib.*; Dr. Winslow on, 706; Dr. Greenhalgh on, 729
Clitoris, elephantiasis of, 366
Club, new medical, 20, 311; letters on, 62 397, 425; remarks on at meeting of British

Medical Association, 226; preliminary meeting, 389; meeting for formation of, 531; Edinburgh University, 362; Quekett microscopical, 513, 618
Clubfoot, Mr. W. Parker on, 175
Coal-mines, accidents in, 350
Cockle, Dr., treatment of cholera, 535
Codex, the new French, 702, 711
Cod-liver oleine, 366
Coleridge, Mr. J. D., address to Articled Clerks' Society, 559
College, Downing, Cambridge, appointments in, 486
——— King and Queen's, of Physicians in Ireland, deputation to Lord Lieutenant, 318
——— K)ng's, prizes in, 48; introductory lecture at, 390
——— of Medicine, Newcastle, Council of Management, 142; introductory lecture at, 414
——— Queen's, Birmingham, prizes in, 424; introductory lecture, 447
——— Royal Medical Benevolent, founder's day, 178
——— Royal, of Physicians of London, and the pathological drawings of cattle-plague, 45; recommendations regarding cholera in merchant vessels, 48, 75; new Fellows, 60; pass-lists, 84, 396, 451, 709, 731; proposed portrait of Sir Thomas Watson, 339, 508, 530, 583; proceedings at, 698; [subscription to Jenner monument at Boulogne, 724; the Dyster endowment, *ib.*; portrait of Dr. Gooch, *ib.*; report on leprosy, 725
——— Royal, of Surgeons of Edinburgh, pass-lists, 292, 563
——— Royal, of Surgeons of England, election of members of Council, 19; new professors, 86; candidates rejected, 113, 537; pass-lists, 176, 269, 423, 563, 594, 680, 710; tenure of office of examiners, 222, 443, 463; income and expenditure, 402; calendar of, 424; library of, 451; Hunterian Museum, 486: necessity of new charter, 527; reform of examlnations, 617; Fellows of in British Medical Association, 669; resignation of Mr. Cæsar Hawkins, 680, 709; examinations of, 696
——— Royal, of Surgeons in Ireland, deputation to Lord Lieutenant, 294
——— Sydenham, introductory lecture at, 416
——— University, prizes in, 245; meeting of Council, 537
Colleges of Physicians and of Surgeons, London, proposed joint examination by, 722
Colleges of Physicians and Surgeons, Edinburgh, pass-lists, 292, 563.
Collodion, cephalhæmatoma treated by, 552
Colour of man, causes of difference, 293
Conference, the international sanitary, 336, 360, 553, 647, 666; honours conferred on members of, 648
Congestion, cerebral, M. Trousseau on, 501
Congress, medical, in Paris, 528
Conquest, Dr., death of, 519, 564
Convalescent fund, the Outhwaite, 318
Convulsions, Dr. Gibson on case of, 660
Cooper, Mr. G. L., atrophy of muscles from disease of spinal cord, 219
——— Sir H., Bright's disease and trichiniasis, 661; scurvy, *ib.*
Coote, Mr. H.. resection of the knee-joint, 621; clitoridectomy, 705
Copeman, Dr. E., the addresses in medicine and surgery, 316
Copland, Dr., on Bronchitis, *rev.*, 127
Cormack, Dr., removal of, 260
Cornea, Mr. Walters on rupture of, 17
Corner, Dr., potash in cholera, 308
Coroner, powers of, 463; of City of London, 528, 614; of University of Oxford, 666, 712
Corpus callosum, absence of, 289
——— cavernosum, rupture of, 335
Corrigan, Sir D. J., cholera map of Ireland, 309, 505
Cotton, Dr., testimonial to, 537
Cotton wool, medicated, 217
Coulson, Mr. Walter, and the Hospital for Stone, 703, 721
Cowkeeper's licence, a, refused, 451
Crane's charity at Cambridge, 595
Crawcour, Dr., local medication of the bladder, 718
Criminal responsibility of epileptics, 501; case raising question of, 648
Crookes, Mr. W., the cattle-plague, 708
Croton oil, poisoning by, 244
Cuddeford, Mr. T., reduction of dislocation by manipulation, 484
Cyst, abdominal, 217

D.

Da Costa, Dr., Medical Diagnosis, *rev.*, 462
Dalton, John, centenary of birth of, 317
Daly, Dr. O., syphilitic deposits, 660; spinal caries, 662
D'Archiac, M., a new fossil reptile, 293
Davey, Dr. J. G., treatment of cataract by suction, 422, 487
Davy, Dr. John, the colour of man, 293
Day, Dr. H., the testimonial to Dr. Richardson, 116; secondary cancer affecting the lungs, 234
——— Dr.W. H., neuralgia after shingles, 733
Dayman, Mr. H., good advice, 682
Deaf-mutes, statistics of, 95
Defects of Sight and Hearing, Mr. Wharton Jones on, *rev.*, 41
Deformity from disease of knee, Mr. Swain on excision for, 542
Degrees, American, 666
Delirium tremens, treatment of, 560
Demarquay, M., actions of gases, 46
Demerara, yellow fever in, 641, 666, 698
De Morgan, Mr., excision of part of spinal accessory nerve in wryneck, 364
Dental hygiene among the Arabs, 666
Diabetes, Dr. O. Rees's opinion of dieting in, 45; Dr. Harley on, *rev.*, 577
Diagnosis, Medical, Dr. Da Costa on, *rev.*, 462
Dick, Dr. H., professional etiquette, 83; removal of loose cartilages from joints, 232, 274, 343
Dictionary, American Medico-biographical, 84
Dietaries of prisons, Dr. J. B. Thomson's conclusions on, 45
Difference without a distinction, 723
Diplomas, fraudulent, 318
Disease, change of type in, Dr. Flint on, 51; Dr. Markham and Sir T. Watson on, 581; proceedings of Committee on Observation and Registration of, 228, 511; Dr. H. Browne on investigation of, 416
Disinfectant, steam as a, 119
Dislocation, compound, of astragalus, Mr. T. T. Griffith on, 236, 323; of shoulder, Schinzinger's method of reducing, 358; of tibia, Mr. Swain on, 376; reduction by manipulation, Mr. Nunneley on, 482; Mr. Cuddeford on, 484; Mr. Birkett on, 512; incomplete, of cervical vertebræ, 717
Dispensary, new, for women and children, 31; Ophthalmic, at Worcester, 141; Surrey, bequest to, 396; at Lyons, 465
Disraeli, Mr., on poor-law infirmary reform, 77
Doctor, a female, 139; contract of druggist with a, 264
Dolbeau, M., operation for absence of vulva, 462; exostoses of the frontal sinus, 717
Donations, 20, 60, 85, 113, 134, 244, 655, 700, 731
Down, Dr., absence of corpus callosum, 289
Dropsies, Dr. Salter on diagnosis of, 453
Druggist, contract of with a doctor, 264
Druggists, education of, 345
Drunkards, bill regarding in New South Wales, 523
Drunkenness in Liverpool, 300, 318
Drysdale, Dr. C. R., bromides as therapeutic agents, 58
Dumas, M., cephalhæmatoma treated by collodium. 552
Dummreicher, M., reduction of dislocations of shoulder, 358
Duncan, Dr. James, death of, 269; notice of, 340
Dunn, Mr. R., the Richardson testimonial, 88; bearings of archæology on ethnology, 294; concealed accidental hæmorrhage, 590
——— Mr. R. W., syphilis in a child, 325; non-mercurial treatment of syphilis, 335
Dupuytren, Baroness, death of, 30
Dyster, Dr., his endowment in the College of Physicians, 724

E.

Eade, Dr., melasma and allied affections, 332
Ecraseur, a new, 313
Ectropium, paralytic, Mr. H. Walton on operation in, 302
Eddowes, Mr. W., nursing by sisterhoods, 243
Edinburgh, sanitary improvement of, 452
Education of medical men and druggists, 345
Eggs of fishes, movements in, 315
Elbow, amputation through the, 525; scrofulous disease of, 561
Elephantiasis, Arabian, ligature of artery in, 288; of clitoris, 366; of scrotum, 384, 592; nævoid, 384
Ellis, Mr. R., anæsthesia by mixed vapours, 217
Emigrant ships, Dr. W. H. Pearse's Notes on Health in, *rev.*, 641
Empyema, cases of, 671
Endoscope, demonstration of, 237; Mr. W. P. Swain and Mr. Heath on, 304, 305; objections to, 509
Epilepsy, unsuccessful clitoridectomy in, 134; M. Trousseau's views on, 500, 501; Dr. Althaus on, *rev.*, 611
Epileptiform disease, Dr. Russell on a case of, 65
Epithelial cancer in internal organs, 525; of uterus, treatment of, 591
Epithelium of air-vesicles, 440
Erichsen, Mr. J. E., his book on Railway Injuries, 612, 678
Erythema nodosum, Mr. Bartlett on case of, 36
Ether, local anæsthesia by, 84, 163, 177, 270; in hernia, 437, 521; local application of in aphthæ, 283; application of to bladder, 718
Ethnology, bearings of archæology on, 294
Etiquette, professional, 83, 346
Eustachian syphilis, 285
Evans, Mr. J. J., president's address to Cambridge and Huntingdon Branch, 96
Examinations, visitation of, 31, 695
Excision of the knee-joint, Mr. W. P. Swain on, 427; conditions in what it is admissible, 489, 541; constitutional conditions admitting, 567; cases of, 688, 713; Mr. Holmes on, 483; Mr. Holmes Coote on, 621; of tibia, 335; of part of spinal accessory nerve, 364; of tongue, Mr. Nunneley on, 493
Exostoses of frontal sinus, 717
Expectant treatment, discussion on, 227
Experiments on animals, Dr. H. Bennett on results of, 181
Expression, Dr. H. Jackson on loss of power of, 92, 326
Extremes in medical speculation, Dr. Mayo on, 545

F.

Face, Mr. J. Paget on case of herpes of, 402
Factories, accidents in, 537
Faculty of Physicians and Surgeons of Glasgow, office-bearers, 424
——— of Medicine in Paris, opening of session, 529, 648
Farrar, the Rev. F. W., teaching science in public schools, 307
Fat, sources of, 319
Fayrer, Dr. J., Clinical Surgery in India, *rev.*, 382
Female doctors, 139, 163
Fenwick, Dr. S., lung-tissue in phthisical sputa, 367
Fergusson, Sir W., introductory address at King's College, 390
Fever, outbreak of at Warrington, 699
——— typhoid, treatment of in France, 62; in Huntingdon, 97; Dr. Wardell on case of gangrene after, 380; discussion on contagion of, 483
——— yellow, on board the *Atrato*, 595, 615; Dr. Murchison on etiological relations of, 625: in Demerara, 641, 666, 698; in Bermuda, 441, 643, 723; causation and contagiousness of, 644; on board the *Tasmanian*, 698; at St. Thomas's, 723
Fibrous tissues, vessels and nerves of, 691
Field, Mr. O. A., letter to, 83
Fife, Sir J., president's address to Northern Branch, 158
Fillet, a steel, 313
Fincham, Dr., introductory lecture at Westminster Hospital, 392
Firth, Mr. J., treatment of cholera, 83
Fishes, fossil teeth of, 295; protoplasmic movements in eggs of, 315; geological relations of, 698
Fistula, cervical, 552
Fletcher, Mr. F. D., death of, 465; resolution regarding, 593
Flint, Dr. A., change of type, 51; Principles and Practice of Medicine, *rev.*, 461
Flora, a changed, 86
Floras, insular, 317
Fœtus, *débris* of in ovarian cyst, 160
Fontanelle, anterior, tumour of, 718
Fordyce, Dr., his manner of dining, 319
Foreign body in trachea of child, 534; in larynx. 726
Förster, Dr., treatment of infantile syphilis, 692

Fossil reptile, a new, 293; teeth of fishes, 295
Foster, Dr. B. W., The Use of the Sphygmograph, *rev.*, 41; introductory lecture at Sydenham College, 416; rupture of aortic valve, 726
Fowler, Dr. R., the Griffin testimonial, 81
Fox, Dr. E. L., the bromides, 175
—— Dr. T., Fowler's solution of arsenic in lupus, 316; boils and carbuncles, 606
Fracture of skull, compound, Mr. Lowndes on cases of, 4; depressed, 383; of cuneiform bone, 522; circular, of base of skull, 640
France, Dr. E. Lee on Baths of, *rev.*, 127; nursing children in, 371; degeneration of population of, 711
Frankland, Dr., on contaminated water, 310
Fraud, charge of, 354
Friedreich, Dr., contents of sputa, 691
Fright, death from, 649
Fuller, Dr. H. W., cholera, 619
——— the late Mr. H. P., 266

G.

Gairdner, Dr. W. T., the Function of Articulate Speech, *rev.*, 384; Aphasia, *rev.*, *ib.*
Gangrene following enteric fever, Dr. Wardell on, 380
Gardner, Mr. J., treatment of cholera, 174
Garrett, Miss, 62
Gas, alleged affect of on cholera, 212; oxygen, explosion of, 397
Gases, physiological effects of, 46
Gaskoin, Mr. G., syphilisation, 39, 255, 715
Gastrotomy for Stricture of œsophagus, 726
Gibb, Dr. C. J., introductory address at Newcastle College of Medicine, 414
Gibbon, Dr. S., the vaccination bill, 140; disinfection in cholera, 523
Gibson, Dr. F. W., case of convulsions, 660
Gilchrist, Mr. G. C., aortic and femoral aneurism, 99
Gillard, Mr. R., testimonial to, 31
Giraldès, M., tumour of anterior fontanelle, 718
Gizzard of a weevil, 595
Godwin, Dr. A., pericarditis, 727
Gooch, Dr., portrait of, 724
Goodeve, Dr., on the international sanitary conference, 647
Gout in connection with ague, 510; and Rheumatism, Dr. A. W. Barclay, on, *rev.*, 693
Graham, Dr. pendulous growth of larynx, 728
Gramshaw, Dr. J. H., venous injections in cholera, 562
Gravely, Mr. R., neuralgia after shingles, 712
Greenhalgh, Dr., medicated cotton wool, 217; clitoridectomy, 729
Greenhow, Dr. E. H., Addison's disease, 1, 33, 640
——— Dr. T. M., cholera, 55, 305
Greenway, Mr. H., the suction-curette, 395, 450, 539
——— Mr. J. R., tonics in local lesions, 36
Griffin, Mr. R., testimonial to, 19, 81, 82, 318; poor-law medical reform, 111, 140, 243
Griffith, Dr. G. de G., evulsion of umbilical cord, 332
——— Mr. T. T., dislocation of astragalus, 236, 323
Guersant, M., prolapsus of urethra in children, 552
Guillot, M. Natalis, death of, 558
Gull, Dr., resignation of, 60
Gun-accident, fatal, to a surgeon, 451

H.

Hæmatoidine in sputa, 690
Hæmorrhage, uterine, ether-spray in, 270; into vitreous space, 510; umbilical, 586; concealed accidental, 590
Hardey, Mr. R., pyæmia, 16
Hardie, Dr. G. R., cholera, 213
Harley, Dr. G., Diabetes, *rev.*, 577
Harling, Dr. R. D., clitoridectomy, 705
Harvey, William, 188
Hashish eater, a, 164
Hassall, Dr. A. H., pension to, 513
Hastings, Sir Charles, death of, 128; resolution of British Medical Association regarding, 166, 200; Mr. Bowman on, 191; memorial of, 227, 308, 313; Lord Brougham on, 413
——— Mr. G. W., elected an honorary member of the British Medical Association, 230
Hawkins, Mr. Cæsar, resignation of, 680
Head, Dr. E., introductory address at London Hospital, 415
Hearne, Dr. E., cholera and contagion, 584
Heart, Dr. Shapter on sounds and murmurs of, 8, 268, 607; Dr. Salter on disease of, 89; Dr. Leared on sounds of, 118; Dr. Broadbent on prognosis in disease of, 214, 277; Dr. Warter on disease of, 355; effect of atmospheric pressure on, 483; chorea with disease of, Dr. H. Jones on, 495; Dr. S. Monckton on, 498; rupture of, 727
Heath, Mr. C., the endoscope, 305
Hebra, Professor, son of, 413
Hemaralopia and pellagra, 667
Hemiplegia, with loss of speech, Dr. J. Russell on, 276
Hernia, oblique inguinal, unusual course of, 289; Dr. Fayrer on radical cure of, 383; strangulated, ether-spray in, Dr. J. Barclay on, 437; Mr. A. B. Steele on, 521; lumbar, 462
Herpes of face, Mr. J. Paget on case of, 402; in brachial plexus, Dr. Broadbent on, 460; neuralgia after, 651, 682, 712, 733
Heusinger, Dr., cervical fistula, 552
Hewitt, Dr. Graily, uterus during menstruation, 217; menstruation during pregnancy, *ib.*
Hicks, Dr. J. B., anhydrous sulphate of zinc 217
Higgins, Rev. H. H., on Vitality, *rev.*, 408
Hill, Mr. M., urethral stricture, 570
Hip-joint, Mr. Alford on amputation at, 353; reduction of dislocation of by manipulation, Mr. Nunneley on, 432; Mr. Birkett on, 512; Mr. Butcher on Amputation at, *rev.*, 717
Hippophagy, 85, 448, 464, 715
Holland, Lady, death of, 537
Holmes, Mr. T., excision of the knee, 483; influence of hospitals on accidents and operations, 683
Holthouse, Mr. C., treatment of strabismus, 66
Homœopathic comment on proceedings of Medical Council, 45; ethics, 385, 527; life assuring, 508, 563
Homœopathy, treatment of, 78; in cholera, 309; decline of, 311
Horse-flesh as food, 85, 448, 464, 715
Horsley, Mr. J., Toxicologist's Guide, *rev.*, 127
Hospices, Lord H. Seymour's bequest to, 270
Hospital, Addenbrooke's, petition against taxation, 30
——— Bath United, bequest to, 370
——— Birmingham General, donation to, 561
——— Cancer, bequest to, 564, 600
——— Charing Cross, introductory lecture at, 394
——— for Children, bequest to, 680
——— for children, proposed, in Glasgow, 60
——— for Consumption, at Brompton, operations of Madeira Sanatorium, 85, 143; donations and legacies to, 370, 364, 635
——— Convalescent, new, 650
——— Devonport, Naval, 293
——— Foundling, at Moscow, 623
——— Greenwich, uses and abuses of, 665
——— Guy's, introductory lecture at, 390
——— Jews', bequest to, 564
——— King's College, introductory lecture at, 390
——— Lincoln, lady nurses at, 509
——— London, introductory lecture at, 415; appointment in, 665
——— Metropolitan, bequest to, 564
——— Middlesex, resignation of Dr. Stewart, 61; bequest to, 564
——— Portsmouth, new ward of, 701
——— Royal Free, bequest to, 564
——— St. Bartholomew's, introductory lecture at, 393; vacancy in, 710
——— St. George's, reports of, 141; vacancy in, 269; introductory lecture, 448; appointment in, 451; bequests to, 564, 680
——— St. Mary's, introductory lecture, 446; bequest to, 724
——— St. Peter's for Stone, Mr. Nunn's resignation, 681; Mr. W. J. Coulson's connection with, 703, 721; Mr. Teevan's connection with, 711
——— St. Thomas's, scholarships and prizes, etc., 244
——— University College, resignation of Mr. Quain, 60; legacies and donations to, 85, 244; appointments in, 667
——— new village, 533
——— Westminsteer, vacancy in, 710
——— orderlies, 270
Hospitals, "S. G. O." on, 244: isolation of cholera patients in, 338; in Calcutta, causes of mortality in, 382; Sir B. Walker's remarks on, 413; leper, Mr. E. Wilson on, 456; lady nurses in, *see* Nurses; Birmingham, collection in behalf of, 513; workhouse, mortality in lying-in wards of, 556; cottage, 557; donations to, 655; specialities in, 665; Mr. Holmes on influence of on accidents and operations, 683; of London, donations to, 700; vacancies in, 710; in New York, limitation of students in, 702; Christmas in the, 723
Howe, Dr., periodical returns of cholera, 509
Hulke, Mr. J. W., double inguinal hernia, 289
Humerus with supracondyloid foramen, 593
Humphreys, Mr. J. R., ovariotomy, 547
Hunt, Mr. T., pathology of acne, 562
Hunter, John and William, 189
——— Dr. G. Y., death of, 537
——— *versus Pall Mall Gazette*, 617, 641, 550 651, 682
Hutchins, the late Mr. W., 126
Hutchinson, Mr. J., circular fracture of base of skull, 640
Huxley, Mr., object of biology, 345
Hyde Park disturbances, injuries in, 141
Hydrophobia, alleged cure for, 18; tracheotomy in, 45; case of, 655; charm for, 711
Hypodermic injection of morphia, 359

I.

Ibbetson, W., fossil teeth, 295
Idiots, asylums for, 370
Imlach, Dr., case of feigned disease, 593
India, cholera in, 261, 360, 553; a town in, 596
Infanticide, Dr. Lankester on, 341, 452; and wetnursing, 613; in France, 623
Infant. *See* Child
Infection, Mr. Simon on, 170
Infirmaries, workhouse, proceedings in Parliament regarding, 86; Mr. Farnall's and Dr. Smith's reports on, 100, 130
Infirmary, Glasgow Royal, bequest to, 30; Buckinghamshire, donation to, 60; Bristol Royal, donation to, 113; Staffordshire, donation to, 135; Huntingdon, bequest to, 396; Preston, bazaar in aid of, 493; Leeds, 542; Sea-bathing at Margate, 664; Derbyshire, bequest to, 679; Portsmouth, donation to, 731
Injection, hot, in cholera, 102; hypodermic of morphia, 359; venous, in cholera, 526
Insane, general paralysis of, 172
Insanity, causes of, 586
Intestinal obstruction, 726
Iodide of potassium, Dr. Braithwaite on case of elimination of, 282
Ireland, lunacy in, 319; statistics of population, 350
Iridectomy, an estimate of, 408
Iritis, treatment of, 407; acute rheumatic, 561
Itch, treatment of, 178, 271

J.

Jackson, the late Mr. H., 21
——— Dr. J. H., loss of power of expression, 93, 326
James, Dr. M. P., visit to Vichy, 78
Jaw, necrosis of, from use of tobacco-oil, 134; treatment of rigidity of, 303, 552
Jeaffreson, Dr. H., biography of, 679
——— Dr. S. J., resignation of, 617
Jeanneret, Dr., treatment of cholera, 309
Jenner, Dr. E., statue at Boulogne, 724; correspondence of, 730
Jews, cholera among, 223
Jobert de Lamballe, M., illness of, 113; reported death of, 444
Johnson, Mr. C., treatment of cholera, 111
——— Dr. G., treatment of epidemic cholera and diarrhœa, 63; his pamphlet on cholera, 133; pathology and treatment of cholera, 150; theory of cholera collapse, 436; cholera and its treatment, 515
Joints, Dr. Dick on removal of loose cartilages from, 232, 274, 343
Jones, Dr. C. H., cholera collapse, 251; case of paralysis, 457; chorea and heart-disease, 495
——— Dr. F. D., presentation to, 323
——— Dr. H. Bence, medical education and education of druggists, 345
——— the late Mr. Robert, 559
——— Mr. T. W., Defects of Sight and Hearing, *rev.*, 41
Journal, British Medical, South-Eastern Branch on, 23; North Wales Branch on 51; South-Western Branch on, 80; editorship of, 419; editor's farewell, 720
Journal of Anatomy and Physiology, 558

K.

Keddell, the late Mr. G., 126
Kennedy, Dr., death of from cholera, 561
Kersey, Dr., empyema, 671
Kidnapping of surgeons, 84
Kidney, single, Dr. J. C. Murray on case of, 159; cases of, 318, 639; structure of, 525; malformed, 639; in typhus fever, *ib.*; diseases of, 661
Kinglake, Dr. H., treatment of cholera, 281
Kingsford, Dr. D., his theory of cholera, 263
Knee, Mr. W. P. Swain's prize essay on diseases of, 321, 347, 373, 427, 489, 541, 567, 627, 655, 688, 713; general anatomy of, 321; diseases of synovial membrane, 347; diseases of articular cartilage, 349; diseases of the bones, 373; diseases of surrounding tissues, 375; wounds and injuries, *ib.*; excision of, 427; after treatment, 431: diseased conditions in which excision is desirable, 489, 541; constitutional conditions admitting excision, 567; diseased conditions requiring amputation, 627, 655; cases of excision and amputation, 688, 713; Mr. Holmes on excision of, 488; Mr. H. Coote on excision of, 621
Kœberle, M., operations by, 134
Kussmaul, Dr. acute rheumatism and concretion in pericardium, 691

L.

Labium, hypertrophy of, 313
Labour, tedious, treatment of, 233
Laburnum seeds, poisoning by, 86
Lacrymal gland, removal of, 231
Laennec, statue of, 61
Langston, Mr. T., treatment of rheumatic fever, 344
Lankester, Dr., on infanticide, 341, 452
Laryngoscope, Dr. M. Mackenzie on, *rev.*, 611
Larynx, Dr. J. Russell on syphilitic thickening of, 459; foreign body in, 726; pendulous growth of, 728
Laurence, Mr. J. Z., the medical club, 62; removal of lacrymal gland, 231; and Mr. R. C. Moon, Handy Book of Ophthalmic Surgery, *rev.*, 407; tumour of choroid, 692
Lavies, Dr. J. S., pathology and treatment of cholera, 173
Lawes, Mr. J. B., source of fat, 319
Lawford, Dr. E., prize offered by, 464, 483; address to South Midland Branch, 497
Laycock, Dr., operation on, 151, 451
Lead-poisoning from lead ground with flour, 7
Leared, Dr. A., sounds of the heart, 118
Lectures, on Addison's disease, Dr. Greenhow, 1, 33; Morrison, 60; Introductory, at King's College, Sir W. Fergusson's, 390; at Guy's Hospital, Sir L. Peel's, *ib.*; at Westminster Hospital, Dr. Fincham's, 392; at St. Bartholomew's Hospital, Mr. Savory's 393; at Charing Cross Hospital, Mr. Barwell's, 394; at Newcastle-on-Tyne College of Medicine, Dr. C. J. Gibb's, 414; at London Hospital, Dr. Head's, 415; at Sydenham College, Dr. Foster's, 416; at the Manchester School of Medicine, Dr. H. Browne's, 417; at St. Mary's Hospital, Mr. H. Walton's, 446; at Queen's College, Birmingham, Dr. Nelson's, 447; at St. George's Hospital, Dr. Ogle's, 448; clinical, Dr. H. Salter's, 89, 453; on Clinical Medicine, Dr. Bazire's Translation of M. Trousseau's, *rev.*, 500; on cholera and its treatment, Dr. G. Johnson's, 515; on Epilepsy, Hysteria, and Ataxy, Dr. Althaus's, *rev.*, 611; on the etiological relations of yellow fever, Dr. Murchison's, 625
Lee, Dr. E., Baths of France, *rev.*, 127
—— Mr. H., president's address to Metropolitan Counties Branch, 152
Leper hospitals, Mr. Wilson on revival of, 456
Leprosy, report of College of Physicians, 725
Levier, M., apoplexy of medulla, 693
Libel, case of, 269
Lichen planus, Mr. E. Wilson on, 399
Liebreich, Dr. operation for strabismus, 653
Life, Dr. Beale on, 575
Life-assurance, homœopathic, 508, 563
Ligaments, vessels and nerves of, 691
Light, polarisation of, by oxalate of lime, 61
Lightning, effect of, 31
Liver, injection of male fern extract in, hydatid of, 367; expulsion of hydatid of, 639
Liverpool, nuisances in, 31; cholera in, 105, 266, 317, 466, 531; of town-council, 269; drunkenness in, 300, 318; sewerage of, 451
Local lesions, Mr. J. R. Greenway on tonics in, 36
Longevity, 189, 244, 537, 727
Lowe, Mr. S., testimonial to Dr. Richardson, 88
Lowndes, Mr. H., compound fracture of skull, 4
Ludlow, Mr. E., poisoning by opium, 15
Lunacy, in Ireland, 319; hint to commissioners of, 702
Lunatic, murder of a physician by a, 344; alleged ill-treatment of a, 370, 396, 724; striking a, 486; alleged illegal reception of, 617
Lunatics in private dwellings, 700
Lung-tissue in sputa of phthisis, 367
Lungs, Dr. G. Johnson on condition of, in cholera, 150; myeloid transformation of, 171; secondary cancer of, 234
Lupus, treatment of, 78; Fowler's solution in, 291, 316, 420
Lyman, Dr., elephantiasis of clitoris, 366
Lyons, Dr., pulsations of the aorta, 359; chlorate of quinia, *ib.*; alkaline treatment of rheumatism, 623
Lyons, names of streets in, 667

M.

Macadam, Dr. S., Chemistry of Common Things, *rev.*, 41; poisonous nature of crude paraffin oil, 319
McCheane, Mr., nutshell in trachea of a child, 534
McCloy, Dr., treatment of cholera, 221
McCormick, the late Mr. R., memorial of, 646
Macey, the late Mr. H. J., 126
Macgowan, Mr., his views on cholera, 507
Mackenzie, Dr. M., testimonial to, 486; the Laryngoscope, *rev.*, 611
Mackesy, Dr. T. L., representation of the profession in Parliament, 77, 207
Mackinder, Dr. D., the testimonial to Dr. Richardson, 88
Macpherson, Dr. J., on cholera, 18, 262
Malta, cholera in, 409
Manfield's process of preserving vegetables, 682
Marcet, Dr., chemical pathology of cattle-plague, 43
Markham, Dr., appointment as Poor-law Inspector, 163
Marsack, Dr. B., ovariotomy, with fœtid débris in cyst, 160
Marsh, Sir H., statue of, 338, 545
Martella, Signor, a Remedy for Cholera, *rev.*, 717
Martin, Dr. A., the testimonial to Dr. Richardson, 88
—— M. L., incomplete laxation of cervical vertebræ, 717
—— the late Mr. P., memorial of, 26
—— Mr. W., representation of the profession in Parliament, 421
Materia Medica, Dr. Scoresby-Jackson's Note Book on, *rev.*, 611
Maudsley, Dr. H., causes of insanity, 586
clitoridectomy, 705
Mayo, Dr. T., eliminant treatment of cholera, 58; extremes in medical speculation, 545
Mayor, the late Mr. E. S., 125
Mead, Dr. G. B., baths in the treatment of disease, 330, 484
Meade, Mr. R. H., on cancer, 94; elephantiasis of scrotum and penis, 592
Meadows, Dr. A., new *écraseur*, 313; hypertrophy of labium, *ib.*
Meat, diseased, poisoning by, 31; condemned, 291; preservation of, 294; diseased Dutch, 623; diseased, 697
Medals, the Gilbert Blane, 623, 727
Medical Acts, deputation on, 84; amendment of, 723
—— Assistant, charge of fraud against a, 354
—— Benevolent Fund, proceedings of South-Eastern Branch regarding, 25; treasurer of, 142; remarks on, 529: appeal on behalf of, 533; Mr. Steele on, 650; list of subscriptions, 708
—— Club, *see* Club
—— Congress in Paris, 528
—— coroner, a, 666
—— Council, homœopathic notions of, 45; visitation of examinations, 31, 695; coming vacancies in, 700
—— degrees in America, 666
—— Diagnosis, Dr. Da Costa on, *rev.*, 462
—— education, Dr. D. Thompson on, 73; Dr. Bence Jones on, 345
—— ethics, homœopathic views of, 527
Medical fees in America, 487, in Italy, 667
—— Institution, Liverpool, first meeting, 486; reports of, 534, 728
—— men, employment for, 626
—— missions, Dr. R. H. Taylor on, 82
—— profession, representation of in Parliament, 77, 207, 421
—— Provident Society, *See* Society.
—— Register, names erased from, 538, 7
—— registration, fraudulent, 31, 60, 76
—— services, gratuitous, 143
—— students, entries of, 514, 563; Parisia, 529; alleged misconduct of, 583, 616, 651
—— subjects, discussion in public journals 444
Medicine, Dr. A. T. H. Waters on advance o 12; Mr. Trustram on, 70; Dr. Hughes Bennett's address on, 179, 211; modern, 19 Dr. Flint's Principles and Practice of, *rev* 461; Clinical, M. Trousseau's Lectures o *rev.*, 500
Medicines, Mr. Bartrum on action of, 120 use of in disease, 649
Medulla, *See* Spinal Cord.
Melasma, Dr. Eade on, 332
Melsens, Mr., spectacles for weak eyes, 499
Menstruation transposed, 134; premature, 171; state of uterus during, 217; during pregnancy, *ib.*
Merchant-vessels, cholera in, 48, 75
Meteorology, observations in, 646
Methylated spirits, provisions of Act of Parliament concerning, 435
Militia, Canadian, new order concerning medical officers of, 413
Milk, adulterated, 86; supply of from the country, 700
Mind, Dr. F. J. Brown on the, 331
Mitchell, Mr. early detached placenta, 590
Moa, specimen of, 269
Monckton, Dr. S., case of chorea, 498
Moon, Dr. W. P., excision of tibia, 335
Moore, Mr. C. H., treatment of cancer by injection, 548; report on cases of cancer, 599
Morgan, Mr. W. F., treatment of cholera, 55, 112; on washing the bladder in retention of urine, 422; poisoning by external use of belladonna, 621: neuralgia after shingles, 682
Morphia, hypodermic injection of, 359
Movements in eggs of fishes, 315
Murchison, Dr. C., etiological relations of yellow fever, 625
Murray, Dr. J. C., case of single kidney, 159
—— Dr. W., self-elimination of poisons, 437
Muscles, atrophy of, 219
Mushet, Dr. W. B., Apoplexy, *rev.*, 524
Myeloid disease of lung, 171
Myographion, description of, 236

N.

Navy, medical service of, reduction of pay, 20; deaths in, 30; new regulations concerning, 163; probable promotions in, 293; dearth of officers, 423; promotions of officers, 466; causes of rejection in, 538; disinfectants in 651
Necrosis of lower jaw from tobacco-oil, 134
Nelson, Dr. D., introductory address at Queen's College, 447
Nerve, spinal accessory, excision of part of, 364; pneumogastric, paralysis of, 623
Nerve-disorders, influence of on nutrition, 730
Neuralgia, epileptiform, 502; after shingles, 651, 682, 712, 733; ether-spray in, 712
Neurotherapeutics, 579
Nevins, Dr. J. B., treatment of rheumatism, 235, 273
Newman, Dr. W., Cæsarean section, 163
Newnham, the late Mr. W., resolution of South Eastern Branch, 25
Nipple, retraction of, Mr. Bryant on, 635
Nitrous oxide as an anæsthetic, 151
Norris, Mr. Hugh, diagnosis of suspected prégnancy, 116
——, Dr. W., astringents in cholera, 460
Norton, Mr. A. T., Osteology, *rev.*, 504
Nunn, Mr. T. W., stricture of the urethra as a result of syphilis, 592; resignation at St. Peter's Hospital, 681
Nunneley, Mr. T., reduction of dislocation by manipulation, 432; removal of tongue, 493
Nurses, sisterhood, 59, 163, 176, 243, 270, 294, 512; in workhouses, 178; in cholera, 199; abuses by, 285; female, in army hospitals, 444; lady, at London Hospital, 509

O.

Esophagus, imperforate, 692; gastrotomy for stricture of, 726
gle, Dr. J. W., introductory address at St. George's Hospital, 448; diseases of brain, 1638
se, the late Dr. W. S., 79
perations in India, 382. *See* Surgery
phthalmic Surgery, Messrs. Laurence and Moon on, *rev.*, 407
pium, Mr. E. Ludlow on poisoning by, 15
rbit, tramatic aneurism of, 718
steology, Mr. A. T. Norton on, *rev.*, 504
steo-myelitis, Dr. Fayrer on, 382
variotomy, Mr. H. J. Alford in case of, 117; Mr. Marsack in case of, 160; the actual cautery in, 231; Mr. I. B. Brown in cases of, 297; Mr. S. Wells's cases of, 269, 352; Mr. Wells on treatment of the pedicle in, 377; letters on management of the pedicle, 421, 449; Mr. J. R. Humphreys on case of, 547; performed twice in same patient, 619
zone, results of observations on, 293

P.

Paget, Mr. J., necrosis of lower jaw, 134; herpes of the face, 402; clitoridectomy, 678
Paraffin oil, crude, poisonous nature of, 319
Paralysis, general, of the insane, 172; obscure, Dr. C. H. Jones on case of, 457; partial, after herpes, Dr. Broadbent on, 460; of pneumogastric nerve, 623; motor, state of cerebral capillaries in, 638
Paraplegia, Dr. J. Russell in case of, 546
Paris, births and deaths in, 444; A Winter in, Dr. Simms on, *rev.*, 578
Parker, Mr. W., club-foot, 175
Parliament, representation of the medical profession in, 77, 207, 421
Part, Dr. J., charge against, 338, 362
Paul, Dr. J. H., the testimonial to Dr. Richardson, 88
Pavy, Dr. F. W. vitiligoidea plana et tuberosa, 219; injection of extract of male fern in hydatid of the liver, 367
Peacock, Dr., rupture of chordæ tendineæ of heart, 78
Pearse, Dr. W. H., Notes on Health in Emigrant Ships, *rev.*, 641
Peel, Sir L., introductory address at Guy's Hospital, 390
Pellagra, disorders of vision in, 667
Pemberton, Mr. O., foreign body in larynx, 726
Pemphigus, acute, in children, 692
Pericarditis apparently from pyæmia, 727
Pericardium, rheumatic concretion in, 691
Peritonitis, Dr. Wardell in case of, 379
Perkins, Dr. H. C., 62
Photographs of Diseases of the Skin, Mr. B. Squire's, *rev.*, 41
Phthisis, relation of uterine diseases to, 218; expectoration of lung-tissue in, 367; fallacies in diagnosis of, 561
hysician, a, murdered by a lunatic, 344
idduck, Dr., on cholera, 507
igs, tolerance of trichinæ by, 651, 712
illow, a new, 142
itha, Professor, the son of, 104, 465
lacenta, tumour of, 590; prolapsed, *ib.*; early detached, *ib.*
neumogastric nerve, paralysis of, 623
neumonia, treatment of, 104; and pericarditis, 728
odolia, healthy climate of, 509
Poisoning by lead mixed with flour, 7; by opium, Mr. E. Ludlow on, 15; by arsenic, 18, 20, 395; by diseased meat, 31; by laburnum-seeds, 86; by by croton-oil; 244; by strychnia, 317; by external use of belladonna, 596, 621; of whales by strychnia, 665
Poisons, Dr. W. Murray on self-elimination of, 437
Poor-law medical reform, Mr. G. Hardy on, 78; Mr. R. Griffin on, 82, 111, 140, 243; proceedings in Parliament, 86; Mr. H. Lee on, 153; Mr. Walford on, 156; Yorkshire Branch on, 169
Poor-relief medical returns, 711
Population of towns, 293
Pregnancy, diagnosis of, 116; influence of on skin-diseases, 172; menstruatiou during, 217
Prevost and Cotard, MM., pathology of cerebral softening, 551
Prisons, diets in, 45; practices in, 388
Prizes, at King's College, 48; the Hastings, 210; the Astley Cooper, 212; of Apothecaries Hall, 318, 537; offered by Dr. Lawford, 464, 483; of Academy of Medicine, 792
Prostitutes, licensing of in America, 85
Prurigo senilis, Mr. B. Squire on, 41
Public Health, deputations on, Bill, 61, 86, new Act on, 264
Pyæmia Mr. R. Hardey on case of, 16; Mr. A. Baker on origin of, 629; case of, 662

Q.

Quack, scene with a, 48
Quain, Mr., resignation of, 60
Quarantine, 666
Quinia, chlorate of, 359

R.

Race, a test of, 323
Radford, Dr. T., laceration of uterus, 170
Rags and small-pox, 386
Railway accident, question as to effect of, 31; injuries, Mr. Erichsen's work on, 612, 678; disease of spinal cord after accident, 638
Ransom, Dr., movements in eggs of osseous fishes, 315
Rathburn, Dr., rupture of corpus cavernosum, 335
Rats, destruction of, 622
Rees, Dr. O., treatment of diabetes, 45
Registration, fraudulent, 31, 60, 76; of disease, 142, 228, 510
Reid, Dr. D. A., treatment of cholera, 111
Rendle, Dr. J. D., treatment of choleraic diarrhœa, 267
Rheumatic exanthemata, 199
Rheumatism, treatment of, 124, 235, 344; Dr. Nevins on treatment of, 235, 273; Dr. Mead on baths in, 330; alkaline treatment of, 623; concretion in pericardium in case of, 691; Dr. Barclay on, *rev.*, 693
Richardson, Dr. B. W., proposed testimonial to, 62, 77, 88, 115, 134, 143, 529; feeding by the veins, 232; resignation of, 620, 708
Riedel, Dr. G., a modern hashish eater, 164
Rifle-bullets, wounds of, 459
Rigden, Mr. G., small-pox in hospitals and at home, 662
Ringer, Dr. S., and Rickards, Dr., influence of alcohol on temperature, 289
Rivers, pollution of, 223, 629, 648
Rogers, Dr. G. G., neuralgia after shingles, 733
——— Dr. J., and the Strand Union, 103
Rostan, M., death of, 413, 423
Routh, Dr., treatment of epithelial cancer of uterus, 591
Royal touch, the, 318
Russell, Dr. J., case of epileptiform disease, 65; right hemiplegia and loss of speech, 276; syphilitic disease of larynx and trachea, 459; cases of paraplegia, 546; cholera, 727
Rutherford, Dr. W., the myographion, 236

S.

Salmon, production of in rivers, 317
Salter, Dr. H., lecture on heart-disease, 89; diagnosis of dropsies, 453
Sanderson, Dr. J. B., phenomena of cattle-plague, 42
Sanitary reform, South-Eastern Branch on, 23, 24; deputations on, 61, 86; conference, international, 336, 360
Sankey, Dr. W. H. O., state of cerebral capillaries in motor paralysis, 638
Sansom, Dr., his views on cholera, 507
Sappey, M., vessels and nerves of fibrous structures, 691
Sarcinæ in sputa, 691
Savory, Mr. W. S., introductory lecture at St. Bartholomew's Hospital, 393
Scabies, treatment of, 178, 271
Schools, public, teaching of science in, 307
Schrötter, Dr., obliteration of aorta, 134
Science, teaching of in schools, 307
Sclopetarium, definition of, 425
Scoresby-Jackson., Dr., Note-Book on Materia Medica, *rev.*, 611
Scotland, health of, 270; cholera in, *see* cholera
Scrivener's palsy, 163
Scrotum, elephantiasis of, 384, 592
Scurvy in India, 317; cases of, 661
Sedgwick. Mr., his views on cholera, 506; umbilical hæmorrhage, 586
Selwyn, Professor, recovery of, 701
Senate, the French, 537
Sergeant, J. P., charge of fraudulent registration, 31, 60, 76
Serpents at meals, 690
Sewage, gases of, 452; congress at Leamington, 508; utilisation of, 649
Seymour, Lord H., his bequest, 270
Shapter, Dr. T., sounds and murmurs of the heart, 8, 268, 607
Shaving-paste, poisoning by arsenic in, 20
Sheraton, Mr., steel fillet, 313
Shoulder, reduction of dislocations of, 358; reduction of dislocation by manipulation, 432, 512
Sibson, Dr., the case of Wight *v.* Field, 83
Sieveking, Dr., the Medical Benevolent Fund, 708
Sight and Hearing, Mr. W. Jones on Defects of, *rev.*, 41
Simms, Mr. F., a Winter in Paris, *rev.*, 578
Simon, Mr., precautions in cholera, 114
Sims, Dr. M., experiment of, 149
Sinus, frontal, exostoses of, 717
Sisson, the late Mr., 26
Sisterhoods. *See* Nurses.
Skey, the late Inspector General J., 344
Skin, Mr. A. B. Squire's Photographs of Diseases of, *rev.*, 41; influence of pregnancy on diseases of, 172; Mr. Squire's Chromo-Lithographs of Diseases of, *rev.*, 611
Skinner, Dr. T., treatment of cholera, 52; readings of papers at meetings of the Association, 290; injection of cancer, 539, 596
Skull, Mr. Lowndes on compound fracture of, 4; fracture of, 383; peculiar disease of bones of, 639; circular fracture of base of, 640; recovery from fracture of base of, 701
Slaughter-houses in the metropolis, 452
Small-pox, propagation of by rags, 386; an alleged preventive of cholera, 464; in hospitals and at home, Mr. Rigden on, 662; deaths from, 681
Smith, Dr. E., his report on workhouse infirmaries, 100
——— Mr. Heckstall, remarks on Mr. Bonney, 27
Smoke of factories and houses, 455
Smoking, a prohibition of, 529
Snow, the late Dr. J., pension to sisters of, 444, 485, 561
Societies, medical, in Glasgow, amalgamation of, 60: of arts, medals of, 30
Society, Articled Clerks', Mr. Coleridge's address to, 559
——— Female Medical, annual meeting of, 61
——— Glasgow Medico-Chirurgical, officers of, 317
——— Glasgow University Medical, office-bearers of, 681
——— Harveian, of London, report of, 586; proposed new officers of, 711
——— Medical Provident, annual report of, 203; discussion on, 204; Mr. Clay on, 290; Mr. Veasey on, *ib.*; Mr. A. B. Steele on, 342, 369; Dr. Stephens on, 342: Mr. H. C. B. Steele on, 395
——— New Sydenham, annual meeting of, 286
——— Obstetrical, of London, reports of, 170, 217, 313, 590, 672
——— Pathological, new regulation of, 396; new president of, 617; Transactions of, *rev.* 638; proposed new officers of, 710
——— Royal, new officers and council of, 616 annual meeting, 645; oldest members of, 681
——— Royal Medical and Chirurgical, report of, 171, 219, 288, 366, 592, 619; opening of session of, 557; application for rooms, 617
——— West Kent Medico-Chirurgical, officers of, 485
——— Western Medical and Surgical, report of, 172, 619
Softening, cerebral, pathology of, 551
Soldiers, insane, asylum for at Netley, 151
Solomon, Mr. J. V., rheumatic iritis, 561
Sorlets, Dr., pellagra and hemeralopia, 667
Soup-kitchens, 682
Sparrow, food of, 485
Spectacles for weak eyes, 499
Speech, Dr. H. Jackson on case of loss of power of, 94, 326; Dr. Russell on, 276; Dr. W. T. Gairdner on, *rev.*, 384
Sphygmograph, Dr. B. W. Foster on the, *rev.*, 41
Spinal cord, Dr. Russell on paraplegia from disease of, 546; disease of after railway collision, 638

Spine, cancer of, 662; apoplexy of, 693
Spirits, consumption of, 293; methylated, prohibition of, 435
Sputa, contents of, 691
Squire, Mr. A. B., Photographs of Diseases of the Skin, *rev.*, 41; influence of pregnancy on skin-diseases, 172; Chromo-Lithographs, of Diseases of the Skin, *rev.*, 611
Stammering, treatment of, 444
Startin, Mr. J., treatment of boils and carbuncles, 534
Statham, Mr., action against, 558, 583, 584, 624, 670
Steam as a disinfectant, 119
Steele, Dr., cholera, 411
——— Mr. A. B., public vaccination in England, 247; the Medical Provident Society, 342, 392; ether-spray in reduction of hernia, 521
——— Mr. H. C. B., the Medical Provident Society, 395
Steffen, Dr., acute pemphigus in children, 692
Stephens, Dr. J., the Medical Provident Society, 342
Strabismus, Mr. Holthouse on treatment of without operation, 66; Dr. Liebreich on a modification of operation for, 653
Strand Union and Dr. Rogers, 103
Strychnia, accidental poisoning by, 387
Suction treatment of cataract, 303, 395, 422, 450, 487, 539
Suffocation, death from, 616
Sunstroke, deaths from, 87
Suprarenal capsules, Dr. Greenhow on disease of, 1, 33, 640
Surgery, Mr. Trustram on progress of, 71; Mr. Bowman's address in, 186; Mr. W. P. Swain on improvements in, 303; Clinical, in India, Dr. J. Fayrer on, *rev.*, 382; Ophthalmic, Messrs. Laurence and Moon's Handy Book of, *rev.*, 407; Minor Operative, Mr. Annandale's, *rev.*, 524; Dr. J. Bell's Manual of Operations of, *rev.*, *ib.*
Surgical tendencies of uterine pathologists, 313; accidents and operations, Mr. Holmes on influence of hospitals on, 683
Swain, Mr. W. P., recent improvements in Surgery, 303; prize essay on the knee-joint. *See* Knee
Swinging as a remedy, 731
Syphilis from catheterism of Eustachian tube, 285; in a child, Mr. R. W. Dunn on, 325; non-mercurial treatment of, 335; in the Prussian army, 444; stricture of urethra after, 592; infantile, treatment of, 692
Syphilisation, Mr. G. Gaskoin on, 39, 255, 715
Syphilitic disease of larynx and trachea, Dr. J. Russell on, 459

T.

Talipes, Mr. W. Parker on, 175
Tanner, Dr. T. H., excision of clitoris, 672
Tanturri, Dr., blood as food, 134
Tarnier, M., imperforate œsophagus, 692
Taylor, Dr. R. H., medical missions, 82
Tea, chemical analysis of, 485
Teeth, fossil, of fishes, 295; of the Arabs, 666
Temperature, influence of alcohol on, 289
Tent, new uterine, 170
Testa, Signor, 51
Testimonial to Mr. Griffin, 19, 81, 82; to Mr. R. Gillard, 31; proposed, to Dr. Richardson, 62, 77, 88, 115, 134, 143, 529; to Mr. E. Canton, 85; proposed, to Mr. Baker Brown, 296,; to Dr. Moore, 318; to Dr. F. D. Jones, 323; to Sir T. Watson, 339, 508, 530, 583; to Dr. M. Mackenzie, 486; to Mr. Wilkinson, 513; to Dr. Cotton, 537; to Dr. Aldis, 702
Thompson, Mr. D., president's address to South Western Branch, 73
——— Mr. Herbert, ether-spray in neuralgia, 712
Thomson, Dr. J. R., dietaries of prisons, 45
Thorburn, Dr., treatment of tedious labour, 233
Tibia, excision of, 335; dislocation of, 376
Tilt, Dr. E., division of cervix uteri, 313; the annual meeting of the Association, 343
Tobacco, use of by children, 724
Tongue, excision of, Mr. Swain on, 303; Mr. Nunneley on, 493
Tonics in local lesions, Mr. Greenway on, 36
Tooth, value of a, 452
Tortoises in England, 687
Toxicologist's Guide, Mr. Horsley's, *rev.*, 127
Toynbee, the late Mr., 47
Trachea, Dr. Russell on syphilitic disease of, 459
Tracheotomy in hydrophobia, 45; a tube for, 303
Transfusion of blood in cholera, 232
Trichinæ, report on, 618; in pigs, 651, 712
Trousseau, M., Lectures on Clinical Medicine, *rev.*, 500; reported death of, 615, 645
Trustram, Mr. C., president's address to South Eastern Branch, 67; remarks on, 87
Tumour, recurrent fibroid, 449; of choroid, 692
Tunbridge Wells, Mr. Trustram on, 67
Twining, Miss, workhouse nursing, 178
Tycoon, death of the, 690
Tyrosine in sputa, 691

U.

Umbilical cord, Dr. Griffith on evulsion of, 332; hæmorrhage, 586
University of Athens, number of students in, 60
——— of Caen, bequest to, 363
——— of Cambridge, examinations in, 485; graces, 593; Crane's Charity for sick scholars, 595; pass-lists, 666, 680
——— of Durham, degrees conferred, 486
——— of Edinburgh, athletic club games, 95; pass-list, 176; rise of, 219; capping day at, 283
——— of London, pass-lists, 141, 294, 622, 680
——— of Oxford, examiners, 616; pass list, 731
——— Queen's, in Ireland, new Charter, 85
Unsicker, Dr., chestnut-leaves tea in hooping-cough, 719
Urethra, dilatation of stricture of, 304; prolapsus of in children, 552; contraction of walls of, 558; Mr. M. Hill on abscess with stricture of, 570; stricture of with complications, 592; stricture of from syphilis, *ib.*
Urine, Dr. Braithwaite on elimination of iodide of potassium by, 282; retention of, washing the bladder in, 422; in furuncular acne, Dr. Balman in, 519; Mr. Birchenall on remarkable case of retention, 523; oxalurate of ammonia in, 719
Uterus, laceration of, 170; during menstruation, 217; division of cervix of, 313; treatment of epithelial cancer of, 591

V.

Vaccination, Bill on, proceedings in Parliament, 113; Mr. Griffin on, 140; Dr. Gibbon on, *ib.*; Mr. Steele on present state of in England, 247; protest against, 702
Vaccinators, public, gratuities to, 641, 668, 701, 712, 733
Vagina, absence of, operation for, 462
Vanderbyl, Dr., election of to Parliament, 149
Varicocele, galvanic cautery in, 462
Veasey, Mr. H., the Medical Provident Society, 290
Vegetables, Manfield's process for preserving, 682
Veins, feeding of the, 232; injections into in cholera, 526
Velpeau, M., the medical press, 388
Venereal diseases, prevention of, 397
Vertebræ, cervical, dislocation of, 717
Vessels and nerves of fibrous structures, 6
Veterinary surgeons bill, 113
Vichy, a visit to, 78
Vitality, Rev. H. Higgins on, *rev.*, 408
Vitiligoidea plana et tuberosa, 219
Vitriolic showers, 113
Vomiting, rupture of chordæ tendineæ heart during, 78
Von Dietl, Dr., 363
Votes, public, 119

W.

Wade, Dr., diagnosis of phthisis, 561
Walford, Mr. T. L., president's address to Reading Branch, 155
Walker, Sir B., on alleged abuses in London hospitals, 413
——— Dr. Mary, 504
Walters, Mr. J., rupture of cornea, 17
Walton, Mr. H., paralytic ectropium treated by operation, 302; introductory lecture at St. Mary's Hospital, 646
War, effects of, 318
Wardell, Dr. J. R., cases in practice of medicine, 379
Warder, Dr., suicide of, 61; death of wife of, 74
Warren, Dr. E., sudden death of, 370
Warter, Dr. J. S., cardiac disease, 355
Water, poisoned, 177, 310, 344; propagation of cholera by, 222, 262, 309, 667; supply of, 623
Waters, Dr. A. T. H., president's address to Lancashire and Cheshire Branch, 12
——— Dr. E., president's address to British Medical Association, 145
Watson, Sir Thomas, testimonial to, 339, 508 530, 583; on change of type in disease, 582
Webber, Mr. W., proceedings regarding, 86
Weber, Dr. C. O., epithelium of air-vesicles, 440; epithelial cancer in internal organs, 525
——— Dr. H., chronic albuminuria after eruptive diseases, 366
Wells, Mr. Spencer, cases of ovariotomy at, Chester, 199, 352; on management of the pedicle in ovariotomy, 377; translation of his work on the Ovaries into German, 413 ovariotomy performed twice in same patient, 619
West, Dr. C., clitoridectomy, 585, 676, 728
Westley, Dr., prophylaxis of cholera, 309
Wet-nursing and infanticide, 613
Wet seasons, healthiness of, 86
Whales, poisoning of, 665
Wilkinson, Mr. W., testimonial to, 513
Wilks, Dr., treatment of cholera, 20, 56; accident to, 224
Williams, Dr. Wynn, abdominal cyst, 217
Wills, Mr. C. S., case of, 671
Wilson, Mr. E., lichen planus, 399; leper hospitals, 456
Winslow, Dr. F., clitoridectomy, 706
Woakes, Dr. E., cholera collapse, 403
Wolff, Dr., paralysis of pneumogastric nerve, 623
Workhouses, metropolitan, work and pay in, 32; nursing in, 178; meeting of medical officers of, 564
Workhouse, St. Pancras, charge against authorities, 396
Wounds, cicatrisation of, 264; chloride of zinc applied to, 304

Z.

Zinc, anhydrous sulphate of, 217; surgical uses of chloride of, 304

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